GLPI User Documentation

Version 10.0

GLPI Project, Teclib'

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Avertissement : La documentation est en cours de réécriture. Il est fort probable que certaines parties soient obsolètes, qu'il y ait des liens morts, etc.

CHAPITRE 1

Préface

Cette documentation couvre l'utilisation de GLPI (Gestion Libre de Parc Informatique) !

Solution libre et open source pour la gestion des actifs informatiques et le service d'assistance, et plus encore. GLPI est une application web conçue pour gérer l'ensemble de vos problématiques de gestion de parc informatique depuis la gestion des stocks de composants matériels et logiciels jusqu'à la gestion de l'assistance aux utilisateurs.

Ce guide est destiné à donner une vue d'ensemble de GLPI pour les administrateurs et les utilisateurs.

Chaque partie peut être consultée indépendamment même si pour des raisons de logique nous vous recommandons de lire entièrement cette documentation.

CHAPITRE 2

Installation

La documentation d'installation de GLPI est disponible séparément.

CHAPITRE 3

Sommaire

3.1 First Steps with GLPI

Everything you need to know to get started with GLPI !

3.1.1 General

Choose a web browser

GLPI requires the use of a web browser.

Optimal functioning of the application is obtained by using a modern browser compliant with web standards.

The following web browsers are supported :
- Edge
- Firefox (including 2 latests ESR version)
- Chrome

GLPI also works on mobile ; it is generally compatible with the mobile versions of the supported browsers.

How to connect

Open your browser and go to the GLPI homepage (https://{glpi_address}/).

Access to the full functionality of the application requires authentication. An unauthenticated user can possibly access certain functions if GLPI has been configured to allow it :
- View the FAQ (Frequently Asked Questions),
- Open a ticket,
- …

Depending on the profile of the authenticated user, they may be shown the *standard interface*, or *simplified interface*.

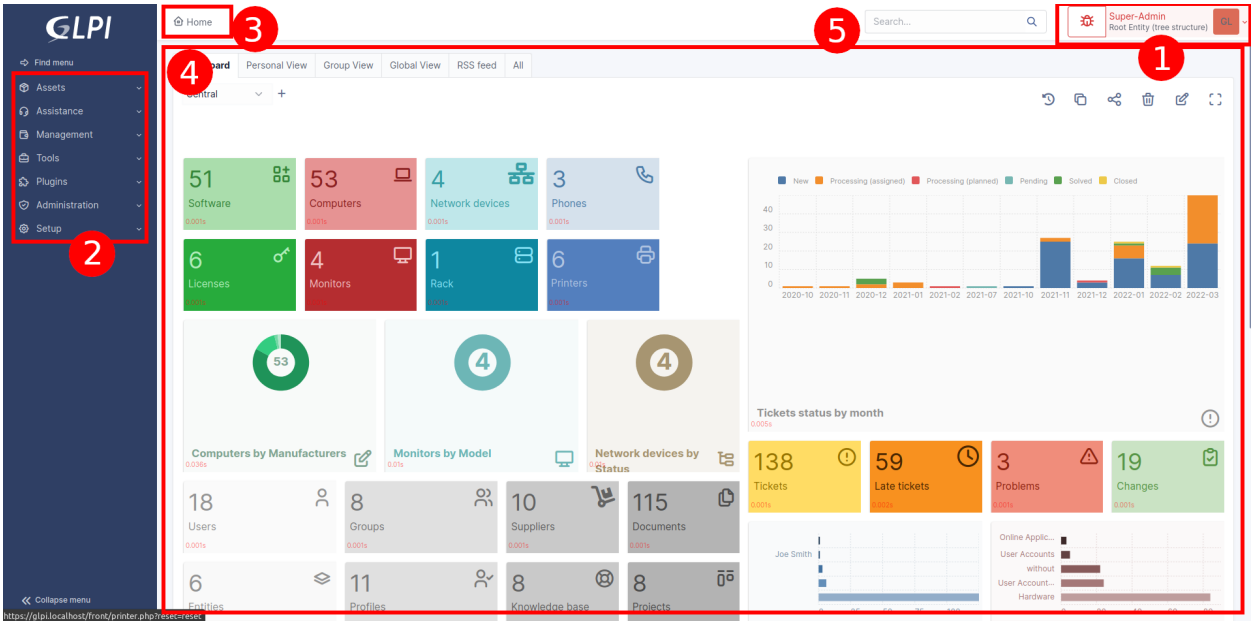
End your session

To log out, click the Logout button in the top right of the screen. Once logged out, you will be redirected to the login page.

3.1.2 Understanding the interface

Depending on the user's profile, some menus and content may differ, but the logic of the interface remains the same.

The GLPI interface is made up of different areas grouping together the application's functionalities according to their nature.



1. The user menu allows you to manage your preferences, access help, change the current language, change your current profile and entity, and disconnect.
2. The main menu allows you to navigate through the different modules.
3. The breadcrumb trail allows you to locate the context of use of the main work area.
4. The main working area is the privileged space for interaction with the application.
5. The search box allows you to perform a global search at any time.

3.1.3 Manage your password

The change password form can be found in *user preferences*.

You must enter and confirm your password before validation. The administrator can disable this feature, so the change password area does not appear in this case.

In the event that the user has forgotten their password, the possibility of resetting it is offered to them from the login page. The link is only present if notifications are enabled.

Only users with an e-mail address defined in GLPI and not authenticating via an external source (LDAP, mail server, etc.) can use this functionality. Once the renewal request has been made by entering their e-mail address, the user receives an e-mail providing them with a link allowing them to reset their password.

Passwords must follow the defined security policy. A real-time check of the entered password is then carried out.

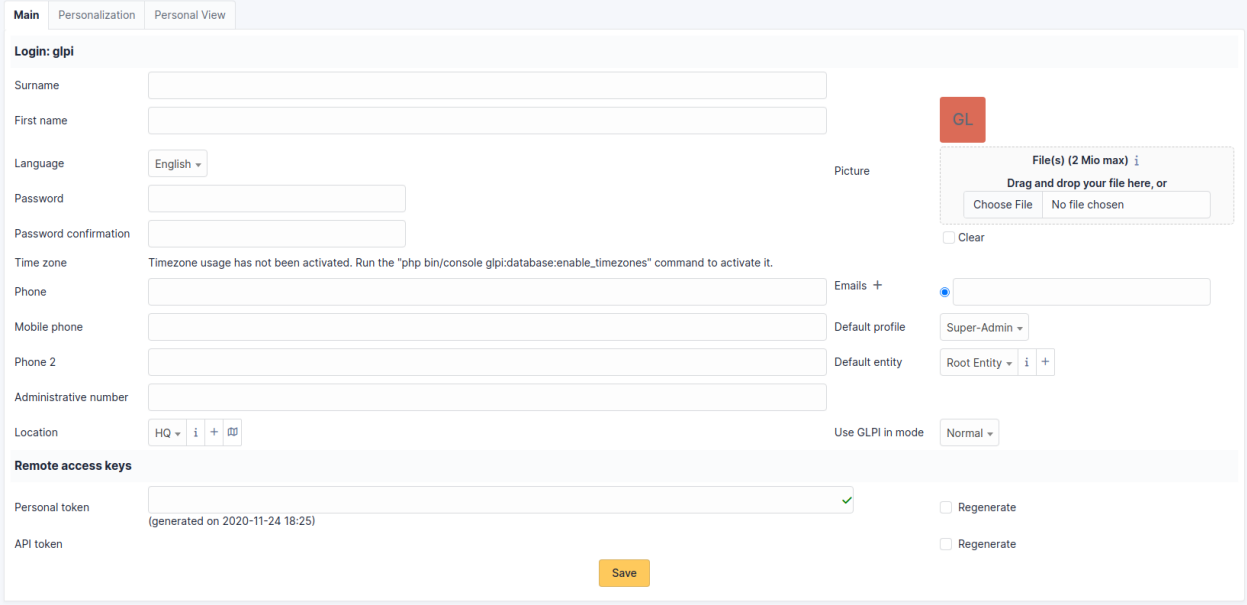
3.1.4 Manage your Preferences

User preferences are accessible from the *Preferences* tab of the user form by clicking on your name at the top right of the interface, from any page.

Each authenticated user has the possibility to modify his preferences if they have the *Personalize* update right in their profile.

Note : These options override the default ones set in the general setup. For more information about the available options refer to the general setup documentation.

Main Tab



Here the user can modify the usual personal information :

- Surname
- First name
- Email address
- Phone numbers
- Location
- Language
- …

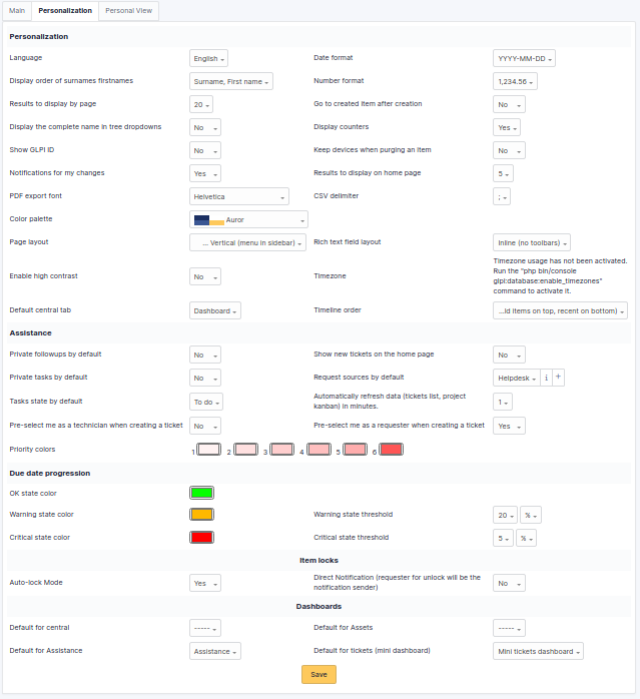
Note : Some fields cannot be modified if they come from an LDAP directory.

A user can add email addresses and select the default address, which will be used for sending notifications.

They can also specify some default behaviors of the application, such as the selected profile and entity. They can also turn off notifications for actions they take.

Depending on the profiles, the experienced user can also choose to exit the normal application mode. In debug mode, GLPI displays errors, all variable values, SQL queries, etc. It is useful to activate this mode in the event of GLPI malfunction. A maximum amount of information can therefore be communicated to the developers. This mode also allows you to have additional information on different objects in a specific tab (notifications, etc.).

Personalization Tab



This tab allows you to modify the general display preferences applied to a given user. These parameters take priority over those defined in the general configuration.

Note : The Number of results per page value shown here cannot exceed the maximum value set in the general display options.

Note that the Remote access key section allows you to regenerate the security key used to access the private flows offered by GLPI. Currently the ICAL and WEBCAL flows of the planning are protected by this security key which is integrated into the url.

Personal View Tab

Lists custom views defined in objects by the user. In particular, it allows you to delete the personal views defined to return to global views.

3.1.5 Navigate GLPI modules

The various functions of GLPI have been grouped into several modules, built around similar contexts of use. The top bar of the interface allows you to navigate between these modules :

- The *Assets module* provides access to the various inventoried materials,
- The *Assistance module* allows you to create and monitor tickets, problems and changes ; as well as see statistics.
- The *Management module* allows you to manage contacts, suppliers, budgets, contracts and documents.
- The *Tools module* allows you to manage projects, notes, the knowledge base, reservations, RSS feeds and view reports.
- The *Administration module* allows you to administer users, groups, entities, profiles, rules and dictionaries. It also allows the management of the email queue.

— The *Setup module* provides access to the general configuration options of GLPI : notifications, collectors, automatic tasks, authentication, plugins, external links, SLA, management of titles, components as well as control of the uniqueness of fields.

The menus presented vary according to the authorizations of the logged in user. The navigation context is presented to the user in the breadcrumb trail.

Note : You will find at the bottom right a button allowing you to quickly return to the top of the page if necessary.

There are keyboard shortcuts that allow you to navigate from one module / submodule to another. Here is the list of these shortcuts :

— `1` => Home
— *Assets*
  — `o` => Computers
  — `s` => Software
— *Assistance*
  — `t` => Tickets
  — `a` => Statistics
  — `p` => Planning
— *Management*
  — `d` => Documents
— *Tools*
  — `b` => Knowledge base
  — `r` => Reservations
  — `e` => Reports
— *Administration*
  — `u` => Users
  — `g` => Groups
— *Setup*
  — `n` => Dropdowns

Note : The combination of keys to associate with these shortcuts varies depending on the operating systems and browsers used. Here are some examples according to the browsers :

— Mozilla Firefox / Chrome

  Simultaneously press the keys `Alt`, `Shift` and *the desired shortcut*.

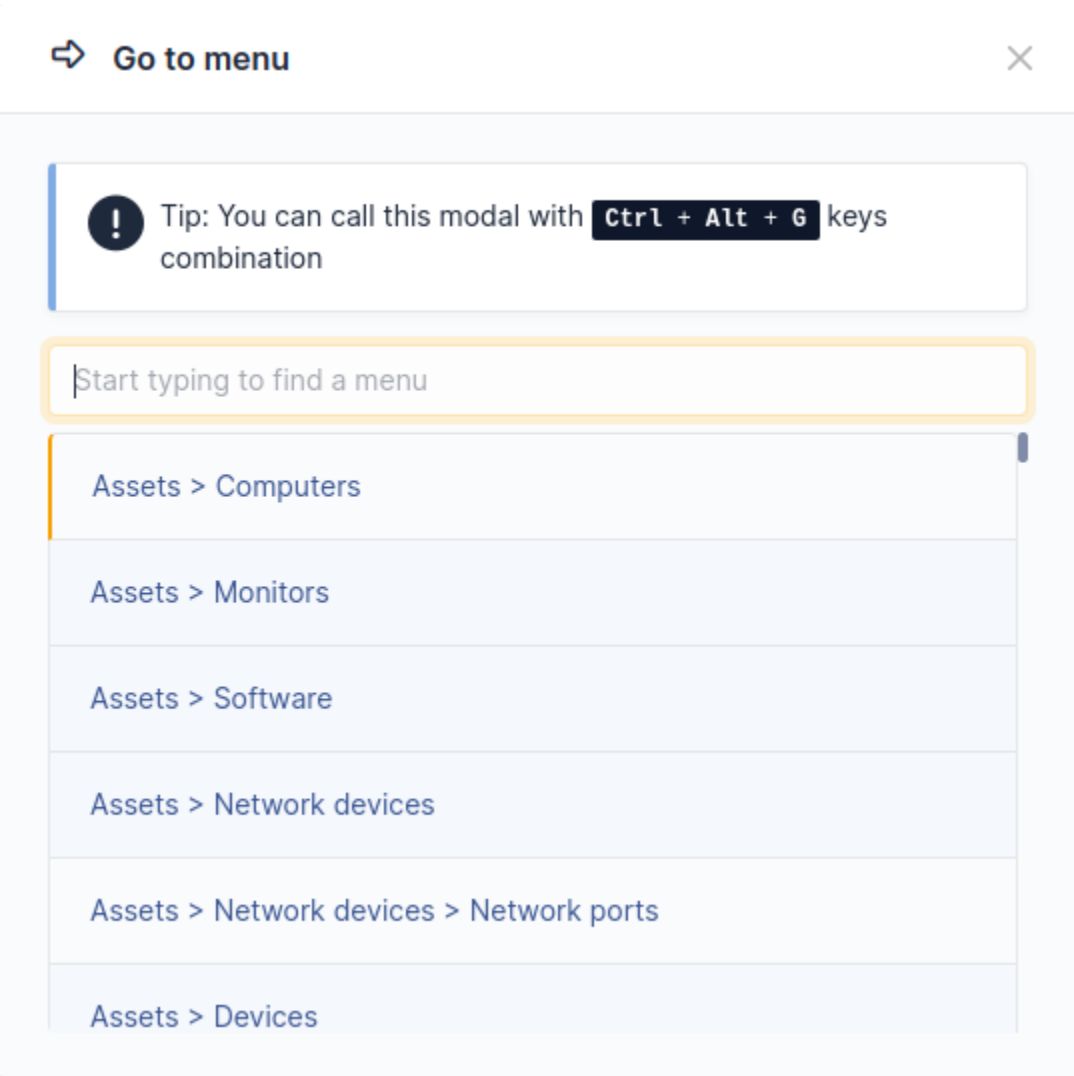
— Opera

  Simultaneously press the keys `Esc`, `Shift` and *the desired shortcut*.

In addition, since version 9.2, GLPI offers navigation with approximate search (fuzzy) accessible from the keyboard shortcut `Ctrl` + `Alt` + `G`. This will open a modal window allowing you to filter, via a search field, all the menus of GLPI (all the levels are present, you have for example access to the 3rd level such as the dropdowns or the components).

In this window, additional shortcuts are available :

— ↑ and ↓ in order to navigate through the results
— `Enter` to change the active glpi page on the selected result
— `Esc` to close the window.

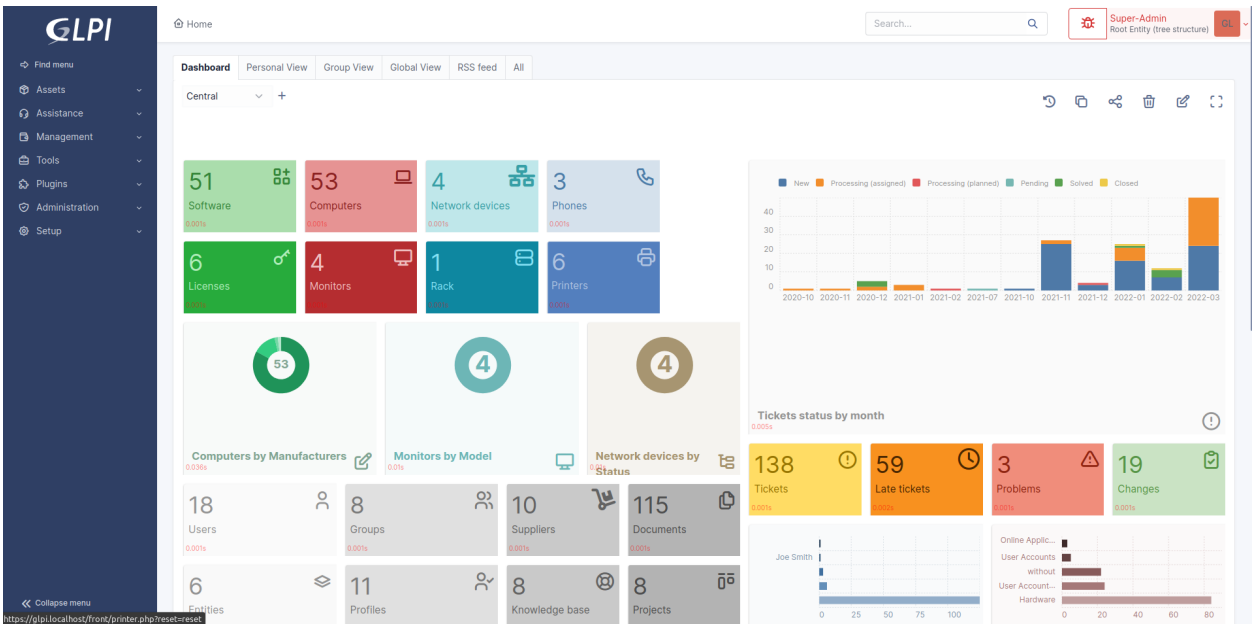


3.1.6 User interfaces

Note : The choice of the default interface as well as the visiblity of different modules can be configured in the profiles or from *the user's preferences*.

Standard Interface

This is the main interface of the application. All the modules are available, but there are limits depending on the profile settings.



The home page of the standard interface provides a summary view for quick access to active elements (tickets, notes, planning, contracts, etc.).

It is divided into 5 views :

— *Dashboard*

A customizable dashboard

— *Personal view*

Shows the tickets opened, rejected, to be processed, to be approved (for which the logged-in user is the requestor) or those on which this user has an interaction as a validator or technician (awaiting validation, in progress, to be closed, in waiting). This view also offers him current issues, his schedule and available notes.

— *Group view*

Offers the same information about tickets and issues as the personal view, but using the groups to which it belongs as a reference. Depending on their profile, they may or may not have access to the tickets for which their groups are requesting.

— *Global view*

Offers statistics on tickets and issues according to their status and on contracts according to their expiration date. It also offers the view of the latest additions of objects in GLPI. Depending on the configuration used, new tickets can also be presented in this tab.

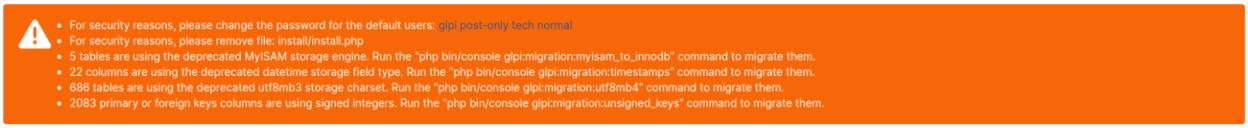
— *RSS feed*

Proposes the content of defined RSS feeds. *RSS feeds are managed from the « Tools > RSS Feeds » menu*.

Note : For Personal and Group views, only tables with information are displayed.

Note : Two security messages may be displayed when you log in for the first time after completing the installation procedure.

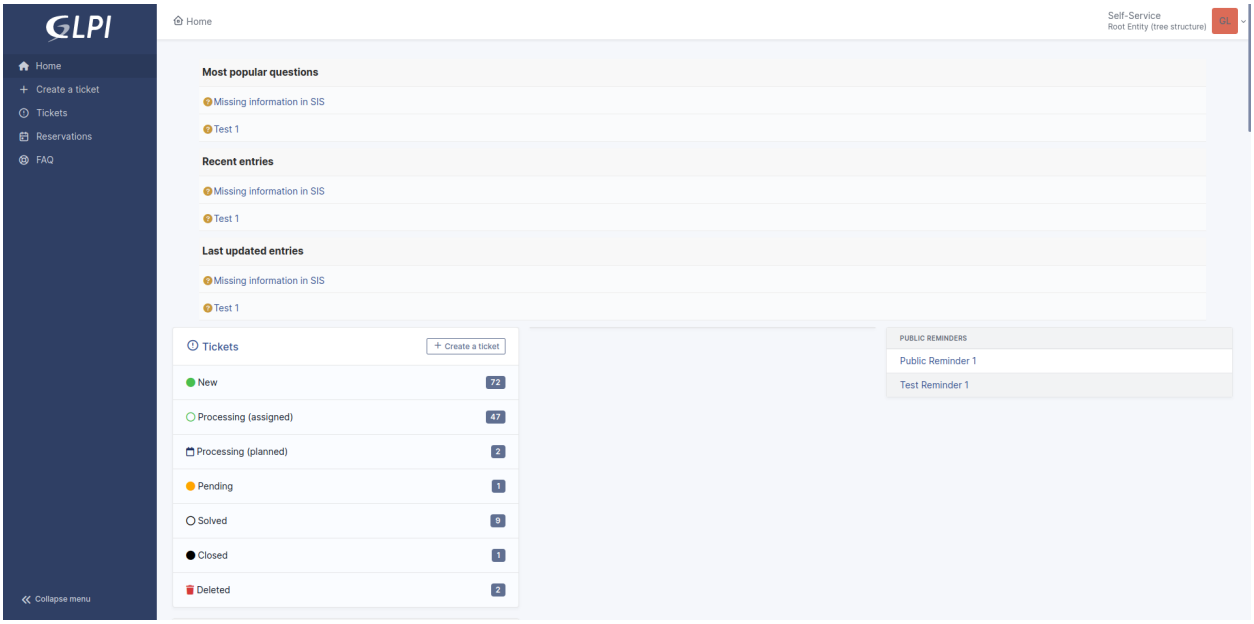
The first asks you to change the passwords of the accounts created by default in GLPI, the second asks you to delete the directory `glpi/install`. There may also be one or more other messages here related to security or needed database schema changes



As long as you have not performed these operations, the messages will remain.

Simplified Interface

It is the most restrictive interface of the application and is built for an end-user more than a technician. Therefore, the number of available modules is reduced to a minimum.



It is intended for users with very limited permissions in the application such as the built-in self-service and helpdesk profiles.

In the default configuration, a user can, from this interface, only create tickets, follow the processing of their tickets, make reservations, view the notes or public RSS feeds (or create private notes or feeds) and consult the Frequently Asked Questions.

The home page offers the number of its tickets according to their status as well as the most popular and recent FAQ topics.

3.1.7 View and manage records

The display of all the lists of records and of all the details concerning a record always works in the same way in GLPI. Whether it's a list of computers, phones or tickets, the presentation follows the same principle.

A list of elements can be obtained in 2 ways :

— From the search engine

> From the search engine, after determining the criteria and validating the search, a list of records is displayed. By default, no search criteria limit the list of recordings offered and the display is limited to the first `x` records in the list, which is configurable in the preferences.

— From another list

> Some tabs offer a list of related items. For example, from a list of computers, click on the name of a computer then navigate to the software tab. The list of software installed on this computer is displayed.

Details concerning a record are displayed in the form of tabs grouping together similar information. For a computer, the financial information and the software list are in two separate tabs.

Customize the display

The columns displayed from the complete list of the inventory can be configured. Click on the button  . It is possible to add, delete and order the displayed columns.

— The global view applies to all profiles having access to a part of the inventory : the modification of this part will therefore be visible by all users.

— The personal view applies only to the logged-in user and overrides the global view settings. This view is only available if you have the *User view* right regarding the *Search result display*.

> This tab also allows you to reset the display customization of the different lists. The user can, for each type of object, return to the default display by deleting this personalization.

3.1.8 Search for information in GLPI

GLPI has a search engine allowing you to display a set of elements satisfying a certain number of criteria. The proposed lists are paginated. A navigation bar at the top and bottom of the list is used to define the number of items to display per page and to navigate between pages.

A global search engine (that is, one that can use data from objects of different type) is also available.

In addition to the list of elements corresponding to the stated criteria ; these lists offer some additional features :

— Export in different formats (CSV, PDF, ...)

— Massive (Bulk) actions

— A *bookmarks* system to save searches

Perform a basic search

The basic search makes it possible to carry out multiple searches configured and sorted, on one of the types of the inventory. Depending on the data on which the search is carried out, the following operators can be proposed :

— `contains`,

— `is`,

— `is not`,

— `before`,

— `after`.

Searching on dates allows you to specify a specific date (*Specify a date*) or to define it in relation to the current date (*Now*, + or - *X hour(s)*, *day(s)*, *month* or *year(s)*). It is also possible to specify a search before or after a given date, as defined intervals (*Monday*, *Last Saturday*, *Start of month*, *Start of year*, *Start of year*, etc).

For labels, it is possible to search for a given value (*is*). If the dropdowns can be visible in the sub-entities, the choices under and not under appear. The criteria are added with the + on a gray background.

For example, to find computers with more than 1024 MiB of memory and more than 80% free disk space :

-	Type	Field	Comparison	Value
-	*simple*	*Memory*	*contains*	> 1024
AND	*simple*	*Volumes - Percentage free*	*contains*	> 80

Note : Once the criteria have been defined, the search is launched by pressing the Search button.

Perform a multi-criteria search

The multi-criteria search makes it possible to refine the search by extending it to other types of objects by adding global search criteria. This type of search is obtained by adding criteria with the + on a white background.

For example, to find computers with more than 1024 MiB of memory and more than 80% free disk space, attached to a 17-inch monitor and having LibreOffice software installed :

-	Type	Field	Comparison	Value
-	*simple*	*Memory (Mio)*	*contains*	> 1024
AND	*simple*	*Volumes > Percentage free*	*contains*	> 80
AND	*multi*	*Monitor > Size*	*contains*	17
AND	*multi*	*Software > Name*	*contains*	LibreOffice

Items in Trash

Some items in GLPI can be trashed. To view them in order to restore them or delete them permanently, click on the icon representing a recycle bin. To return to the display of active elements, click again on this icon.

Perform an advanced search

Here are some examples of search operators :

NULL

- Find the records with such empty field with a date field : <number_of_months or> number_of_months
- Search for materials with a deadline corresponding to the number of months
- Search for computers that are 5 years old : Date of purchase contains <-60.

^123

Find the records containing 123 at the start of the field.

Avertissement : On some systems, you have to type ^, the space bar then the first character.

^Windows

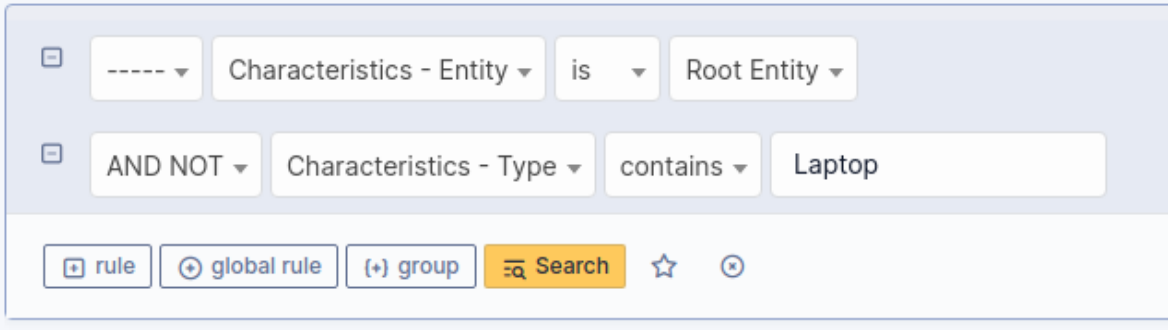
Find records containing Windows 2000, Windows XP but not with Windows.

`123$`
: Find the records containing 123 at the end of the field.

`^123$`
: Find records containing only the text 123.

Two search criteria linked by the operator `AND NOT`
: Find records that do not match a criterion (other than).

Entity is « Root entity » `AND NOT` Type contains « Laptop »
: Search for all computers in the « Root entity » which are not laptops.



`[Year]-[Month]-[Day]` (YYYY-MM-DD)
: Search by date.

`\\`
: For security reasons, the `\\` operator is not usable.

Export the result of a search

The export of the search result in SLK or CSV spreadsheet formats, or in PDF format can be done in two different forms :

- *Current page* exports only the data displayed on the screen (for example the first 10 results out of 200)
- *All pages* exports all of the search results

There is also an option to copy the names of the results to the clipboard (Ex : Computer names).

The SLK format can be used by a lot of spreadsheet software. Fields that are too long will be truncated when using software that does not fully comply with the standards. In this case, it is preferable to use the exports in CSV format.

If the data exported in CSV format is imported into Microsoft Excel software, accented characters may not be displayed correctly. This software seems to have difficulty with data encoded in UTF-8.

You can export search results by clicking on the *Export* button above the search results list.

Search views

The are two different views for search results in GLPI.

- List/Table - The default view that shows results in a table with the field names along the top as headers and each result as a row
- Map - Shows the location of the results on a map

The switch to the map view, click on the map toggle above the search results.

> **Note :** If an item type does not have the ability to have a location, then the map view toggle will be hidden.

Using the table view

In the table view, you have the option to sort the results by any of the displayed fields by clicking on the relevant column headers. You may perform a multi-sort by holding the `Ctrl` or `Command (MacOS)` keys while left clicking on the column header. Clicking on column headers multiple times will cycle between sort directions and removing the sort.

At the bottom of the results table is a dropdown that can be used to change the number of results that will show on each page. There are also pagination controls that let you navigate between the search results pages, and an indicator of where you are currently at within the results (Ex : Showing 1 to 20 of 30 rows).

Perform massive actions

A massive action system is integrated into the search engine. It allows you to make bulk modifications and perform actions to all the selected elements. Some examples of the available massive actions (Will differ based on the type of item) :

- *Put in trashbin*
- *Delete permanently*
- *Restore*
- *Connect / Disconnect*
- *Install*
- *Update*
- *Add a contract*
- *Enable the financial and administrative information*
- *Add to transfer list*
- *Synchronize*

To use it, simply select the elements for which you want to perform an action then click on the Actions button available at the top and bottom of the list. Then, once the type of action has been selected, options are optionally presented, as well as a validation button.

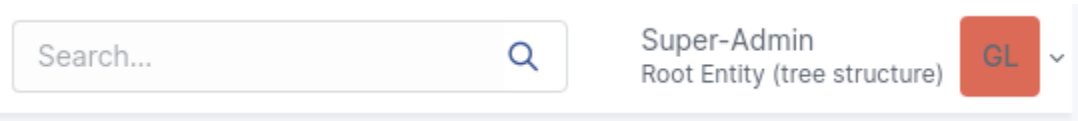
The results of the actions as well as the information messages are presented at the end of the execution of all the actions.

Note :

- You will find in the headers of the table (at the top and at the bottom) a checkbox allowing you to select or unselect all the elements of the list.
- A similar system of actions is available in certain lists present within the objects themselves. The operation is identical to that explained here.

Avertissement : The number of elements that can be handled simultaneously is limited by the values of `max_input_vars` or `suhosin.post.max_vars` in your PHP configuration. You may therefore get a message indicating that massive edits are disabled. You just need to increase the values of your PHP configuration or reduce the number of items displayed.

Quick search



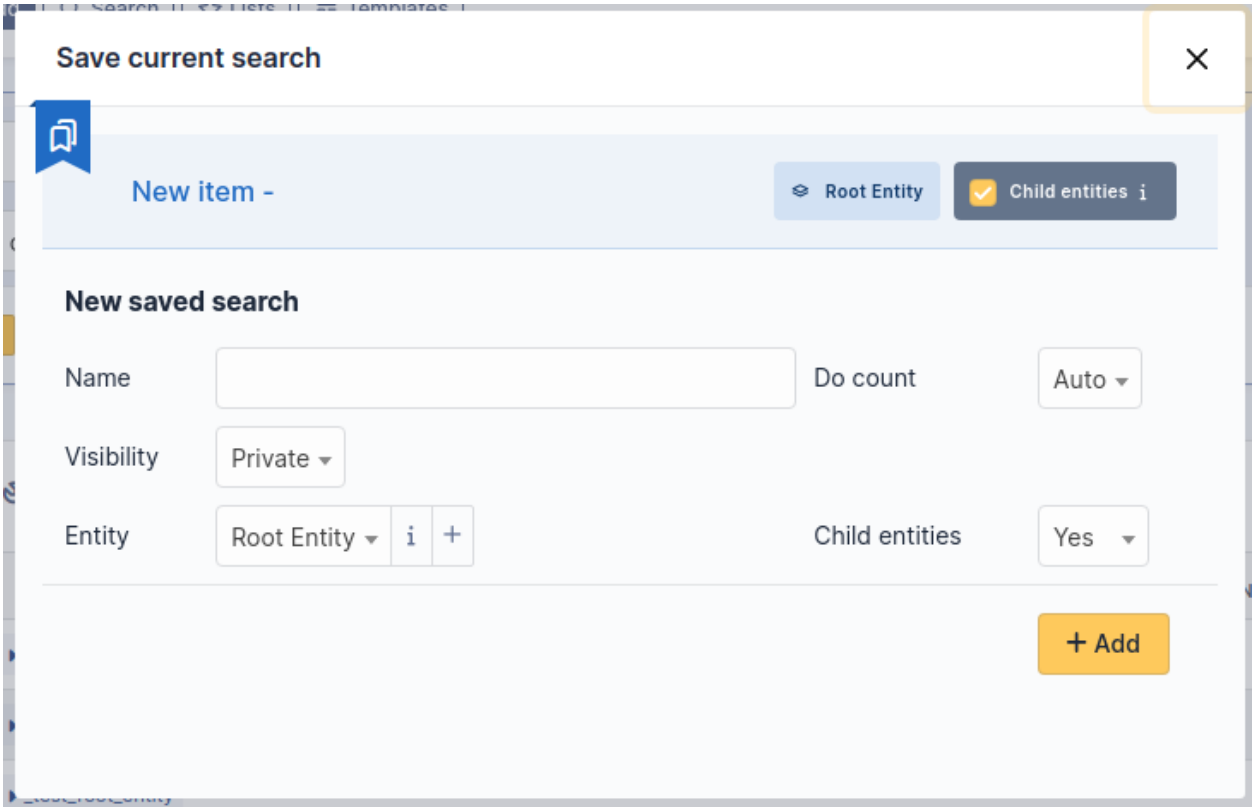
This tool is located at the top right of the GLPI screen. It allows searching within elements including but not limited to :

- Tickets
- Problems
- Changes
- Projects
- Computers
- Monitors
- Software
- Network Equipment
- Peripherals
- Printers
- Phones
- Contacts
- Contacts
- Suppliers
- Documents
- Budgets
- Licenses
- Users
- Groups

Note : The search is carried out only on the fields displayed by default for each of the elements mentioned above. In essence, it is the same as an `items seen` search on each type of element.

3.1.9 Saved Searches

GLPI offers a system for saving searches (bookmarks). Once the search is done, it is possible to save it from a star-shaped button accessible in the search form.



There are two types of saved searches :

- *Private* searches : Usable by all users and they are only accessible by their author
- *Public* searches : Can only be created by authorized users and are accessible by all users provided they belong to the configured entities

Saved searches can be accessed by clicking on the star shaped button in the user menu.


Saved searches
Computer
Others
Computers with Open Tickets
Mail Servers
Root Entity - Laptops
Filter list

From this interface, it is possible to :

- Reorder private searches (drag & drop) - public searches use automatic sorting
- Select a default search (only one possible per type of object) by clicking on the star icon
- Access the search results (by simply clicking on it)
- Access the saved searches management interface, by clicking on the wrench icon at the top right

Avertissement : Setting a particularly heavy search as the default display can have catastrophic effects on the overall performance of the application !

Display of counters

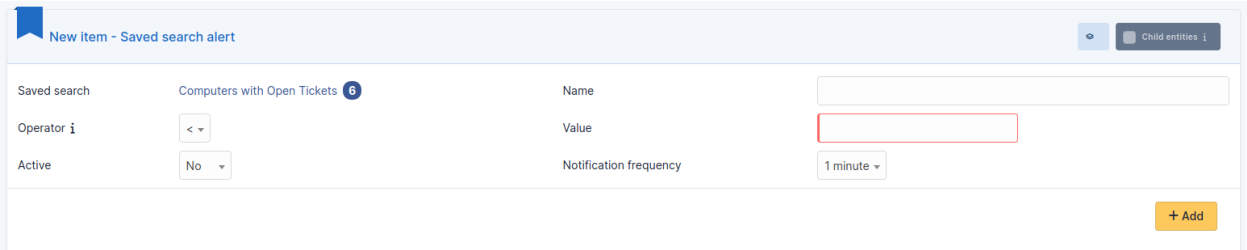
The GLPI settings are used to define whether the counters should be displayed or not. In the case of research, it's a bit more complicated.

This is because some searches can take a long time (and resources) to complete. In order to limit the impact on performance, the heaviest requests are not counted by default. So that the execution time of a saved query can be calculated ; it must be executed at least once. A scheduled task is also offered to calculate execution times regularly (and thus avoid requests that would have become heavy over time).

Administrators can override the automatic count method, and have a search always or never be counted. This possibility should be used sparingly.

Configuring alerts

It is possible to configure the sending of "alerts" on a saved search using the GLPI notification system . Sending a notification is based on the number of results returned by the search, compared with the chosen operator to the entered value.



The notification(s) used are displayed for reference from the alerts configuration tab. For private research ; only the user who created the search can be notified, using a template provided by default ; in this case, a single notification will be linked.

For public searches, a specific event must be created, as well as a notification that uses it. This is only possible from the alerts configuration tab.

Once the specific notification is created, it has to be configured by associating it with a template and by selecting the desired recipients. Note that it is possible to associate several notifications with the same search via the event that corresponds to it.

Note : As long as the notification specific to a public search is not created ; it will not be possible to add alerts.



3.1.10 Administering access controls

This section describes how to administer the access control system that allows each user to access a specific context of use.

In GLPI each user does not have access to the same interface nor to the same same functionalities. For each user, a specific context of use is determined, which grants them access only to the functionalities and information that is needed. Access to identity information about the user allows us to determine his or her authorizations.

The first step is to configure the desired authentication method(s). GLPI is able to manage user authentication and information completely locally in its database, however it is recommended to delegate the authentication to an external service like LDAP. See *Configuring authentication methods* for more information.

The import or creation of new users and management of users known to GLPI including deletion, syncronization, activation/deactivation and management of information such as email, phone, etc is covered in *the user administration documentation*.

A user can associated with groups, entities, and profiles which are the means of determining usage contexts.

Groups allow users to be grouped according to similarities in skills or organizational units. See *Administering groups* for more information.

Entities allow you to segment your asset fleet, help desk, etc into departments that are isolated from each other. See *Administering entities* for more information.

Profiles are sets of permissions that can be granted to users. Multiple profiles can be given to a user but only one can be active at a time. See *Administering profiles* for more information.

Finally, you can configure Rules for assigning authorizations to a user to dynamically assign entities, groups and profiles to users.

3.1.11 Conclusion

To go further, you are not alone !

GLPI is a community project. Its strength is its powerful community on which you can rely to carry out your project.

You will find a list of resources and discussion spaces that you can use to go further.

Plugin catalog

The GLPI Project maintains a curated catalog of first-party and community-made plugins that can be used to expand the functionality of GLPI. Plugins may be available outside of this catalog, but they have not been verified.

Plugin developers are encouraged to submit their plugin for approval and addition into the catalog.

Discussion platforms

The forum is a community support space. Ask your questions on this space, making sure to respect the rules of operation which that are specific to it. You can then benefit from the advice, opinions, help from other users. Don't forget to do the same afterwards with new beginners to share your experience.

A full, up to date list of discussion platforms can be found on the main GLPI Project website.

Partners of the GLPI Project

The growing demand for services around the GLPI project has given birth to a network of partners. These partners are able to bring you the high value-added services and the assistance to the GLPI deployment that you need. As an end user, you are assured of the close collaboration between the GLPI project and its partners and you bring your support to the project since each partner is committed to actively contribute to the GLPI project.

3.2 Modules

3.2.1 Overview

Actions

The different actions that are available on an object depend on the permissions assigned in user profile.

Likewise, some actions in the tab depend on profile permission, such as mass actions.

This page describes only main actions that can apply to different types of objects. If an action is specific to an object, it will be described in the documentation of this object.

Creation

The permission to create an object depend on defined permission in user profile.

For all inventory objects, creation is realized in the same way :

1. Connect to GLPI ;
2. Go to the object page, for example *Assets* > *Computers* to add a computer ;
3. Click on the « + » button located in horizontal menu ;
4. If the inventory object has a template management, choose the template to be applied ;
5. Fill in the different fields of the empty form ;
6. Validate.

An option located in user preferences, *After creation, go to created element*, allows to choose, after creating an object, if the newly created object is displayed or if a new empty form is displayed in order to create another object.

Modification

The permission to modify an object depend on defined permission in user profile.

For all inventory objects, creation is realized in the same way :

1. Connect to GLPI ;
2. Go to the object page, for example, to modify a computer, go to *Assets* > *Computers* ;
3. Or alternatively : search the object in the search engine available on top of objects list ;
4. Two choices of modification are then possible :

— Unitary modification :

1. Click on object name ;
2. Modify fields ;
3. Click on button **Update**.

— Mass modification :

1. Select the checkbox located on the left of the object name ;
2. Click on button **Actions** ;
3. Choose field to be modified ;
4. Enter new field value ;
5. Click on button **Post**.

Display

The permission to display an object depend on *read* permission in user profile.

If the permission to display an object is not granted, the name of this object will not appear in GLPI different menus. For example, if the permission to read a *Computer* type object is not granted in the user's profile, the sub-menu *Computer* will not appear in menu *Assets*, even if the permission to modify a *Computer* is granted.

For all inventory objects, displaying an object is realized in the same way :

1. Connect to GLPI ;
2. Go to the object page, for example, to display a computer, go to *Assets* > *Computers* ;
3. Or alternatively : search the object in the search engine available on top of objects list ;
4. Click on object name..

Attaching a document

When available for the item type, attaching a document is realized in the same way :

1. Connect to GLPI ;
2. Go to the object menu, for example, to attach to a computer, go to *Assets* > *Computers* ;
3. Or alternatively : search the object in the search engine available on top of objects list ;

Two possibilities are available :

— Unitary attachment :

1. Click on the object name ;
2. Select tab **Documents** ;
3. Select a document or click button **Choose** to add a new document ;
4. Click on button **Add**.

— Mass attachment :

1. Select the checkbox located on the left of the object name ;
2. Click on button **Actions** and choose **Add a Document**

GLPI will then display the object form with newly attached document.

Attaching a contract

When available for the item type, attaching a contract is realized in the same way :

1. Connect to GLPI ;
2. Go to the object menu, for example, to attach to a computer, go to *Assets* > *Computers* ;
3. Or alternatively : search the object in the search engine available on top of objects list ;

Two possibilities are available :

— Unitary attachment :

1. Click on the object name ;
2. Select tab **Contracts** ;
3. Select a contract ;
4. Click on button **Add**.

— Mass attachment :

1. Select the checkbox located on the left of the object name ;
2. Click on button **Actions** and choose **Add a Contract**

GLPI will then display the object form with newly attached contract.

Transfer between entities

Entities open the possibility to define transfer profiles in order to move elements between entities. This allows in particular to switch from a single entity GLPI to a GLPI with multiple entities.

To make a transfer, it is first necessary to check that the used profile has permission to make transfers (*Administration* > *Profiles* > *Administration* –> *Transfer read permission*).

In order to make a transfer :

1. Configure the actions performed by the transfer *Administration Rules Transfer* ;
2. Check that profile performing transfer has permission on the origin entity and on the destination entity (simplest solution is to use a recursive profile from root entity) ;
3. Go to root entity (*See all*) ;
4. From objects list, select the element to be transferred ;
5. Choose **Add to transfer list** then **Validate** ;
6. In **Transfer mode**, select a transfer configuration profile that has been created at step 2 ;
7. Select destination entity, where object will be transferred to ;
8. Click on **Transfer** ;
9. Check in destination entity that object is effectively there.

Note : If a linked element does not exist in destination entity, it will be automatically created if transfer profile asks to keep it.

Example : transfer of a *Computer* with a provider defined in accounting informations : if this provider exists only in origin entity, it will be created in destination entity ; however, a provider defined in root entity with recursivity enable will not be recreated.

Avertissement : Location and group must be updated for destination entity.

Deletion

The permission to delete an object depend on *delete* permission in user profile.

For all inventory objects, deleting an object is realized in the same way :

1. Connect to GLPI ;
2. Go to the object page, for example, to delete a computer, go to *Assets* > *Computers* ;
3. Or alternatively : search the object in the search engine available on top of objects list ;
4. Two choices of deletion are then possible :
   — Unitary deletion :
      1. Click on object name ;
      2. Click on button **Delete** ;
   — Mass deletion :
      1. Select the checkbox located on the left of the object name ;
      2. Click on button **Actions** ;

In both cases, a choice will have to be made between :
— *Move to trash bin* if object has an associated trash bin. In this case, object may be restored later on ;
— *Delete permanently* if object does not have an associated trash bin. In this case, GLPI will ask for confirmation before real deletion of the object in the database.

Template management in GLPI

Introduction

For some object types in GLPI, it is possible to create new objects (computers for example) using predefined templates. A template defines a creation model in which some fields are either already fixed or computed using a function, for example in the case of a computer a function which would compute the inventory number.

Template management is accessible via the button *Templates* located in the menu bar.

Assets

For assets, the template defines a default standard object in which some fields are pre-filled and can later be reused to create new objects. This allows to simplify drastically adding a large number of objects that are nearly identical.

As an example, in order to prepare inventorying 20 identical printers in which only serial number and inventory number differ :
— first, a template would be created corresponding to this printer model
— in this template, all fields that will not changed are filled (vendor, model…)
— the 20 printers will then be created from this template
When creating a new printer from this template, serial number and inventory number are the only fields to be entered ; other fields are already set.

Increment

A automatic fill and increment mechanism is provided for some fields that can be identified with to the  . These fields (name, inventory number...) are then automatically completed when creating the object. To use this mechanism, the corresponding field in the template must contain a string following a syntax which is described below.

The field string :

- must start with character < and must end with character >.
- can contain the following special characters which are replaced automatically :
  - `\g` lookup of number in all identical fields based on the same format ;
  - `#` : is replaced by a counter having as many digits as there are consecutive # characters ;
  - `\Y` : is replaced by the year on 4 digits ;
  - `\y` : is replaced by the year on 2 digits ;
  - `\m` : is replaced by the month ;
  - `\d` : is replaced by the day.

For example, when creating a printer, it is possible in the printer template to use this mechanism to automatically generate inventory numbers.

Let suppose that we want an inventory number under the form : *YEAR+MONTH+DAY+fixed code structure equals to 555 + fixed operation code equals to 1234 + 2_DIGITS_COUNTER* ; then the inventory number field in the template will be : <\Y-\m-\d-555-1234-##\>.

On each printer creation, the first printer will have its inventory number be *1984-JAN-02-555-1234-01*, the second printer *1984-JAN-02-555-1234-02* and so on.

Ticket templates

As with inventory objects, templates are available for tickets. A ticket template allow to customize the ticket creation interface based on ticket type and category.

The behaviors that can be modified are :

- list of fields which are mandatory to create the ticket ;
- list of fields which value is predefined ;
- list of fields which will be masked.

Note : For mandatory fields control, the only fields that will be controlled are the fields available in the user's interface. Therefore, if a field is defined as mandatory but is not visible in the interface, it will not trigger an error. When defining mandatory fields, the interfaces in which these fields are used are displayed.

A template is attached to the entity where it has been created and can be visible in sub-entities.

Default templates can be defined at entity level or at profile level. For the profiles, only the template of the root entity that are visible from sub-entities can be attached.

Default templates can also be defined by ticket category.

When creating a ticket, the used template is, with priority order :

1. First, the template defined in the selected category and type
2. Then, the default template for the current profile of the user
3. Last, the default template for the creation entity of the ticket

Avertissement : In last two cases, if the template defines a new couple type/category, then the first case is then tested again with these new values.

Note :
- When updating a ticket, the same priority order is applied to determine mandatory fields.
- If one of the parameter entity, profile, type or category is modified when filling the ticket, the template to use is then searched again according to these new values.
- The template is used to create recurrent tickets.

Status in GLPI, specific view

Status information is frequently used to sort hardware that is disposed, available, assigned... It is possible to create new status values specific to the information system managed by GLPI.

Defining new status and the object types they will be used for is under GLPI administrator's responsibility, see *dropdown configuration*. These defined status can be recursive, in order to ease management.

Modifying an element's status can be done either from the element's form or using mass actions.

A report can display a summary of statuses sorted by asset types. Global search on inventory allows to query inventory elements by status.

Kanban

The Kanban is a view to display Projects, Tickets, Changes or Problems on a task board.

For Projects, you can view a global Kanban involving all current Projects and Project Tasks or view a Kanban for a specific Project and its child Projects and tasks.

For Tickets, Changes, and Problems, only a global Kanban is available and is specific to each type (you cannot view tickets and changes on the same Kanban). For the sake of berevity, the Kanban for Tickets, Changes and Problems is refered to as the *ITIL Kanban* in the rest of this document.

Currently, the columns of the Kanban represent the status of the items. Each item is represented by a card inside the columns.

For Projects, you can add new statuses directly from the Kanban since those are configurable. The Project Kanban has a special column for « No status » that is always shown and cannot be changed.

For the ITIL Kanban, you can only choose to show or hide the different statuses since they are not configurable. The ITIL Kanban also has a limitation placed on the « Closed » status column due to the number of items that would show there. You can drag cards into this column to update their status, but they will not be displayed here.

Cards

Each card on the Kanban shows some basic information including : - The name of the item which is shown as the card's titles - The progress of sub-tasks (Project tasks and child projects for Project Kanban and child tickets for Ticket Kanban) - If the item is a milestone (Project Kanban) - The team for the item shown

Hovering over the title of a Kanban card will show a preview of the item's content/description.

Each card also has a « ... » menu which includes : - Goto : Navigates to the item's full form - Delete : Delete the item (this actually deletes the item and doesn't just remove it from the Kanban)

Clicking on the card's title will display a flyout panel which displays some of the same information as the card itself but also includes : - A read-only view of the item's content - A full list of the item's team along with the ability to add and remove team members directly without having to go to the item's full form

Team management

In GLPI, there are multiple notions of a « Team ».

For Tickets, Changes, and Problems you have requesters, observers, and assignees. For Projects and Project tasks you have a simple « team » (assigned in the team tab) along with managers (assigned on the main form).

Note : The Kanban team management feature does not currently allow changing managers from the Project Kanban

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The Kanban presents these different notions as a simple « Team » where each member has a specific role and shows them all in a centralized list.

Team members can be added or removed from a card's panel view which can be accessed by clicking on the card's title.

When adding a team member, you will be asked to select a role and then the type of member (user, group, etc), and then a specific member.

Searching and Filtering

The Kanban has a search and filter system that lets you filter which items are shown on the Kanban.

Regular searches can be done by simply typing one or more search terms into the search box.

When you click in the search box, a suggestion tooltop will be displayed that shows a list of the available filter *tags*. There are different tags depending on which Kanban you are using and new tags can be added by plugins.

Some of these tags incluse : - title : The name or title of the item - type : The type of the item (On the Project Kanban you can use this to filter Projects or Project tasks) - content : The content of the item - team : The team of the item (searches regardless of the member type)

Each suggested tag may have zero or more buttons with an icon or character in them which represent different modifiers for the filter.

The common modifiers : - ! : Represents a negation or exclusion - # : Represents a regular expression

As you type, the list of suggested tags will be adjusted to match what you have typed. You can manually add a filter by typing it out such as : *title :this* or *!title :notthis* You can also select the tag or modifier from the list of suggestions using your mouse (or touch) or using the keyboard arrow keys to navigate and the enter key to select. If you select a tag or modifier from the suggestion list, it will add it to the search box in *edit* mode which lets you add the term.

Each filter is represented in the search box with a colored background based on its type or modifier. For example, exclusions are red, regular expressions are green, regular tags are blue and untagged searches (regular search) are black.

To initiate the search, you will need to press the enter key on your keyboard or click/touch outside of the search box.

You can edit a search term by clicking on it or by navigating using the arrow keys and then pressing backspace when the cursor is placed to the right of the term.

You can remove a term by removing the entire content including the tag portion or by clicking the « x » button in the term.

3.2.2 Assets

The GLPI Asset module is used to manage all the assets that are part of your IT infrastructure.

Asset management in GLPI

In order to manage hardwares and software of an IT infrastructure, GLPI allows natively to list all the assets that are used inside the managed organization.

However, it is possible to automate information pushing from the assets thanks to the native inventory and GLPI Agent and third-party tools.

More information on the GLPI Agent can be found in its dedicated documentation.

Note : If you have used Fusion Inventory in the past with GLPI, it is very easy to migrate over to the GLPI Agent due to the native inventory remaining compatible with the Fusion Inventory agent.

GLPI also supports automatic inventory via multiple plugins including but not limited to :

- The Fusion Inventory plugin transforms GLPI into an inventory server with the Fusion Inventory agents interfacing directly with the GLPI server.
- The ocsinventoryng plugin allow to synchronize the GLPI database with the OCS Inventory NG inventory tool : the agents installed on the computers interface directly the the OCS Inventory NG server.

Available types

Computers

In a computer form, the following information is available :

- Operating system :
  - Name
  - Version
  - Service pack
  - Serial number
  - Product ID
  - …
- General characteristics :
  - Manufacturer
  - Model
  - Type
  - Serial number
  - …
- Management information :
  - Technical manager
  - Status
  - Location
  - …
- Users :
  - Computer users, either known by GLPI or not

Other fields are informative, such as *Network* (connexion type) and *Update source* (where are computer updates coming from (Windows update, yum, apt…).

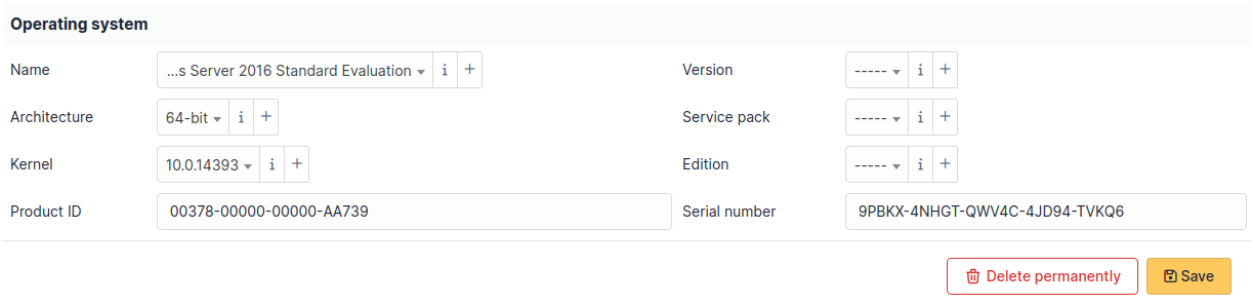
It is possible to use *templates with computers*.

Note :
- when GLPI is used with an inventory tool, various information provided by the tool itself are also available
- a computer can be a server, a desktop computer or a laptop ; to differentiate them, it is possible to use the *type* field

The different tabs

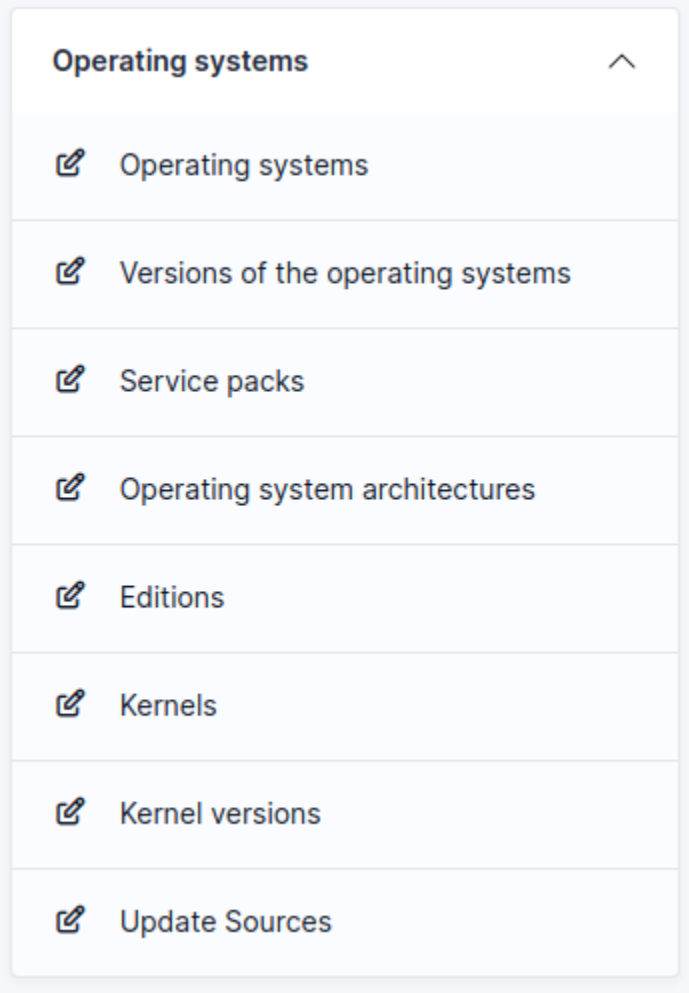
Operating systems

The information on operating systems for a computer are visible in tabs *Operating system* for a Computer entry.



An operating system is associated with the following elements :
- Name
- Version
- Architecture
- Service Pack
- Kernel
- Edition
- Product ID
- Serial number

Note : The creation and management of the titles for operating systems is located in the menu *Configuration* > *Dropdowns* > *Operating systems*.

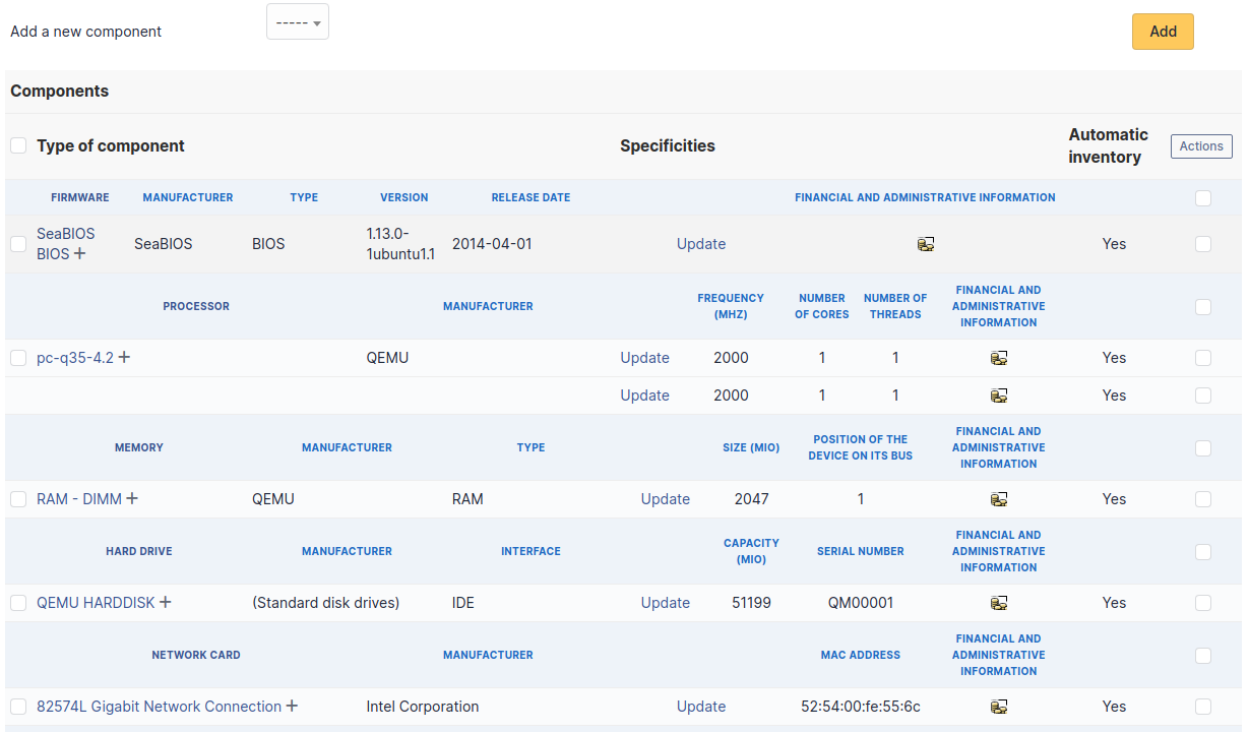


Note : A deletion or addition of an operating system is recorded in the history of the computer.

Note : If using native inventory or third-party inventory tool, the operation system information can be automatically imported and updated.

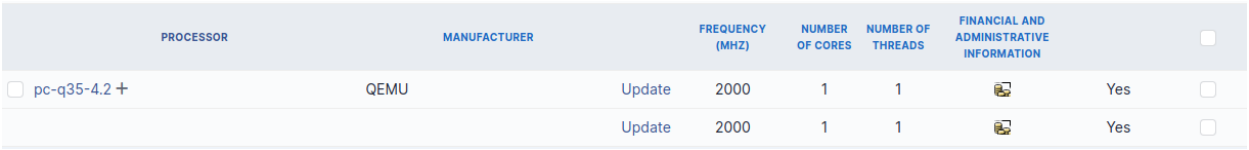
Components

This tab, named *Components* and visible in a *Computer* entry, allows to manage the hardware components of a computer.

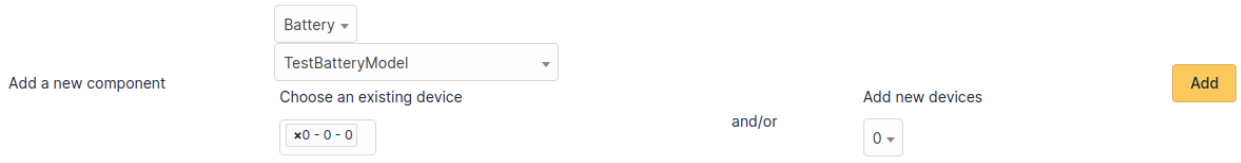


Note : Adding or managing components is located in menu *Configuration > Components*.

Note : If several components of the same type are used, they will be grouped in the view.



It is possible to add a component by first selecting its family in the drop-down list at the top of the table and then its name and the number of components to add.

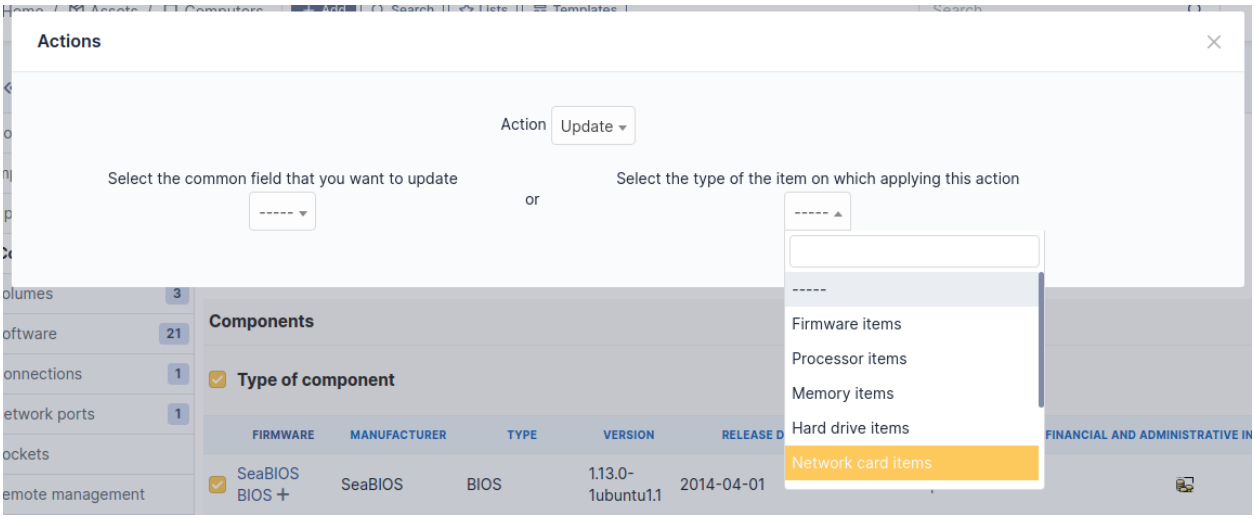


Starting from a computer view, it is possible to modify a component by clicking on the link under its name.

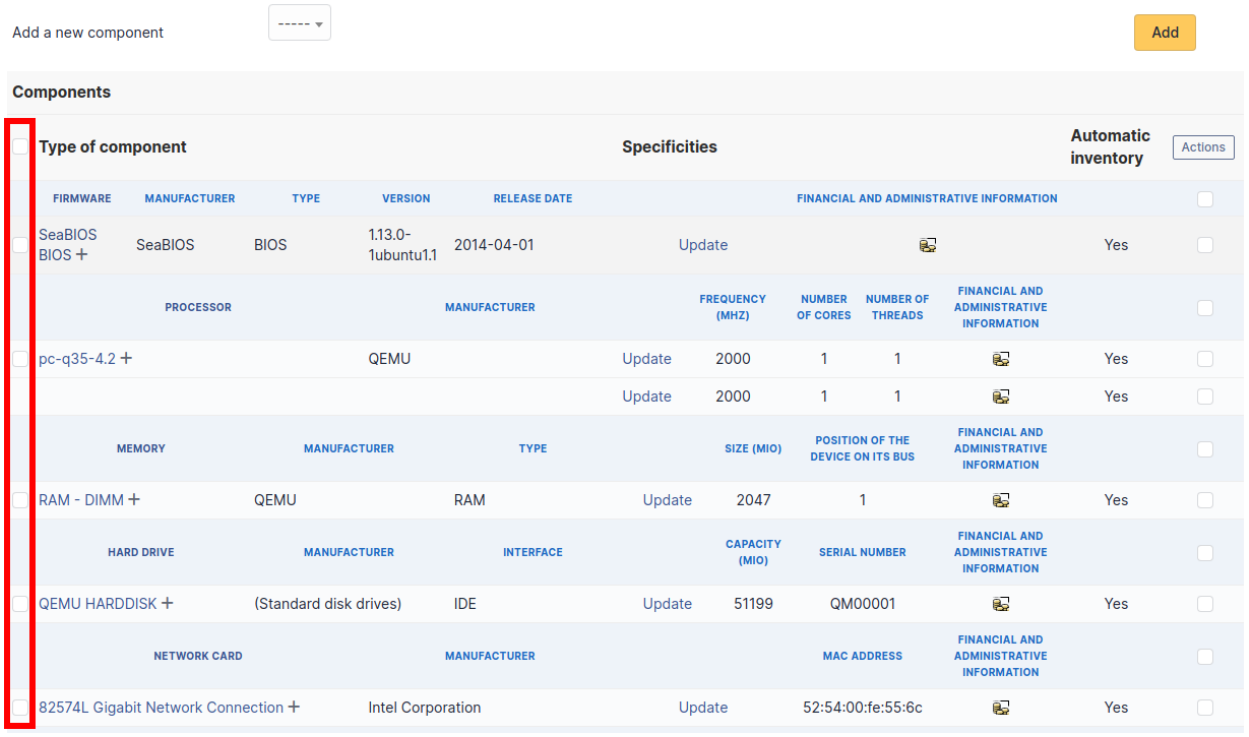
PROCESSOR	MANUFACTURER		FREQUENCY (MHZ)	NUMBER OF CORES	NUMBER OF THREADS	FINANCIAL AND ADMINISTRATIVE INFORMATION		
pc-q35-4.2 +	QEMU	Update	2000	1	1		Yes	
		Update	2000	1	1		Yes	

To act on several components (for example modify an element of the component, activate accounting information or modify them, delete a component…), first select the components and then use the *Actions* button present at the top or the bottom of the list.

If several types of different components, not having the same characteristics, are selected for modification, in the actions it will be asked on which component modification must be applied.



Selection button in left column allows to select all the components at once.



Selection at right of type column (grayed line) allows to select all components of the same type (processor, memory,

network interface…).

PROCESSOR	MANUFACTURER		FREQUENCY (MHZ)	NUMBER OF CORES	NUMBER OF THREADS	FINANCIAL AND ADMINISTRATIVE INFORMATION		
pc-q35-4.2 +	QEMU	Update	2000	1	1		Yes	
		Update	2000	1	1		Yes	

Note : It is possible to modify the characteristics of a component only for one computer

From tab *Elements* of the component, click on the link **Update**.

PROCESSOR	MANUFACTURER		FREQUENCY (MHZ)	NUMBER OF CORES	NUMBER OF THREADS	FINANCIAL AND ADMINISTRATIVE INFORMATION		
pc-q35-4.2 +	QEMU	Update	2000	1	1		Yes	
		Update	2000	1	1		Yes	

Several tabs are then displayed :

— Tab « Element - Link name of component » : list the characteristics of this component
— Tab « Management » : manage administrative and accounting information
— Tab « Documents » : attached documents
— Tab « History » : history of modifications
— Tab « Contract » : contracts management
— Tab « Debug » : only if you are connected in Debug mode
— Tab « All » : all the information are displayed on a single page

Note : Every deletion or addition of a component is recorded in the history of the computer.

Note : If using native inventory or third-party inventory tool, the components information can be automatically imported and updated.

Volumes

This tab, named *Volumes* and visible in a *Computer* entry, allows to manage the volumes attached to a computer.

Add a volume

Volumes

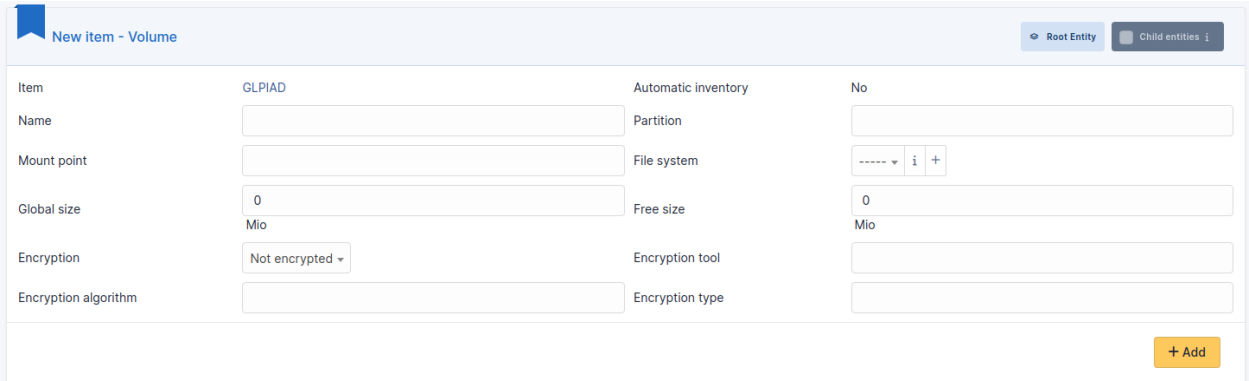
Name	Automatic inventory	Partition	Mount point	File system	Global size	Free size	Free percentage	Encryption
C:	Yes		C:	NTFS	49.51 Gio	36.02 Gio	73 %	
SSS_X64FREE_EN-US_DV9	Yes	SSS_X64FREE_EN-US_DV9	D:	UDF	6.49 Gio	0 o		
System Reserved	Yes	System Reserved	System Reserved	NTFS	499 Mio	169 Mio	34 %	
Name	**Automatic inventory**	**Partition**	**Mount point**	**File system**	**Global size**	**Free size**	**Free percentage**	**Encryption**

A volume attached to a computer is characterized by :

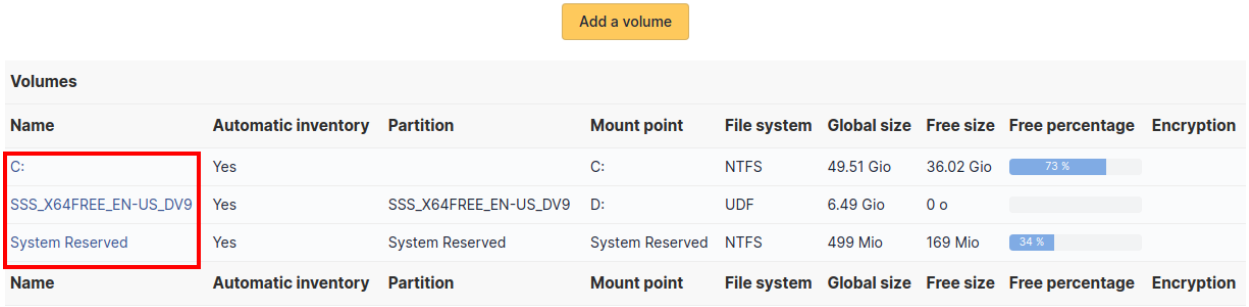
— name
— physical partition
— mount point
— file system
— total size

— available size
— ciphering algorithm and type

It is possible from a *Computer* entry to add a volume by clicking on button `Add a volume`.



It is possible from a *Computer* entry to modify an existing volume by clicking on the link under its name.

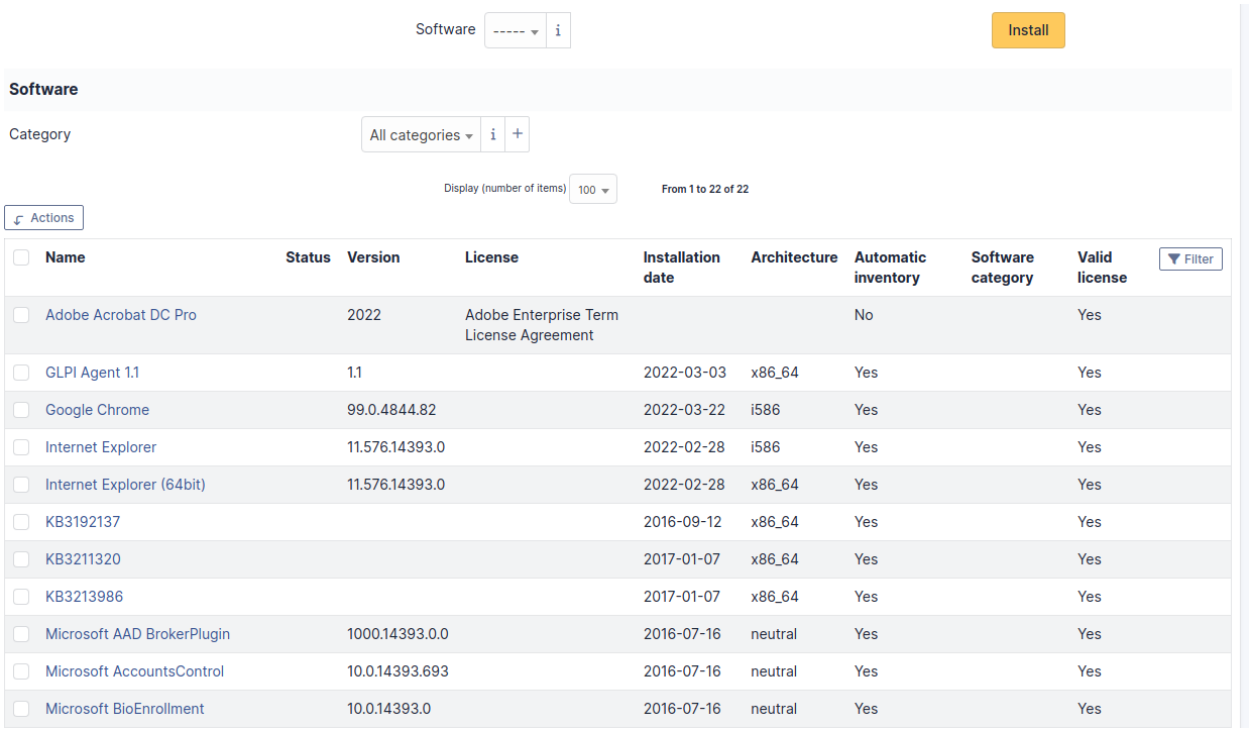


Note : Every deletion or addition of a volume is recorded in the history of the computer.

Note : If using native inventory or third-party inventory tool, the volumes information can be automatically imported and updated.

Software

This tab, named *Softwares* and visible in a *Computer* entry, allows to manage the software installed on a computer. Those software are sorted by their category and are characterized by name, version and version status.



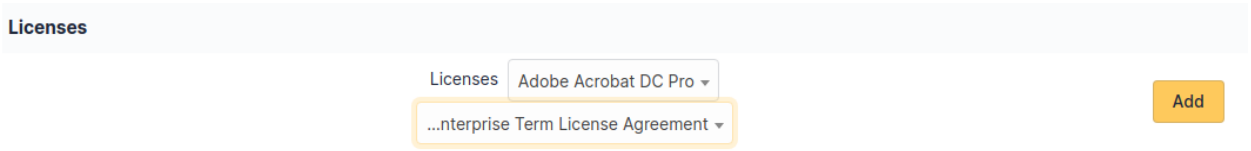
Name	Status	Version	License	Installation date	Architecture	Automatic inventory	Software category	Valid license
Adobe Acrobat DC Pro		2022	Adobe Enterprise Term License Agreement			No		Yes
GLPI Agent 1.1		1.1		2022-03-03	x86_64	Yes		Yes
Google Chrome		99.0.4844.82		2022-03-22	i586	Yes		Yes
Internet Explorer		11.576.14393.0		2022-02-28	i586	Yes		Yes
Internet Explorer (64bit)		11.576.14393.0		2022-02-28	x86_64	Yes		Yes
KB3192137				2016-09-12	x86_64	Yes		Yes
KB3211320				2017-01-07	x86_64	Yes		Yes
KB3213986				2017-01-07	x86_64	Yes		Yes
Microsoft AAD BrokerPlugin		1000.14393.0.0		2016-07-16	neutral	Yes		Yes
Microsoft AccountsControl		10.0.14393.693		2016-07-16	neutral	Yes		Yes
Microsoft BioEnrollment		10.0.14393.0		2016-07-16	neutral	Yes		Yes

To install a software, first select its name in the drop-down list, then its version.



It is possible to associate a license to a software on a computer.

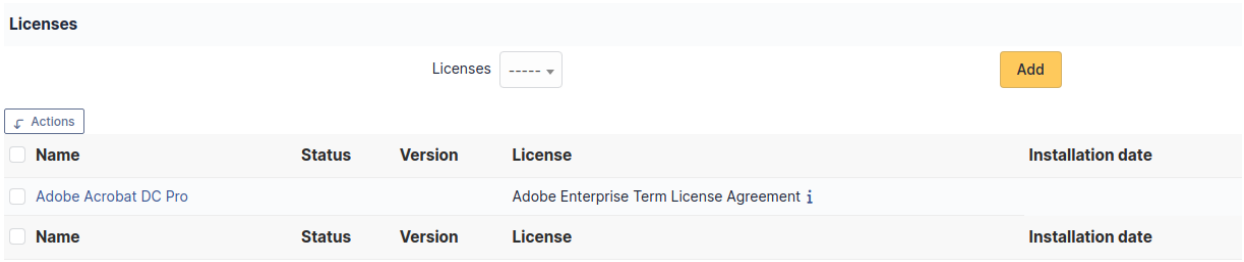
To associate a license, first select the software in the drop-down list, then the wanted license.



If the license is associated with a software that is already installed on the computer, it will be presented in the list of software.

Adobe Acrobat DC Pro	2022	Adobe Enterprise Term License Agreement	No	Yes

Otherwise it will be displayed in a separate table.



Note :
— the drop-down list enumerates the software that are available in the entity
— licenses management can be found in *Assets* > *Softwares*. See Manage software

Note : It is possible via mass actions to install on a computer a software selected from its license.

Note : Every deletion or addition of a software or a license is recorded in the history of the computer.

Note : If using native inventory or third-party inventory tool, the software information can be automatically imported and updated.

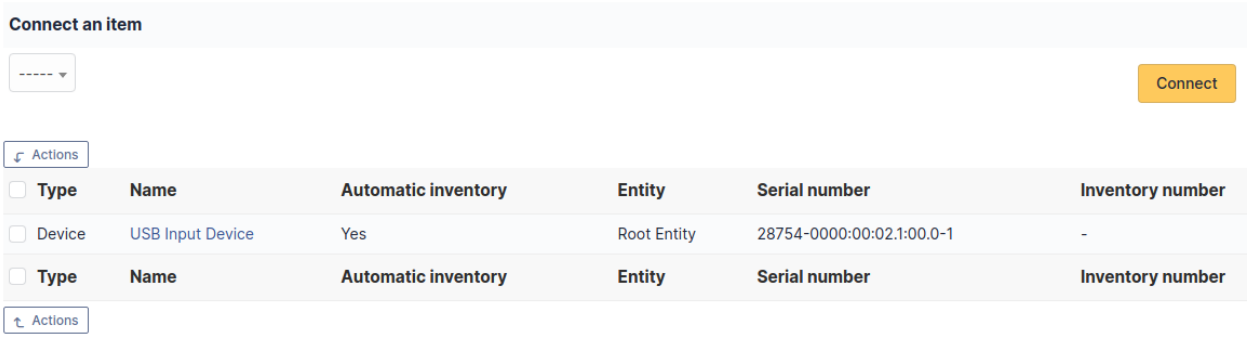
Connections

This tab allows to manage the direct connections between a computer and its connected elements.

Direct connections represent the relation between different hardwares linked either physically or virtually.

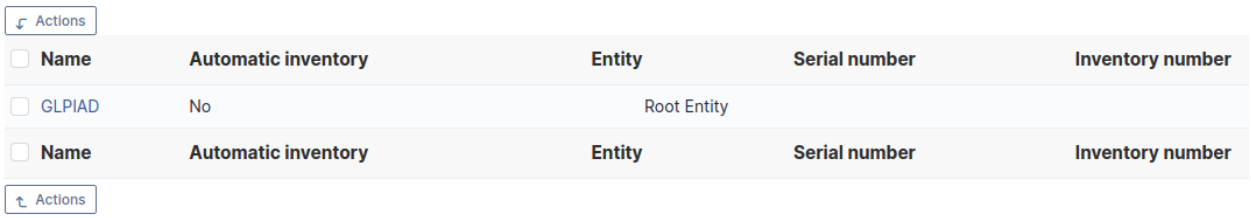
From a computer

The connection can be made toward one or several elements of type display, printer, peripheral or phone. For each type of connected object, its name, serial number and inventory number are displayed.



From an element other than a computer

To add a connection, select the computer in the drop-down list presented at top of the table.



If this case, the connection can only be made to a single computer. The table will list the name of this computer as well as its serial and inventory numbers.

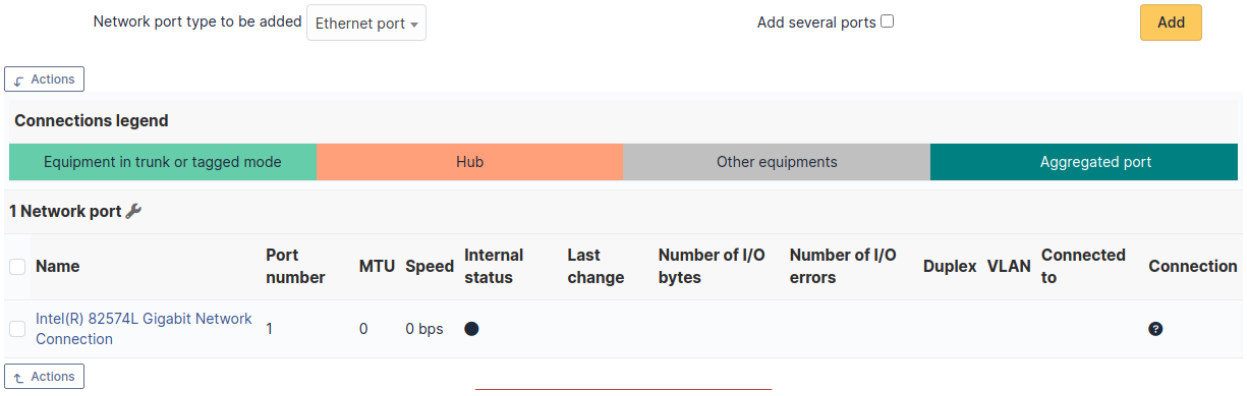
Note : The deletion of a connection can be made from the entry of each connected hardware (tab *Connections*) via mass actions.

Note : Every deletion or addition of a connection is recorded in the history of the computer.

Note : If using native inventory or third-party inventory tool, the connections informations can be automatically imported and updated.

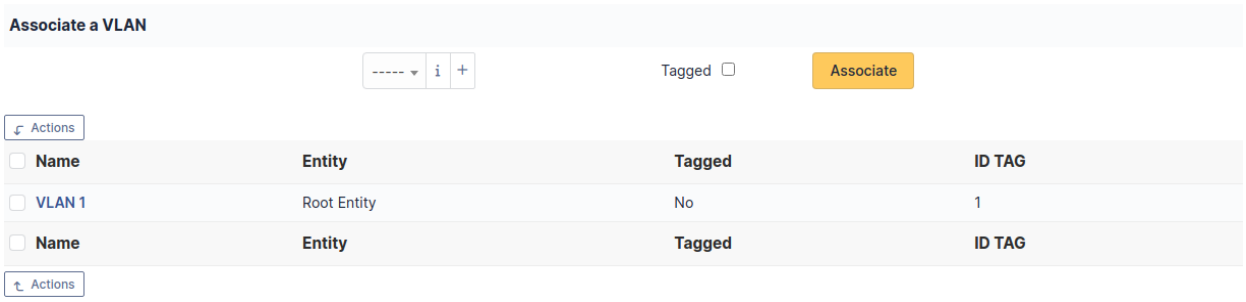
Network ports

This tab, named *Network ports* and visible in a *Computer* entry, allows to manage the network ports attached to a computer.



A network port represents the output of a network interface on a given hardware. A port is characterized by a number and a name.

It is possible on a network port to add one or more VLAN, these VLANs being defined by a name, an optional comment and a VLAN number.



One or more *network name* can be associated to each network port. This can be done in tab *Network name*.



Note : When a network port has only one network name, this name is displayed in the network port form itself and it is possible to modify the name directly. It is also possible to modify the network name via its own form, accessible by clicking on the link under the name.

When a network port has several network names, the only way to modify the network names is via the network name form.

Network ports can be of different types :

- physical port : ethernet, WiFi…
- *Virtual network port* : local loop-back, alias, aggregates…
- point to point : switched network…

The *Network port* tab groups in a table the ports that are available on the equipment. The table header contains the total number of ports and a link that allows to choose display options. This allows to selectively display or mask information such as network data (IP…), port characteristics depending on its type, MAC address, VLANs…

Note : GLPI allows to present complex network connection with for example WiFi or Ethernet port aliases associated to VLANs grouped in aggregates…

Management of Ethernet network ports

The Ethernet protocol is classically used on internal networks.

An Ethernet port is characterized by its type (twisted pair, mono-mode/multi-mode optical fiber…), a transfer rate ((10Mb, 100Mb, 1Gb, 10Gb…) and a MAC address. It is possible to associate to the port a network card and a network plug.

Ethernet connections are realized by linking two Ethernet ports, which requires that there is a free port on each equipment to be connected. In general, a connection links a port attached to a computer, a peripheral or a printer and a port attached to a network equipment (hub, switch).

Management of WiFi network ports

The WiFi protocol is widely used on wireless networks.

A WiFi port is characterized by the mode of the network card (ad-hoc, access point, repeater…), the WiFi protocol version (ab, g…) and its MAX address.

It is possible to associate a network card to the port, similarly to Ethernet ports.

A WiFi network can be associated to a given port. Apart from its name, a WiFi network has an ESSID and is characterized by its type :

Infrastructure : WiFi network with on or several access points and connected clients *Ad-hoc :* WiFi network between similar systems without access points

Management of local loop-back ports

The local loop-back is a virtual port used by most equipments for internal communication. It is this port that is used when connecting to `localhost` or `127.0.0.1`.

Local loop-back has no specific attribute.

Management of network port aliases

A network port alias is a virtual port that can refine a physical port.

On Linux, to each VLAN, when transmitted « tagged », is associated a port alias, for example *eth2.50* to represent VLAN 50 on port *eth2*.

A port alias contains its base port and a MAC address.

Note that when the origin port is changed, the MAC address of the new port is affected to the port alias.

Management of network port aggregates

A network port aggregate is a virtual port that allows to group several physical ports.

On Linux, aggregates are represented by bridges *bridges <http ://www.linuxfoundation.org/collaborate/workgroups/networking/bridge>* linking together different ports. In the same way, an Ethernet firewall uses a bridge that links interfaces to be filtered.

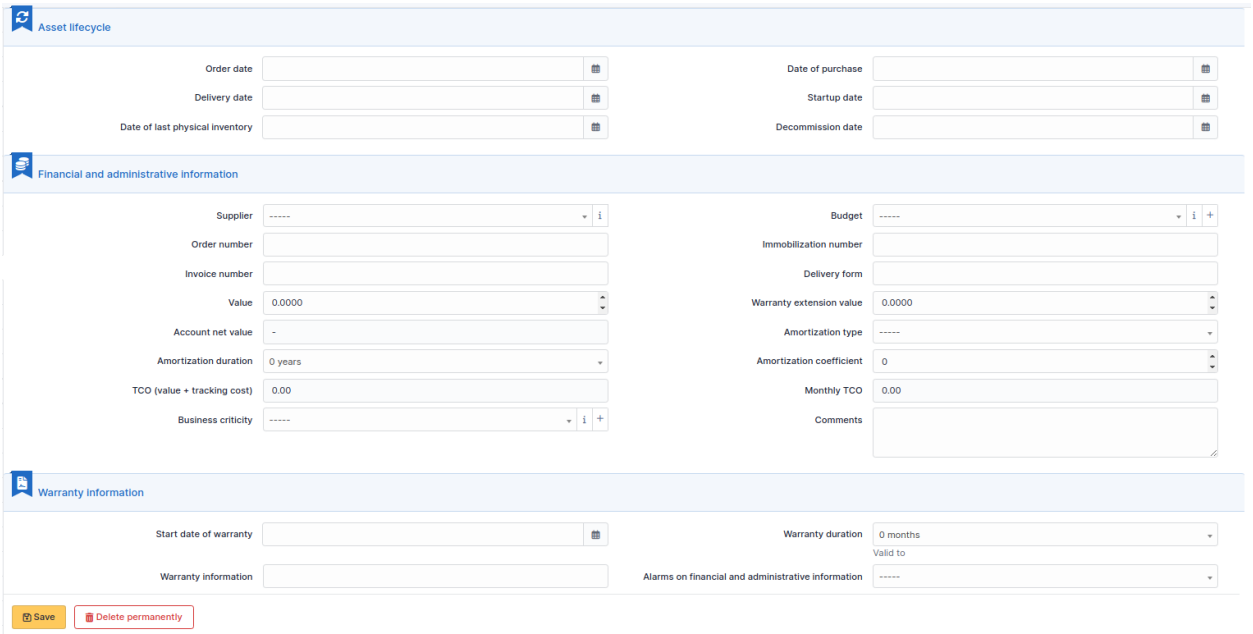
A port aggregate contains the origin ports and a MAC address.

Note : Every deletion or addition of a network port is recorded in the history of the computer.

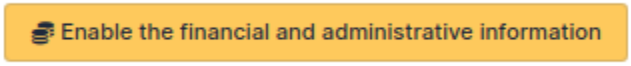
Note : If using native inventory or third-party inventory tool, the network ports information can be automatically imported and updated.

Management

Management of financial and administrative information, this information is visible in the "Management" tab on the computer's form.



By default this management is disabled. It is possible to activate the financial information on any type of object in the inventory by using the link in the *Management* tab of the material detail.



Note : It is possible to activate the administrative and financial information from the massive actions on a set of elements (computer, monitor, ...)

Note : It is possible to activate the administrative and financial information as soon as an element is created. See « Enable default administrative and financial information » option in Setup > General > Asset tab.

Financial information consists of the following items :

Lifecycle

— Order date
— Date of purchase
— Delivery date
— Date of implementation
— Date of last physical inventory
— Date of reform

Financial and administrative information

- Supplier : Third party who sold the equipment. See *Managing suppliers*. Suppliers are managed from the menu **Management > Suppliers**.
- Order number : number of the order of the equipment.
- Asset number.
- Invoice number : equipment invoice number.
- Delivery note : delivery note for the equipment.
- Value : cost of the equipment.
- Warranty extension value : cost of the warranty extension, but preferably use contracts.
- Account net value : this is the automatic calculation of the gross value of a piece of equipment minus the amount of depreciation.
- Type of depreciation : choice of the type of depreciation between linear and declining balance.
- Depreciation period : depreciation period expressed in years.
- Depreciation coefficient : coefficient applied to a straight-line depreciation type in order to obtain the values of the declining balance type. It is therefore only used if the type of depreciation is declining balance.
- TCO (value+amount of interventions) : the total cost of ownership which includes all the constituent elements of an invoiced product.
- Budget : the budget on which this equipment was purchased See *Managing the budget*.
- Order date : date on which the material was ordered.
- Purchase date : date on which the equipment was purchased.
- Delivery date : date on which the equipment was delivered.
- Startup date : date on which the equipment was put into service.
- Date of last physical inventory : date of the last physical inventory of the equipment.
- Comments.
- Monthly TCO : TCO divided by the number of months between today's date and the date of purchase of the equipment.

Warranty information

- Warranty start date : date on which the warranty of the equipment starts
- Warranty information : text qualifying the warranty
- **Warranty period : duration of the warranty expressed in months**

  If a warranty start date and a warranty period are set, the information « Expires on » will appear with a date in red if it is earlier than the current date

All the dates defined can be managed automatically according to changes in the status of the equipment. Some dates can also be copied from another date. All this configuration is done by [entity](administration_entity_delegation.dita).

Tips

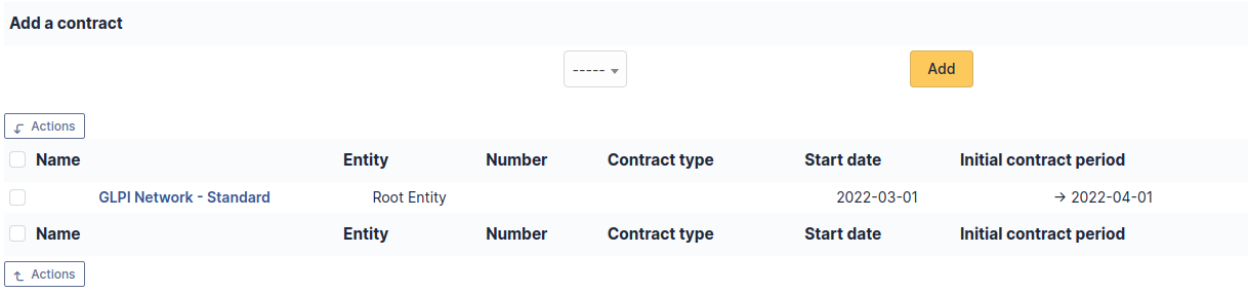
GLPI allows you to configure a notification on the expiry of the hardware warranty. This is configurable by entity in notification management to define the models and recipients used and in *the administration of entities* to enable or disable this feature, define the default values and anticipate the sending of the notification if necessary.

GLPI can perform a simple net book value calculation based on straight-line or declining balance depreciation. To do so, a certain amount of information (value, date, etc.) must be entered. The user must also enter the date of the financial year the general configuration.

The display of financial information for each type of equipment depends on the profile of the user logged in.

Associated Contracts

The *Contracts* tab is used to show or add linked contracts.



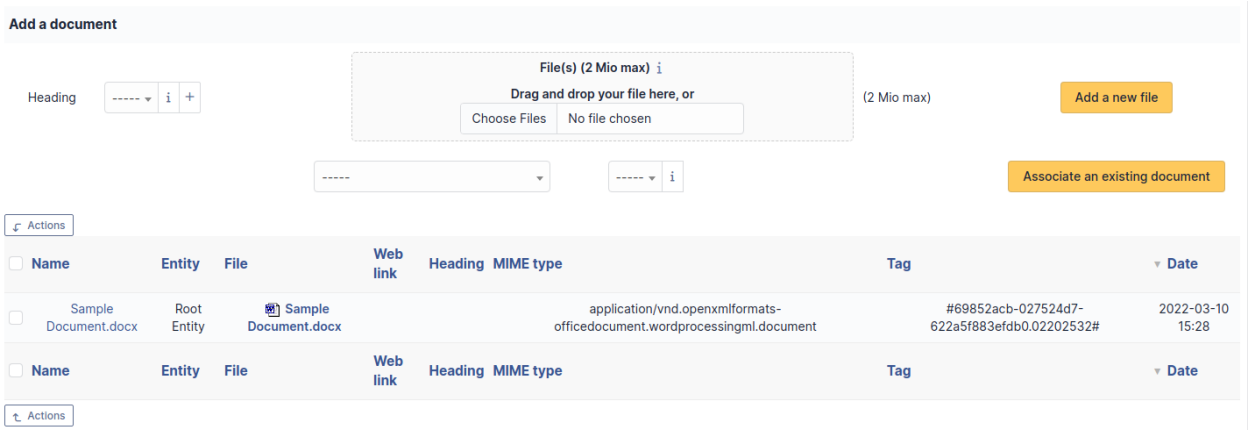
For each associated contract, the name, number, contract type, supplier, start date and initial duration of the contract are listed. In the last field, the end date of the contract is also shown with a red display if the date is earlier than the current date.

Refer to *contract management* for more information.

Documents

Additional information is stored in the form of external documents which are files uploaded into GLPI. In the *Documents* tab, documents can be associated and unlinked with the selected item. The *management of the documents themselves* is dealt with in another chapter.

It is also possible to quickly create a document via this tab by specifying the desired file and optionally the field in which the new document is to be placed. The name of the created document will be based on the name of the added file.



Note : When you delete a document from this tab via mass actions, you only remove the link between the object and the document ; the document itself is still present.

Virtualization

This tab displays the virtualization systems (virtual machines, containers, jails…) associated to a host.

The available information vary from one system to another : for a virtual machine for instance, it includes name, virtualization system, virtualization model, state, allocated memory, number of logical processors… as well as the name of the physical machine (the host).

GLPI establishes the link between a host and a virtual machine based on the unique identifier (UUID). In some case, it is possible that the UUID is different inside the physical machine and the virtual machine ; it is therefore impossible to make the link automatically.

The only way to link manually a virtual machine to a physical machine is to attribute the *same* UUID to the virtual machine declared on the host and to the virtual machine inside GLPI.

Note : If using native inventory or third-party inventory tool, the virtualization information can be automatically imported and updated.

Antivirus

This tab, named *Antivirus* and visible in a *Computer* entry, allows to manage the antivirus running on a computer.



An antivirus is characterized by :

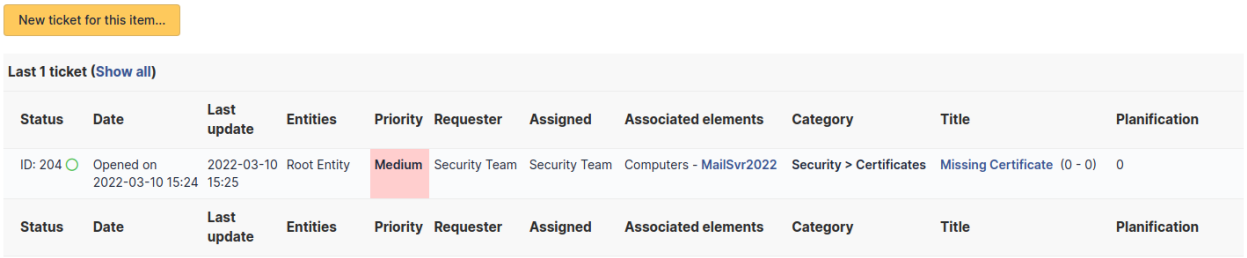
- name
- active/non active
- vendor
- update status
- antivirus version
- signature database version
- expiration date

Note : Every deletion or addition of an antivirus is recorded in the history of the computer.

Note : If using native inventory or third-party inventory tool, the antivirus information can be automatically imported and updated.

Tickets

The *Tickets* tab is used to create a ticket associated with the current object. It also lists the tickets already linked to the object.



Note : A second table lists the tickets attached to the linked elements

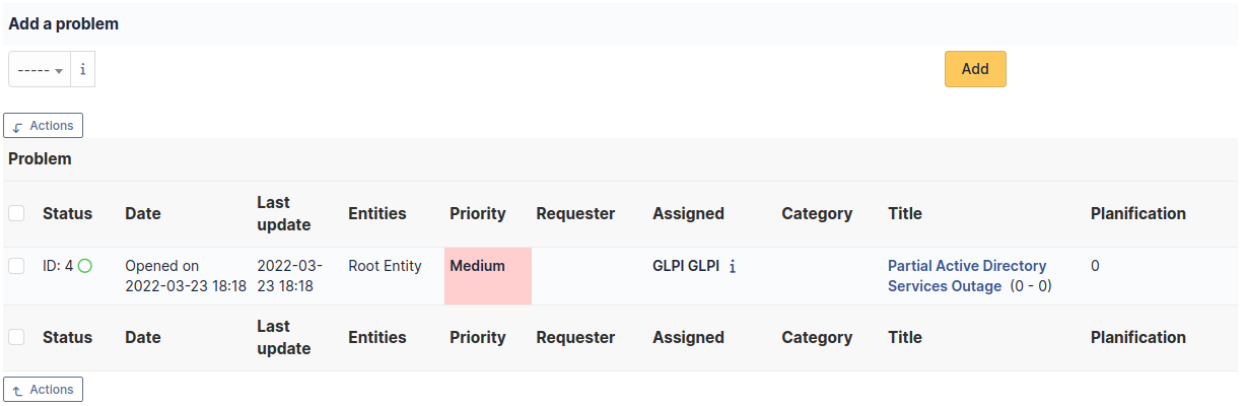
Note : Any deletion or addition of a ticket is recorded in the history.

Problems

The *Problems* tab is used to create a problem associated with the current object. It also lists the changes already linked to the object.

This summary table includes for each object :

- Status
- Date (opening or expiry date, resolution or closing date depending on the status of the problem)
- Priority
- Requestor(s) and assigned technician(s)
- Associated elements
- Category
- Name
- Column indicating the number of scheduled tasks



Note : A second table lists the problems attached to the related elements

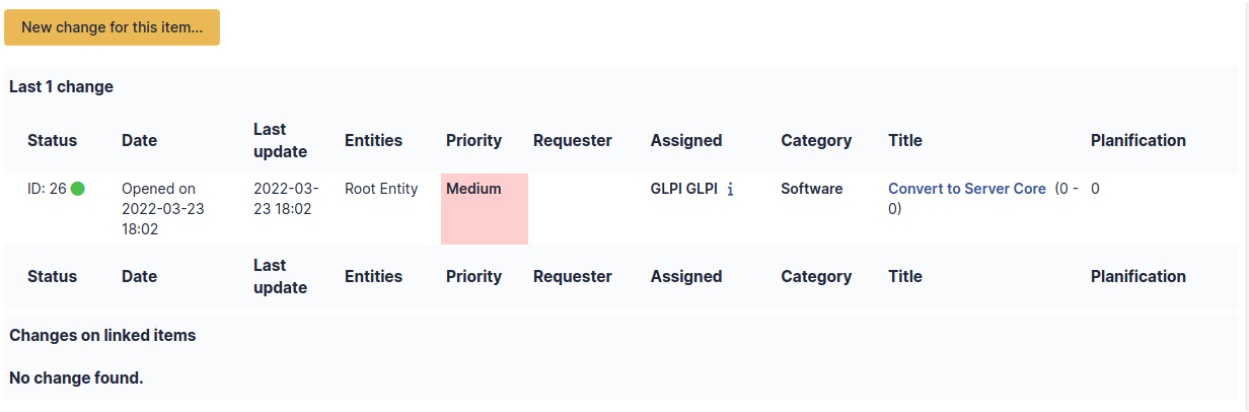
Note : Any deletion or addition of a problem is recorded in the history.

Changes

The *Changes* tab is used to create a change associated with the current object. It also lists the changes already linked to the object.

This summary table includes the following fields for each object :

- Status
- Date (opening or expiry date, resolution or closing date depending on the status of the change)
- Priority
- Requestor(s) and assigned technician(s)
- Associated elements
- Category
- Name
- Number of scheduled tasks



Note : A second table lists the changes attached to the related elements

Note : Any deletion or addition of a change is recorded in the history.

Associated External Links

The *External links* tab is used to show associated external links.

For some items, external links are managed from the menu **Setup > External links**.

These links can use object fields such as IP, name, etc. See *Configure protocol external links*.

Examples :

- A web link : http://192.168.0.1 (IP retrieved from the network port of the hardware) ;
- A RDP link for remote access : glpi ://MSTSC.EXE,pc001 (name « pc001 » retrieved from the hardware).

Notes

The *Notes* tab provides a free text field for storing additional information. Notes are displayed in the order of their creation.



À faire : Fix this reference (include or link ? ? ?) **[Onglet « Réservations »](Les_différents_onglets/Onglet_Réservations.rst)** Gestion des réservations pour un objet d'inventaire

History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :

- ID of the change.
- Date and time the change was made.
- User who made the change. If this field is not filled, it means that the action was done automatically (For example : automatic inventory update).
- Field that was changed.
- Description of the change that was made.

The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

Debugging information

If you have *Debug* mode enabled in your preferences, a *Debug* tab will appear before the *All* tab. This tab offers information to help you resolve an issue.

For example, for a computer, you have one or more tables depending on the affected object (financial information, reservations…) listing the notifications that will be triggered on this computer with :

- Triggering event
- Recipient(s)
- Notification model used
- Recipient(s) email address

Notifications			(Ticket)	
Events	**Recipients**	**Notification templates**	**Mode**	**Recipient**
Closing of the ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New ticket	Profile: Admin	Tickets (en_GB)	mailing	admins@example.com
New ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Ticket solved	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost

All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

The different actions

Apart from *common actions*, some actions are specific to computers :

— **Install a software with a license on a computer** From the tab *Softwares*, add a license by choosing the name of the software followed by the name of the license. From the *Mass actions* of summary table, choose **Install**

Avertissement : A software can only be installed if its license has a version in use or a purchase version.

Displays

In a display form, the following information is available :

— General characteristics of the display :
  — Vendor
  — Model
  — Type
  — Serial number
  — …
— Display management :
  — Technical person in charge
  — Status
  — Location
  — …
— Display users :
  — Users known to GLPI or not
  — Groups of users
  —
— Specifications :
  — Size
  — Resolution
  — Port types (VGA, DVI, HDMI, DisplayPort)

— Integrated sound
— Connectivity
— …

Management type :

It is possible to manage displays either unitary or globally.

Unitary management corresponds to one display per computer while global management make the printer a virtual global element that will be connected to several computers.

Global management allows to limit the number of elements to manage when these elements are not a strategic data in the assets management.

It is possible to use *templates with displays*.

The different tabs

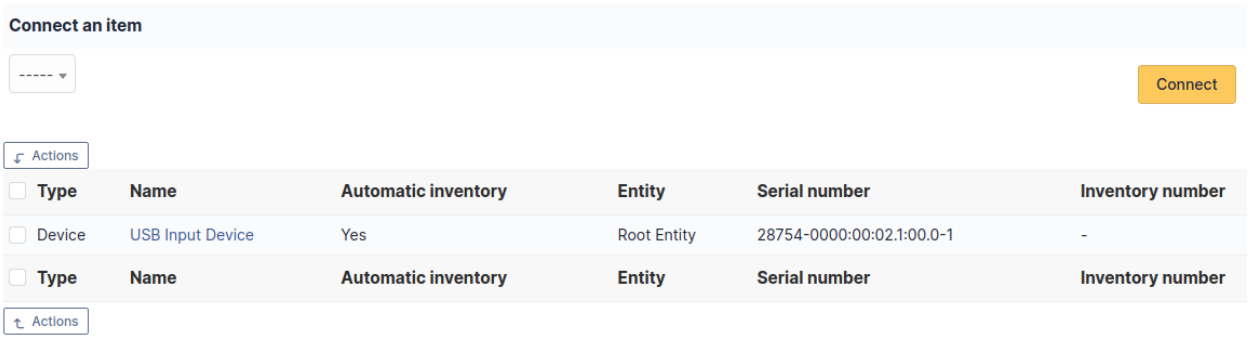
Connections

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Direct connections represent the relation between different hardwares linked either physically or virtually.

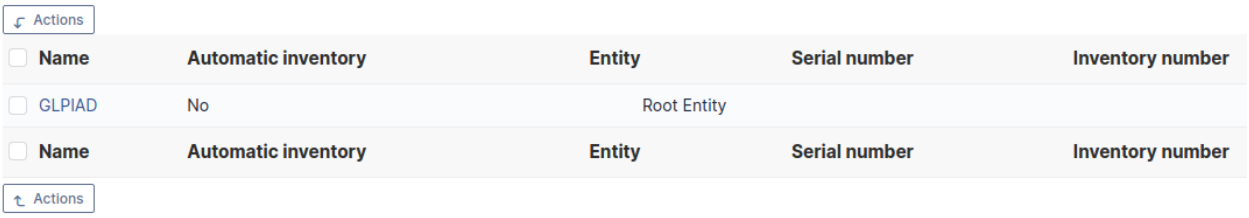
From a computer

The connection can be made toward one or several elements of type display, printer, peripheral or phone. For each type of connected object, its name, serial number and inventory number are displayed.



From an element other than a computer

To add a connection, select the computer in the drop-down list presented at top of the table.



If this case, the connection can only be made to a single computer. The table will list the name of this computer as well as its serial and inventory numbers.

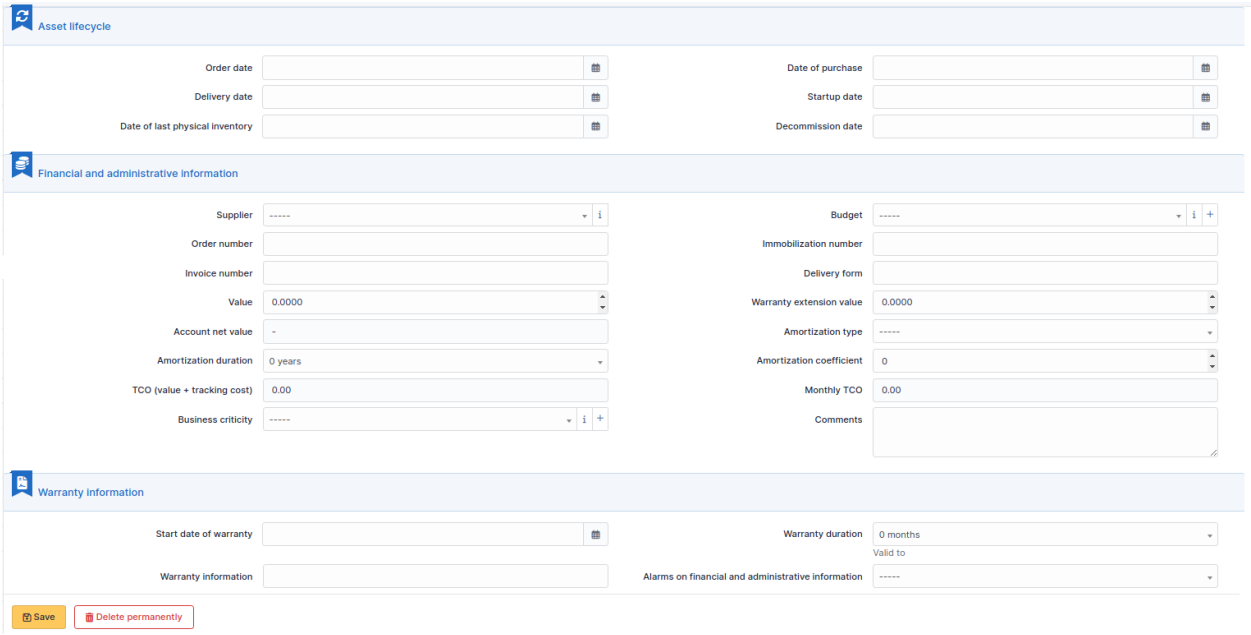
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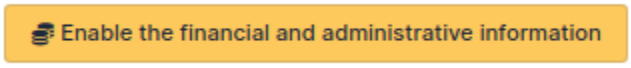
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Management

Management of financial and administrative information, this information is visible in the "Management" tab on the computer's form.



By default this management is disabled. It is possible to activate the financial information on any type of object in the inventory by using the link in the *Management* tab of the material detail.



Note : It is possible to activate the administrative and financial information from the massive actions on a set of elements (computer, monitor, ...)

Note : It is possible to activate the administrative and financial information as soon as an element is created. See « Enable default administrative and financial information » option in Setup > General > Asset tab.

Financial information consists of the following items :

Lifecycle

- Order date
- Date of purchase
- Delivery date
- Date of implementation
- Date of last physical inventory
- Date of reform

Financial and administrative information

- Supplier : Third party who sold the equipment. See *Managing suppliers*. Suppliers are managed from the menu **Management > Suppliers**.
- Order number : number of the order of the equipment.
- Asset number.
- Invoice number : equipment invoice number.
- Delivery note : delivery note for the equipment.
- Value : cost of the equipment.
- Warranty extension value : cost of the warranty extension, but preferably use contracts.
- Account net value : this is the automatic calculation of the gross value of a piece of equipment minus the amount of depreciation.
- Type of depreciation : choice of the type of depreciation between linear and declining balance.
- Depreciation period : depreciation period expressed in years.
- Depreciation coefficient : coefficient applied to a straight-line depreciation type in order to obtain the values of the declining balance type. It is therefore only used if the type of depreciation is declining balance.
- TCO (value+amount of interventions) : the total cost of ownership which includes all the constituent elements of an invoiced product.
- Budget : the budget on which this equipment was purchased See *Managing the budget*.
- Order date : date on which the material was ordered.
- Purchase date : date on which the equipment was purchased.
- Delivery date : date on which the equipment was delivered.
- Startup date : date on which the equipment was put into service.
- Date of last physical inventory : date of the last physical inventory of the equipment.
- Comments.
- Monthly TCO : TCO divided by the number of months between today's date and the date of purchase of the equipment.

Warranty information

- Warranty start date : date on which the warranty of the equipment starts
- Warranty information : text qualifying the warranty
- **Warranty period : duration of the warranty expressed in months**

  If a warranty start date and a warranty period are set, the information « Expires on » will appear with a date in red if it is earlier than the current date

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Tips

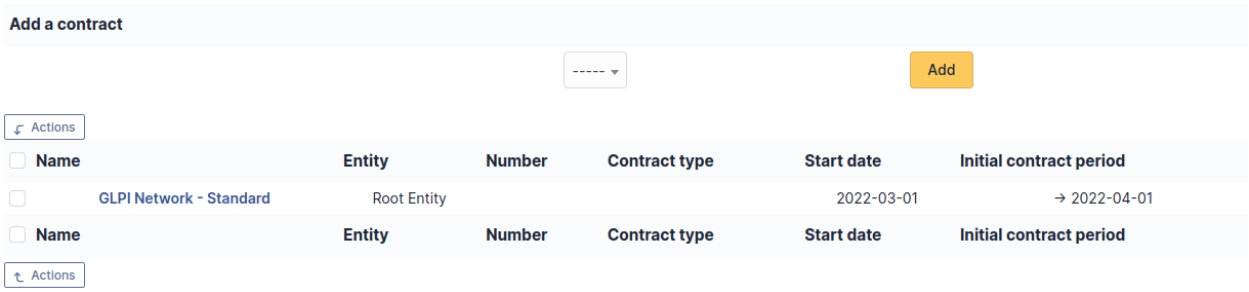
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GLPI can perform a simple net book value calculation based on straight-line or declining balance depreciation. To do so, a certain amount of information (value, date, etc.) must be entered. The user must also enter the date of the financial year the general configuration.

The display of financial information for each type of equipment depends on the profile of the user logged in.

Associated Contracts

The *Contracts* tab is used to show or add linked contracts.



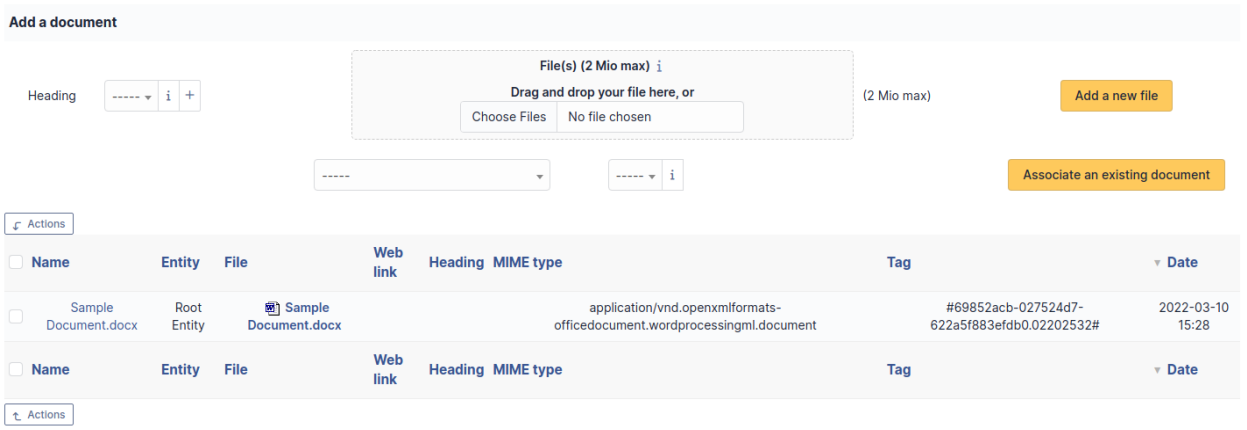
For each associated contract, the name, number, contract type, supplier, start date and initial duration of the contract are listed. In the last field, the end date of the contract is also shown with a red display if the date is earlier than the current date.

Refer to *contract management* for more information.

Documents

Additional information is stored in the form of external documents which are files uploaded into GLPI. In the *Documents* tab, documents can be associated and unlinked with the selected item. The *management of the documents themselves* is dealt with in another chapter.

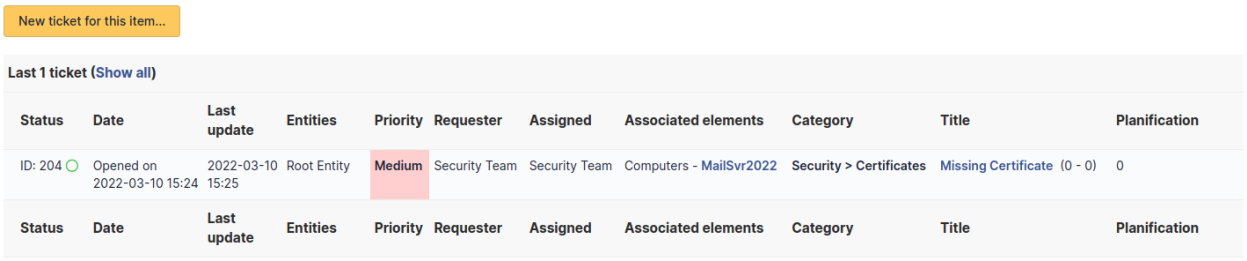
It is also possible to quickly create a document via this tab by specifying the desired file and optionally the field in which the new document is to be placed. The name of the created document will be based on the name of the added file.



Note : When you delete a document from this tab via mass actions, you only remove the link between the object and the document ; the document itself is still present.

Tickets

The *Tickets* tab is used to create a ticket associated with the current object. It also lists the tickets already linked to the object.



Note : A second table lists the tickets attached to the linked elements

Note : Any deletion or addition of a ticket is recorded in the history.

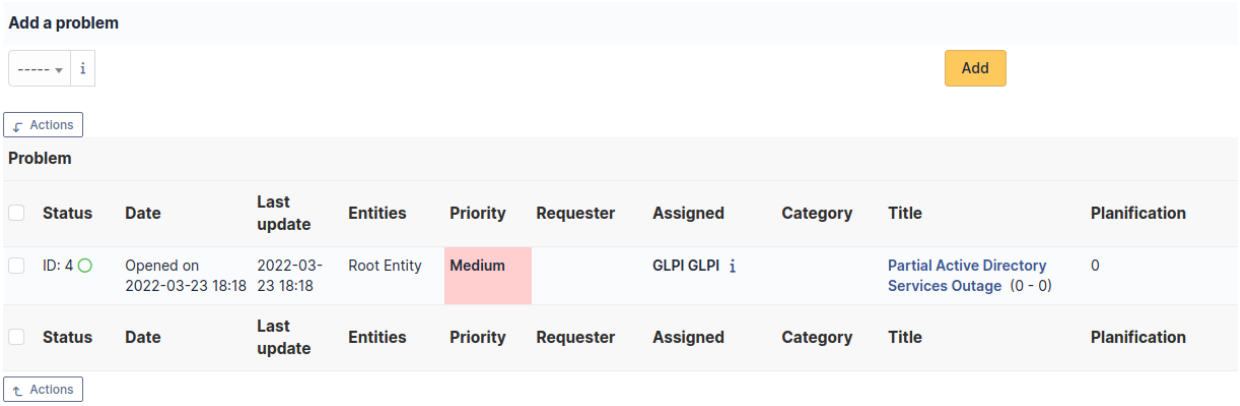
Problems

The *Problems* tab is used to create a problem associated with the current object. It also lists the changes already linked to the object.

This summary table includes for each object :

- Status
- Date (opening or expiry date, resolution or closing date depending on the status of the problem)
- Priority
- Requestor(s) and assigned technician(s)
- Associated elements
- Category

— Name
— Column indicating the number of scheduled tasks



Note : A second table lists the problems attached to the related elements

Note : Any deletion or addition of a problem is recorded in the history.

Associated External Links

The *External links* tab is used to show associated external links.

For some items, external links are managed from the menu **Setup > External links**.

These links can use object fields such as IP, name, etc. See *Configure protocol external links*.

Examples :
— A web link : http://192.168.0.1 (IP retrieved from the network port of the hardware) ;
— A RDP link for remote access : glpi ://MSTSC.EXE,pc001 (name « pc001 » retrieved from the hardware).

Notes

The *Notes* tab provides a free text field for storing additional information. Notes are displayed in the order of their creation.



À faire : Fix this reference (include or link ? ? ?) **[Tab « Reservations »](Les_différents_onglets/Onglet_Réservations.rst)**

Management of reservations for an inventory object

History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :

- ID of the change.
- Date and time the change was made.
- User who made the change. If this field is not filled, it means that the action was done automatically (For example : automatic inventory update).
- Field that was changed.
- Description of the change that was made.

The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

Debugging information

If you have *Debug* mode enabled in your preferences, a *Debug* tab will appear before the *All* tab. This tab offers information to help you resolve an issue.

For example, for a computer, you have one or more tables depending on the affected object (financial information, reservations…) listing the notifications that will be triggered on this computer with :

- Triggering event
- Recipient(s)
- Notification model used
- Recipient(s) email address

Notifications			(Ticket)	
Events	**Recipients**	**Notification templates**	**Mode**	**Recipient**
Closing of the ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New ticket	Profile: Admin	Tickets (en_GB)	mailing	admins@example.com
New ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Ticket solved	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost

All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

The different actions

Apart from *common actions*, some actions are specific to displays :

— connect a display to a monitor

Software

GLPI allows management of software and their versions as well as licenses, associated or not to software versions.

A software is by default associated with an entity.

Financial management is done at the level of licenses ; the financial management at software level is only a model for the licenses associated with this software.

Software can be imported automatically using a third-party inventory tool ; in this case a dictionary can be used to filter or clean the import data (see [Configure data dictionaries](07_Module_Administration/06_Dictionnaires.rst « The dictionaries are managed from menu entry Administration > Dictionaries »)).

Some fields are specific in the software form :

— **Update** is an information, with no processing associated and which tells whether the software is an update of another software
— **Category** allows to group software in the list of software of an asset
— **Can be associated with a ticket** defines whether the software can be seen in the drop-down list « Hardware » of a ticket

It is recommended to first create the software without a version number in the name, then to create the versions and last to create the licenses.

Note : In multi-entity mode, the list of software can rapidly become long because of double entries (one software per entity). A better approach can consist in grouping identical software in the same entity (see tab *Grouping* below), then to make recursive the elements that can be made recursive.

It is possible to use *templates with software*.

The different tabs

Versions

A version of a software is the element that can be installed on a asset ; see also **Installations* tab*.

The main view lists the number of installations of the version.

Specific fields :

— **Name** : the version number
— **Status** : in ITIL recommendations, it allows to follow the DSL (library storing authorized versions)
— **Operating system** : the operating system on which this software version runs
— **Installations** : the number of installations of the version
— **Comment** : some comments

Licenses

Installations

The installation of a software on a computer is visualized through a *version* and can be consulted on a software form (list of computers having at least one version installed), on a version form (computers having this version installed) and finally on a computer form (list of versions of installed software, sorted by category).

Note :

- Column *license* is filled only when the license is affected to the concerned computer
- The initial display of different categories depend upon user preferences (see [manage preferences](01-premiers-pas/03_Utiliser_GLPI/04_Gérer_ses_préférences.rst »).

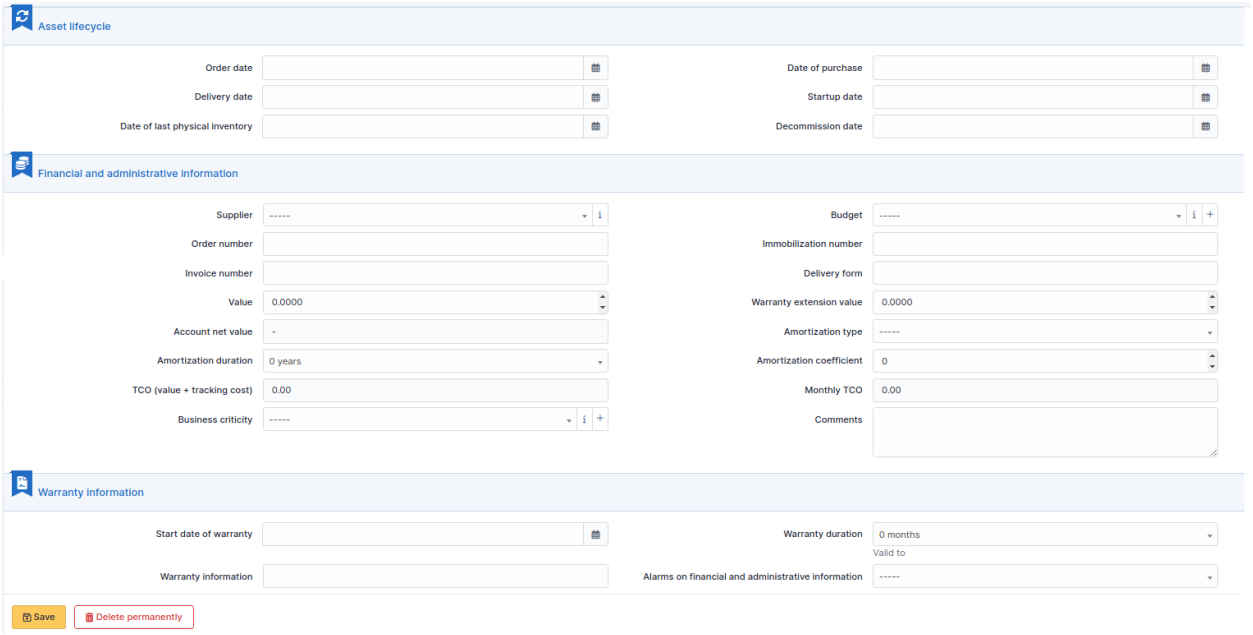
Two options are available on the list of installations of software on a computer. Above the list, **Install** allows to install manually a version of a software on the computer, by selecting first the software and its version ; if a license is associated with this software, the use version of the license is automatically selected.

To **Uninstall** a version of a software, mass actions must be used : first select the versions to be uninstalled, then select **Suppress definitively**. If a license is affected to the computer, it remains affected but its use version is erased.

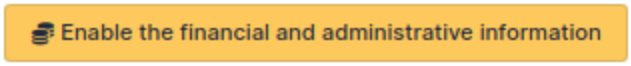
Following the list of installed versions, the list of affected but non installed licenses is displayed. It is possible to add a new license to the computer. Mass actions allow, via the action **Install**, to install a use version of selected licenses.

Management

Management of financial and administrative information, this information is visible in the “Management” tab on the computer’s form.



By default this management is disabled. It is possible to activate the financial information on any type of object in the inventory by using the link in the *Management* tab of the material detail.



Note : It is possible to activate the administrative and financial information from the massive actions on a set of elements (computer, monitor, …)

Note : It is possible to activate the administrative and financial information as soon as an element is created. See « Enable default administrative and financial information » option in Setup > General > Asset tab.

Financial information consists of the following items :

Lifecycle

— Order date
— Date of purchase
— Delivery date
— Date of implementation
— Date of last physical inventory
— Date of reform

Financial and administrative information

— Supplier : Third party who sold the equipment. See *Managing suppliers*. Suppliers are managed from the menu **Management > Suppliers**.
— Order number : number of the order of the equipment.
— Asset number.
— Invoice number : equipment invoice number.
— Delivery note : delivery note for the equipment.
— Value : cost of the equipment.
— Warranty extension value : cost of the warranty extension, but preferably use contracts.
— Account net value : this is the automatic calculation of the gross value of a piece of equipment minus the amount of depreciation.
— Type of depreciation : choice of the type of depreciation between linear and declining balance.
— Depreciation period : depreciation period expressed in years.
— Depreciation coefficient : coefficient applied to a straight-line depreciation type in order to obtain the values of the declining balance type. It is therefore only used if the type of depreciation is declining balance.
— TCO (value+amount of interventions) : the total cost of ownership which includes all the constituent elements of an invoiced product.
— Budget : the budget on which this equipment was purchased See *Managing the budget*.
— Order date : date on which the material was ordered.
— Purchase date : date on which the equipment was purchased.
— Delivery date : date on which the equipment was delivered.
— Startup date : date on which the equipment was put into service.
— Date of last physical inventory : date of the last physical inventory of the equipment.
— Comments.
— Monthly TCO : TCO divided by the number of months between today's date and the date of purchase of the equipment.

Warranty information

— Warranty start date : date on which the warranty of the equipment starts
— Warranty information : text qualifying the warranty
— **Warranty period : duration of the warranty expressed in months**
If a warranty start date and a warranty period are set, the information « Expires on » will appear with a date in red if it is earlier than the current date

All the dates defined can be managed automatically according to changes in the status of the equipment. Some dates can also be copied from another date. All this configuration is done by [entity](administration_entity_delegation.dita).

Tips

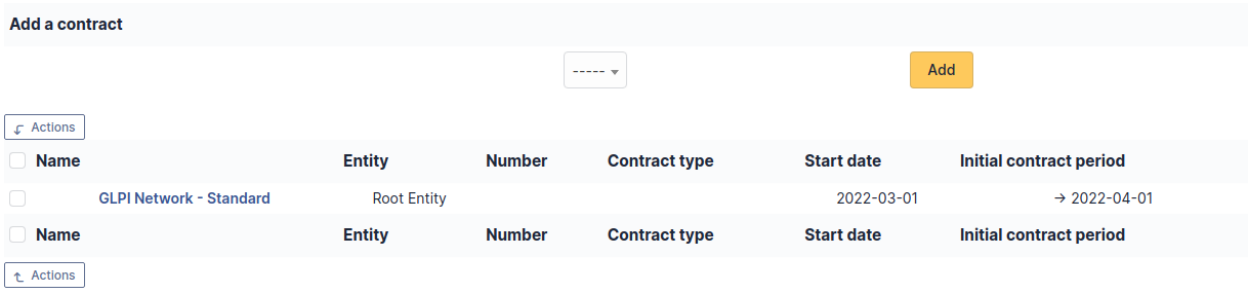
GLPI allows you to configure a notification on the expiry of the hardware warranty. This is configurable by entity in notification management to define the models and recipients used and in *the administration of entities* to enable or disable this feature, define the default values and anticipate the sending of the notification if necessary.

GLPI can perform a simple net book value calculation based on straight-line or declining balance depreciation. To do so, a certain amount of information (value, date, etc.) must be entered. The user must also enter the date of the financial year the general configuration.

The display of financial information for each type of equipment depends on the profile of the user logged in.

Associated Contracts

The *Contracts* tab is used to show or add linked contracts.



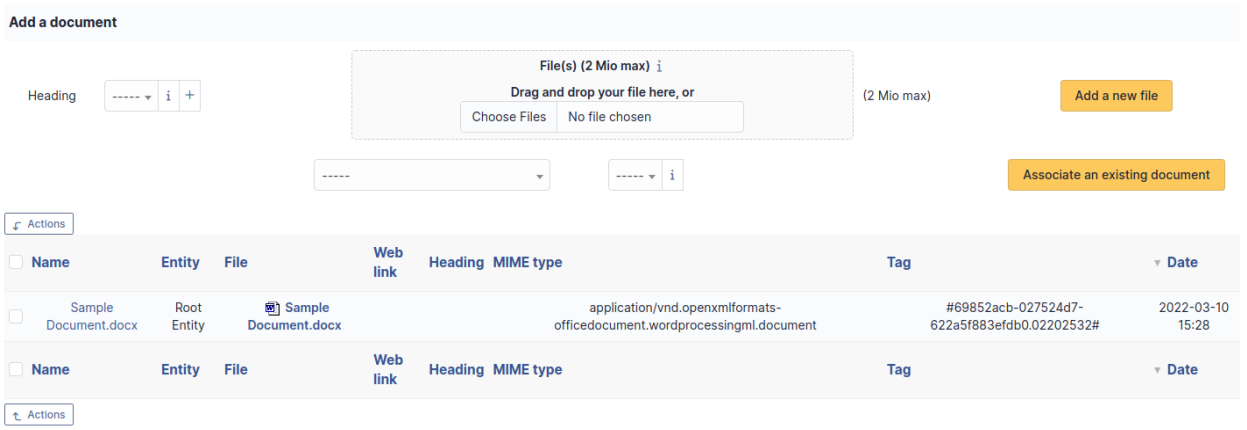
For each associated contract, the name, number, contract type, supplier, start date and initial duration of the contract are listed. In the last field, the end date of the contract is also shown with a red display if the date is earlier than the current date.

Refer to *contract management* for more information.

Documents

Additional information is stored in the form of external documents which are files uploaded into GLPI. In the *Documents* tab, documents can be associated and unlinked with the selected item. The *management of the documents themselves* is dealt with in another chapter.

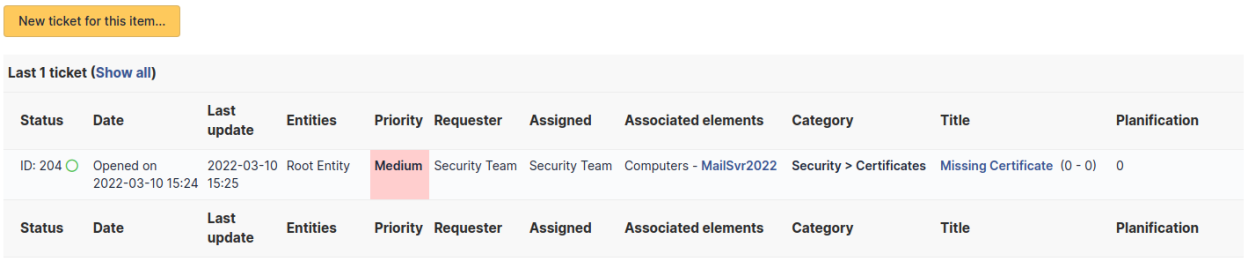
It is also possible to quickly create a document via this tab by specifying the desired file and optionally the field in which the new document is to be placed. The name of the created document will be based on the name of the added file.



Note : When you delete a document from this tab via mass actions, you only remove the link between the object and the document ; the document itself is still present.

Tickets

The *Tickets* tab is used to create a ticket associated with the current object. It also lists the tickets already linked to the object.



Note : A second table lists the tickets attached to the linked elements

Note : Any deletion or addition of a ticket is recorded in the history.

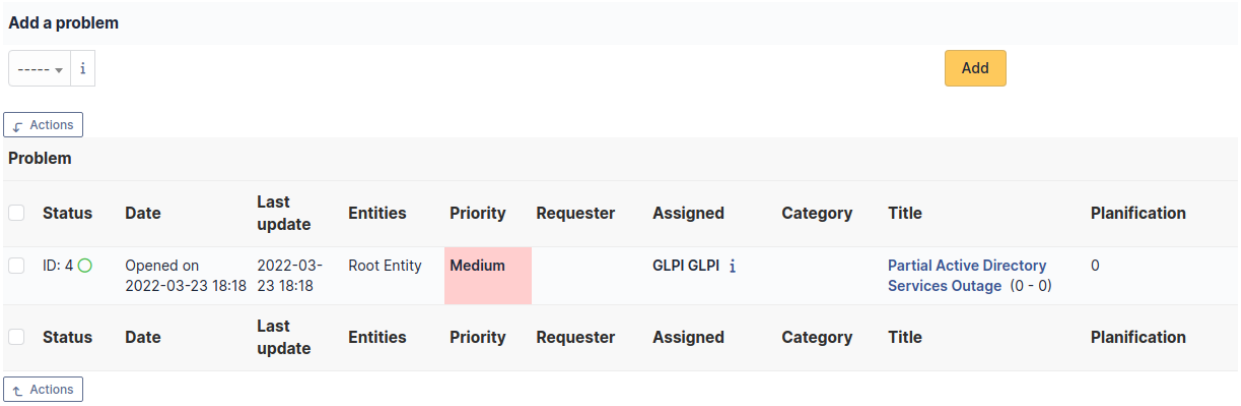
Problems

The *Problems* tab is used to create a problem associated with the current object. It also lists the changes already linked to the object.

This summary table includes for each object :

- Status
- Date (opening or expiry date, resolution or closing date depending on the status of the problem)
- Priority
- Requestor(s) and assigned technician(s)
- Associated elements
- Category

— Name
— Column indicating the number of scheduled tasks



Note : A second table lists the problems attached to the related elements

Note : Any deletion or addition of a problem is recorded in the history.

Associated External Links

The *External links* tab is used to show associated external links.

For some items, external links are managed from the menu **Setup > External links**.

These links can use object fields such as IP, name, etc. See *Configure protocol external links*.

Examples :
— A web link : http://192.168.0.1 (IP retrieved from the network port of the hardware) ;
— A RDP link for remote access : glpi ://MSTSC.EXE,pc001 (name « pc001 » retrieved from the hardware).

Notes

The *Notes* tab provides a free text field for storing additional information. Notes are displayed in the order of their creation.



À faire : Fix this reference (include or link ? ? ?) **[Onglet « Réservations »](Les_différents_onglets/Onglet_Réservations.rst)** Gestion des réservations pour un objet d'inventaire

History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :

- ID of the change.
- Date and time the change was made.
- User who made the change. If this field is not filled, it means that the action was done automatically (For example : automatic inventory update).
- Field that was changed.
- Description of the change that was made.

The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

Grouping

This section describes how to group software having same names in sub-entities, allowing to group software of child entities into mother entity.

Note : This is only available for multi-entities platforms.

How to realize a grouping :

1. If the software does not exist in mother entity, create in this mother entity a software whose name is strictly identical to the name of software in child entities
2. Open the form of the software of the mother entity
3. Activate recursivity (sub-entities to Yes at top right) ; this will make a new tab *Grouping* appear after tab *History*
4. Open this tab ; a list displays software having same names in child entities
5. Select appropriate lines and validate grouping

Avertissement : This operation cannot be undone

This grouping have the following effects :

- Licenses are attached to the software in mother entity, but stay in origin sub-entities
- Versions are merged, no more doubles in mother entity
- Old software are moved to the trash

Note : When using a third-party inventory tool, some extra steps are mandatory :

- Empty trash after grouping, otherwise synchronization will restore the old software in case of new version
- Associate the same vendor to the new software ; as the synchronization checks vendor name, a new software would then be created

Debugging information

If you have *Debug* mode enabled in your preferences, a *Debug* tab will appear before the *All* tab. This tab offers information to help you resolve an issue.

For example, for a computer, you have one or more tables depending on the affected object (financial information, reservations…) listing the notifications that will be triggered on this computer with :

- Triggering event
- Recipient(s)
- Notification model used
- Recipient(s) email address

Notifications			(Ticket)	
Events	**Recipients**	**Notification templates**	**Mode**	**Recipient**
Closing of the ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New ticket	Profile: Admin	Tickets (en_GB)	mailing	admins@example.com
New ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Ticket solved	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost

All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

The different actions

Apart from *common actions*, some actions are specific to software :

- *Add a version to a software*
- **[Manage licenses](03_Module_Parc/04_Logiciels/Onglet_Licences.rst)** From menu ***Assets > Softwares*** click on license name in tab *Licenses*.

Network equipments

Network equipment represent the hardware that manages, transmits and route network between several other equipments (computers, printers…).

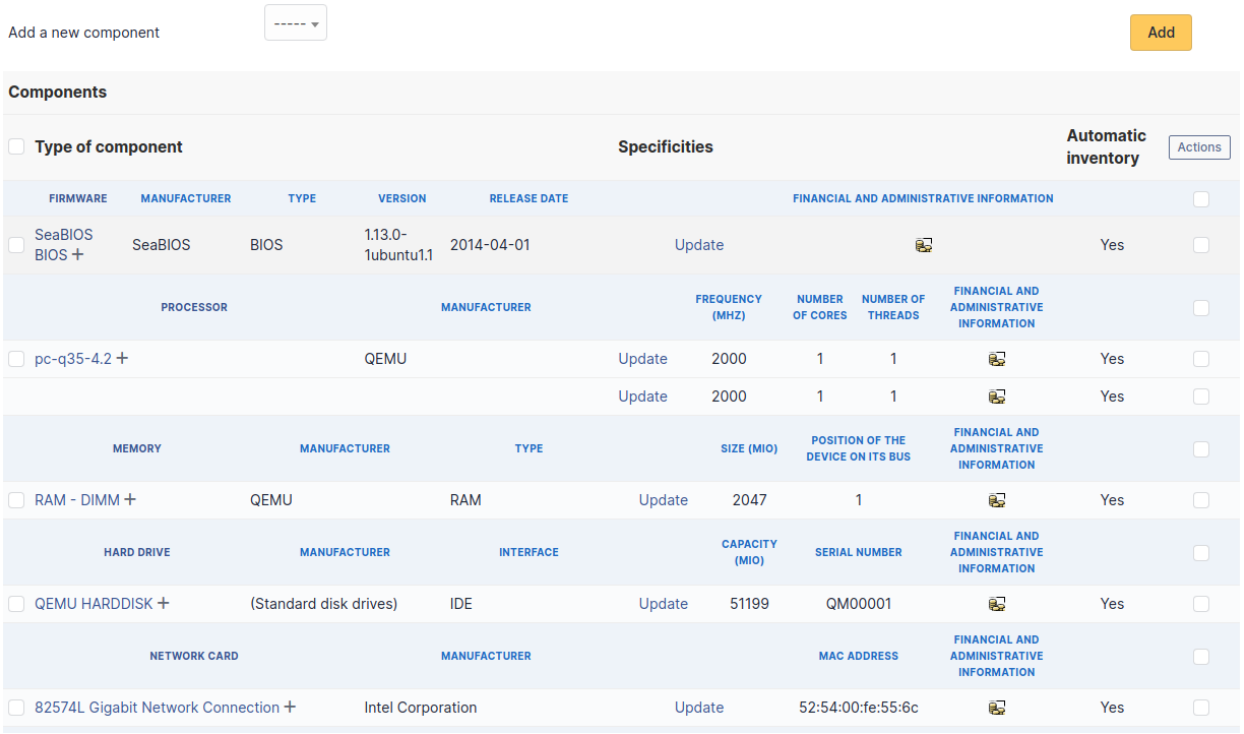
A network equipment can be a switch, an Ethernet hub, a router, a firewall or a WiFi access point.

It is possible to use *templates with network equipments*.

The different tabs

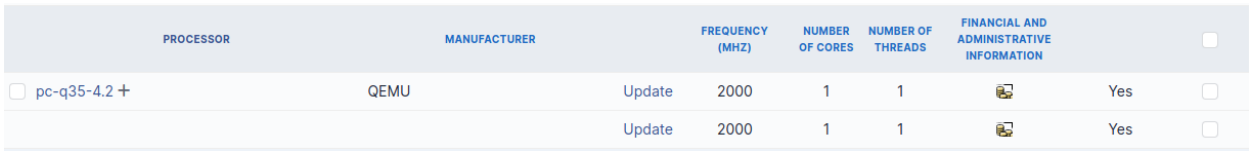
Components

This tab, named *Components* and visible in a *Computer* entry, allows to manage the hardware components of a computer.

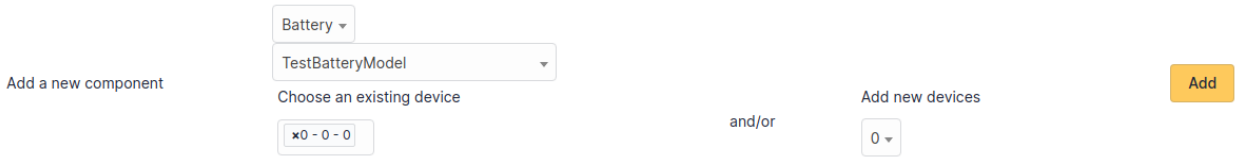


Note : Adding or managing components is located in menu *Configuration > Components*.

Note : If several components of the same type are used, they will be grouped in the view.



It is possible to add a component by first selecting its family in the drop-down list at the top of the table and then its name and the number of components to add.

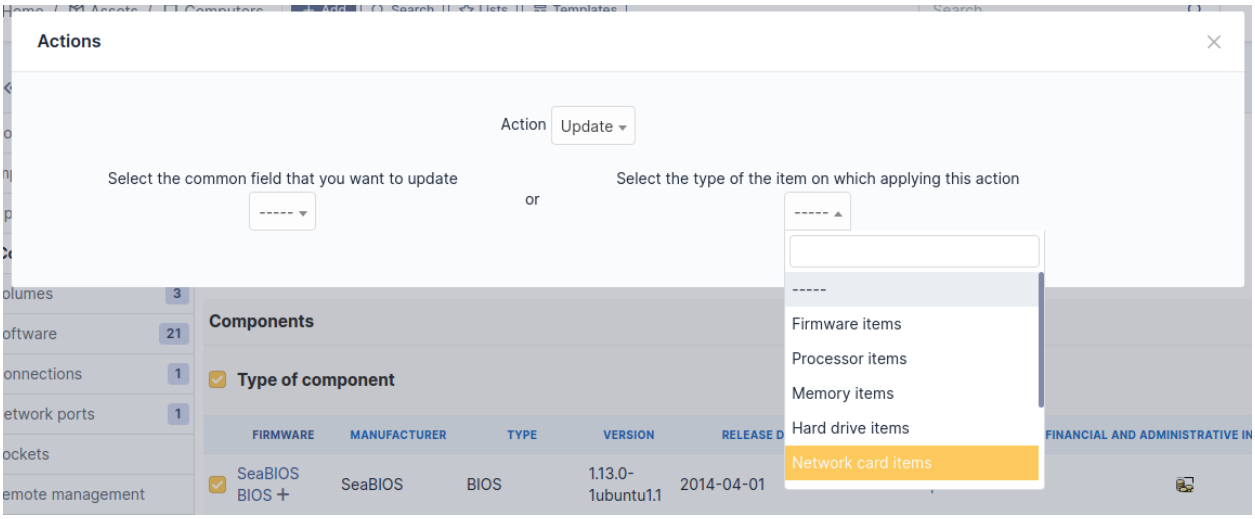


Starting from a computer view, it is possible to modify a component by clicking on the link under its name.

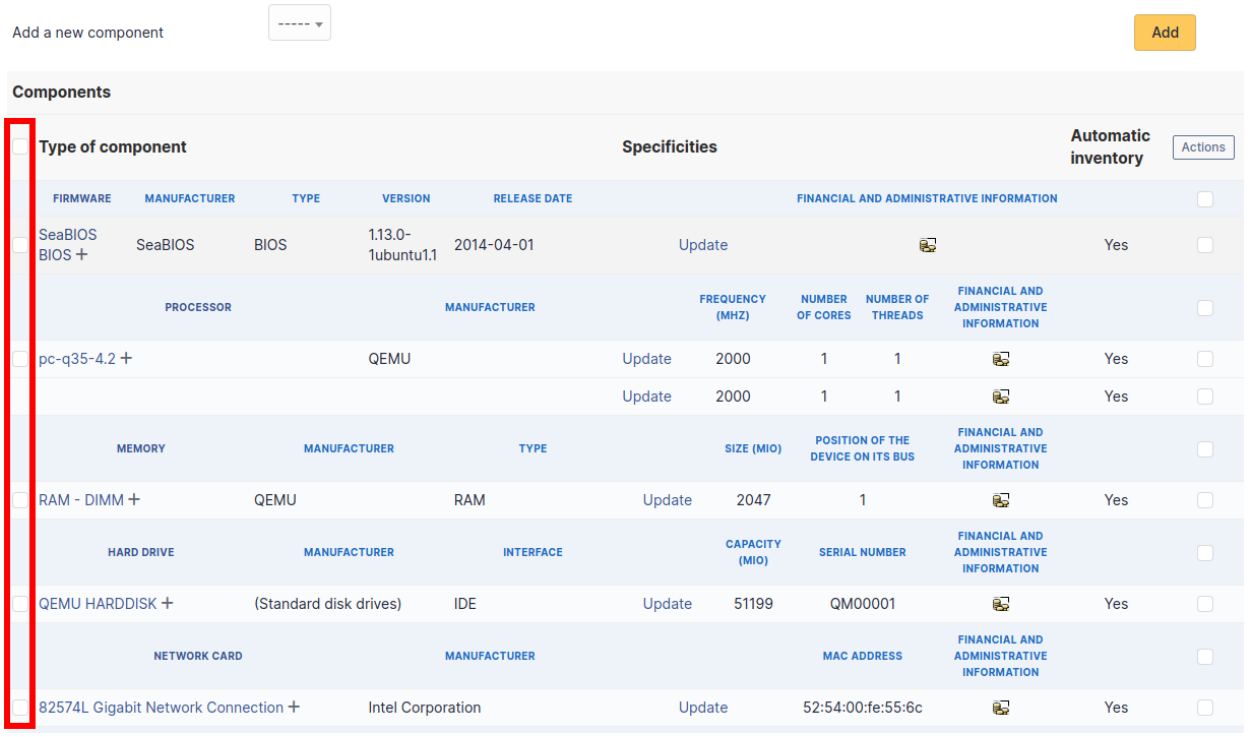
PROCESSOR	MANUFACTURER		FREQUENCY (MHZ)	NUMBER OF CORES	NUMBER OF THREADS	FINANCIAL AND ADMINISTRATIVE INFORMATION		
pc-q35-4.2 +	QEMU	Update	2000	1	1		Yes	
		Update	2000	1	1		Yes	

To act on several components (for example modify an element of the component, activate accounting information or modify them, delete a component…), first select the components and then use the *Actions* button present at the top or the bottom of the list.

If several types of different components, not having the same characteristics, are selected for modification, in the actions it will be asked on which component modification must be applied.

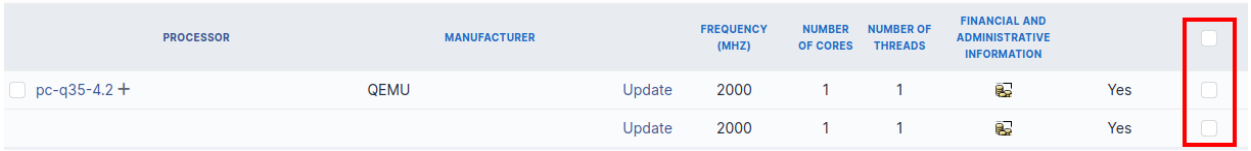


Selection button in left column allows to select all the components at once.



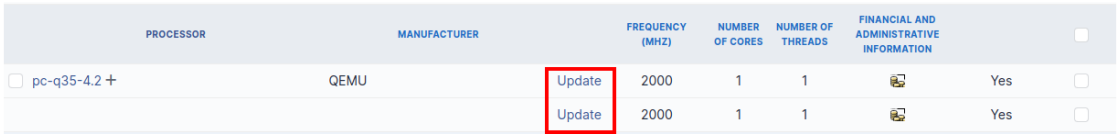
Selection at right of type column (grayed line) allows to select all components of the same type (processor, memory,

network interface…).



Note : It is possible to modify the characteristics of a component only for one computer

From tab *Elements* of the component, click on the link **Update**.



Several tabs are then displayed :

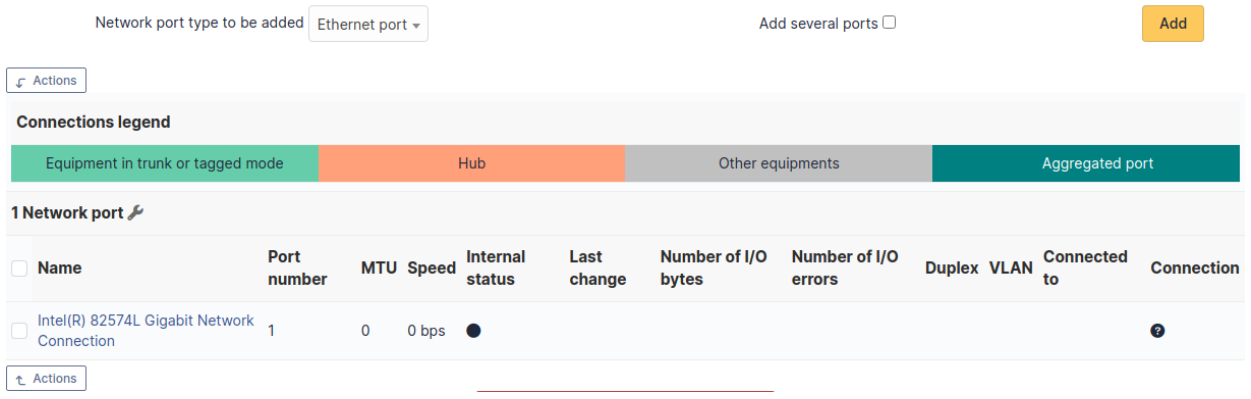
— Tab « Element - Link name of component » : list the characteristics of this component
— Tab « Management » : manage administrative and accounting information
— Tab « Documents » : attached documents
— Tab « History » : history of modifications
— Tab « Contract » : contracts management
— Tab « Debug » : only if you are connected in Debug mode
— Tab « All » : all the information are displayed on a single page

Note : Every deletion or addition of a component is recorded in the history of the computer.

Note : If using native inventory or third-party inventory tool, the components information can be automatically imported and updated.

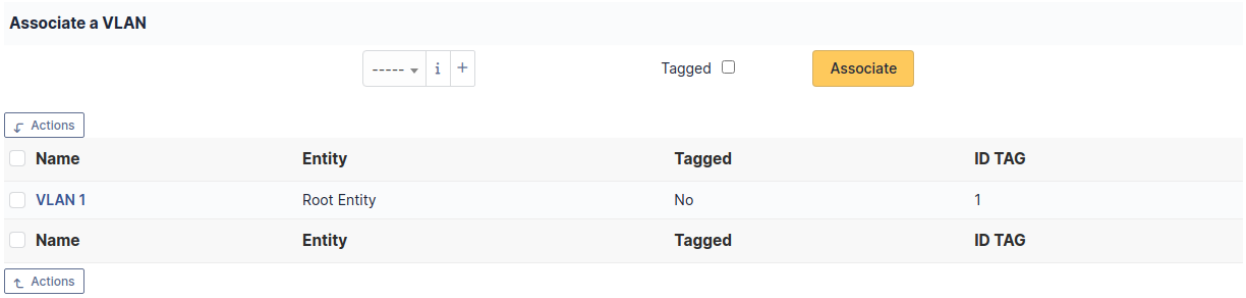
Network ports

This tab, named *Network ports* and visible in a *Computer* entry, allows to manage the network ports attached to a computer.



A network port represents the output of a network interface on a given hardware. A port is characterized by a number and a name.

It is possible on a network port to add one or more VLAN, these VLANs being defined by a name, an optional comment and a VLAN number.



One or more *network name* can be associated to each network port. This can be done in tab *Network name*.



Note : When a network port has only one network name, this name is displayed in the network port form itself and it is possible to modify the name directly. It is also possible to modify the network name via its own form, accessible by clicking on the link under the name.

When a network port has several network names, the only way to modify the network names is via the network name form.

Network ports can be of different types :

— physical port : ethernet, WiFi…
— *Virtual network port* : local loop-back, alias, aggregates…
— point to point : switched network…

The *Network port* tab groups in a table the ports that are available on the equipment. The table header contains the total number of ports and a link that allows to choose display options. This allows to selectively display or mask information such as network data (IP…), port characteristics depending on its type, MAC address, VLANs…

Note : GLPI allows to present complex network connection with for example WiFi or Ethernet port aliases associated to VLANs grouped in aggregates…

Management of Ethernet network ports

The Ethernet protocol is classically used on internal networks.

An Ethernet port is characterized by its type (twisted pair, mono-mode/multi-mode optical fiber…), a transfer rate ((10Mb, 100Mb, 1Gb, 10Gb…) and a MAC address. It is possible to associate to the port a network card and a network plug.

Ethernet connections are realized by linking two Ethernet ports, which requires that there is a free port on each equipment to be connected. In general, a connection links a port attached to a computer, a peripheral or a printer and a port attached to a network equipment (hub, switch).

Management of WiFi network ports

The WiFi protocol is widely used on wireless networks.

A WiFi port is characterized by the mode of the network card (ad-hoc, access point, repeater…), the WiFi protocol version (ab, g…) and its MAX address.

It is possible to associate a network card to the port, similarly to Ethernet ports.

A WiFi network can be associated to a given port. Apart from its name, a WiFi network has an ESSID and is characterized by its type :

Infrastructure : WiFi network with on or several access points and connected clients *Ad-hoc :* WiFi network between similar systems without access points

Management of local loop-back ports

The local loop-back is a virtual port used by most equipments for internal communication. It is this port that is used when connecting to `localhost` or `127.0.0.1`.

Local loop-back has no specific attribute.

Management of network port aliases

A network port alias is a virtual port that can refine a physical port.

On Linux, to each VLAN, when transmitted « tagged », is associated a port alias, for example *eth2.50* to represent VLAN 50 on port *eth2*.

A port alias contains its base port and a MAC address.

Note that when the origin port is changed, the MAC address of the new port is affected to the port alias.

Management of network port aggregates

A network port aggregate is a virtual port that allows to group several physical ports.

On Linux, aggregates are represented by bridges *bridges <http ://www.linuxfoundation.org/collaborate/workgroups/networking/bridge>* linking together different ports. In the same way, an Ethernet firewall uses a bridge that links interfaces to be filtered.

A port aggregate contains the origin ports and a MAC address.

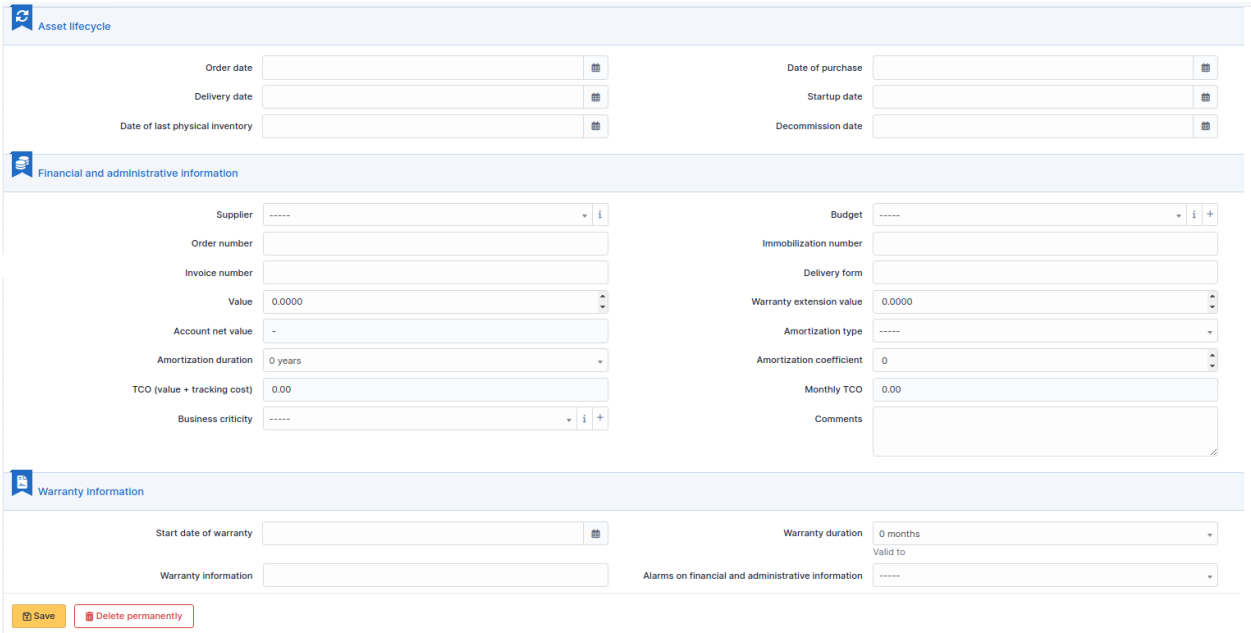
Note : Every deletion or addition of a network port is recorded in the history of the computer.

Note : If using native inventory or third-party inventory tool, the network ports information can be automatically imported and updated.

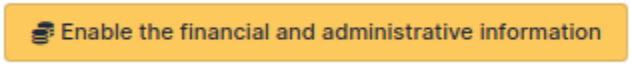
— **Tab « Network names »** Summary of IP address and IP networks for each network name

Management

Management of financial and administrative information, this information is visible in the "Management" tab on the computer's form.



By default this management is disabled. It is possible to activate the financial information on any type of object in the inventory by using the link in the *Management* tab of the material detail.



Note : It is possible to activate the administrative and financial information from the massive actions on a set of elements (computer, monitor, ...)

Note : It is possible to activate the administrative and financial information as soon as an element is created. See « Enable default administrative and financial information » option in Setup > General > Asset tab.

Financial information consists of the following items :

Lifecycle

- Order date
- Date of purchase
- Delivery date
- Date of implementation
- Date of last physical inventory
- Date of reform

Financial and administrative information

- Supplier : Third party who sold the equipment. See *Managing suppliers*. Suppliers are managed from the menu **Management > Suppliers**.
- Order number : number of the order of the equipment.
- Asset number.
- Invoice number : equipment invoice number.
- Delivery note : delivery note for the equipment.
- Value : cost of the equipment.
- Warranty extension value : cost of the warranty extension, but preferably use contracts.
- Account net value : this is the automatic calculation of the gross value of a piece of equipment minus the amount of depreciation.
- Type of depreciation : choice of the type of depreciation between linear and declining balance.
- Depreciation period : depreciation period expressed in years.
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- TCO (value+amount of interventions) : the total cost of ownership which includes all the constituent elements of an invoiced product.
- Budget : the budget on which this equipment was purchased See *Managing the budget*.
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- Comments.
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Warranty information

- Warranty start date : date on which the warranty of the equipment starts
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  If a warranty start date and a warranty period are set, the information « Expires on » will appear with a date in red if it is earlier than the current date

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Tips

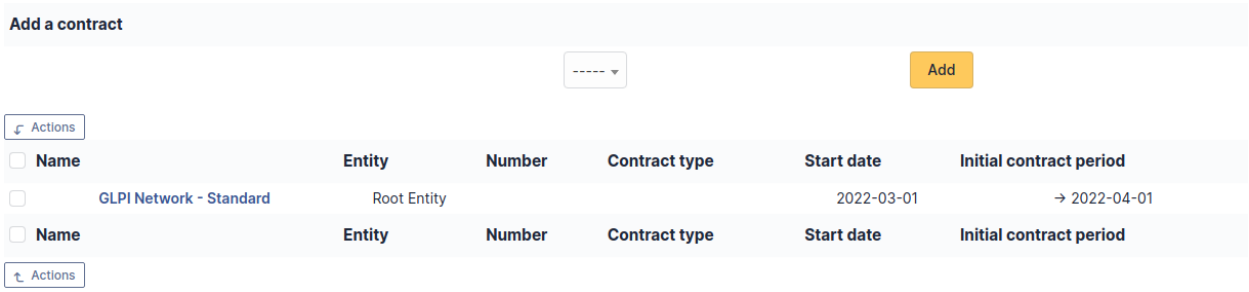
GLPI allows you to configure a notification on the expiry of the hardware warranty. This is configurable by entity in notification management to define the models and recipients used and in *the administration of entities* to enable or disable this feature, define the default values and anticipate the sending of the notification if necessary.

GLPI can perform a simple net book value calculation based on straight-line or declining balance depreciation. To do so, a certain amount of information (value, date, etc.) must be entered. The user must also enter the date of the financial year the general configuration.

The display of financial information for each type of equipment depends on the profile of the user logged in.

Associated Contracts

The *Contracts* tab is used to show or add linked contracts.



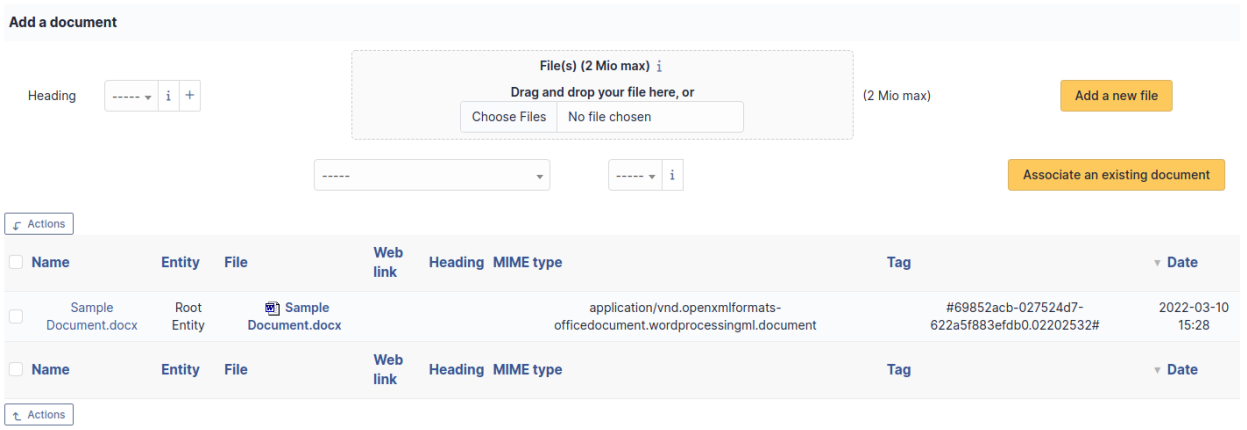
For each associated contract, the name, number, contract type, supplier, start date and initial duration of the contract are listed. In the last field, the end date of the contract is also shown with a red display if the date is earlier than the current date.

Refer to *contract management* for more information.

Documents

Additional information is stored in the form of external documents which are files uploaded into GLPI. In the *Documents* tab, documents can be associated and unlinked with the selected item. The *management of the documents themselves* is dealt with in another chapter.

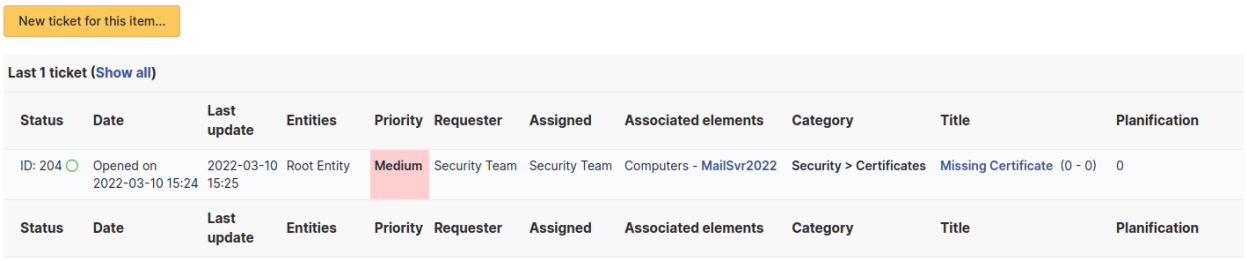
It is also possible to quickly create a document via this tab by specifying the desired file and optionally the field in which the new document is to be placed. The name of the created document will be based on the name of the added file.



Note : When you delete a document from this tab via mass actions, you only remove the link between the object and the document ; the document itself is still present.

Tickets

The *Tickets* tab is used to create a ticket associated with the current object. It also lists the tickets already linked to the object.



Note : A second table lists the tickets attached to the linked elements

Note : Any deletion or addition of a ticket is recorded in the history.

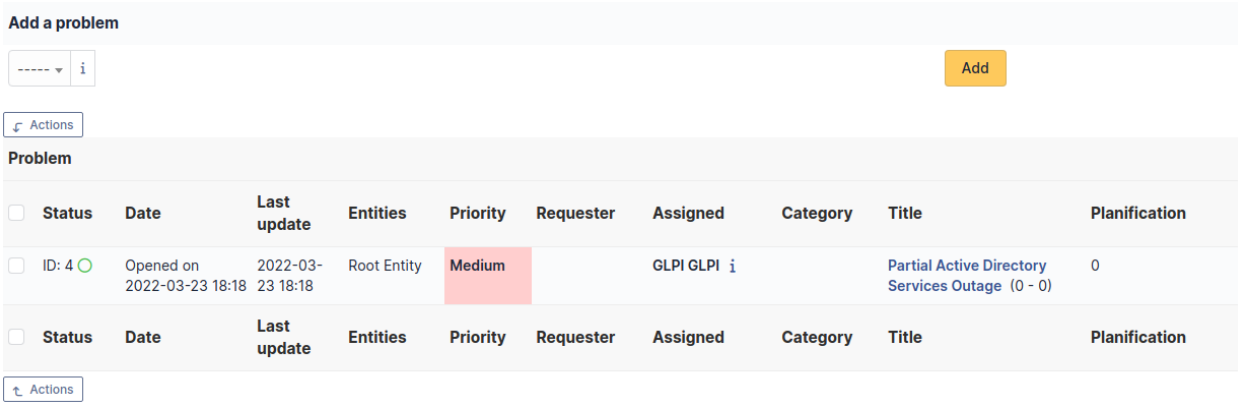
Problems

The *Problems* tab is used to create a problem associated with the current object. It also lists the changes already linked to the object.

This summary table includes for each object :

- Status
- Date (opening or expiry date, resolution or closing date depending on the status of the problem)
- Priority
- Requestor(s) and assigned technician(s)
- Associated elements
- Category

— Name
— Column indicating the number of scheduled tasks



Note : A second table lists the problems attached to the related elements

Note : Any deletion or addition of a problem is recorded in the history.

Associated External Links

The *External links* tab is used to show associated external links.

For some items, external links are managed from the menu **Setup > External links**.

These links can use object fields such as IP, name, etc. See *Configure protocol external links*.

Examples :
— A web link : http://192.168.0.1 (IP retrieved from the network port of the hardware) ;
— A RDP link for remote access : glpi ://MSTSC.EXE,pc001 (name « pc001 » retrieved from the hardware).

Notes

The *Notes* tab provides a free text field for storing additional information. Notes are displayed in the order of their creation.



À faire : Fix this reference (include or link ? ? ?) **[Tab « Reservations »](Les_différents_onglets/Onglet_Réservations.rst)**

Management of reservations for an inventory object

History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :

- ID of the change.
- Date and time the change was made.
- User who made the change. If this field is not filled, it means that the action was done automatically (For example : automatic inventory update).
- Field that was changed.
- Description of the change that was made.

The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

Debugging information

If you have *Debug* mode enabled in your preferences, a *Debug* tab will appear before the *All* tab. This tab offers information to help you resolve an issue.

For example, for a computer, you have one or more tables depending on the affected object (financial information, reservations…) listing the notifications that will be triggered on this computer with :

- Triggering event
- Recipient(s)
- Notification model used
- Recipient(s) email address

Notifications			(Ticket)	
Events	**Recipients**	**Notification templates**	**Mode**	**Recipient**
Closing of the ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New ticket	Profile: Admin	Tickets (en_GB)	mailing	admins@example.com
New ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Ticket solved	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost

All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

The different actions

Network equipments do not have specific actions ; report to *common actions*.

Peripherals

In a peripheral form, the following information is available :

- General characteristics of the peripheral :
  - Vendor
  - Model
  - Type
  - Serial number
  - ...
- Peripheral management :
  - Technical person in charge
  - Status
  - Location
  - ...
- Peripheral users :
  - Users known to GLPI or not
  - Groups of users
  - ...

Management type :

It is possible to manage peripherals either unitary or globally.

Unitary management corresponds to one peripheral per computer while global management make the peripheral a virtual global element that will be connected to several computers.

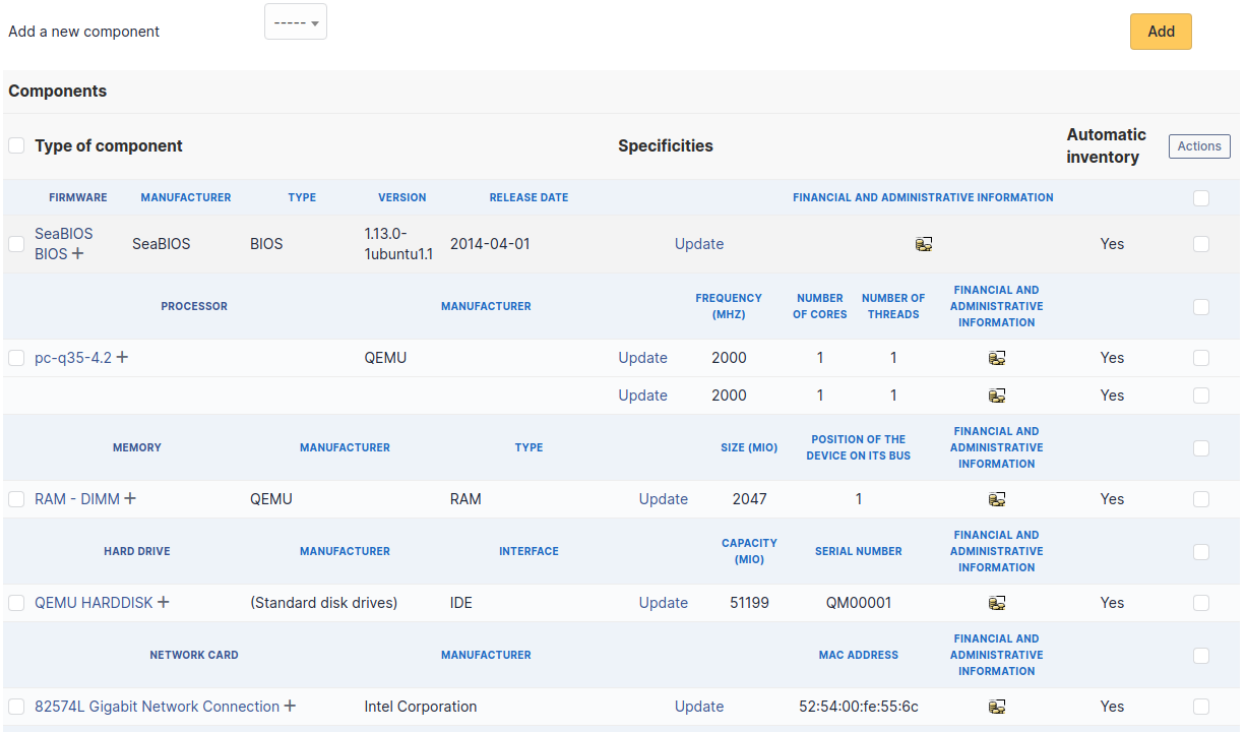
Global management allows to limit the number of elements to manage when these elements are not a strategic data in the assets management.

It is possible to use *templates with peripherals*.

The different tabs

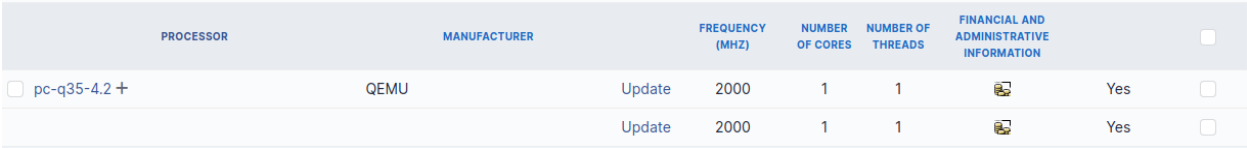
Components

This tab, named *Components* and visible in a *Computer* entry, allows to manage the hardware components of a computer.

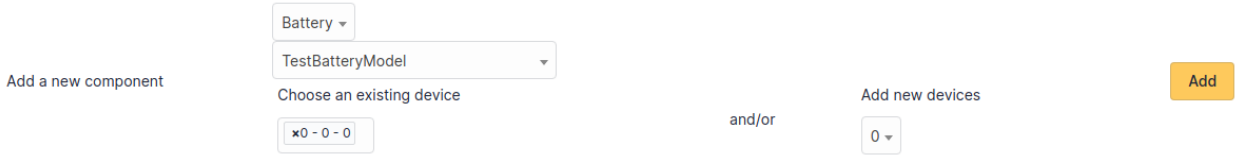


Note : Adding or managing components is located in menu *Configuration > Components*.

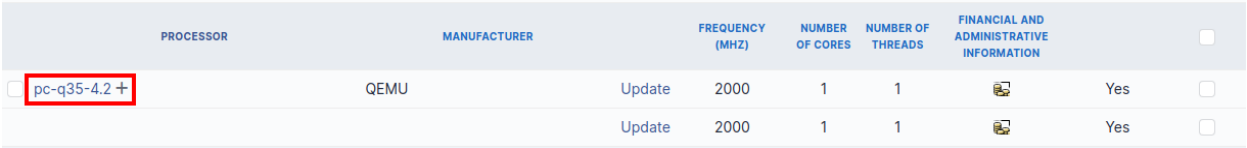
Note : If several components of the same type are used, they will be grouped in the view.



It is possible to add a component by first selecting its family in the drop-down list at the top of the table and then its name and the number of components to add.



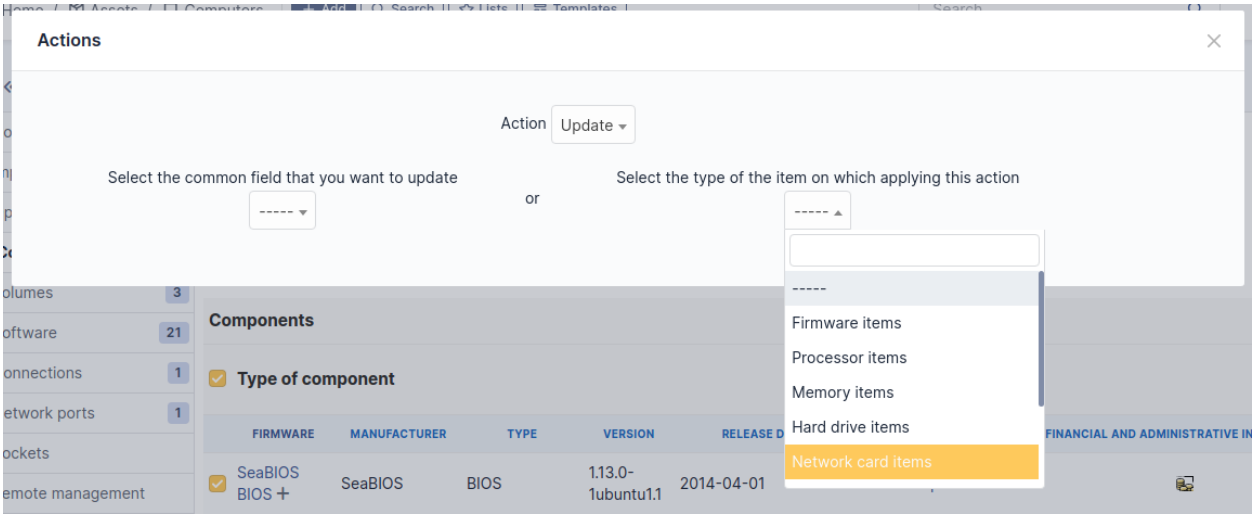
Starting from a computer view, it is possible to modify a component by clicking on the link under its name.



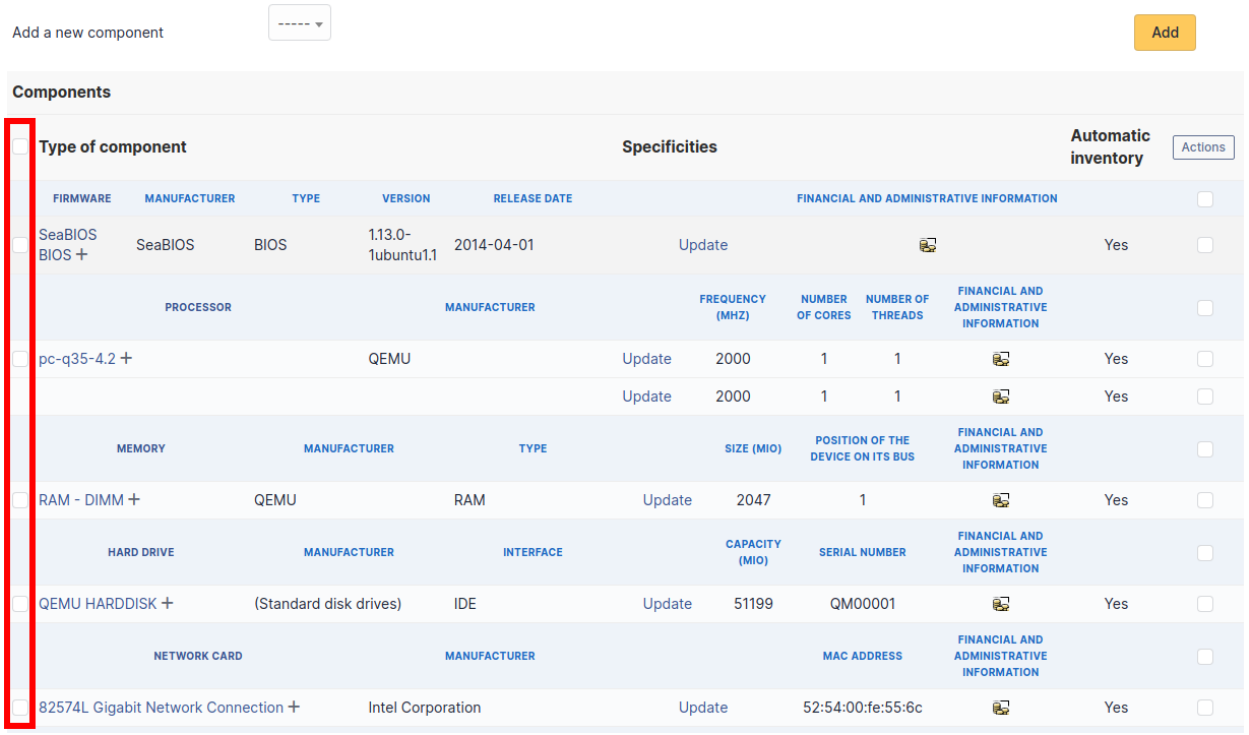
To act on several components (for example modify an element of the component, activate accounting information or modify them, delete a component…), first select the components and then use the *Actions* button present at the top or

the bottom of the list.

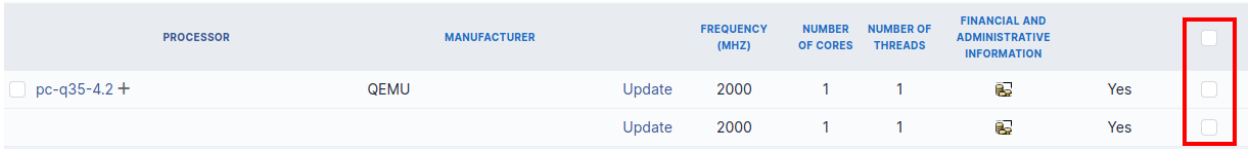
If several types of different components, not having the same characteristics, are selected for modification, in the actions it will be asked on which component modification must be applied.



Selection button in left column allows to select all the components at once.

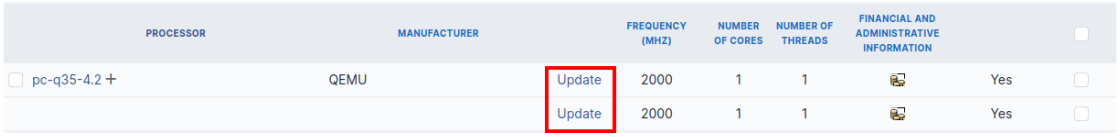


Selection at right of type column (grayed line) allows to select all components of the same type (processor, memory, network interface…).



Note : It is possible to modify the characteristics of a component only for one computer

From tab *Elements* of the component, click on the link **Update**.



Several tabs are then displayed :
— Tab « Element - Link name of component » : list the characteristics of this component
— Tab « Management » : manage administrative and accounting information
— Tab « Documents » : attached documents
— Tab « History » : history of modifications
— Tab « Contract » : contracts management
— Tab « Debug » : only if you are connected in Debug mode
— Tab « All » : all the information are displayed on a single page

Note : Every deletion or addition of a component is recorded in the history of the computer.

Note : If using native inventory or third-party inventory tool, the components information can be automatically imported and updated.

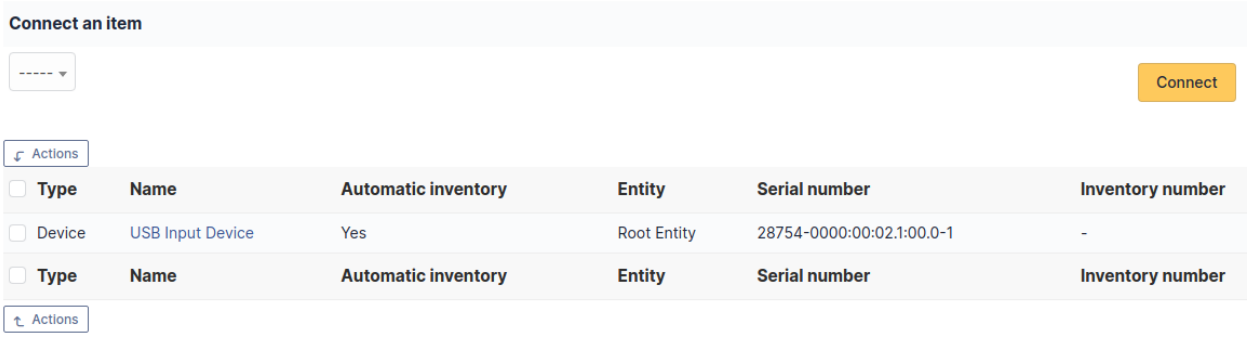
Connections

This tab allows to manage the direct connections between a computer and its connected elements.

Direct connections represent the relation between different hardwares linked either physically or virtually.

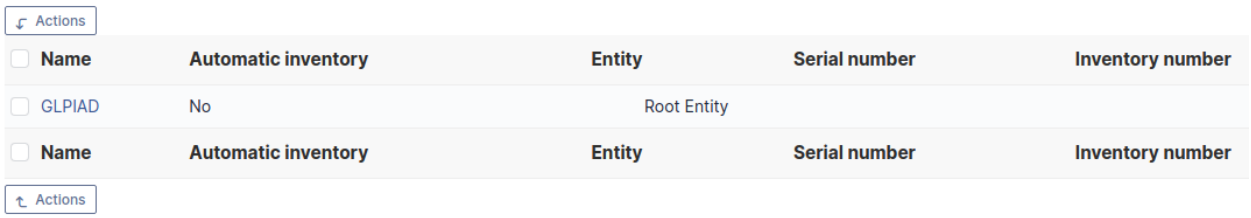
From a computer

The connection can be made toward one or several elements of type display, printer, peripheral or phone. For each type of connected object, its name, serial number and inventory number are displayed.



From an element other than a computer

To add a connection, select the computer in the drop-down list presented at top of the table.



If this case, the connection can only be made to a single computer. The table will list the name of this computer as well as its serial and inventory numbers.

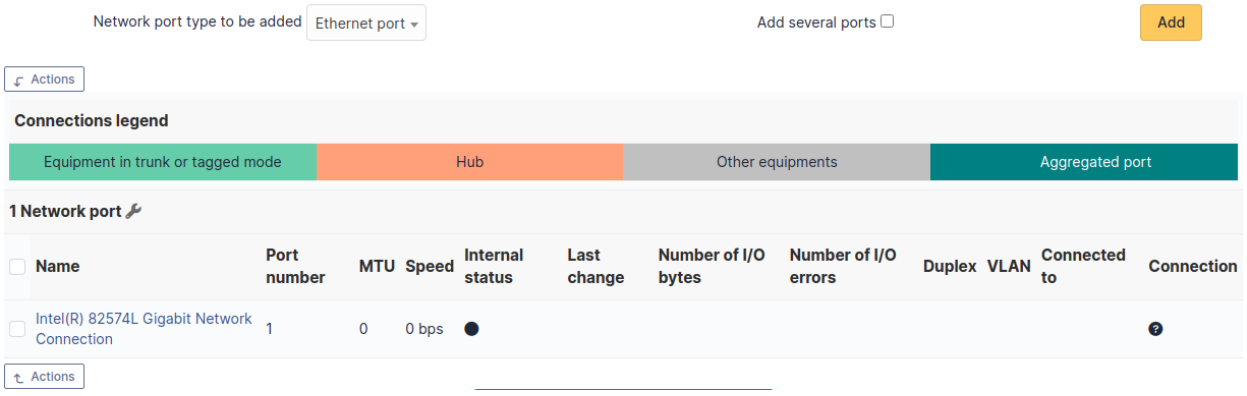
Note : The deletion of a connection can be made from the entry of each connected hardware (tab *Connections*) via mass actions.

Note : Every deletion or addition of a connection is recorded in the history of the computer.

Note : If using native inventory or third-party inventory tool, the connections informations can be automatically imported and updated.

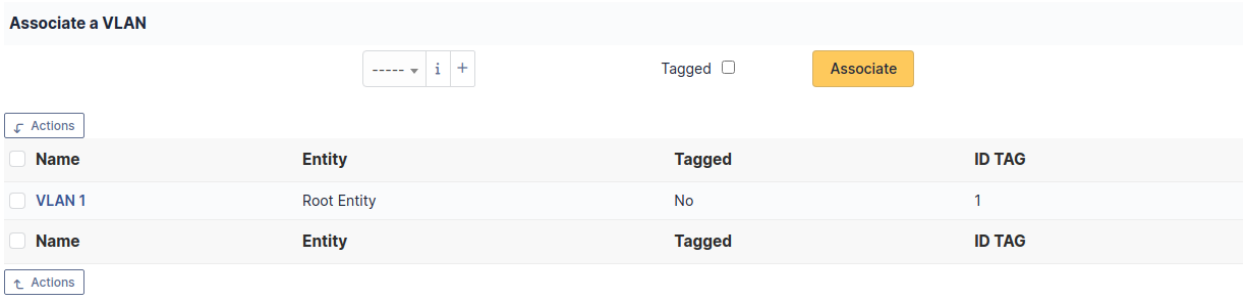
Network ports

This tab, named *Network ports* and visible in a *Computer* entry, allows to manage the network ports attached to a computer.



A network port represents the output of a network interface on a given hardware. A port is characterized by a number and a name.

It is possible on a network port to add one or more VLAN, these VLANs being defined by a name, an optional comment and a VLAN number.



One or more *network name* can be associated to each network port. This can be done in tab *Network name*.



Note : When a network port has only one network name, this name is displayed in the network port form itself and it is possible to modify the name directly. It is also possible to modify the network name via its own form, accessible by clicking on the link under the name.

When a network port has several network names, the only way to modify the network names is via the network name form.

Network ports can be of different types :

- physical port : ethernet, WiFi…
- *Virtual network port* : local loop-back, alias, aggregates…
- point to point : switched network…

The *Network port* tab groups in a table the ports that are available on the equipment. The table header contains the total number of ports and a link that allows to choose display options. This allows to selectively display or mask information such as network data (IP…), port characteristics depending on its type, MAC address, VLANs…

Note : GLPI allows to present complex network connection with for example WiFi or Ethernet port aliases associated to VLANs grouped in aggregates…

Management of Ethernet network ports

The Ethernet protocol is classically used on internal networks.

An Ethernet port is characterized by its type (twisted pair, mono-mode/multi-mode optical fiber…), a transfer rate ((10Mb, 100Mb, 1Gb, 10Gb…) and a MAC address. It is possible to associate to the port a network card and a network plug.

Ethernet connections are realized by linking two Ethernet ports, which requires that there is a free port on each equipment to be connected. In general, a connection links a port attached to a computer, a peripheral or a printer and a port attached to a network equipment (hub, switch).

Management of WiFi network ports

The WiFi protocol is widely used on wireless networks.

A WiFi port is characterized by the mode of the network card (ad-hoc, access point, repeater…), the WiFi protocol version (ab, g…) and its MAX address.

It is possible to associate a network card to the port, similarly to Ethernet ports.

A WiFi network can be associated to a given port. Apart from its name, a WiFi network has an ESSID and is characterized by its type :

Infrastructure : WiFi network with on or several access points and connected clients *Ad-hoc :* WiFi network between similar systems without access points

Management of local loop-back ports

The local loop-back is a virtual port used by most equipments for internal communication. It is this port that is used when connecting to `localhost` or `127.0.0.1`.

Local loop-back has no specific attribute.

Management of network port aliases

A network port alias is a virtual port that can refine a physical port.

On Linux, to each VLAN, when transmitted « tagged », is associated a port alias, for example *eth2.50* to represent VLAN 50 on port *eth2*.

A port alias contains its base port and a MAC address.

Note that when the origin port is changed, the MAC address of the new port is affected to the port alias.

Management of network port aggregates

A network port aggregate is a virtual port that allows to group several physical ports.

On Linux, aggregates are represented by bridges *bridges <http ://www.linuxfoundation.org/collaborate/workgroups/networking/bridge>* linking together different ports. In the same way, an Ethernet firewall uses a bridge that links interfaces to be filtered.

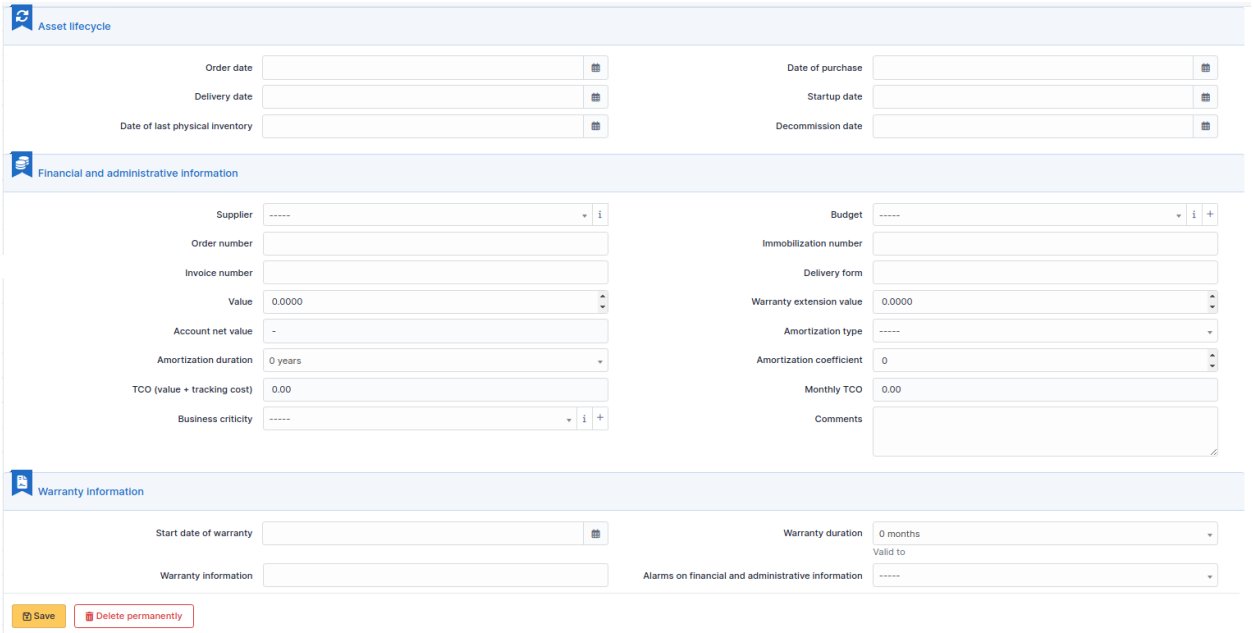
A port aggregate contains the origin ports and a MAC address.

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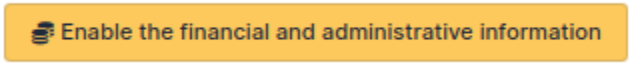
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Financial information consists of the following items :

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Financial and administrative information

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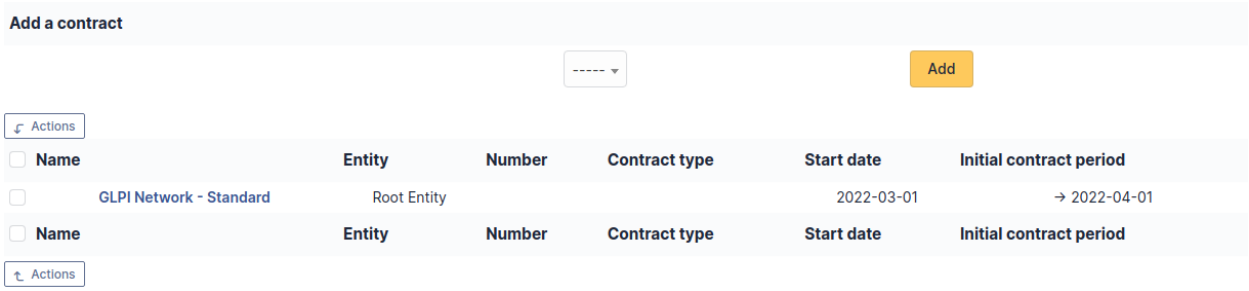
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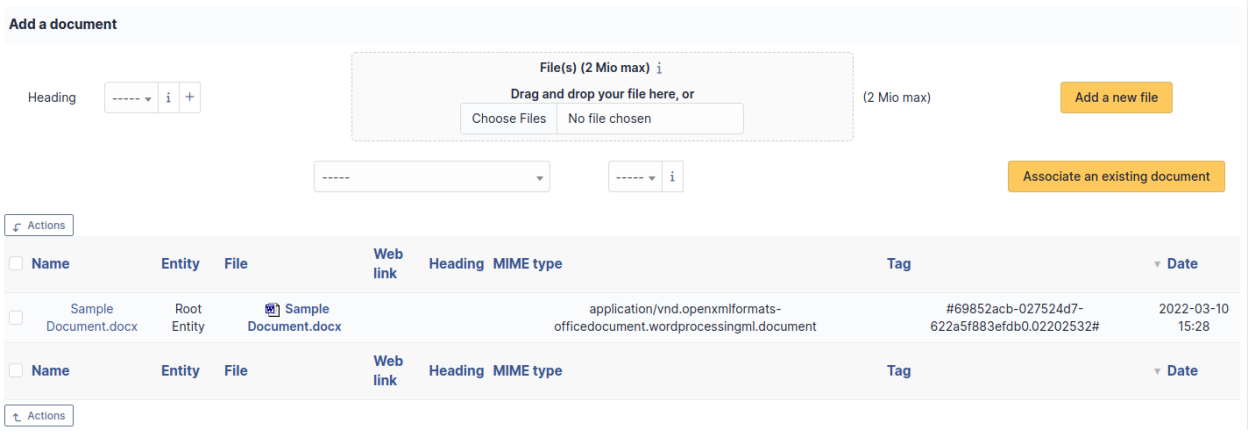
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Refer to *contract management* for more information.

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Additional information is stored in the form of external documents which are files uploaded into GLPI. In the *Documents* tab, documents can be associated and unlinked with the selected item. The *management of the documents themselves* is dealt with in another chapter.

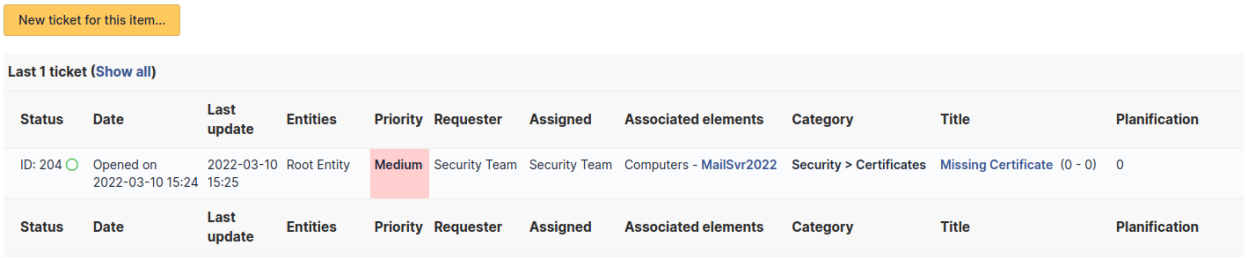
It is also possible to quickly create a document via this tab by specifying the desired file and optionally the field in which the new document is to be placed. The name of the created document will be based on the name of the added file.



Note : When you delete a document from this tab via mass actions, you only remove the link between the object and the document ; the document itself is still present.

Tickets

The *Tickets* tab is used to create a ticket associated with the current object. It also lists the tickets already linked to the object.



Note : A second table lists the tickets attached to the linked elements

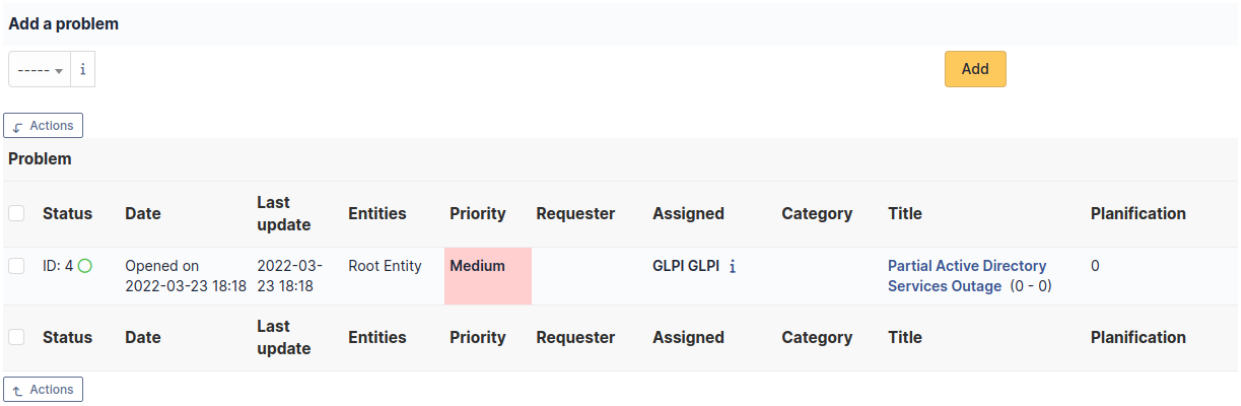
Note : Any deletion or addition of a ticket is recorded in the history.

Problems

The *Problems* tab is used to create a problem associated with the current object. It also lists the changes already linked to the object.

This summary table includes for each object :

- Status
- Date (opening or expiry date, resolution or closing date depending on the status of the problem)
- Priority
- Requestor(s) and assigned technician(s)
- Associated elements
- Category
- Name
- Column indicating the number of scheduled tasks



Note : A second table lists the problems attached to the related elements

Note : Any deletion or addition of a problem is recorded in the history.

Associated External Links

The *External links* tab is used to show associated external links.

For some items, external links are managed from the menu **Setup > External links**.

These links can use object fields such as IP, name, etc. See *Configure protocol external links*.

Examples :
- A web link : http://192.168.0.1 (IP retrieved from the network port of the hardware) ;
- A RDP link for remote access : glpi ://MSTSC.EXE,pc001 (name « pc001 » retrieved from the hardware).

Notes

The *Notes* tab provides a free text field for storing additional information. Notes are displayed in the order of their creation.



À faire : Fix this reference (include or link ? ? ?) **[Tab « Reservations »](Les_différents_onglets/Onglet_Réservations.rst)** Management of reservations for an inventory object

History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :
- ID of the change.
- Date and time the change was made.
- User who made the change. If this field is not filled, it means that the action was done automatically (For example : automatic inventory update).
- Field that was changed.
- Description of the change that was made.

The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

Debugging information

If you have *Debug* mode enabled in your preferences, a *Debug* tab will appear before the *All* tab. This tab offers information to help you resolve an issue.

For example, for a computer, you have one or more tables depending on the affected object (financial information, reservations…) listing the notifications that will be triggered on this computer with :

- Triggering event
- Recipient(s)
- Notification model used
- Recipient(s) email address

Notifications **(Ticket)**

Events	Recipients	Notification templates	Mode	Recipient
Closing of the ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New ticket	Profile: Admin	Tickets (en_GB)	mailing	admins@example.com
New ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Ticket solved	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost

All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

The different actions

Peripherals do not have specific actions ; report to *common actions*.

Printers

In a printer form, several information are available :

- General characteristics of the printer :
  - Vendor
  - Model
  - Type
  - Serial number
  - …
- Printer management :
  - Technical person in charge
  - Status
  - Location
  - …
- Printer users :
  - Users known to GLPI or not

  - Groups of users
  -
- Specifications :
  - Page counter
  - Port types
  - ...

Management Type

It is possible to manage printers either unitary or globally.

Unitary management corresponds to one printer per computer while global management make the printer a virtual global element that will be connected to several computers.

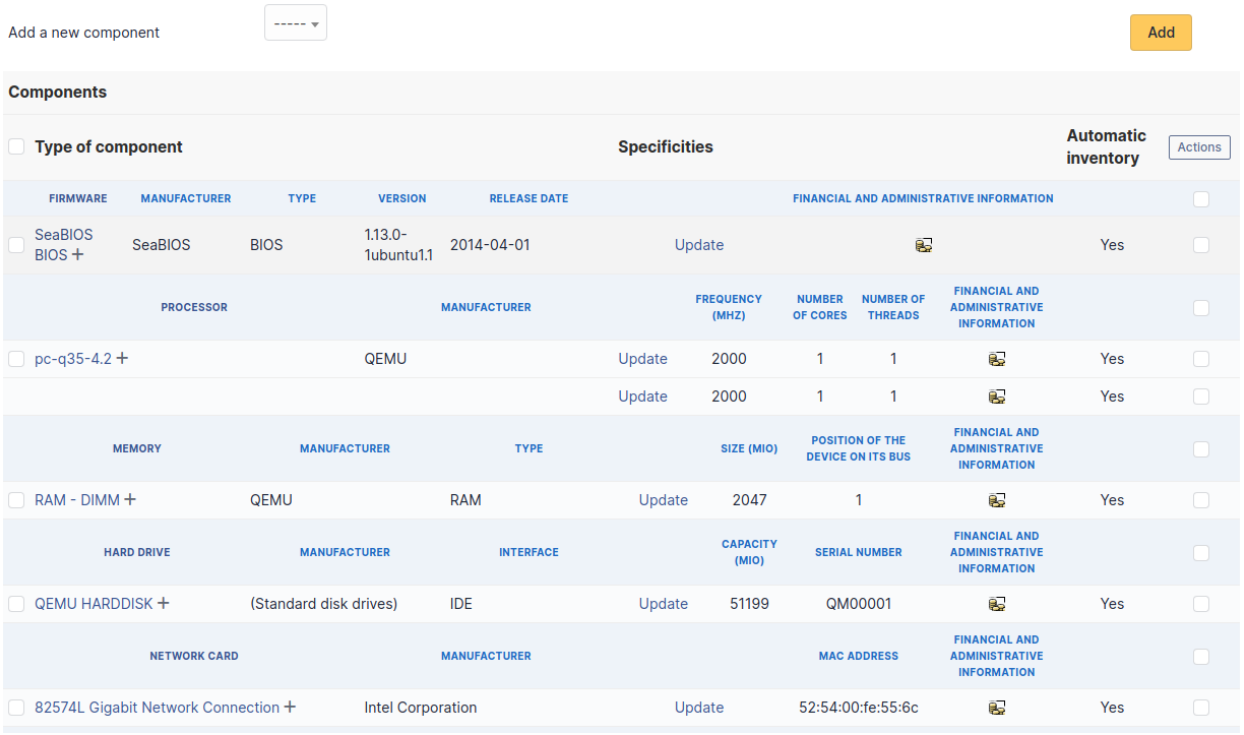
Global management allows to limit the number of elements to manage when these elements are not a strategic data in the assets management.

It is possible to use *templates with printers*.

The different tabs

Components

This tab, named *Components* and visible in a *Computer* entry, allows to manage the hardware components of a computer.

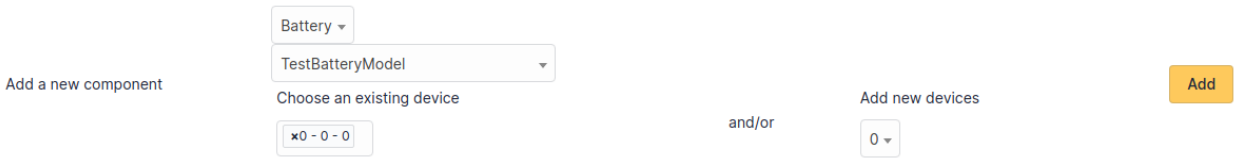


Note : Adding or managing components is located in menu *Configuration > Components*.

Note : If several components of the same type are used, they will be grouped in the view.

	PROCESSOR		MANUFACTURER		FREQUENCY (MHZ)	NUMBER OF CORES	NUMBER OF THREADS	FINANCIAL AND ADMINISTRATIVE INFORMATION		
☐	pc-q35-4.2 +		QEMU	Update	2000	1	1		Yes	☐
				Update	2000	1	1		Yes	☐

It is possible to add a component by first selecting its family in the drop-down list at the top of the table and then its name and the number of components to add.

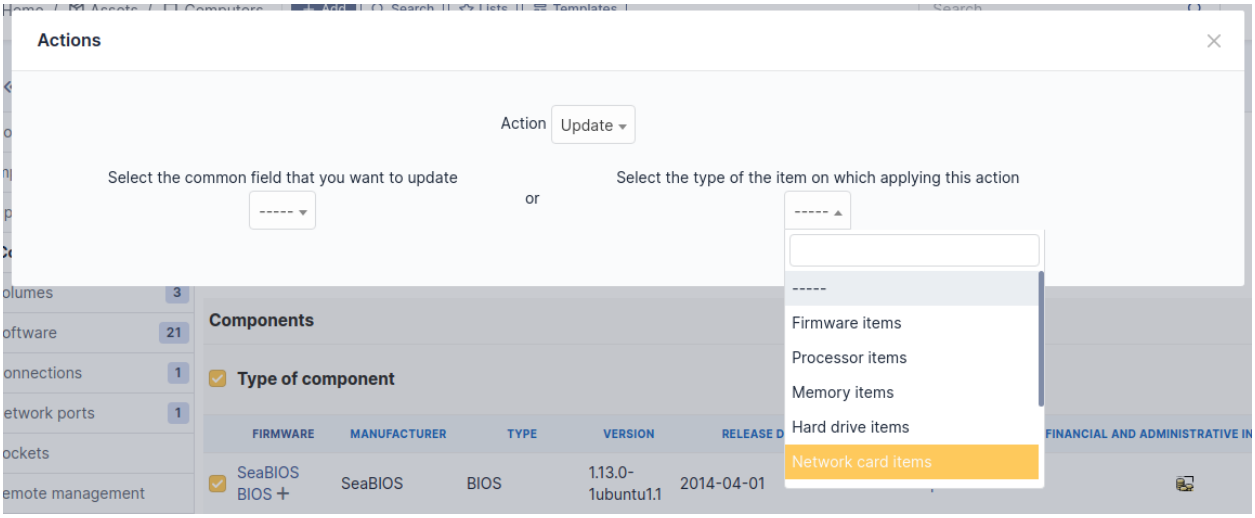


Starting from a computer view, it is possible to modify a component by clicking on the link under its name.

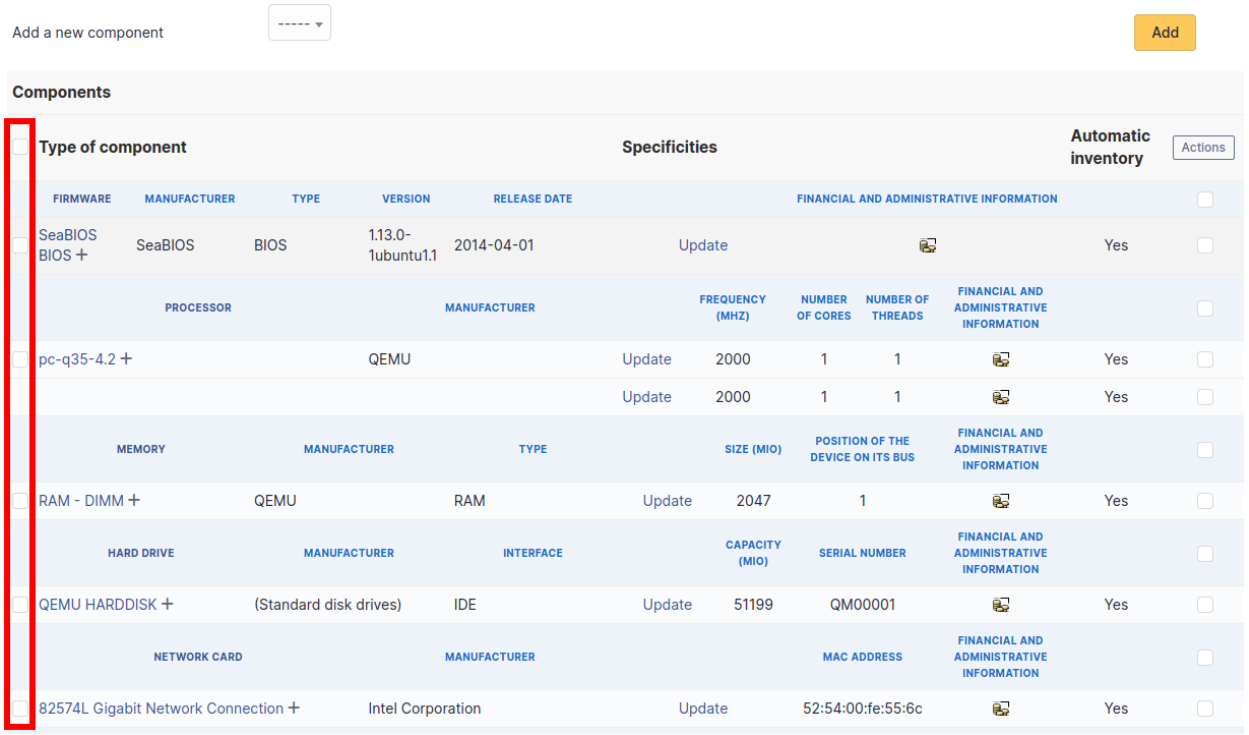
	PROCESSOR		MANUFACTURER		FREQUENCY (MHZ)	NUMBER OF CORES	NUMBER OF THREADS	FINANCIAL AND ADMINISTRATIVE INFORMATION		
☐	pc-q35-4.2 +		QEMU	Update	2000	1	1		Yes	☐
				Update	2000	1	1		Yes	☐

To act on several components (for example modify an element of the component, activate accounting information or modify them, delete a component…), first select the components and then use the *Actions* button present at the top or the bottom of the list.

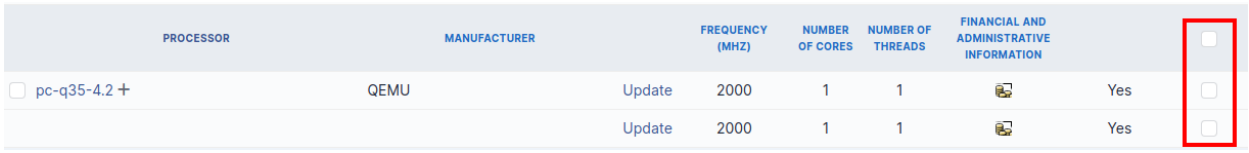
If several types of different components, not having the same characteristics, are selected for modification, in the actions it will be asked on which component modification must be applied.



Selection button in left column allows to select all the components at once.

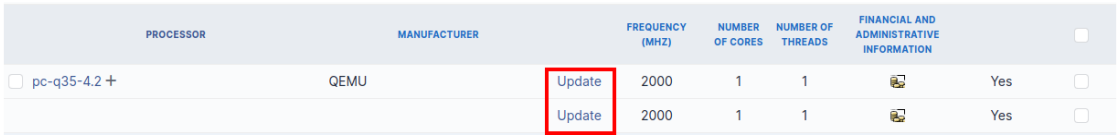


Selection at right of type column (grayed line) allows to select all components of the same type (processor, memory, network interface…).



Note : It is possible to modify the characteristics of a component only for one computer

From tab *Elements* of the component, click on the link **Update**.



Several tabs are then displayed :
— Tab « Element - Link name of component » : list the characteristics of this component
— Tab « Management » : manage administrative and accounting information
— Tab « Documents » : attached documents
— Tab « History » : history of modifications
— Tab « Contract » : contracts management
— Tab « Debug » : only if you are connected in Debug mode
— Tab « All » : all the information are displayed on a single page

Note : Every deletion or addition of a component is recorded in the history of the computer.

Note : If using native inventory or third-party inventory tool, the components information can be automatically imported and updated.

Cartridges

This tab displays the cartridges associated with the selected printer model :

— cartridges in use, with add date and use date
— used cartridges, with cartridge model, add date, use date, end of life date, printing counter and number of printed pages since last cartridge change

Note : For cartridge adding or removing, report to *cartridges management*.

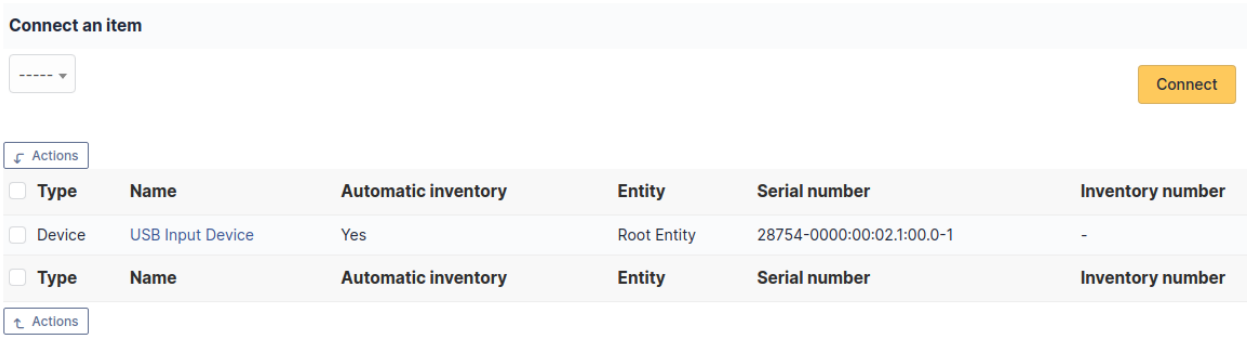
Connections

This tab allows to manage the direct connections between a computer and its connected elements.

Direct connections represent the relation between different hardwares linked either physically or virtually.

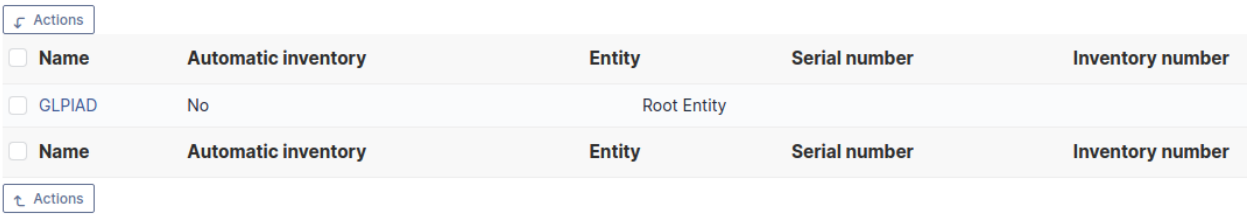
From a computer

The connection can be made toward one or several elements of type display, printer, peripheral or phone. For each type of connected object, its name, serial number and inventory number are displayed.



From an element other than a computer

To add a connection, select the computer in the drop-down list presented at top of the table.



If this case, the connection can only be made to a single computer. The table will list the name of this computer as well as its serial and inventory numbers.

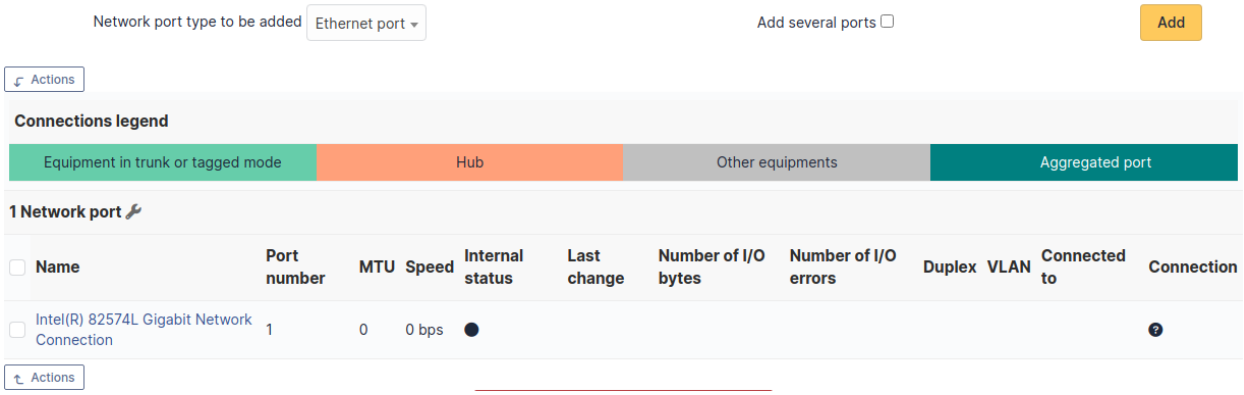
Note : The deletion of a connection can be made from the entry of each connected hardware (tab *Connections*) via mass actions.

Note : Every deletion or addition of a connection is recorded in the history of the computer.

Note : If using native inventory or third-party inventory tool, the connections informations can be automatically imported and updated.

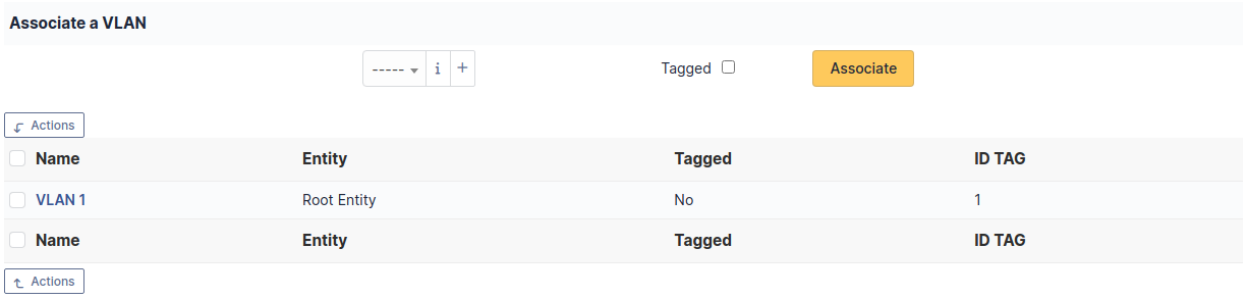
Network ports

This tab, named *Network ports* and visible in a *Computer* entry, allows to manage the network ports attached to a computer.



A network port represents the output of a network interface on a given hardware. A port is characterized by a number and a name.

It is possible on a network port to add one or more VLAN, these VLANs being defined by a name, an optional comment and a VLAN number.



One or more *network name* can be associated to each network port. This can be done in tab *Network name*.



Note : When a network port has only one network name, this name is displayed in the network port form itself and it is possible to modify the name directly. It is also possible to modify the network name via its own form, accessible by clicking on the link under the name.

When a network port has several network names, the only way to modify the network names is via the network name form.

Network ports can be of different types :

- physical port : ethernet, WiFi…
- *Virtual network port* : local loop-back, alias, aggregates…
- point to point : switched network…

The *Network port* tab groups in a table the ports that are available on the equipment. The table header contains the total number of ports and a link that allows to choose display options. This allows to selectively display or mask information such as network data (IP…), port characteristics depending on its type, MAC address, VLANs…

Note : GLPI allows to present complex network connection with for example WiFi or Ethernet port aliases associated to VLANs grouped in aggregates…

Management of Ethernet network ports

The Ethernet protocol is classically used on internal networks.

An Ethernet port is characterized by its type (twisted pair, mono-mode/multi-mode optical fiber…), a transfer rate ((10Mb, 100Mb, 1Gb, 10Gb…) and a MAC address. It is possible to associate to the port a network card and a network plug.

Ethernet connections are realized by linking two Ethernet ports, which requires that there is a free port on each equipment to be connected. In general, a connection links a port attached to a computer, a peripheral or a printer and a port attached to a network equipment (hub, switch).

Management of WiFi network ports

The WiFi protocol is widely used on wireless networks.

A WiFi port is characterized by the mode of the network card (ad-hoc, access point, repeater…), the WiFi protocol version (ab, g…) and its MAX address.

It is possible to associate a network card to the port, similarly to Ethernet ports.

A WiFi network can be associated to a given port. Apart from its name, a WiFi network has an ESSID and is characterized by its type :

Infrastructure : WiFi network with on or several access points and connected clients *Ad-hoc :* WiFi network between similar systems without access points

Management of local loop-back ports

The local loop-back is a virtual port used by most equipments for internal communication. It is this port that is used when connecting to `localhost` or `127.0.0.1`.

Local loop-back has no specific attribute.

Management of network port aliases

A network port alias is a virtual port that can refine a physical port.

On Linux, to each VLAN, when transmitted « tagged », is associated a port alias, for example *eth2.50* to represent VLAN 50 on port *eth2*.

A port alias contains its base port and a MAC address.

Note that when the origin port is changed, the MAC address of the new port is affected to the port alias.

Management of network port aggregates

A network port aggregate is a virtual port that allows to group several physical ports.

On Linux, aggregates are represented by bridges *bridges <http ://www.linuxfoundation.org/collaborate/workgroups/networking/bridge>* linking together different ports. In the same way, an Ethernet firewall uses a bridge that links interfaces to be filtered.

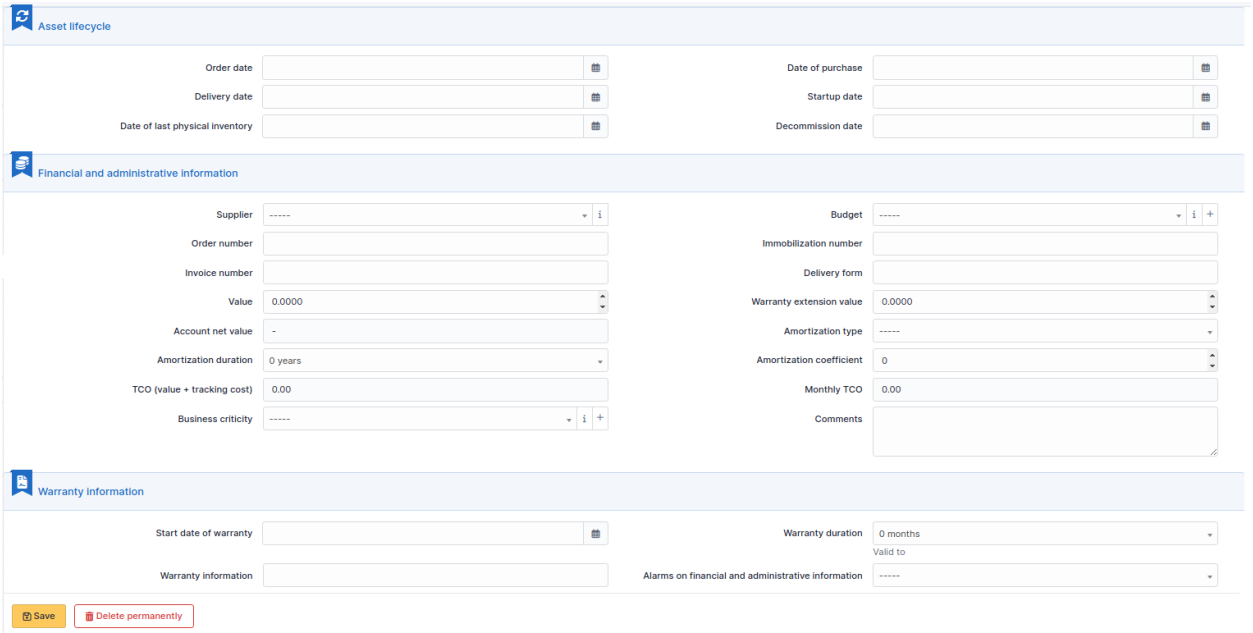
A port aggregate contains the origin ports and a MAC address.

Note : Every deletion or addition of a network port is recorded in the history of the computer.

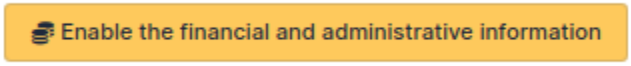
Note : If using native inventory or third-party inventory tool, the network ports information can be automatically imported and updated.

Management

Management of financial and administrative information, this information is visible in the "Management" tab on the computer's form.



By default this management is disabled. It is possible to activate the financial information on any type of object in the inventory by using the link in the *Management* tab of the material detail.



Note : It is possible to activate the administrative and financial information from the massive actions on a set of elements (computer, monitor, ...)

Note : It is possible to activate the administrative and financial information as soon as an element is created. See « Enable default administrative and financial information » option in Setup > General > Asset tab.

Financial information consists of the following items :

Lifecycle

— Order date
— Date of purchase
— Delivery date
— Date of implementation
— Date of last physical inventory
— Date of reform

Financial and administrative information

- Supplier : Third party who sold the equipment. See *Managing suppliers*. Suppliers are managed from the menu **Management > Suppliers**.
- Order number : number of the order of the equipment.
- Asset number.
- Invoice number : equipment invoice number.
- Delivery note : delivery note for the equipment.
- Value : cost of the equipment.
- Warranty extension value : cost of the warranty extension, but preferably use contracts.
- Account net value : this is the automatic calculation of the gross value of a piece of equipment minus the amount of depreciation.
- Type of depreciation : choice of the type of depreciation between linear and declining balance.
- Depreciation period : depreciation period expressed in years.
- Depreciation coefficient : coefficient applied to a straight-line depreciation type in order to obtain the values of the declining balance type. It is therefore only used if the type of depreciation is declining balance.
- TCO (value+amount of interventions) : the total cost of ownership which includes all the constituent elements of an invoiced product.
- Budget : the budget on which this equipment was purchased See *Managing the budget*.
- Order date : date on which the material was ordered.
- Purchase date : date on which the equipment was purchased.
- Delivery date : date on which the equipment was delivered.
- Startup date : date on which the equipment was put into service.
- Date of last physical inventory : date of the last physical inventory of the equipment.
- Comments.
- Monthly TCO : TCO divided by the number of months between today's date and the date of purchase of the equipment.

Warranty information

- Warranty start date : date on which the warranty of the equipment starts
- Warranty information : text qualifying the warranty
- **Warranty period : duration of the warranty expressed in months**

  If a warranty start date and a warranty period are set, the information « Expires on » will appear with a date in red if it is earlier than the current date

All the dates defined can be managed automatically according to changes in the status of the equipment. Some dates can also be copied from another date. All this configuration is done by [entity](administration_entity_delegation.dita).

Tips

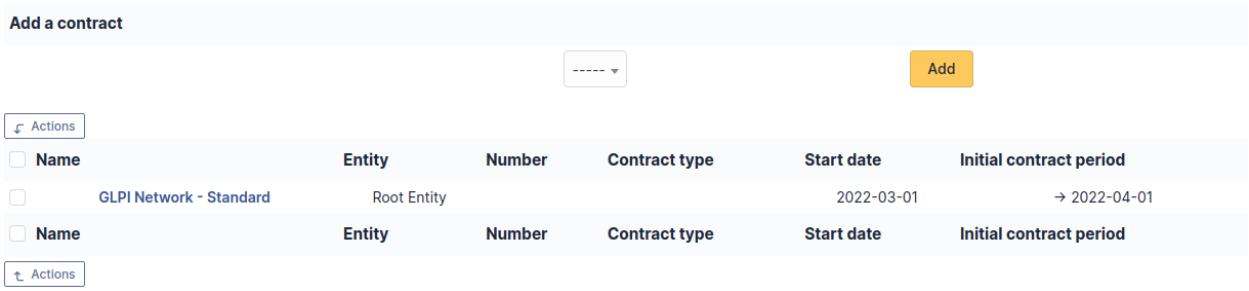
GLPI allows you to configure a notification on the expiry of the hardware warranty. This is configurable by entity in notification management to define the models and recipients used and in *the administration of entities* to enable or disable this feature, define the default values and anticipate the sending of the notification if necessary.

GLPI can perform a simple net book value calculation based on straight-line or declining balance depreciation. To do so, a certain amount of information (value, date, etc.) must be entered. The user must also enter the date of the financial year the general configuration.

The display of financial information for each type of equipment depends on the profile of the user logged in.

Associated Contracts

The *Contracts* tab is used to show or add linked contracts.



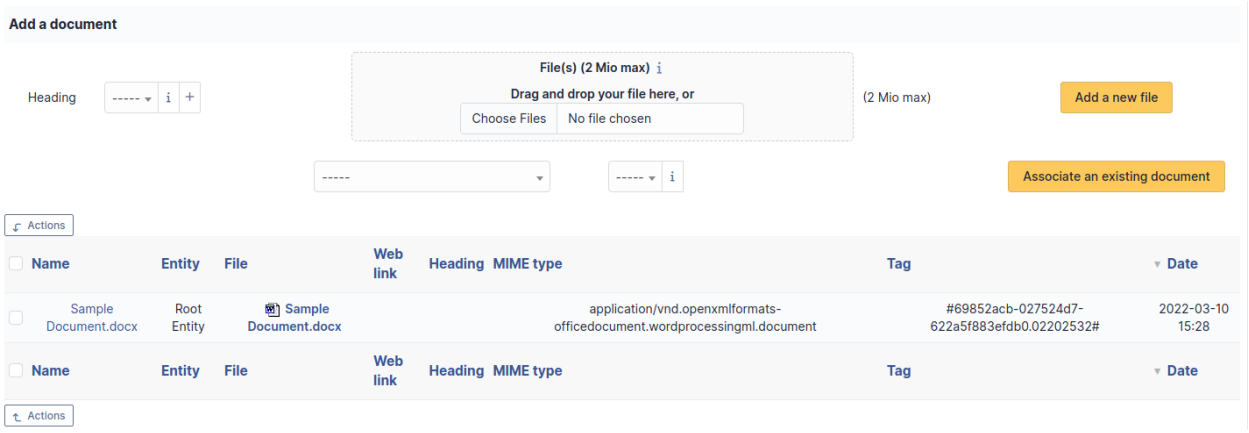
For each associated contract, the name, number, contract type, supplier, start date and initial duration of the contract are listed. In the last field, the end date of the contract is also shown with a red display if the date is earlier than the current date.

Refer to *contract management* for more information.

Documents

Additional information is stored in the form of external documents which are files uploaded into GLPI. In the *Documents* tab, documents can be associated and unlinked with the selected item. The *management of the documents themselves* is dealt with in another chapter.

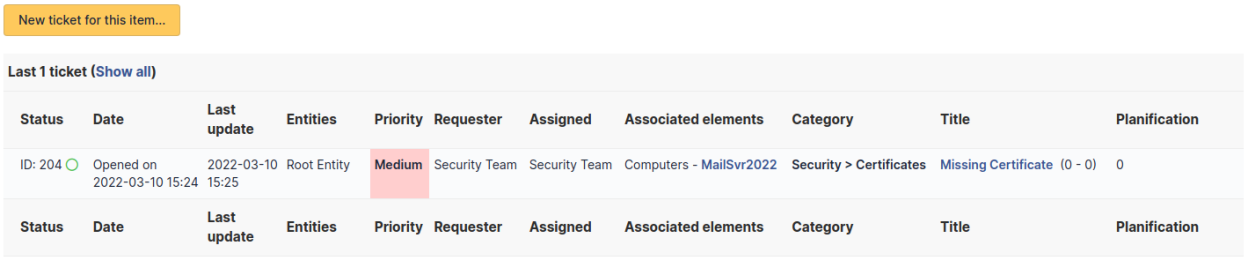
It is also possible to quickly create a document via this tab by specifying the desired file and optionally the field in which the new document is to be placed. The name of the created document will be based on the name of the added file.



Note : When you delete a document from this tab via mass actions, you only remove the link between the object and the document ; the document itself is still present.

Tickets

The *Tickets* tab is used to create a ticket associated with the current object. It also lists the tickets already linked to the object.



Note : A second table lists the tickets attached to the linked elements

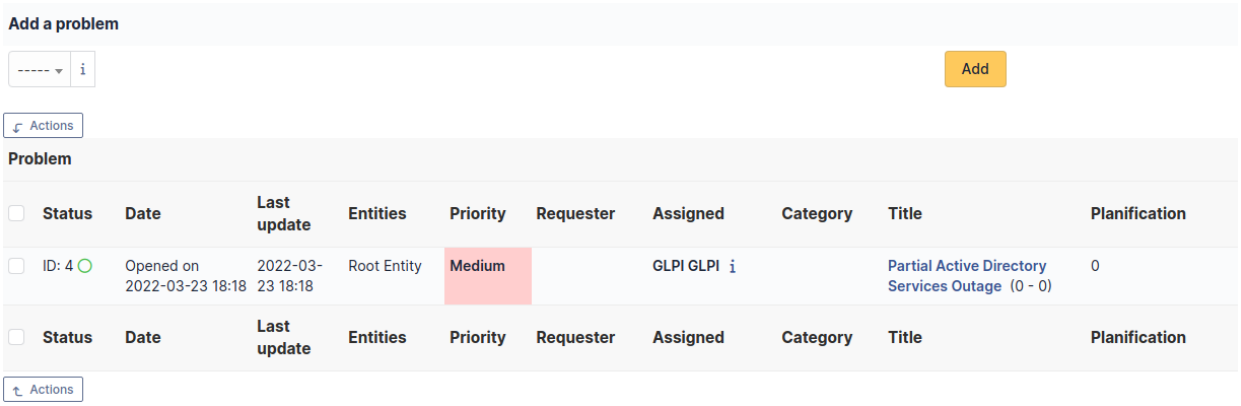
Note : Any deletion or addition of a ticket is recorded in the history.

Problems

The *Problems* tab is used to create a problem associated with the current object. It also lists the changes already linked to the object.

This summary table includes for each object :

- Status
- Date (opening or expiry date, resolution or closing date depending on the status of the problem)
- Priority
- Requestor(s) and assigned technician(s)
- Associated elements
- Category
- Name
- Column indicating the number of scheduled tasks



Note : A second table lists the problems attached to the related elements

Note : Any deletion or addition of a problem is recorded in the history.

Associated External Links

The *External links* tab is used to show associated external links.

For some items, external links are managed from the menu **Setup > External links**.

These links can use object fields such as IP, name, etc. See *Configure protocol external links*.

Examples :
- A web link : http://192.168.0.1 (IP retrieved from the network port of the hardware) ;
- A RDP link for remote access : glpi ://MSTSC.EXE,pc001 (name « pc001 » retrieved from the hardware).

Notes

The *Notes* tab provides a free text field for storing additional information. Notes are displayed in the order of their creation.



À faire : Fix this reference (include or link ? ? ?) **[Onglet « Réservations »](Les_différents_onglets/Onglet_Réservations.rst)** Gestion des réservations pour un objet d'inventaire

History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :
- ID of the change.
- Date and time the change was made.
- User who made the change. If this field is not filled, it means that the action was done automatically (For example : automatic inventory update).
- Field that was changed.
- Description of the change that was made.

The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

Debugging information

If you have *Debug* mode enabled in your preferences, a *Debug* tab will appear before the *All* tab. This tab offers information to help you resolve an issue.

For example, for a computer, you have one or more tables depending on the affected object (financial information, reservations…) listing the notifications that will be triggered on this computer with :

- Triggering event
- Recipient(s)
- Notification model used
- Recipient(s) email address

Notifications **(Ticket)**

Events	Recipients	Notification templates	Mode	Recipient
Closing of the ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New ticket	Profile: Admin	Tickets (en_GB)	mailing	admins@example.com
New ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Ticket solved	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost

All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

The different actions

Printers do not have specific actions ; report to *common actions*.

Cartridges

This functionality of *Asset* module allows to create cartridges models and corresponding cartridges.

In a cartridge form, the following information is available :

- General characteristics of the cartridge :
  - Vendor
  - Type
  - Reference
  - …
- Printer management :
  - Technical person in charge
  - Storage site
  - …

The alert threshold is the minimal value at which an alert is triggered. A restock threshold which represents the amount you wish to have in stock after ordering.

For example, you want to have 10 of a certain cartridge in stock but it isn't worth ordering them until you have 2 or less in stock (due to bulk discounts, process overhead, etc). You can set your alarm threshold to 2 and your restock value to 10. When you receive the alarm notification, it will let you know what the restock value is and plainly say how many need to be ordered to meet that value (configurable in notification templates).

Note : For alerts to be effective, notifications must be activated ; see notification management.

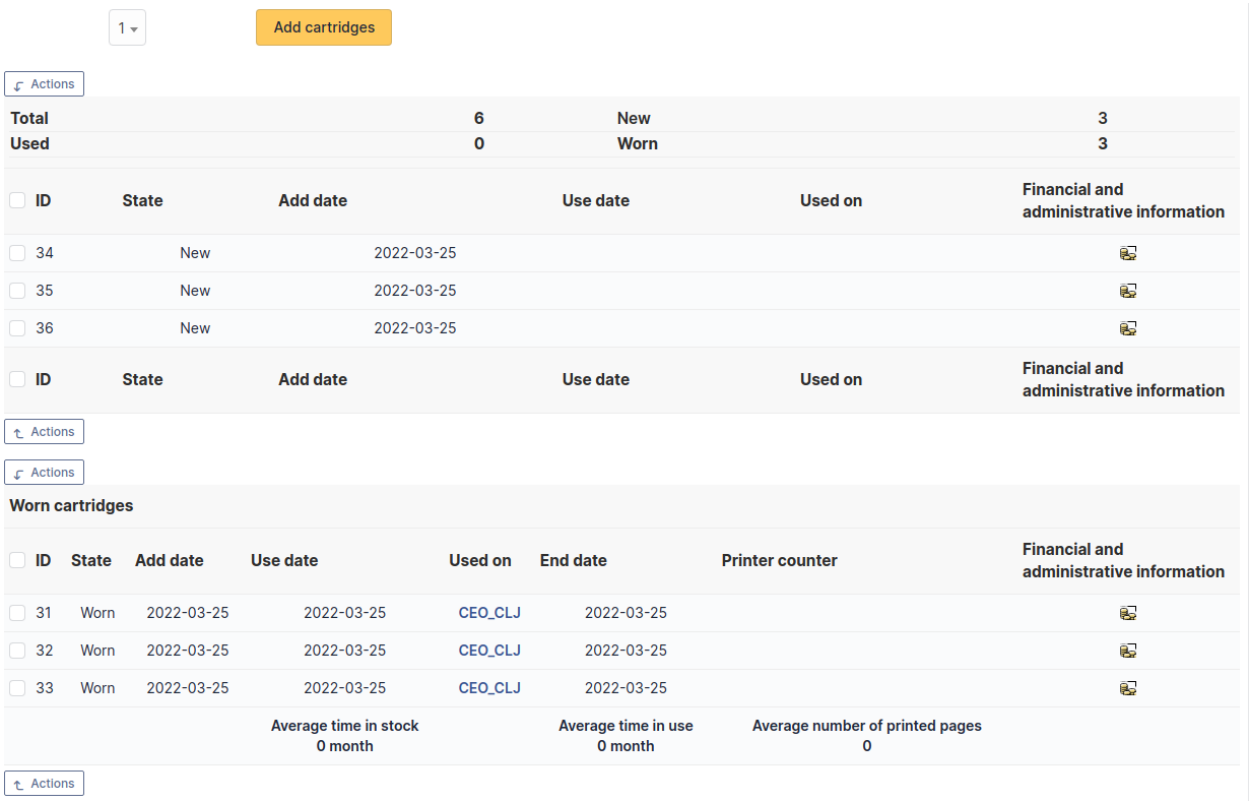
For a cartridge to be installable on a printer, it must be declared as compatible with this printer.

Management of shared stock is possible by defining the element as recursive on an entity. The elements will then be available for all sub-entities.

The different tabs

— **Tab « Cartridges »** This tab allows adding as many cartridges as needed by the model. It is also possible to add several cartridges at once.

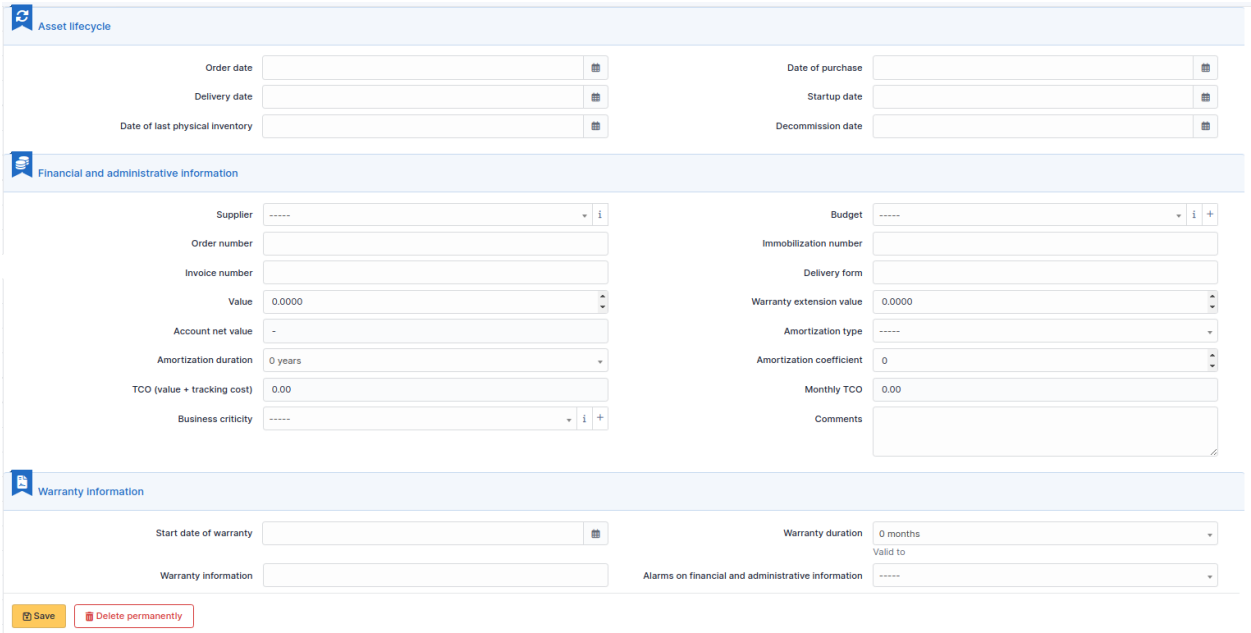
A first table lists the new or unused cartridges, the second table lists used cartridges.



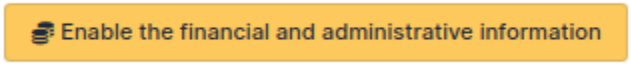
— **Tab « Printer models »** This tab allows to declare the printer models that are compatible with the cartridge.

Management

Management of financial and administrative information, this information is visible in the "Management" tab on the computer's form.



By default this management is disabled. It is possible to activate the financial information on any type of object in the inventory by using the link in the *Management* tab of the material detail.



Note : It is possible to activate the administrative and financial information from the massive actions on a set of elements (computer, monitor, ...)

Note : It is possible to activate the administrative and financial information as soon as an element is created. See « Enable default administrative and financial information » option in Setup > General > Asset tab.

Financial information consists of the following items :

Lifecycle

— Order date
— Date of purchase
— Delivery date
— Date of implementation
— Date of last physical inventory
— Date of reform

Financial and administrative information

- Supplier : Third party who sold the equipment. See *Managing suppliers*. Suppliers are managed from the menu **Management > Suppliers**.
- Order number : number of the order of the equipment.
- Asset number.
- Invoice number : equipment invoice number.
- Delivery note : delivery note for the equipment.
- Value : cost of the equipment.
- Warranty extension value : cost of the warranty extension, but preferably use contracts.
- Account net value : this is the automatic calculation of the gross value of a piece of equipment minus the amount of depreciation.
- Type of depreciation : choice of the type of depreciation between linear and declining balance.
- Depreciation period : depreciation period expressed in years.
- Depreciation coefficient : coefficient applied to a straight-line depreciation type in order to obtain the values of the declining balance type. It is therefore only used if the type of depreciation is declining balance.
- TCO (value+amount of interventions) : the total cost of ownership which includes all the constituent elements of an invoiced product.
- Budget : the budget on which this equipment was purchased See *Managing the budget*.
- Order date : date on which the material was ordered.
- Purchase date : date on which the equipment was purchased.
- Delivery date : date on which the equipment was delivered.
- Startup date : date on which the equipment was put into service.
- Date of last physical inventory : date of the last physical inventory of the equipment.
- Comments.
- Monthly TCO : TCO divided by the number of months between today's date and the date of purchase of the equipment.

Warranty information

- Warranty start date : date on which the warranty of the equipment starts
- Warranty information : text qualifying the warranty
- **Warranty period : duration of the warranty expressed in months**

  If a warranty start date and a warranty period are set, the information « Expires on » will appear with a date in red if it is earlier than the current date

All the dates defined can be managed automatically according to changes in the status of the equipment. Some dates can also be copied from another date. All this configuration is done by [entity](administration_entity_delegation.dita).

Tips

GLPI allows you to configure a notification on the expiry of the hardware warranty. This is configurable by entity in notification management to define the models and recipients used and in *the administration of entities* to enable or disable this feature, define the default values and anticipate the sending of the notification if necessary.

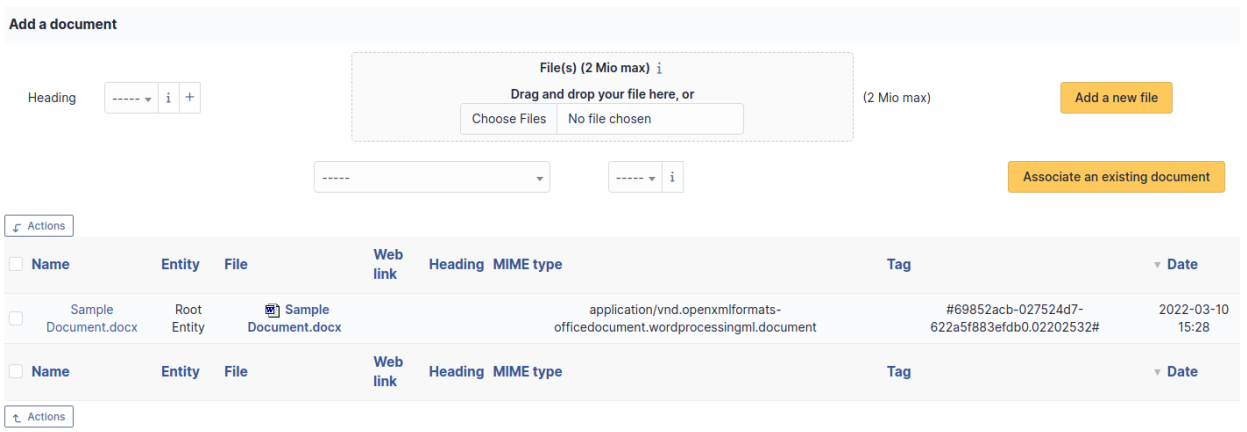
GLPI can perform a simple net book value calculation based on straight-line or declining balance depreciation. To do so, a certain amount of information (value, date, etc.) must be entered. The user must also enter the date of the financial year the general configuration.

The display of financial information for each type of equipment depends on the profile of the user logged in.

Documents

Additional information is stored in the form of external documents which are files uploaded into GLPI. In the *Documents* tab, documents can be associated and unlinked with the selected item. The *management of the documents themselves* is dealt with in another chapter.

It is also possible to quickly create a document via this tab by specifying the desired file and optionally the field in which the new document is to be placed. The name of the created document will be based on the name of the added file.



Note : When you delete a document from this tab via mass actions, you only remove the link between the object and the document ; the document itself is still present.

Associated External Links

The *External links* tab is used to show associated external links.

For some items, external links are managed from the menu **Setup > External links**.

These links can use object fields such as IP, name, etc. See *Configure protocol external links*.

Examples :

- A web link : http://192.168.0.1 (IP retrieved from the network port of the hardware) ;
- A RDP link for remote access : glpi ://MSTSC.EXE,pc001 (name « pc001 » retrieved from the hardware).

Notes

The *Notes* tab provides a free text field for storing additional information. Notes are displayed in the order of their creation.



History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :

- ID of the change.
- Date and time the change was made.
- User who made the change. If this field is not filled, it means that the action was done automatically (For example : automatic inventory update).
- Field that was changed.
- Description of the change that was made.

The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

Debugging information

If you have *Debug* mode enabled in your preferences, a *Debug* tab will appear before the *All* tab. This tab offers information to help you resolve an issue.

For example, for a computer, you have one or more tables depending on the affected object (financial information, reservations…) listing the notifications that will be triggered on this computer with :

- Triggering event
- Recipient(s)
- Notification model used
- Recipient(s) email address

Notifications			(Ticket)	
Events	**Recipients**	**Notification templates**	**Mode**	**Recipient**
Closing of the ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New ticket	Profile: Admin	Tickets (en_GB)	mailing	admins@example.com
New ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Ticket solved	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost

All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

Consumables

In a consumable form, the following information is available :

- General characteristics of the consumable :
  - Vendor
  - Type
  - Reference
  - ...
- Consumable management :
  - Technical person in charge
  - Storage location
  - ...

The alert threshold corresponds to the minimal value at which an alert is triggered. A restock threshold which represents the amount you wish to have in stock after ordering.

For example, you want to have 100 HDMI cables in stock but it isn't worth ordering them until you have 10 or less in stock (due to bulk discounts, process overhead, etc). You can set your alarm threshold to 10 and your restock value to 100. When you receive the alarm notification, it will let you know what the restock value is and plainly say how many need to be ordered to meet that value (configurable in notification templates).

Note : For alerts to be effective, notifications must be activated ; see notification management.

Changing the state of a consumable from *new* to *used* requires to set involved user or group.

Management of shared stocks is possible by defining the element as recursive on an entity. The elements will then be available for all sub-entities.

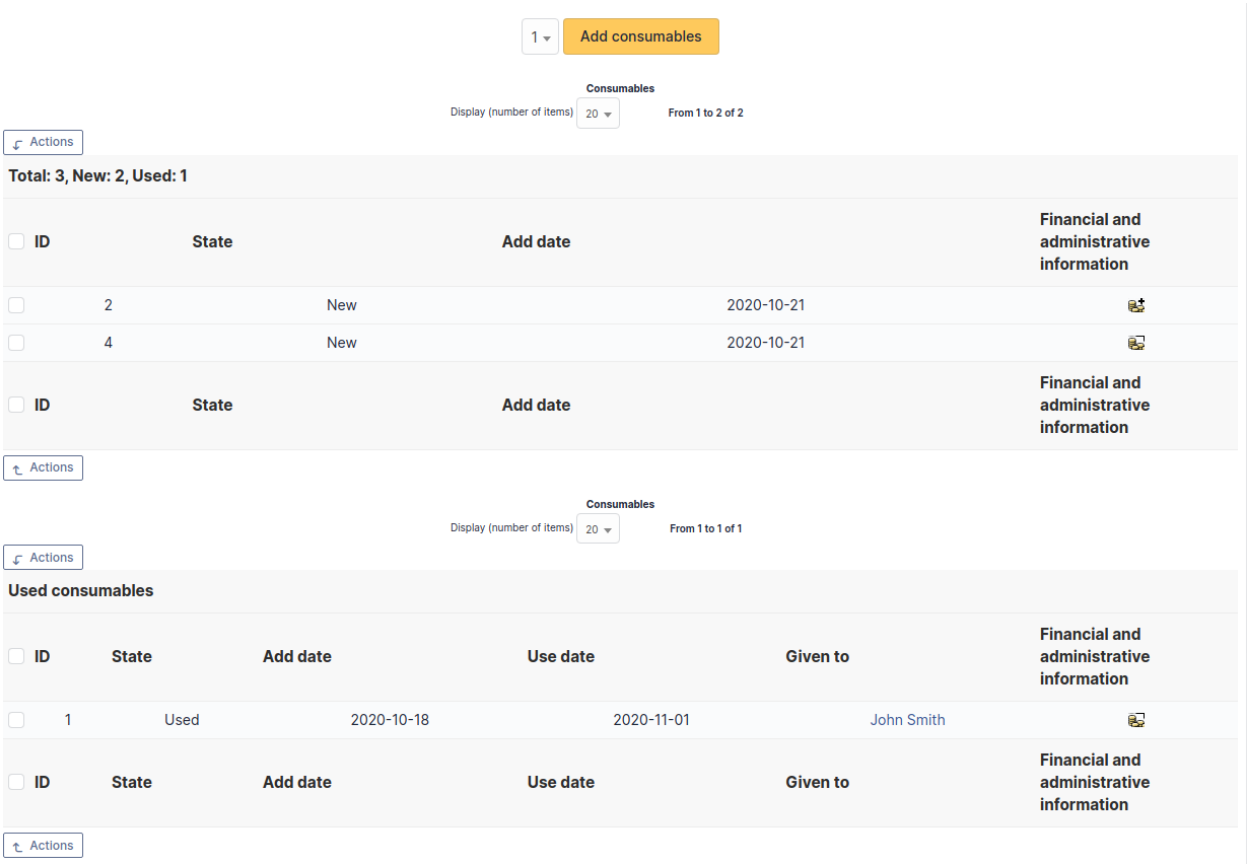
The different tabs

Consumables

This tab allows to add as many consumables as needed. It is also possible to add several consumable in one shot.

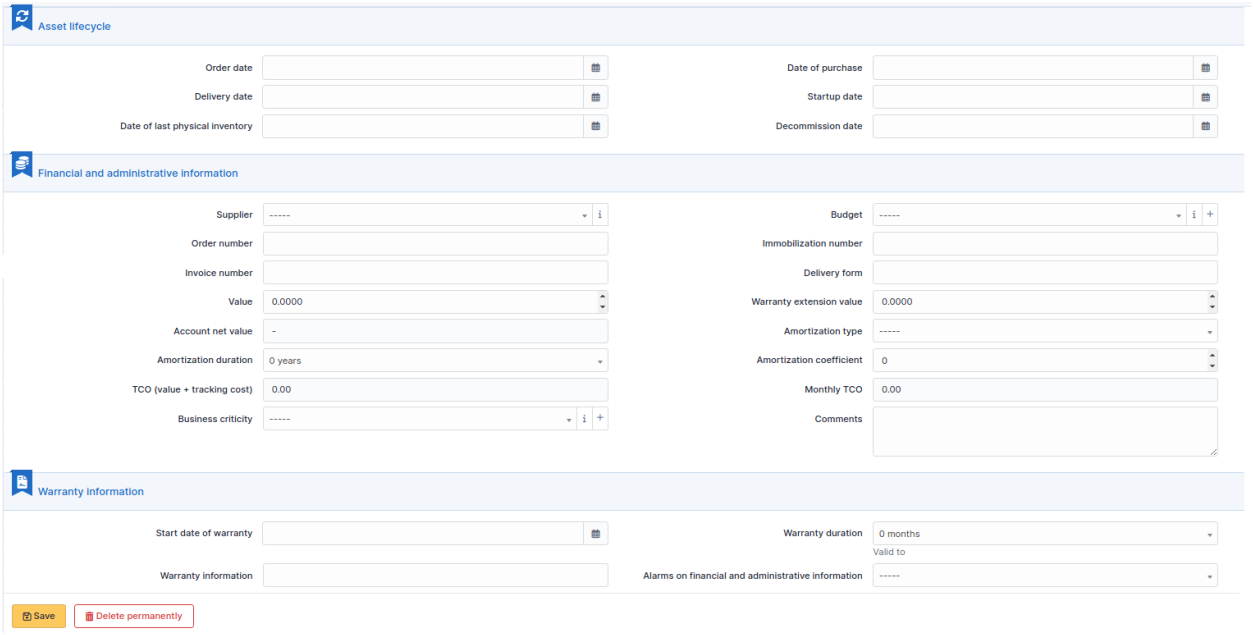
A first table lists unused consumables, a second table lists used consumables together with the name of the group or the person to which it has been allocated.

The mass actions of this tab allows to allocate consumables (action **Give***).

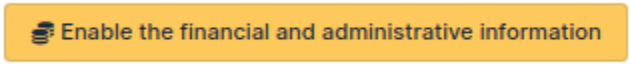


Management

Management of financial and administrative information, this information is visible in the "Management" tab on the computer's form.



By default this management is disabled. It is possible to activate the financial information on any type of object in the inventory by using the link in the *Management* tab of the material detail.



Note : It is possible to activate the administrative and financial information from the massive actions on a set of elements (computer, monitor, ...)

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- Startup date : date on which the equipment was put into service.
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- Comments.
- Monthly TCO : TCO divided by the number of months between today's date and the date of purchase of the equipment.

Warranty information

- Warranty start date : date on which the warranty of the equipment starts
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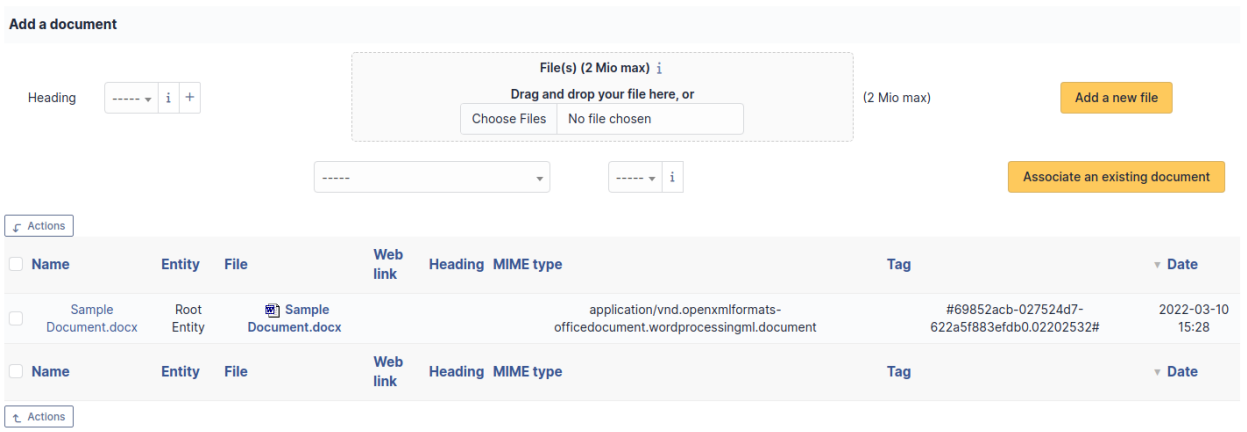
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Additional information is stored in the form of external documents which are files uploaded into GLPI. In the *Documents* tab, documents can be associated and unlinked with the selected item. The *management of the documents themselves* is dealt with in another chapter.

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The *External links* tab is used to show associated external links.

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These links can use object fields such as IP, name, etc. See *Configure protocol external links*.

Examples :

- A web link : http://192.168.0.1 (IP retrieved from the network port of the hardware) ;
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Notes

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Debugging information

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For example, for a computer, you have one or more tables depending on the affected object (financial information, reservations…) listing the notifications that will be triggered on this computer with :

- Triggering event
- Recipient(s)
- Notification model used
- Recipient(s) email address

Notifications **(Ticket)**

Events	Recipients	Notification templates	Mode	Recipient
Closing of the ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New ticket	Profile: Admin	Tickets (en_GB)	mailing	admins@example.com
New ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Ticket solved	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost

All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

The different actions

Apart from *common actions*, some actions are specific to consumables :

- *Add new consumables to a model* ;
- List allocated consumables : The *Summary* menu button allows you to see a summary of allocated consumables

Give to	10' HDMI M/M	Total
In stock	2	2
User - John Smith	1	1
Total	3	3

Phones

In a phone form, the following information is available :

- General characteristics of the phone :
  - Vendor
  - Model
  - Type
  - Serial number
  - …
- Phone management :
  - Technical person in charge
  - Status
  - Location
  - …
- Phone users :
  - Users known to GLPI or not
  - Groups of users
  - …
- Specifications :
  - Power supply
  - Firmware
  - …

Management type :

It is possible to manage phones either unitary or globally.

Unitary management corresponds to one phone per computer while global management make the phone a virtual global element that will be connected to several computers.

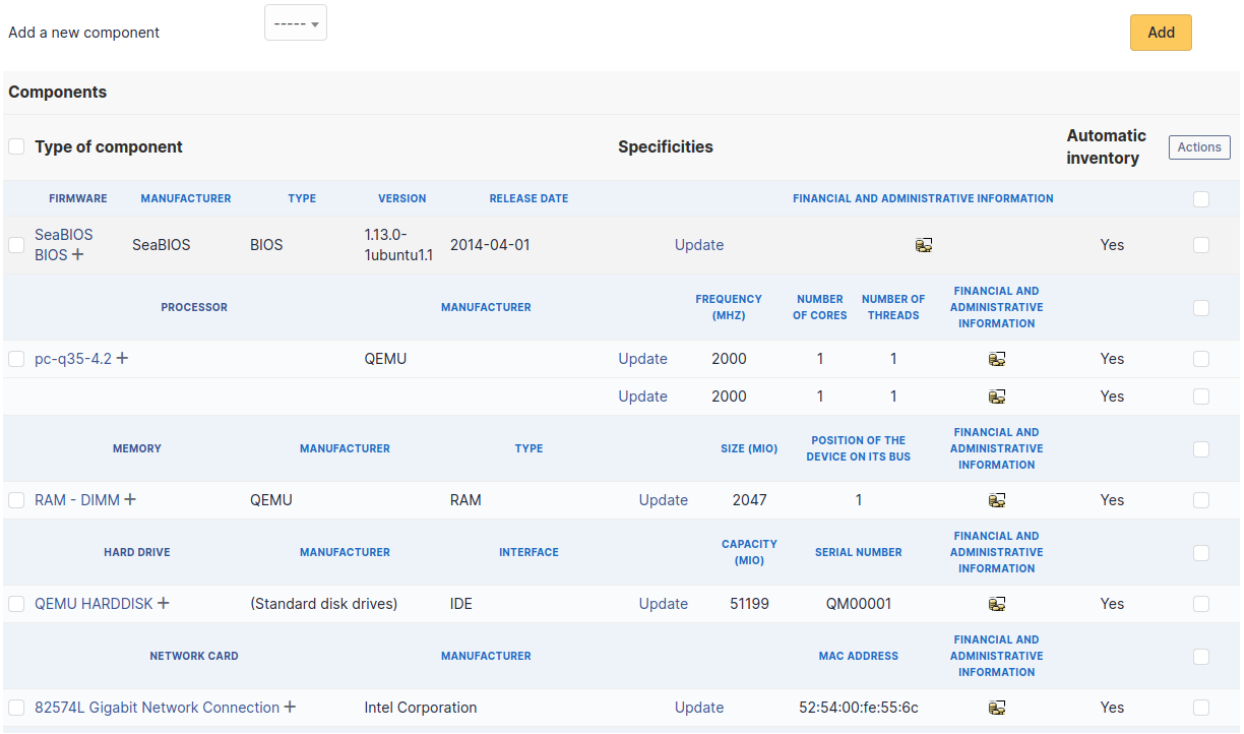
Global management allows to limit the number of elements to manage when these elements are not a strategic data in the assets management.

It is possible to use *templates with phones*.

The different tabs

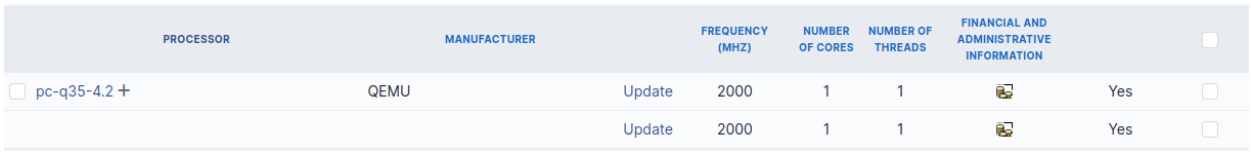
Components

This tab, named *Components* and visible in a *Computer* entry, allows to manage the hardware components of a computer.

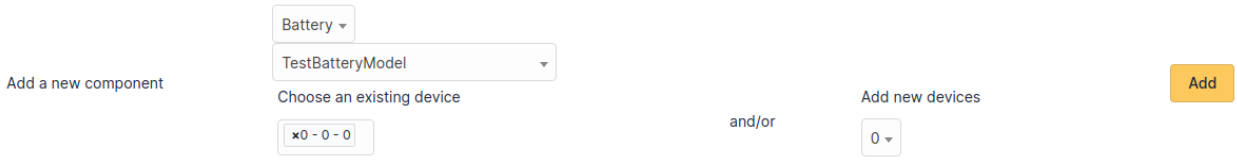


Note : Adding or managing components is located in menu *Configuration > Components*.

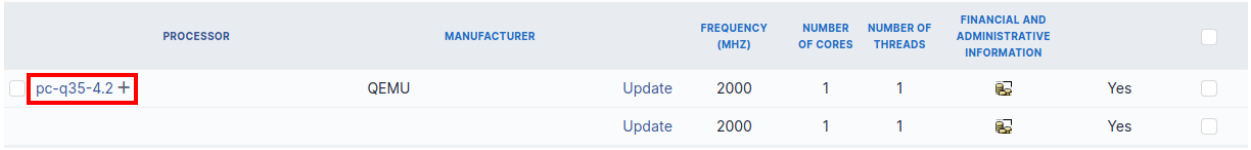
Note : If several components of the same type are used, they will be grouped in the view.



It is possible to add a component by first selecting its family in the drop-down list at the top of the table and then its name and the number of components to add.

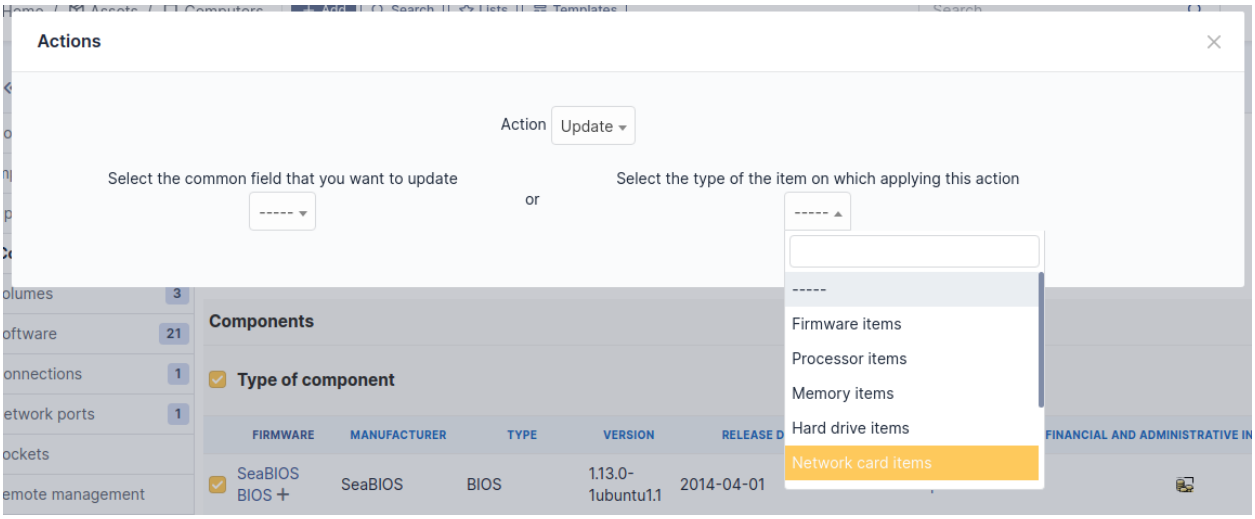


Starting from a computer view, it is possible to modify a component by clicking on the link under its name.

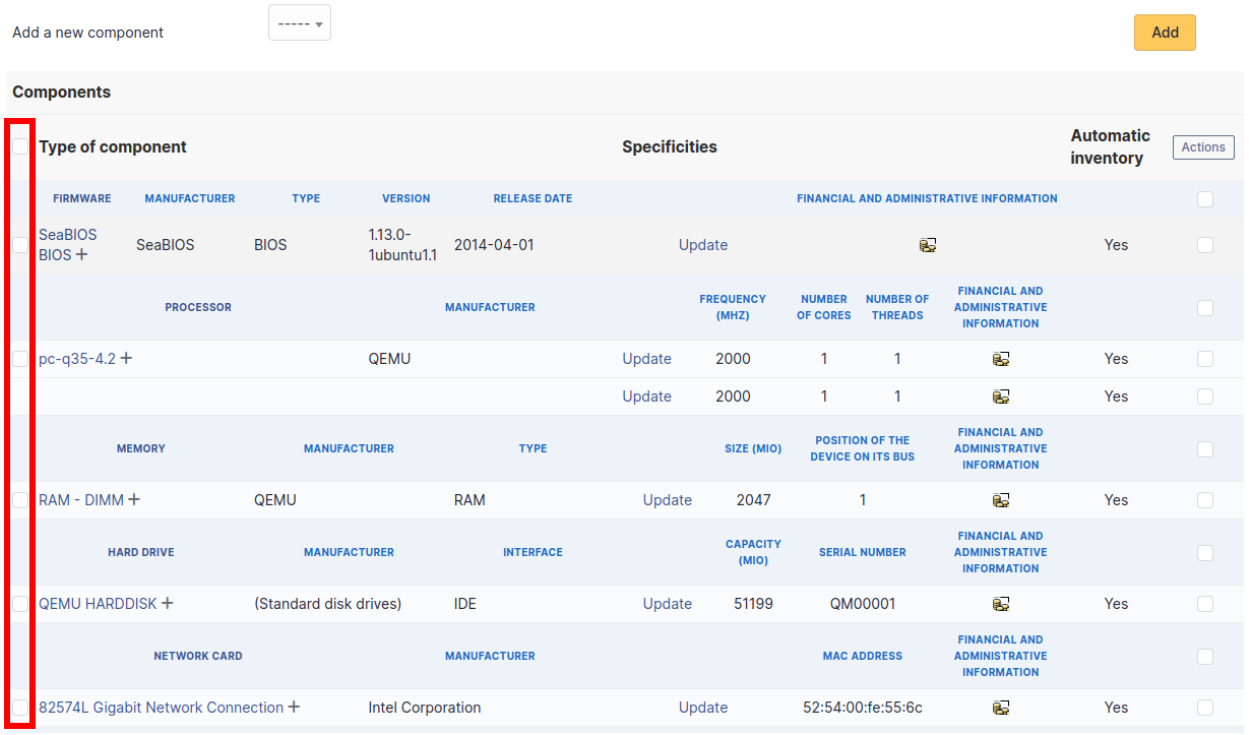


To act on several components (for example modify an element of the component, activate accounting information or modify them, delete a component…), first select the components and then use the *Actions* button present at the top or the bottom of the list.

If several types of different components, not having the same characteristics, are selected for modification, in the actions it will be asked on which component modification must be applied.



Selection button in left column allows to select all the components at once.



Selection at right of type column (grayed line) allows to select all components of the same type (processor, memory,

network interface…).

PROCESSOR	MANUFACTURER		FREQUENCY (MHZ)	NUMBER OF CORES	NUMBER OF THREADS	FINANCIAL AND ADMINISTRATIVE INFORMATION		
pc-q35-4.2 +	QEMU	Update	2000	1	1		Yes	
		Update	2000	1	1		Yes	

Note : It is possible to modify the characteristics of a component only for one computer

From tab *Elements* of the component, click on the link **Update**.

PROCESSOR	MANUFACTURER		FREQUENCY (MHZ)	NUMBER OF CORES	NUMBER OF THREADS	FINANCIAL AND ADMINISTRATIVE INFORMATION		
pc-q35-4.2 +	QEMU	Update	2000	1	1		Yes	
		Update	2000	1	1		Yes	

Several tabs are then displayed :

— Tab « Element - Link name of component » : list the characteristics of this component
— Tab « Management » : manage administrative and accounting information
— Tab « Documents » : attached documents
— Tab « History » : history of modifications
— Tab « Contract » : contracts management
— Tab « Debug » : only if you are connected in Debug mode
— Tab « All » : all the information are displayed on a single page

Note : Every deletion or addition of a component is recorded in the history of the computer.

Note : If using native inventory or third-party inventory tool, the components information can be automatically imported and updated.

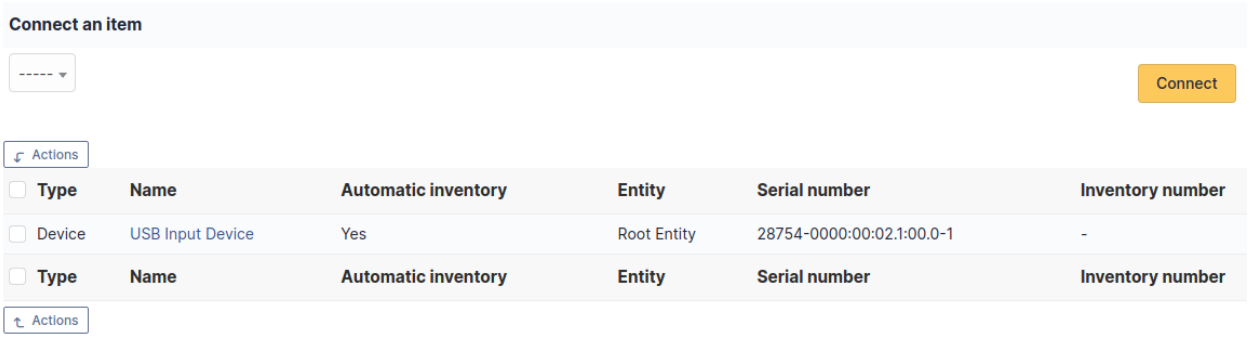
Connections

This tab allows to manage the direct connections between a computer and its connected elements.

Direct connections represent the relation between different hardwares linked either physically or virtually.

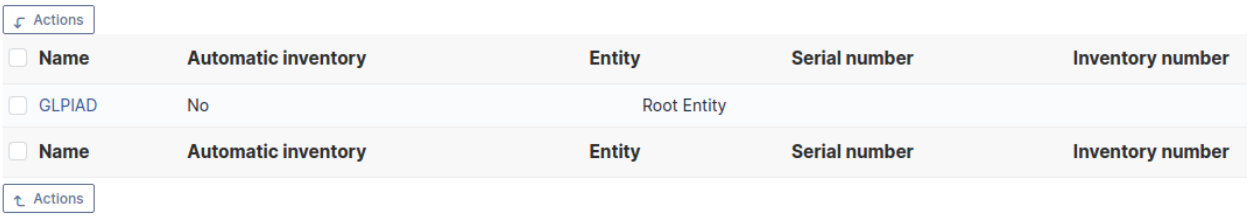
From a computer

The connection can be made toward one or several elements of type display, printer, peripheral or phone. For each type of connected object, its name, serial number and inventory number are displayed.



From an element other than a computer

To add a connection, select the computer in the drop-down list presented at top of the table.



If this case, the connection can only be made to a single computer. The table will list the name of this computer as well as its serial and inventory numbers.

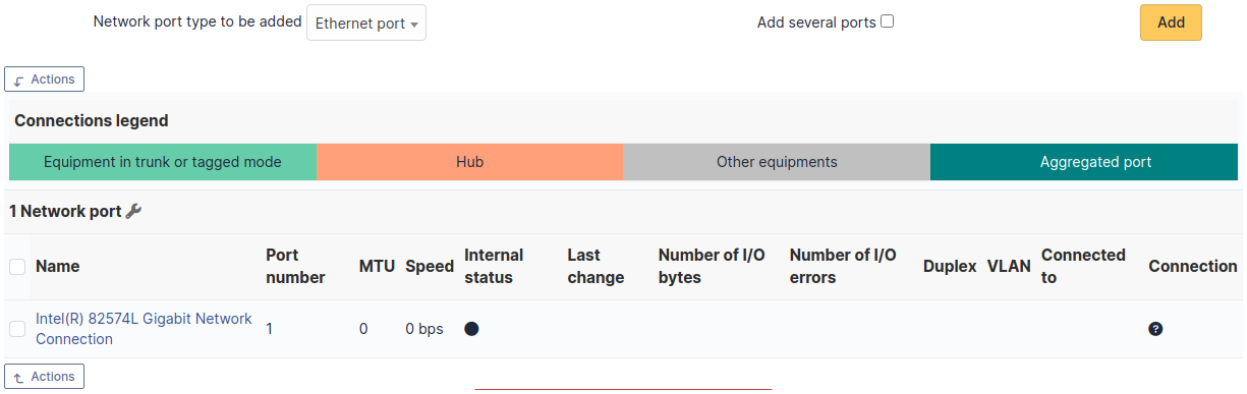
Note : The deletion of a connection can be made from the entry of each connected hardware (tab *Connections*) via mass actions.

Note : Every deletion or addition of a connection is recorded in the history of the computer.

Note : If using native inventory or third-party inventory tool, the connections informations can be automatically imported and updated.

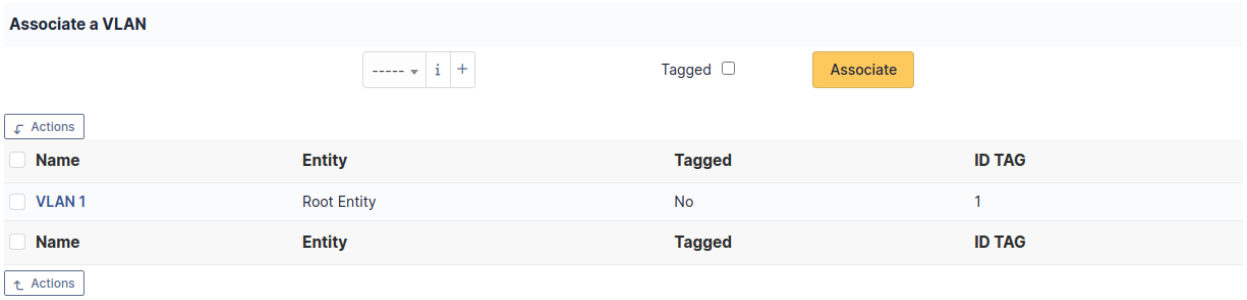
Network ports

This tab, named *Network ports* and visible in a *Computer* entry, allows to manage the network ports attached to a computer.



A network port represents the output of a network interface on a given hardware. A port is characterized by a number and a name.

It is possible on a network port to add one or more VLAN, these VLANs being defined by a name, an optional comment and a VLAN number.



One or more *network name* can be associated to each network port. This can be done in tab *Network name*.



Note : When a network port has only one network name, this name is displayed in the network port form itself and it is possible to modify the name directly. It is also possible to modify the network name via its own form, accessible by clicking on the link under the name.

When a network port has several network names, the only way to modify the network names is via the network name form.

Network ports can be of different types :

— physical port : ethernet, WiFi…
— *Virtual network port* : local loop-back, alias, aggregates…
— point to point : switched network…

The *Network port* tab groups in a table the ports that are available on the equipment. The table header contains the total number of ports and a link that allows to choose display options. This allows to selectively display or mask information such as network data (IP…), port characteristics depending on its type, MAC address, VLANs…

Note : GLPI allows to present complex network connection with for example WiFi or Ethernet port aliases associated to VLANs grouped in aggregates…

Management of Ethernet network ports

The Ethernet protocol is classically used on internal networks.

An Ethernet port is characterized by its type (twisted pair, mono-mode/multi-mode optical fiber…), a transfer rate ((10Mb, 100Mb, 1Gb, 10Gb…) and a MAC address. It is possible to associate to the port a network card and a network plug.

Ethernet connections are realized by linking two Ethernet ports, which requires that there is a free port on each equipment to be connected. In general, a connection links a port attached to a computer, a peripheral or a printer and a port attached to a network equipment (hub, switch).

Management of WiFi network ports

The WiFi protocol is widely used on wireless networks.

A WiFi port is characterized by the mode of the network card (ad-hoc, access point, repeater…), the WiFi protocol version (ab, g…) and its MAX address.

It is possible to associate a network card to the port, similarly to Ethernet ports.

A WiFi network can be associated to a given port. Apart from its name, a WiFi network has an ESSID and is characterized by its type :

Infrastructure : WiFi network with on or several access points and connected clients *Ad-hoc :* WiFi network between similar systems without access points

Management of local loop-back ports

The local loop-back is a virtual port used by most equipments for internal communication. It is this port that is used when connecting to `localhost` or `127.0.0.1`.

Local loop-back has no specific attribute.

Management of network port aliases

A network port alias is a virtual port that can refine a physical port.

On Linux, to each VLAN, when transmitted « tagged », is associated a port alias, for example *eth2.50* to represent VLAN 50 on port *eth2*.

A port alias contains its base port and a MAC address.

Note that when the origin port is changed, the MAC address of the new port is affected to the port alias.

Management of network port aggregates

A network port aggregate is a virtual port that allows to group several physical ports.

On Linux, aggregates are represented by bridges *bridges <http ://www.linuxfoundation.org/collaborate/workgroups/networking/bridge>* linking together different ports. In the same way, an Ethernet firewall uses a bridge that links interfaces to be filtered.

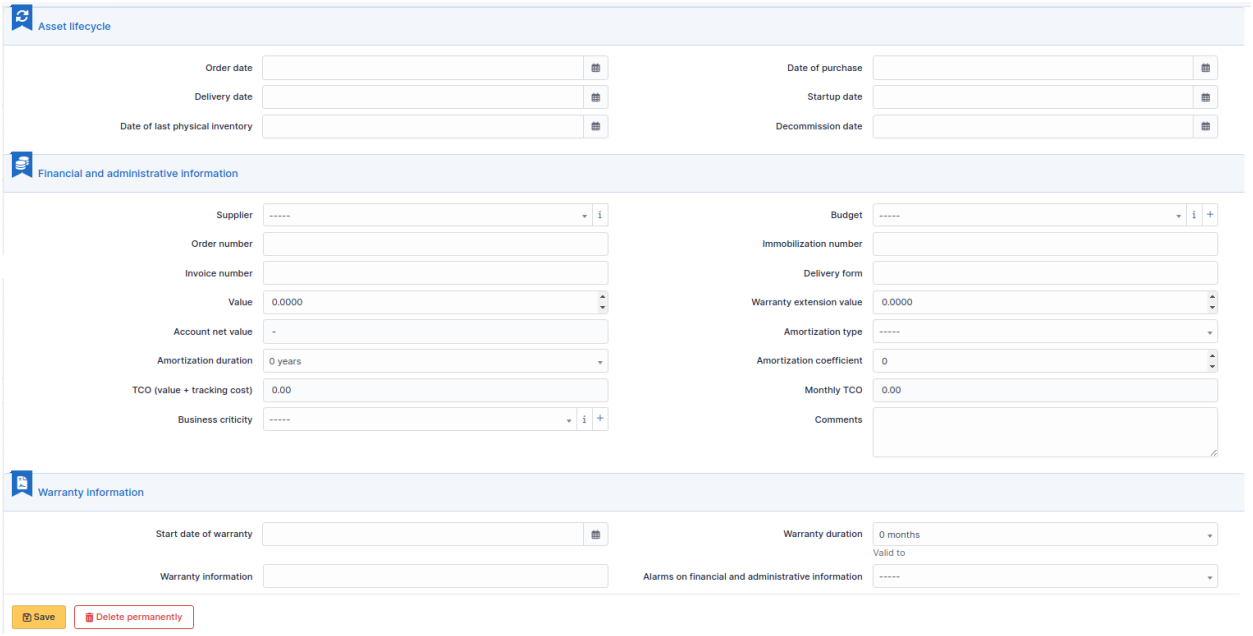
A port aggregate contains the origin ports and a MAC address.

Note : Every deletion or addition of a network port is recorded in the history of the computer.

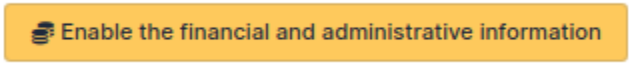
Note : If using native inventory or third-party inventory tool, the network ports information can be automatically imported and updated.

Management

Management of financial and administrative information, this information is visible in the “Management” tab on the computer’s form.



By default this management is disabled. It is possible to activate the financial information on any type of object in the inventory by using the link in the *Management* tab of the material detail.



Note : It is possible to activate the administrative and financial information from the massive actions on a set of elements (computer, monitor, ...)

Note : It is possible to activate the administrative and financial information as soon as an element is created. See « Enable default administrative and financial information » option in Setup > General > Asset tab.

Financial information consists of the following items :

Lifecycle

- Order date
- Date of purchase
- Delivery date
- Date of implementation
- Date of last physical inventory
- Date of reform

Financial and administrative information

- Supplier : Third party who sold the equipment. See *Managing suppliers*. Suppliers are managed from the menu **Management > Suppliers**.
- Order number : number of the order of the equipment.
- Asset number.
- Invoice number : equipment invoice number.
- Delivery note : delivery note for the equipment.
- Value : cost of the equipment.
- Warranty extension value : cost of the warranty extension, but preferably use contracts.
- Account net value : this is the automatic calculation of the gross value of a piece of equipment minus the amount of depreciation.
- Type of depreciation : choice of the type of depreciation between linear and declining balance.
- Depreciation period : depreciation period expressed in years.
- Depreciation coefficient : coefficient applied to a straight-line depreciation type in order to obtain the values of the declining balance type. It is therefore only used if the type of depreciation is declining balance.
- TCO (value+amount of interventions) : the total cost of ownership which includes all the constituent elements of an invoiced product.
- Budget : the budget on which this equipment was purchased See *Managing the budget*.
- Order date : date on which the material was ordered.
- Purchase date : date on which the equipment was purchased.
- Delivery date : date on which the equipment was delivered.
- Startup date : date on which the equipment was put into service.
- Date of last physical inventory : date of the last physical inventory of the equipment.
- Comments.

— Monthly TCO : TCO divided by the number of months between today's date and the date of purchase of the equipment.

Warranty information

— Warranty start date : date on which the warranty of the equipment starts
— Warranty information : text qualifying the warranty
— **Warranty period : duration of the warranty expressed in months**
If a warranty start date and a warranty period are set, the information « Expires on » will appear with a date in red if it is earlier than the current date

All the dates defined can be managed automatically according to changes in the status of the equipment. Some dates can also be copied from another date. All this configuration is done by [entity](administration_entity_delegation.dita).

Tips

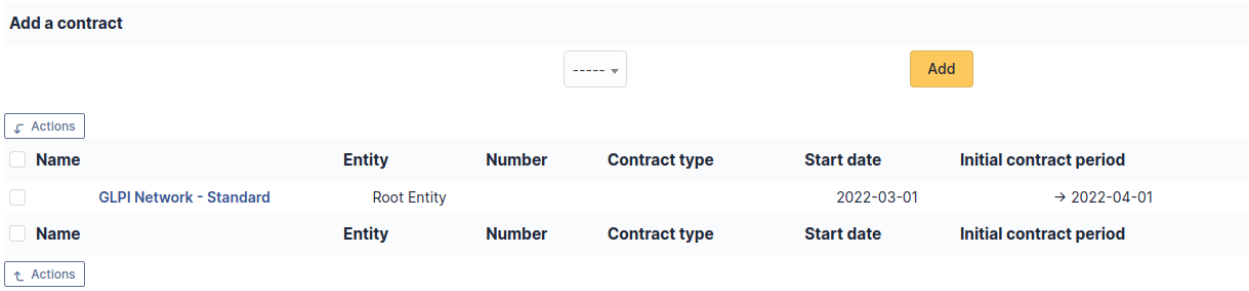
GLPI allows you to configure a notification on the expiry of the hardware warranty. This is configurable by entity in notification management to define the models and recipients used and in *the administration of entities* to enable or disable this feature, define the default values and anticipate the sending of the notification if necessary.

GLPI can perform a simple net book value calculation based on straight-line or declining balance depreciation. To do so, a certain amount of information (value, date, etc.) must be entered. The user must also enter the date of the financial year the general configuration.

The display of financial information for each type of equipment depends on the profile of the user logged in.

Associated Contracts

The *Contracts* tab is used to show or add linked contracts.



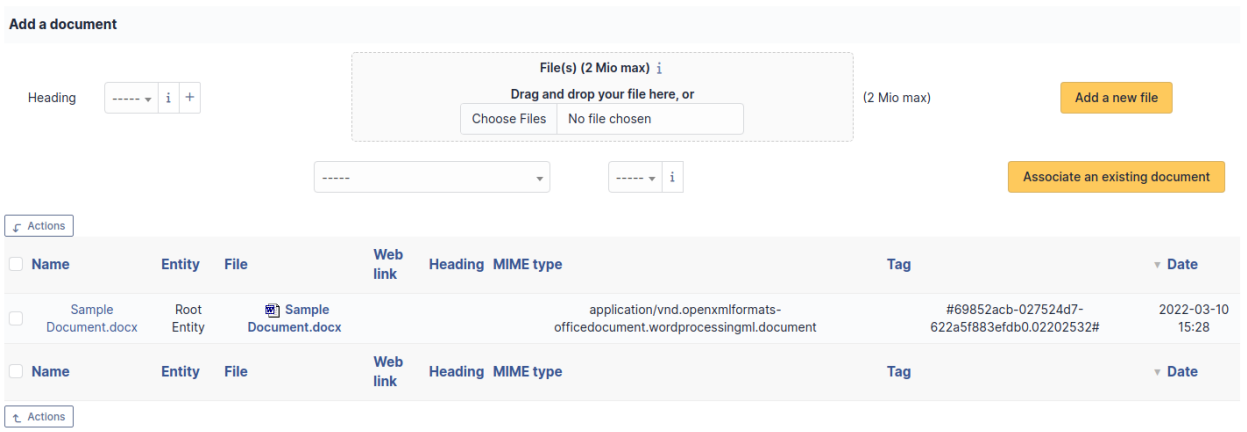
For each associated contract, the name, number, contract type, supplier, start date and initial duration of the contract are listed. In the last field, the end date of the contract is also shown with a red display if the date is earlier than the current date.

Refer to *contract management* for more information.

Documents

Additional information is stored in the form of external documents which are files uploaded into GLPI. In the *Documents* tab, documents can be associated and unlinked with the selected item. The *management of the documents themselves* is dealt with in another chapter.

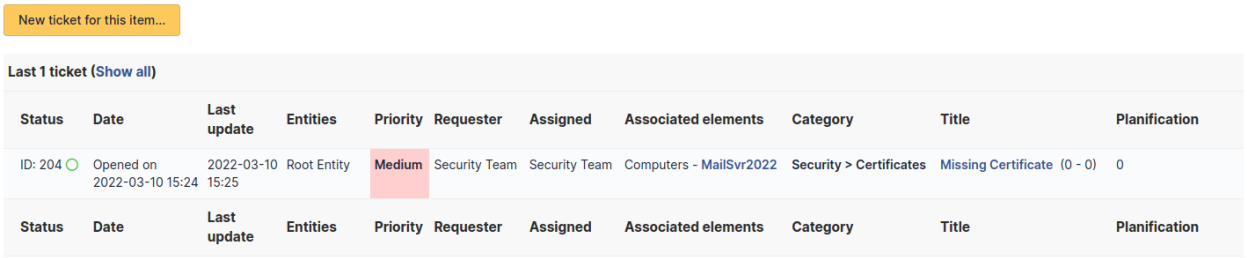
It is also possible to quickly create a document via this tab by specifying the desired file and optionally the field in which the new document is to be placed. The name of the created document will be based on the name of the added file.



Note : When you delete a document from this tab via mass actions, you only remove the link between the object and the document ; the document itself is still present.

Tickets

The *Tickets* tab is used to create a ticket associated with the current object. It also lists the tickets already linked to the object.



Note : A second table lists the tickets attached to the linked elements

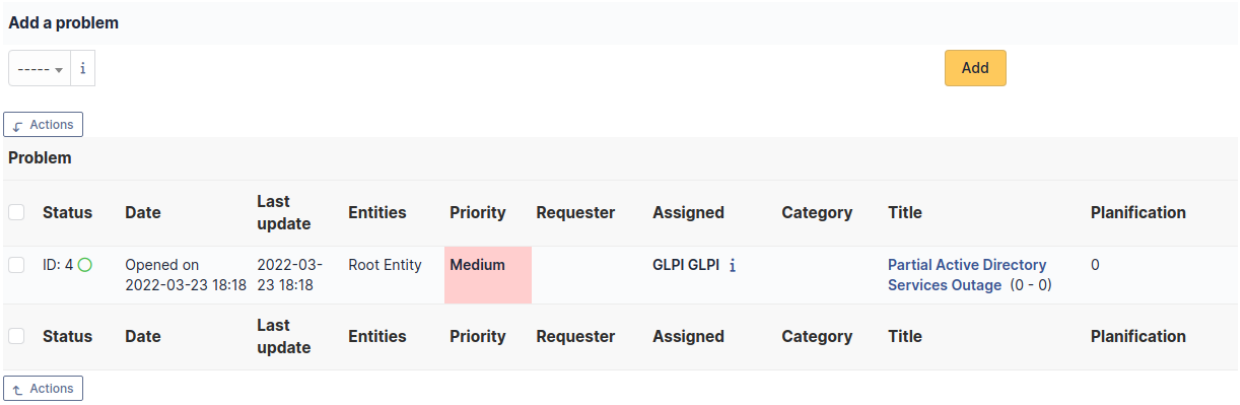
Note : Any deletion or addition of a ticket is recorded in the history.

Problems

The *Problems* tab is used to create a problem associated with the current object. It also lists the changes already linked to the object.

This summary table includes for each object :

— Status
— Date (opening or expiry date, resolution or closing date depending on the status of the problem)
— Priority
— Requestor(s) and assigned technician(s)
— Associated elements
— Category
— Name
— Column indicating the number of scheduled tasks



Note : A second table lists the problems attached to the related elements

Note : Any deletion or addition of a problem is recorded in the history.

Associated External Links

The *External links* tab is used to show associated external links.

For some items, external links are managed from the menu **Setup > External links**.

These links can use object fields such as IP, name, etc. See *Configure protocol external links*.

Examples :

— A web link : http://192.168.0.1 (IP retrieved from the network port of the hardware) ;
— A RDP link for remote access : glpi ://MSTSC.EXE,pc001 (name « pc001 » retrieved from the hardware).

Notes

The *Notes* tab provides a free text field for storing additional information. Notes are displayed in the order of their creation.



À faire : Fix this reference (include or link ? ? ?) **[Tab « Reservations »](Les_différents_onglets/Onglet_Réservations.rst)** Management of reservations for an inventory object

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History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :

- ID of the change.
- Date and time the change was made.
- User who made the change. If this field is not filled, it means that the action was done automatically (For example : automatic inventory update).
- Field that was changed.
- Description of the change that was made.

The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

Debugging information

If you have *Debug* mode enabled in your preferences, a *Debug* tab will appear before the *All* tab. This tab offers information to help you resolve an issue.

For example, for a computer, you have one or more tables depending on the affected object (financial information, reservations…) listing the notifications that will be triggered on this computer with :

- Triggering event
- Recipient(s)
- Notification model used
- Recipient(s) email address

Notifications			(Ticket)	
Events	**Recipients**	**Notification templates**	**Mode**	**Recipient**
Closing of the ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New ticket	Profile: Admin	Tickets (en_GB)	mailing	admins@example.com
New ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Ticket solved	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost

All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

The different actions

Phones do not have specific actions ; report to *common actions*.

Global search

Menu *Asset* > *Global* allows to perform a global search on default view columns for allowed elements. This search is limited to following assets :

- Computer,
- Contact,
- Contract,
- Document,
- Monitor,
- NetworkEquipment,
- Peripheral,
- Phone,
- Printer,
- Software,
- SoftwareLicense,
- Ticket,
- Problem,
- Change",
- User,
- Group,
- Project,
- Supplier",
- Budget,
- Certificate,
- Line,
- Datacenter,
- DCRoom,

— Enclosure,
— PDU,
— Rack,
— Cluster,
— Domain

This search allows for instance to perform a query by status, IP or MAC address.

À faire : Referenced in original doc but not present :
— **[Gestion du protocole Internet (IP)](../glpi/inventory_ip.html)**
Le protocole IP est matérialisé sous plusieurs formes : adresses IP, réseaux IP, mais aussi des FQDN

3.2.3 Management

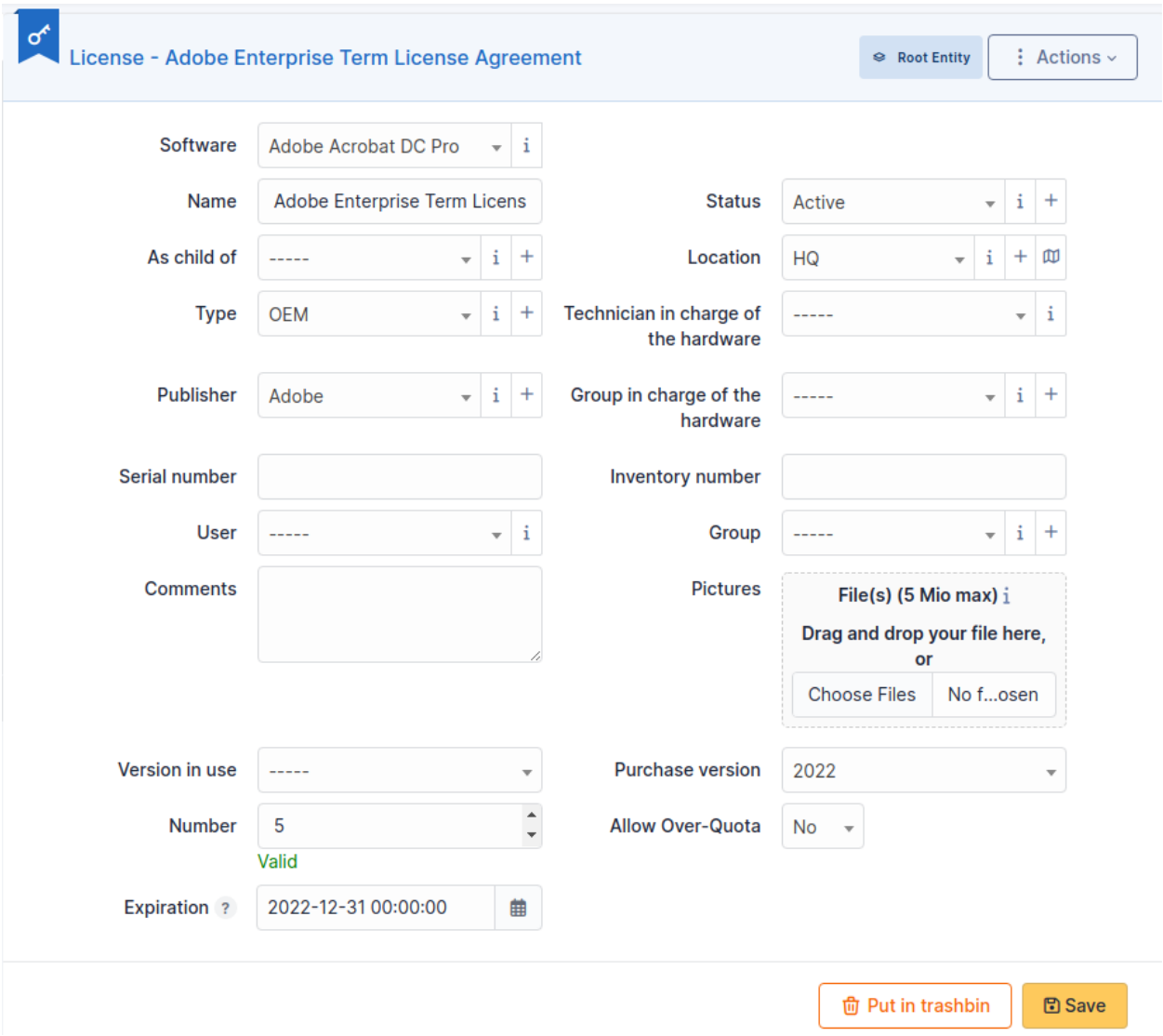
The GLPI Management module is used to manage the following items :

Licenses

Licenses management in GLPI allows to manage software licenses :
— Inventorying licenses, with links to software inventoried in GLPI ;
— Following license installations on all assets ;
— Linking licenses to financial management ;
— Anticipating and following licenses renewal.

Note : A license cannot exists in GLPI without a software associated to the license when creating it.

License management is not automated, a human follow-up is needed for information update.



Note : It is possible to use *templates to generate this object*.

Description of specific fields

- **As child of** : allows to specify if the license is dependent upon another license ;
- **Version in use** : the version of the software associated with the license ;
- **Purchase version** : the purchase version, which can differ from *Version in use* ; if different, this field indicates it ;
- **Number** : the maximum number of uses of the license by assets ;
- **Allow Over-Quota** : allow or not the overflow of maximum number configured in field *Number* ;
- **Expiration date** : expiration date of the license, useful to configure alerts and anticipate renewal.

The different tabs

Licenses

This tab lists all licenses declared as child of this license.

Note : Some licenses can be obtained by pack or by group, linking them by child/parent relationship allows to declare it.

Sons of Pack of Licenses

Name	Entity	Comments
License 10 Pack	Root Entity	
Name	**Entity**	**Comments**

Summary

This tab lists all types and entities of items linked to this license.

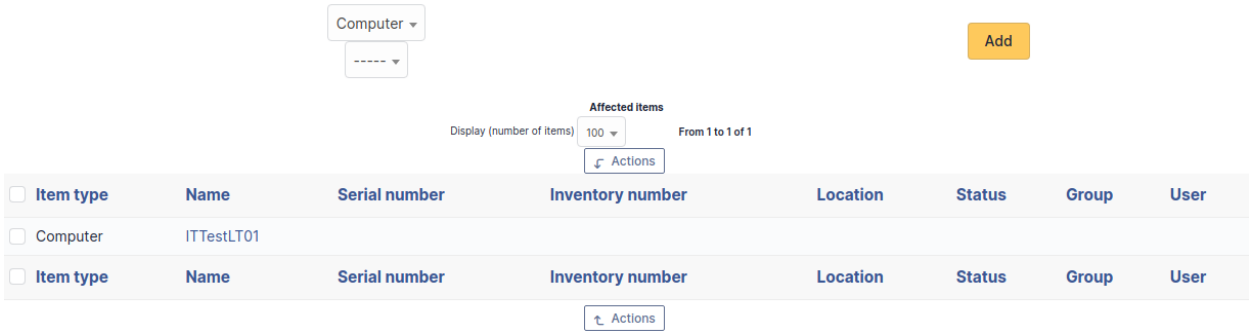
Note : The number of installations must be carefully checked against the field *Number* of the license.

Creating a link between an asset and the license id done in tab *Softwares* of the asset.

Entity	Number of affected items
Root Entity	
Computers	1
Total	**1**

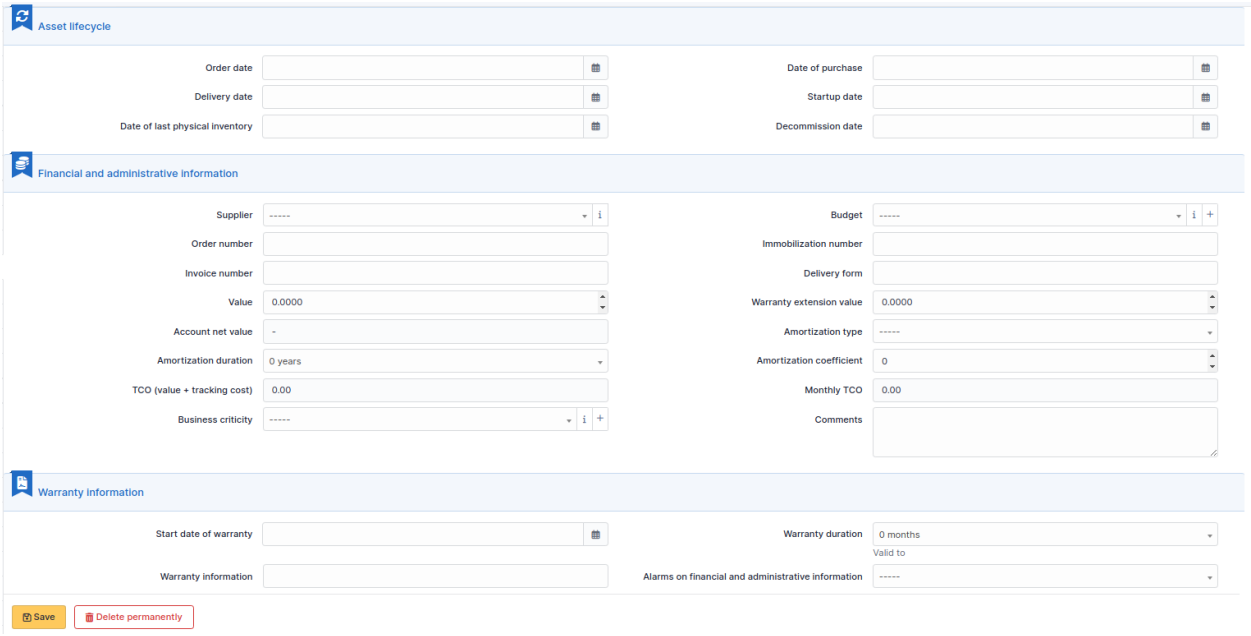
Items

This tab details each item linked to the license.

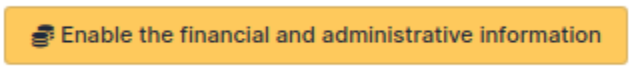


Management

Management of financial and administrative information, this information is visible in the "Management" tab on the computer's form.



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Note : It is possible to activate the administrative and financial information from the massive actions on a set of elements (computer, monitor, ...)

Note : It is possible to activate the administrative and financial information as soon as an element is created. See « Enable default administrative and financial information » option in Setup > General > Asset tab.

Financial information consists of the following items :

Lifecycle

— Order date
— Date of purchase
— Delivery date
— Date of implementation
— Date of last physical inventory
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Financial and administrative information

— Supplier : Third party who sold the equipment. See *Managing suppliers*. Suppliers are managed from the menu **Management > Suppliers**.
— Order number : number of the order of the equipment.
— Asset number.
— Invoice number : equipment invoice number.
— Delivery note : delivery note for the equipment.
— Value : cost of the equipment.
— Warranty extension value : cost of the warranty extension, but preferably use contracts.
— Account net value : this is the automatic calculation of the gross value of a piece of equipment minus the amount of depreciation.
— Type of depreciation : choice of the type of depreciation between linear and declining balance.
— Depreciation period : depreciation period expressed in years.
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— Budget : the budget on which this equipment was purchased See *Managing the budget*.
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— Startup date : date on which the equipment was put into service.
— Date of last physical inventory : date of the last physical inventory of the equipment.
— Comments.
— Monthly TCO : TCO divided by the number of months between today's date and the date of purchase of the equipment.

Warranty information

— Warranty start date : date on which the warranty of the equipment starts
— Warranty information : text qualifying the warranty
— **Warranty period : duration of the warranty expressed in months**
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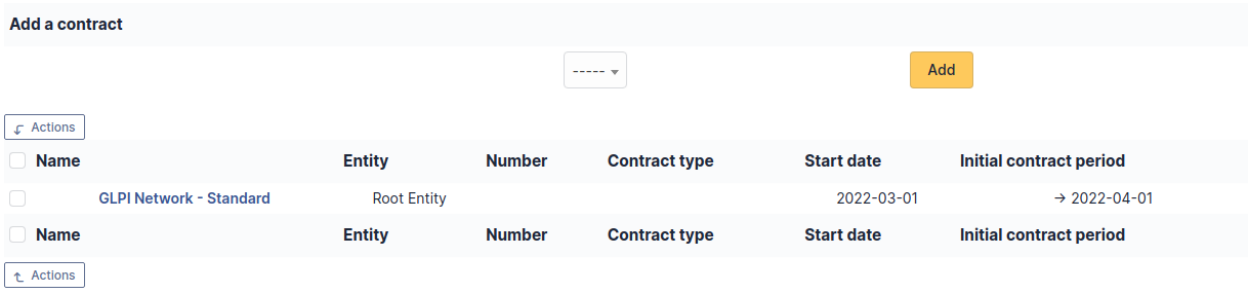
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Associated Contracts

The *Contracts* tab is used to show or add linked contracts.



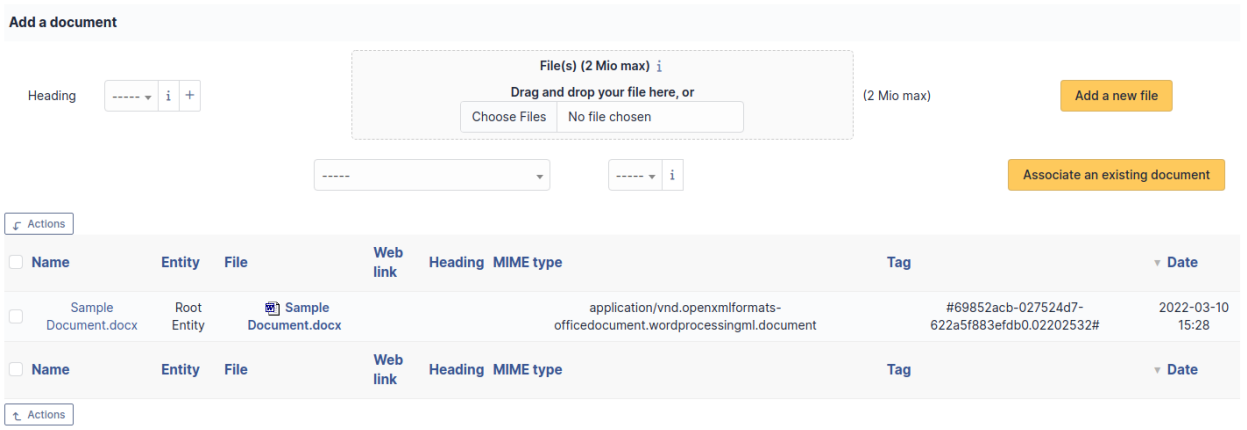
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Refer to *contract management* for more information.

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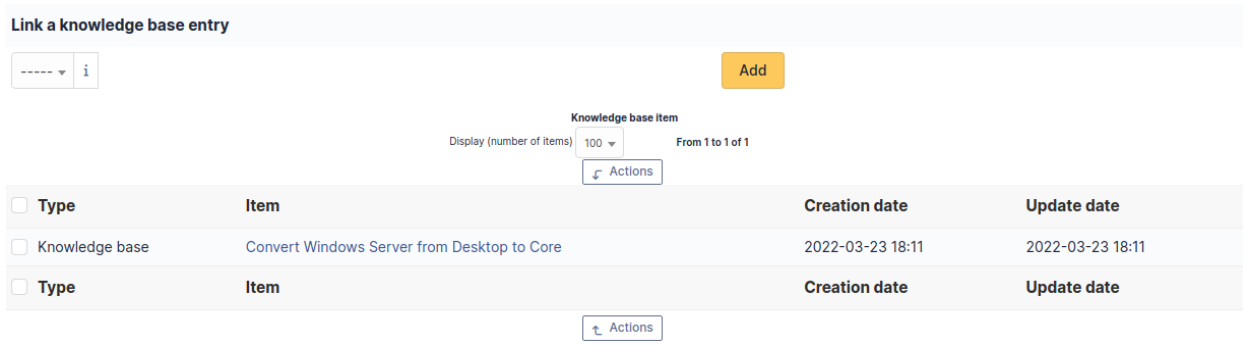
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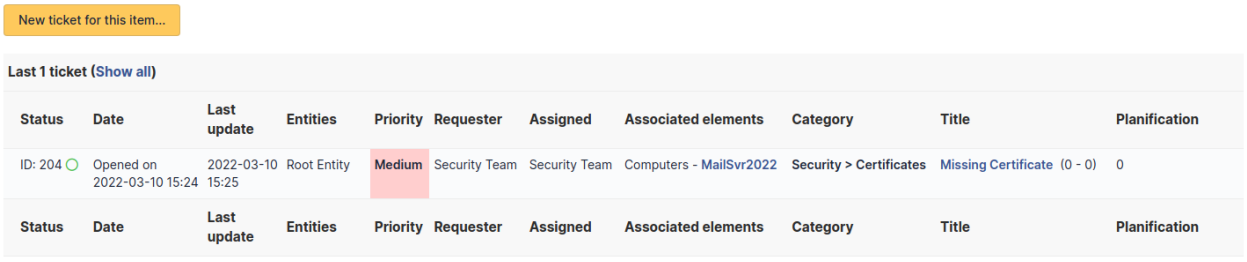
Knowledge base

The *Knowledge base* tab is used to show or add linked knowledge base articles.



Tickets

The *Tickets* tab is used to create a ticket associated with the current object. It also lists the tickets already linked to the object.



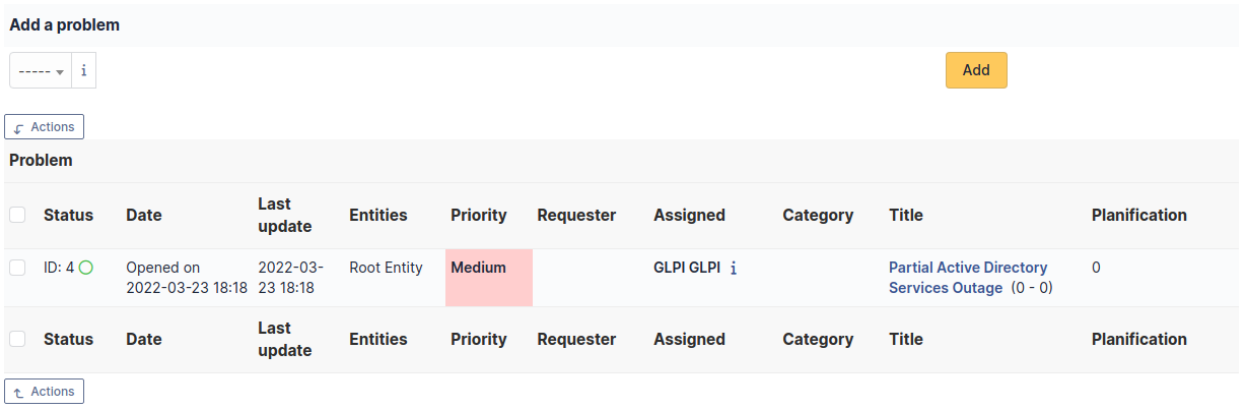
Note : A second table lists the tickets attached to the linked elements

Note : Any deletion or addition of a ticket is recorded in the history.

Problems

The *Problems* tab is used to create a problem associated with the current object. It also lists the changes already linked to the object.

This summary table includes for each object :
- Status
- Date (opening or expiry date, resolution or closing date depending on the status of the problem)
- Priority
- Requestor(s) and assigned technician(s)
- Associated elements
- Category
- Name
- Column indicating the number of scheduled tasks



Note : A second table lists the problems attached to the related elements

Note : Any deletion or addition of a problem is recorded in the history.

Changes

The *Changes* tab is used to create a change associated with the current object. It also lists the changes already linked to the object.

This summary table includes the following fields for each object :
- Status
- Date (opening or expiry date, resolution or closing date depending on the status of the change)
- Priority
- Requestor(s) and assigned technician(s)
- Associated elements
- Category
- Name
- Number of scheduled tasks



Note : A second table lists the changes attached to the related elements

Note : Any deletion or addition of a change is recorded in the history.

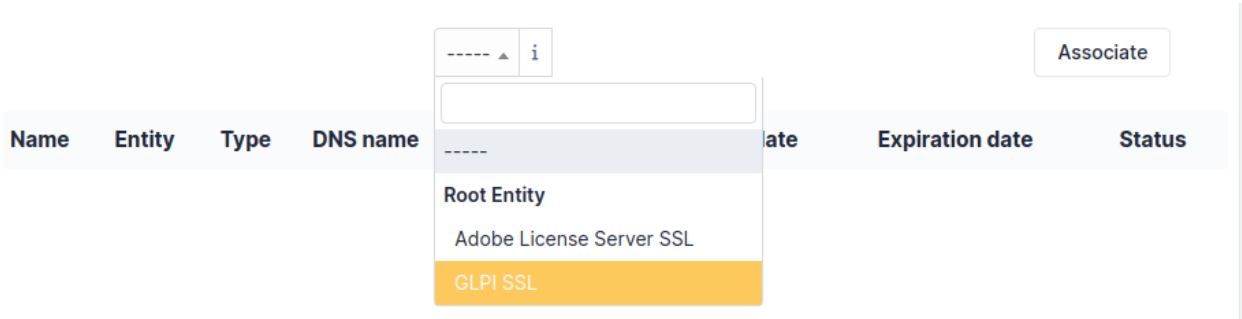
Notes

The *Notes* tab provides a free text field for storing additional information. Notes are displayed in the order of their creation.



Certificates

This tab allows to attach a certificate present in GLPI to the license.



History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :

- ID of the change.
- Date and time the change was made.
- User who made the change. If this field is not filled, it means that the action was done automatically (For example : automatic inventory update).
- Field that was changed.
- Description of the change that was made.

The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

All Information

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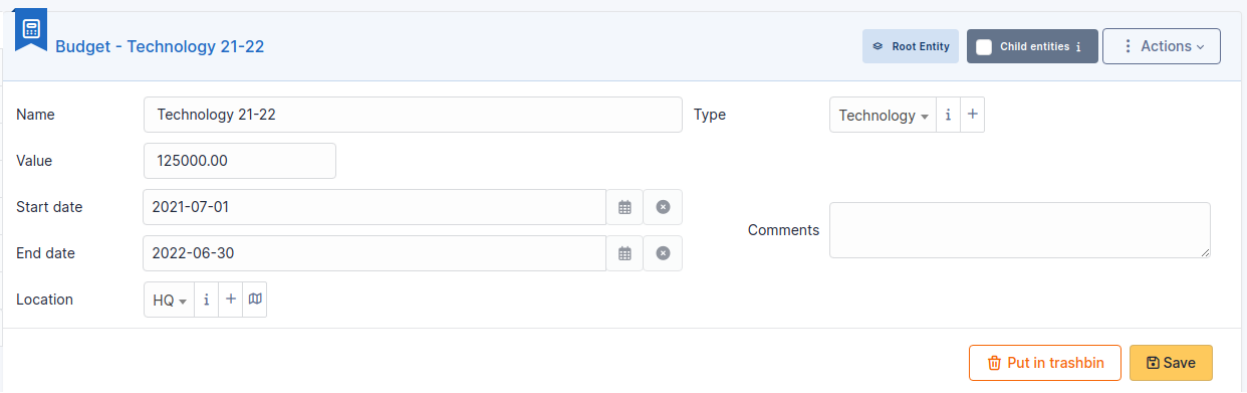
Budgets

A budget in GLPI is defined by an amount and a time period. Other GLPI items can be attached to this budget and will then, by providing their value, modify the budget available amount.

Creating a budget in GLPI enables the administrative and financial management functionality for all other GLPI items.

It is possible to follow the evolution of a budget by tracing the value of each attached item.

Note : Attaching a GLPI item to a budget is done via tab *Management* of the item !



Note : When displaying a budget from a sub-entity, the budget remaining total amount is not visible.

The budget remaining total amount can be negative if the sum of the values of attached items is greater than the budget amount.

Note : It is possible to use *templates to generate this object*.

The different tabs

Main tab

This tab provides a summary table giving the expended amount of the budget, sorted by item type, as well as total remaining amount.

Total spent on the budget

Entity	Computer	Contract	Total
Root Entity	20,156.00	3,961.29	**24,117.29**
Total	**20,156.00**	**3,961.29**	**24,117.29**
		Total spent on the budget	**24,117.29**
		Total remaining on the budget	**100,882.71**

Items

This tab displays GLPI items attached to this budget as well as their value.

Display (number of items) 100 — Associated item

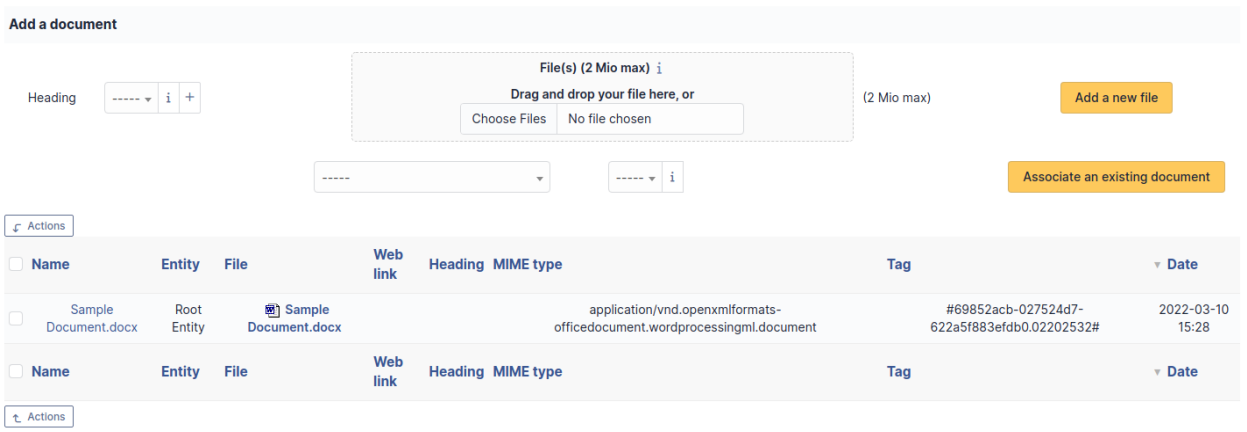
Type	Entity	Name	Serial number	Inventory number	Value
Computers: 4	Root Entity	FS1			5039.00
	Root Entity	FS2			5039.00
	Root Entity	FS3			5039.00
	Root Entity	GLPIAD	-	-	5039.00
Contract	Root Entity	GLPI Network - Standard	-	-	3961.29
Total = 5					

Note : Attaching a GLPI item to a budget is done via tab *Management* of the item !

Documents

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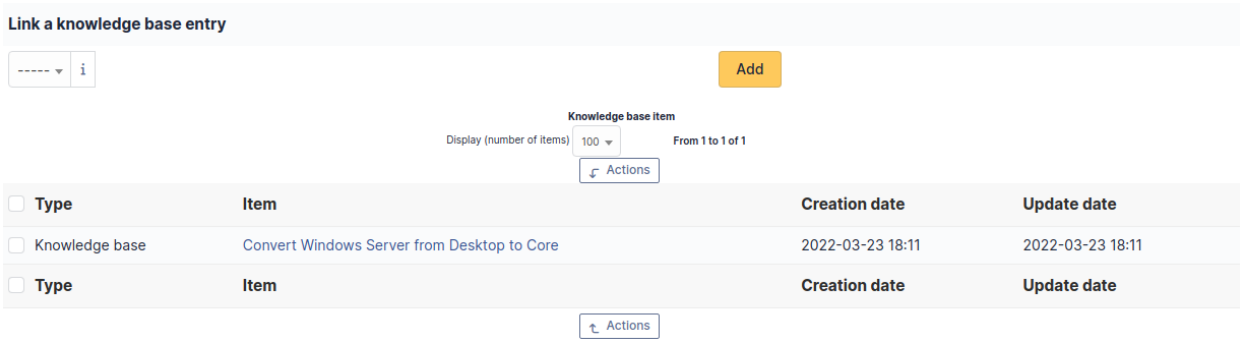
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The *External links* tab is used to show associated external links.

For some items, external links are managed from the menu **Setup > External links**.

These links can use object fields such as IP, name, etc. See *Configure protocol external links*.

Examples :

- A web link : http://192.168.0.1 (IP retrieved from the network port of the hardware) ;
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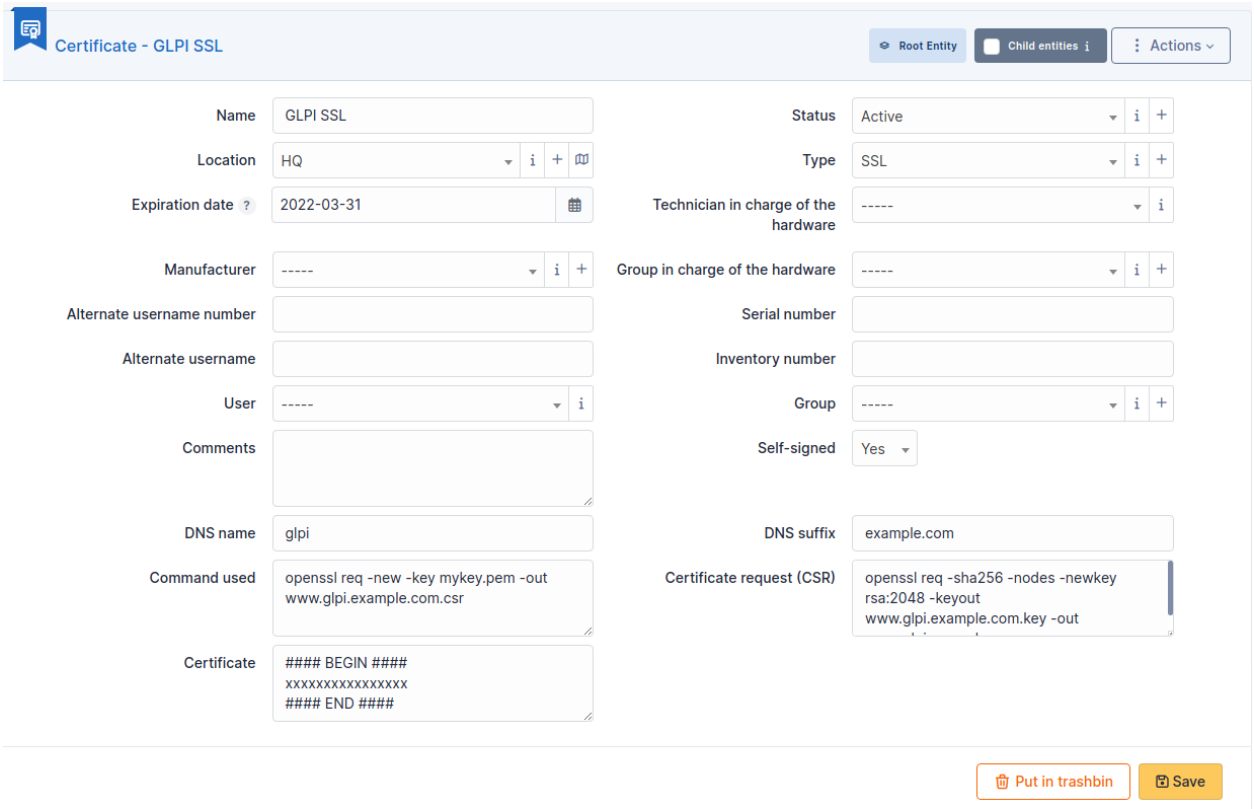
All Information

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Certificates

Certificates management in GLPI allows to :

- Create an inventory of all organization certificates ;
- Follow installation of certificates on assets ;
- Include certificates in GLPI financial management ;
- Anticipate and follow certificates renewal.



Note : It is possible to use *templates to generate this object*.

Description of specific fields

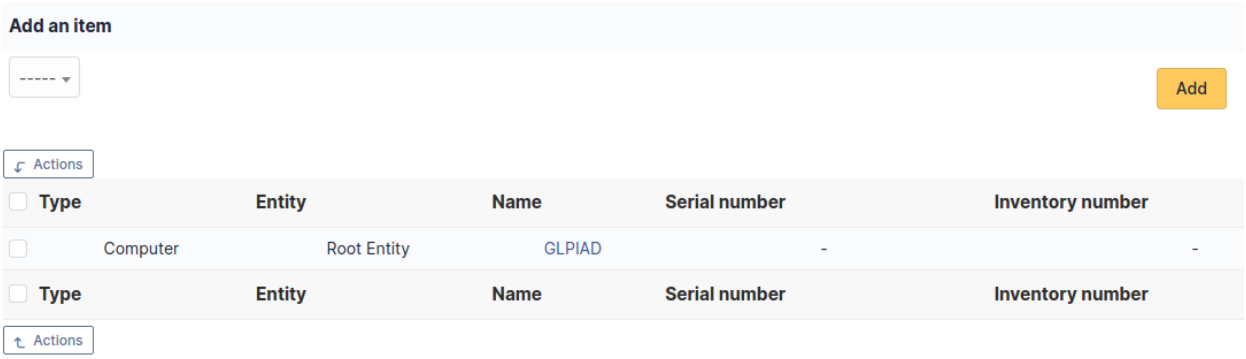
- **Manufacturer (Root CA)** : This drop-down list allows you to select the certificate manufacturer ;
- **Self-signed** : Tells whether certificate is self-signed ;
- **DNS name** : The prefix of the domain name associated with the certificate (for example, if domain name is *server.mycompany.com*, DNS name is *server*) ;
- **DNS suffix** : The suffix of the domain name associated with the certificate (for example, if domain name is *server.mycompany.com*, DNS suffix is *mycompany.com*) ;
- **Expiration date** : Expiration date of the certificate, useful to configure alerts and anticipate renewal ;
- **Command used** : Can store the system command that generated the certificate ;

— **Certificate Request (CSR)** : Can store the system command that generated the CSR file ;
— **Certificate** : Can store the data contained in the CRT file (PEM).

The different tabs

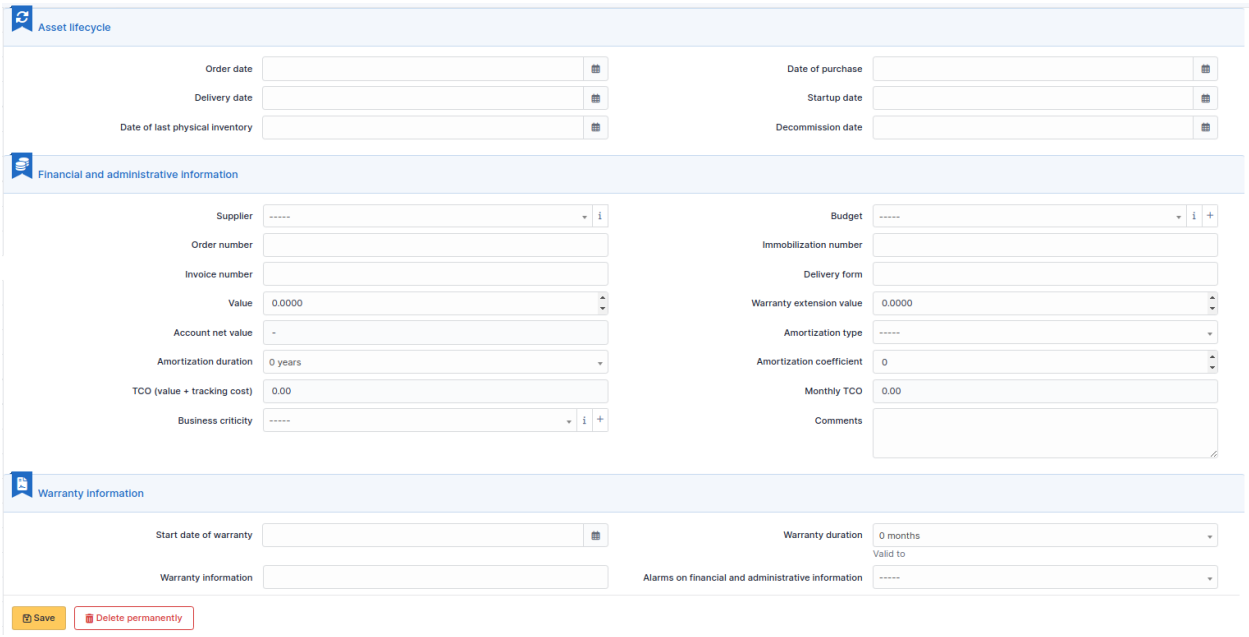
Associated elements

The *Items* tab is used to show or add linked assets.

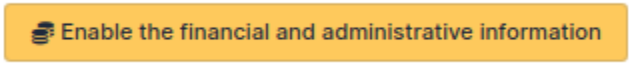


Management

Management of financial and administrative information, this information is visible in the “Management” tab on the computer’s form.



By default this management is disabled. It is possible to activate the financial information on any type of object in the inventory by using the link in the *Management* tab of the material detail.



Note : It is possible to activate the administrative and financial information from the massive actions on a set of elements (computer, monitor, …)

Note : It is possible to activate the administrative and financial information as soon as an element is created. See « Enable default administrative and financial information » option in Setup > General > Asset tab.

Financial information consists of the following items :

Lifecycle

— Order date
— Date of purchase
— Delivery date
— Date of implementation
— Date of last physical inventory
— Date of reform

Financial and administrative information

— Supplier : Third party who sold the equipment. See *Managing suppliers*. Suppliers are managed from the menu **Management > Suppliers**.
— Order number : number of the order of the equipment.
— Asset number.
— Invoice number : equipment invoice number.
— Delivery note : delivery note for the equipment.
— Value : cost of the equipment.
— Warranty extension value : cost of the warranty extension, but preferably use contracts.
— Account net value : this is the automatic calculation of the gross value of a piece of equipment minus the amount of depreciation.
— Type of depreciation : choice of the type of depreciation between linear and declining balance.
— Depreciation period : depreciation period expressed in years.
— Depreciation coefficient : coefficient applied to a straight-line depreciation type in order to obtain the values of the declining balance type. It is therefore only used if the type of depreciation is declining balance.
— TCO (value+amount of interventions) : the total cost of ownership which includes all the constituent elements of an invoiced product.
— Budget : the budget on which this equipment was purchased See *Managing the budget*.
— Order date : date on which the material was ordered.
— Purchase date : date on which the equipment was purchased.
— Delivery date : date on which the equipment was delivered.
— Startup date : date on which the equipment was put into service.
— Date of last physical inventory : date of the last physical inventory of the equipment.
— Comments.
— Monthly TCO : TCO divided by the number of months between today's date and the date of purchase of the equipment.

Warranty information

- Warranty start date : date on which the warranty of the equipment starts
- Warranty information : text qualifying the warranty
- **Warranty period : duration of the warranty expressed in months**

  If a warranty start date and a warranty period are set, the information « Expires on » will appear with a date in red if it is earlier than the current date

All the dates defined can be managed automatically according to changes in the status of the equipment. Some dates can also be copied from another date. All this configuration is done by [entity](administration_entity_delegation.dita).

Tips

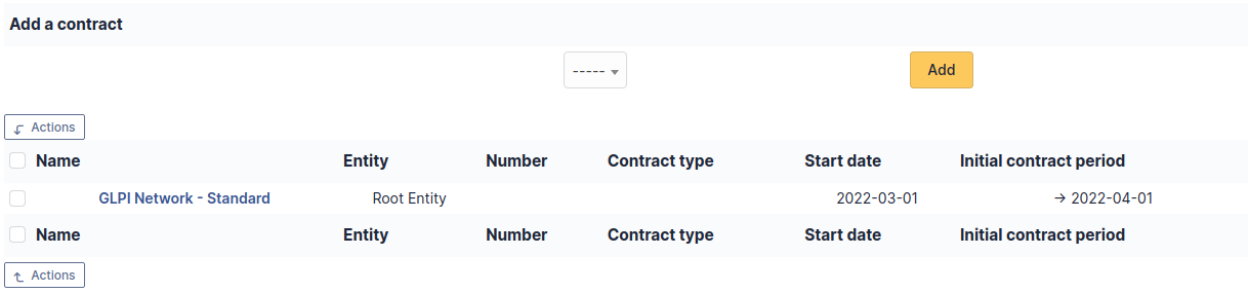
GLPI allows you to configure a notification on the expiry of the hardware warranty. This is configurable by entity in notification management to define the models and recipients used and in *the administration of entities* to enable or disable this feature, define the default values and anticipate the sending of the notification if necessary.

GLPI can perform a simple net book value calculation based on straight-line or declining balance depreciation. To do so, a certain amount of information (value, date, etc.) must be entered. The user must also enter the date of the financial year the general configuration.

The display of financial information for each type of equipment depends on the profile of the user logged in.

Associated Contracts

The *Contracts* tab is used to show or add linked contracts.



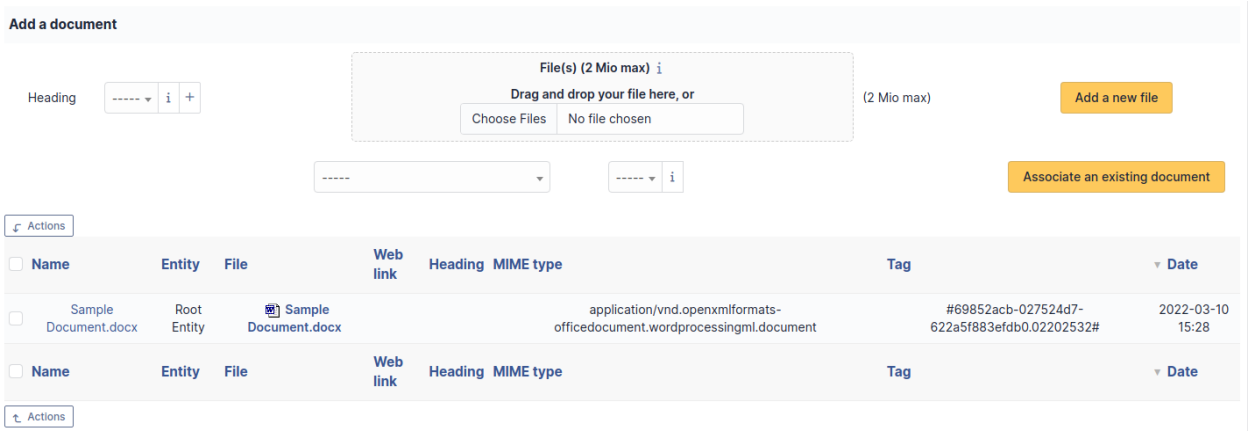
For each associated contract, the name, number, contract type, supplier, start date and initial duration of the contract are listed. In the last field, the end date of the contract is also shown with a red display if the date is earlier than the current date.

Refer to *contract management* for more information.

Documents

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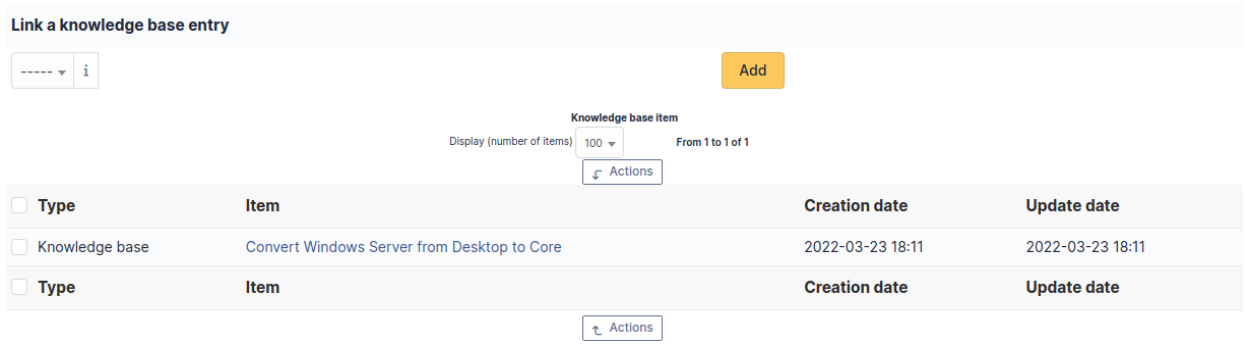
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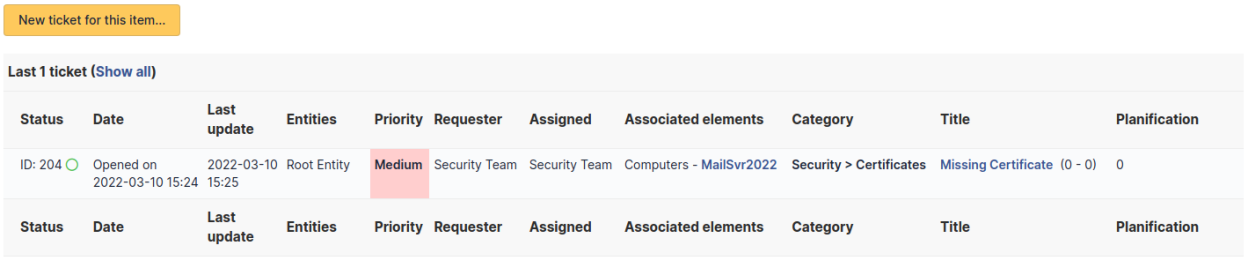
Knowledge base

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Tickets

The *Tickets* tab is used to create a ticket associated with the current object. It also lists the tickets already linked to the object.



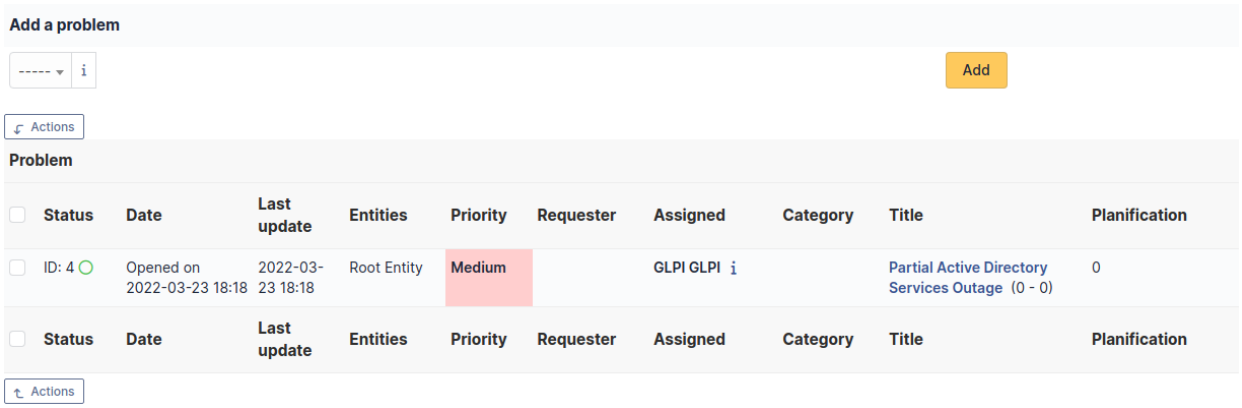
Note : A second table lists the tickets attached to the linked elements

Note : Any deletion or addition of a ticket is recorded in the history.

Problems

The *Problems* tab is used to create a problem associated with the current object. It also lists the changes already linked to the object.

This summary table includes for each object :
- Status
- Date (opening or expiry date, resolution or closing date depending on the status of the problem)
- Priority
- Requestor(s) and assigned technician(s)
- Associated elements
- Category
- Name
- Column indicating the number of scheduled tasks



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Examples :

- A web link : http://192.168.0.1 (IP retrieved from the network port of the hardware) ;
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Notes

The *Notes* tab provides a free text field for storing additional information. Notes are displayed in the order of their creation.



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Suppliers

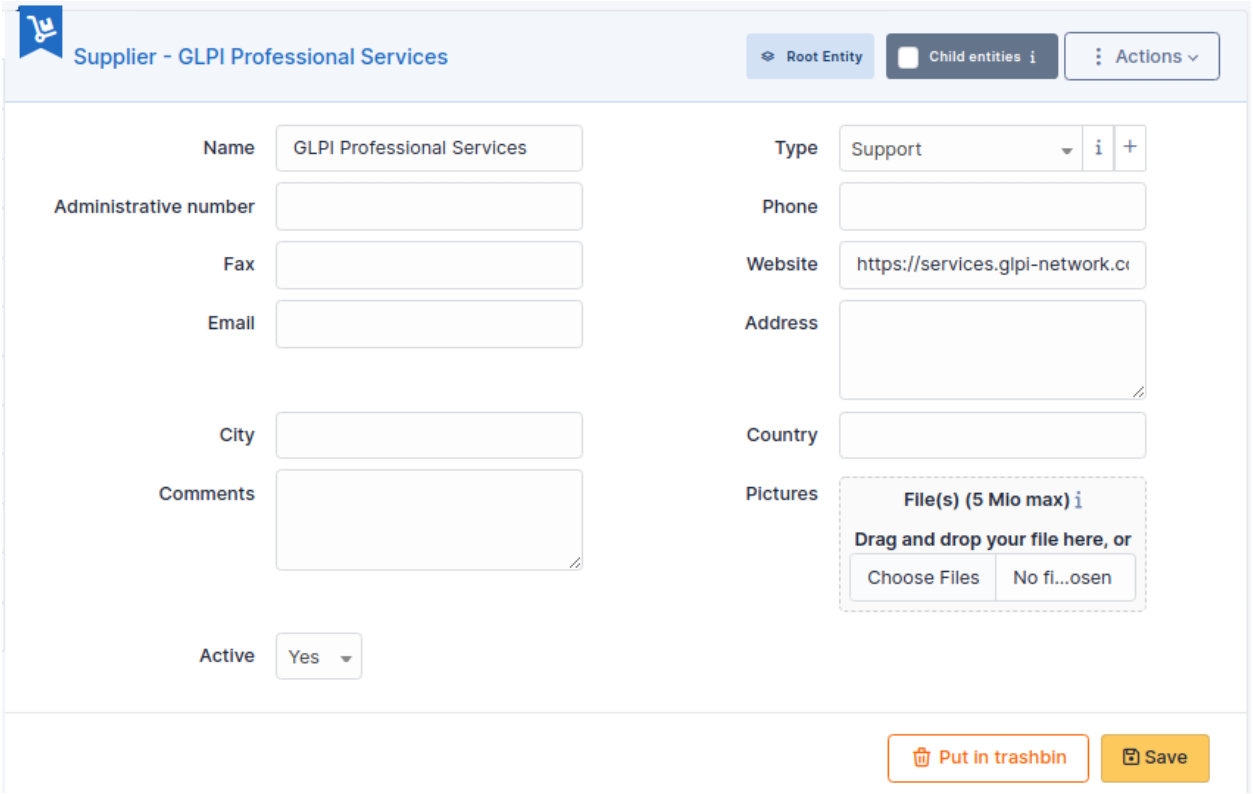
GLPI supports suppliers management, in order to identity the supplier of an asset in asset management but also to attribute tickets to the supplier, either a person or a company.

When buying an equipment of make X from supplier Y, two distinct information must be managed in GLPI : the vendor (X) and the supplier (Y).

A supplier is characterized by a name, a third party type, a location (address, postal code, town, country) and a contact (web site, phone, fax…).

Supplier management allows to :

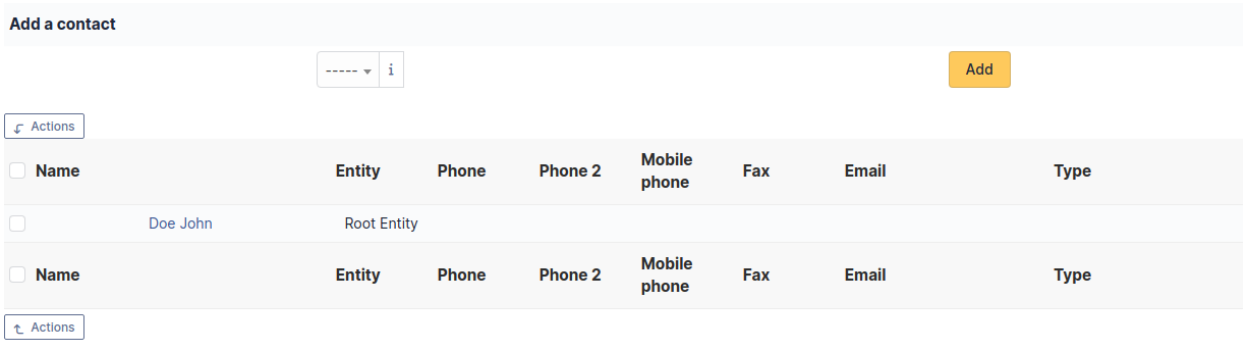
- reference all suppliers of organization assets
- ease contact in case of incident
- include suppliers in GLPI assistance



-The different tabs

Associated Contacts

The *Contacts* tab is used to show or add linked contacts.

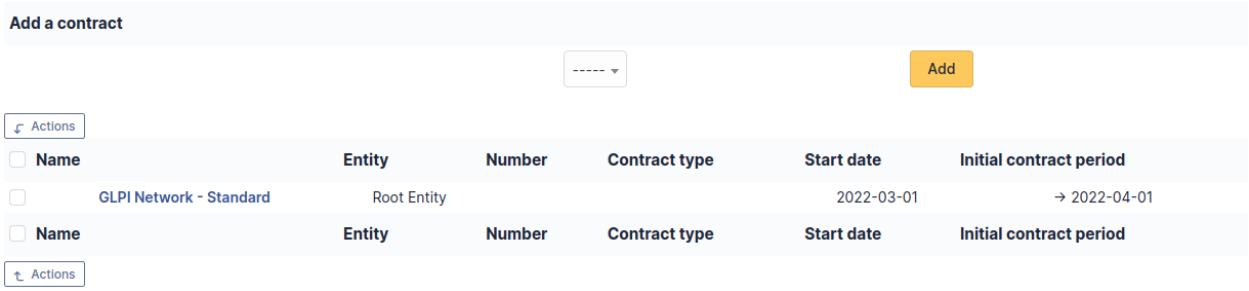


Note : There is a clear distinction between a supplier (which can be attached to assets) and a contact (which are the persons allowing to contact the supplier). Therefore, a supplier must be associated with contacts.

Example : M. Doe is sale assistant in company Foo. Create a supplier named Foo. Create a contact for M. Doe. Assign to this contact the type « Sale » Attach the contact to supplier Foo

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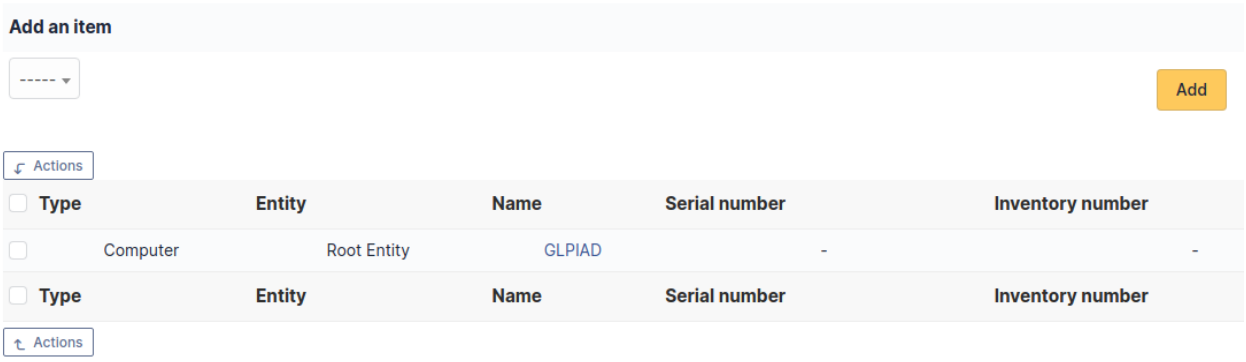


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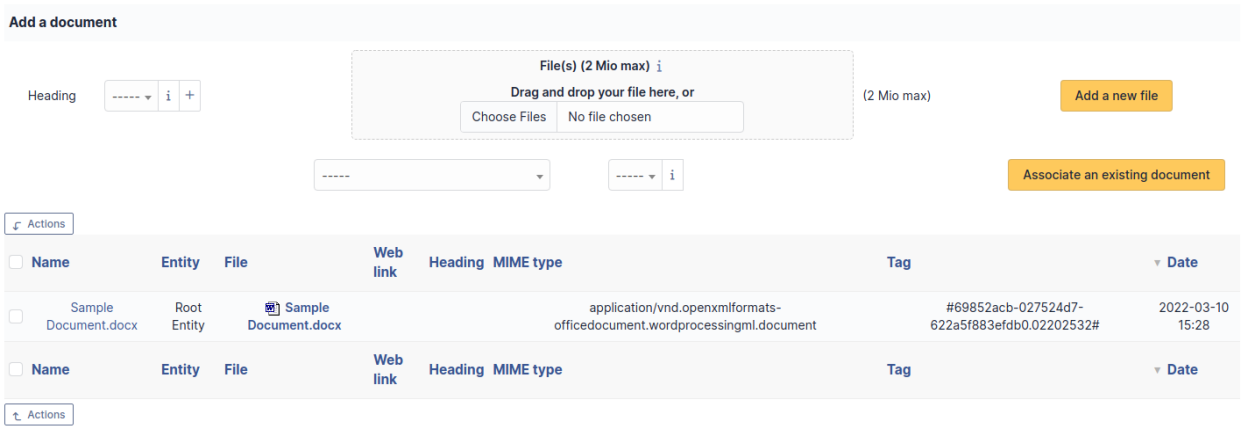
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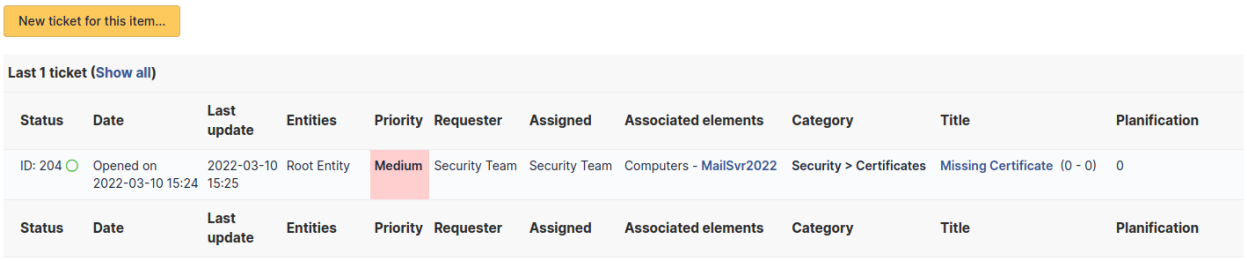
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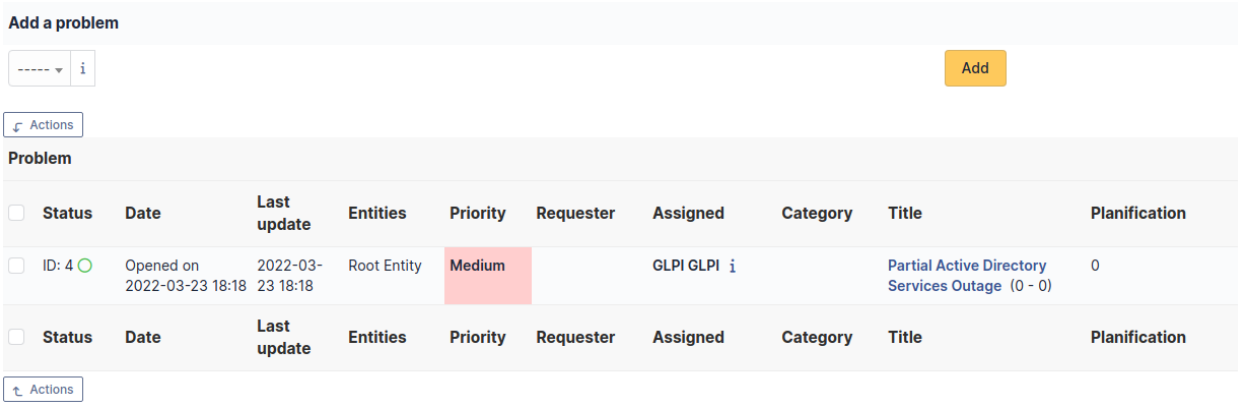
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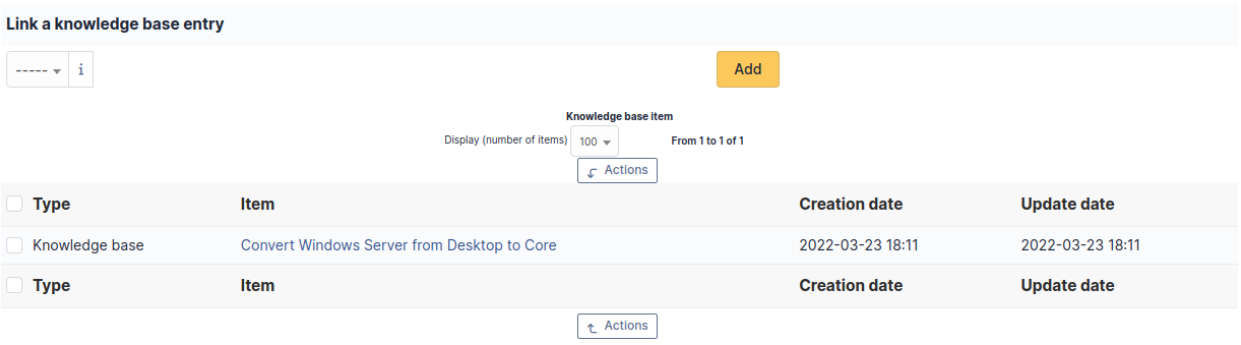
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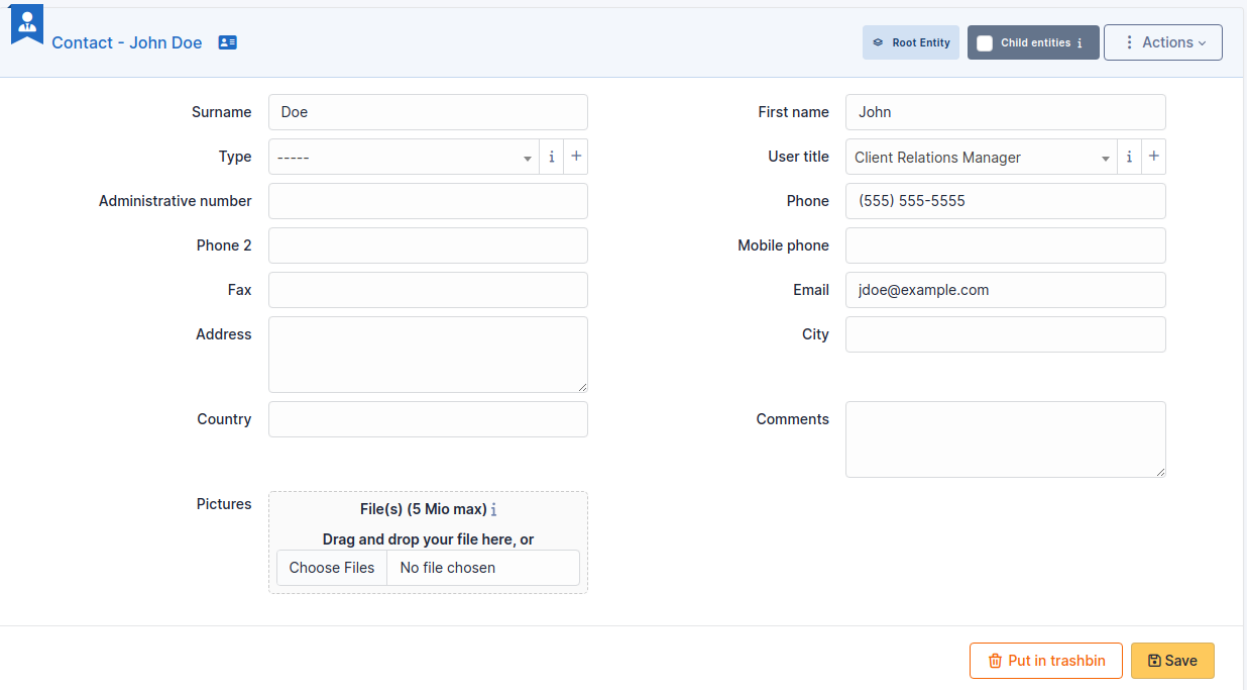
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Contacts

GLPI users are the persons having an authentication for the GLPI application. External persons, usually associated with contracts, are known to GLPI as *Contacts*.

A contact is characterized by usual identity informations as well as title, phone number, mail address… Defining a list of contact types allows to sort contacts by types. It is also possible to export a contact in vCard format.

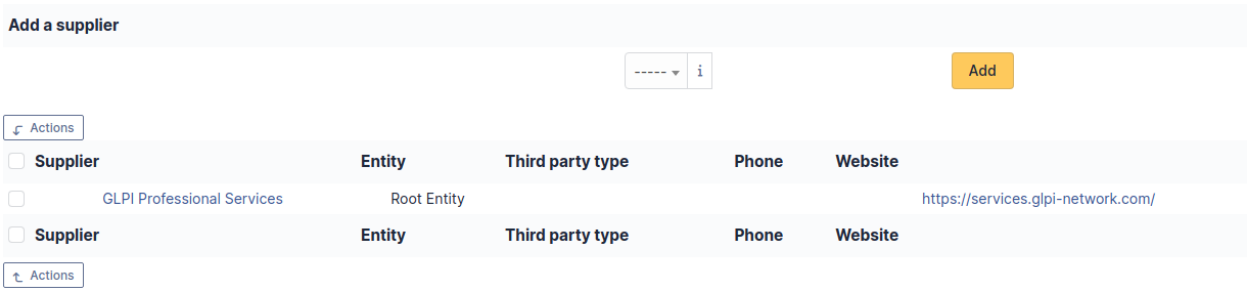


Note : The list of possible titles for a contact is the same as the list of possible titles for users.

The different tabs

Suppliers

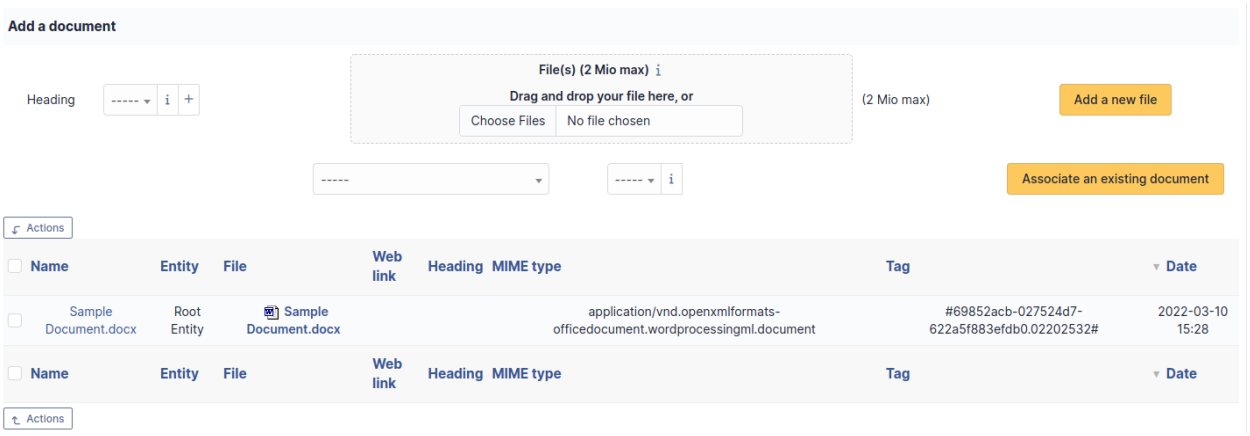
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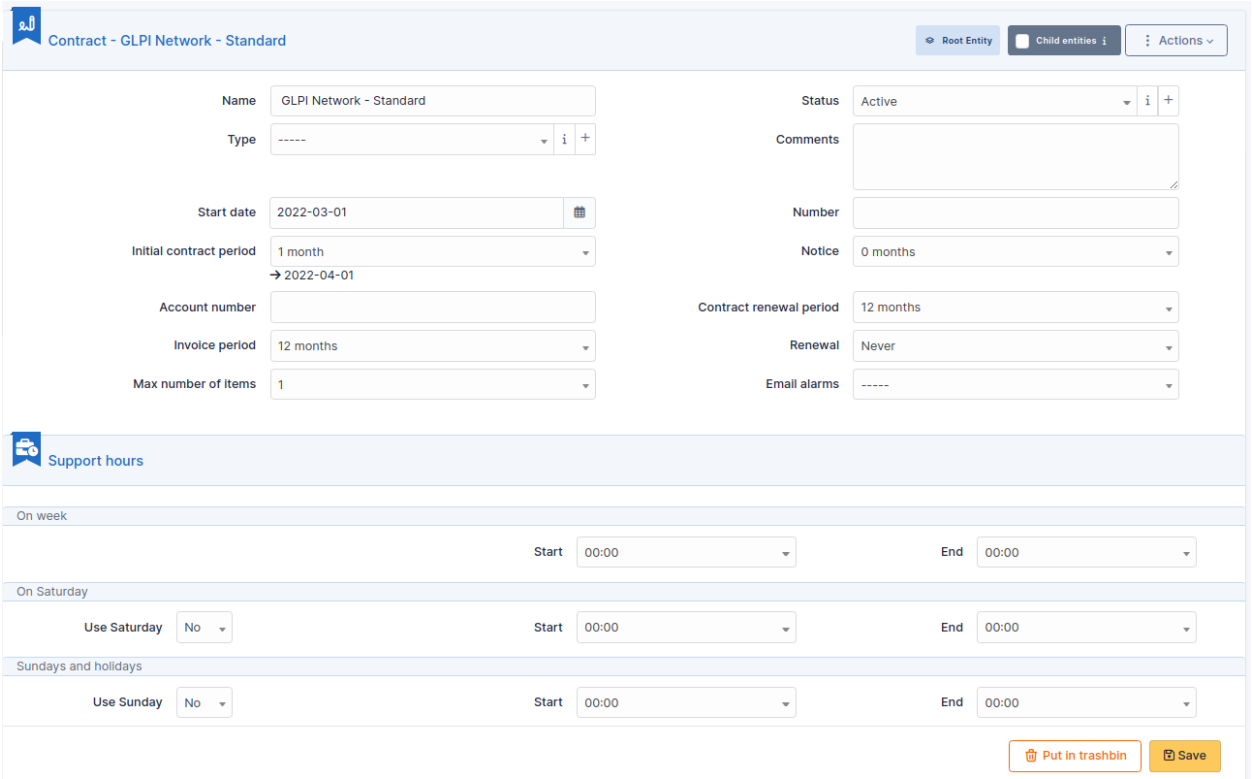
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Contracts

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Contracts management allows to :

— make an inventory of all contracts related to the organization assets
— integrate contracts in GLPI financial management
— anticipate and follow contract renewal.



Note : It is possible to use *templates to generate this object*.

Note : It is possible to receive notifications in order to be informed of events such as contract end. When contract must be renewed expressly, it is useful to be notified before end of contract. For periodic contracts, it is also possible to be notified at the end of each period. Notifications are configured at entity level, in menu **Setup > Notifications** to define models and destination and in menu **Administration > Entities** to enable notification, define default values and a possible anticipation of notification.

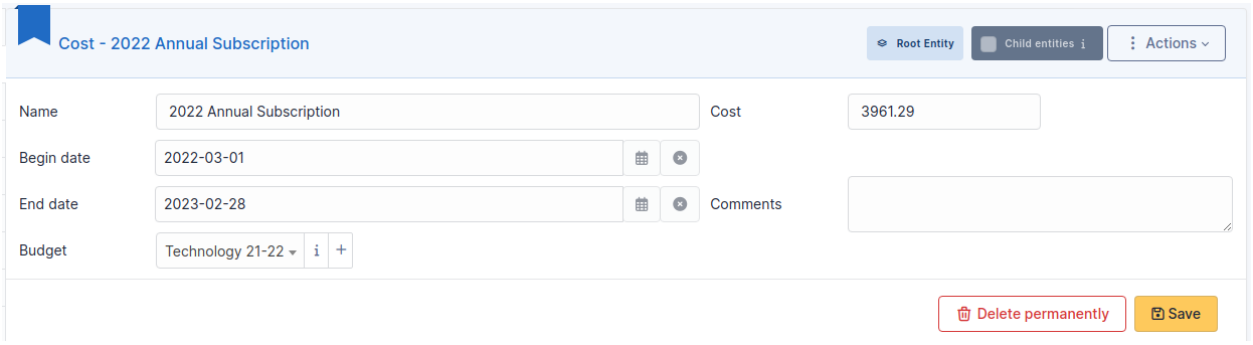
Description of specific fields

- **Contract type** : by default, no contract type is defined, contract types must be configured in drop-down configuration ;
- **Number** : contract number ;
- **Start date** : date at which contract starts, all periodicity based events are computed using this date ;
- **Initial contract period** : if this field and start date are given, contract end date will appear, colored in red if contract has expired ;
- **Notice** : used to trigger alert notifications ;
- **Account number** : used to connect with company accounting software ;
- **Contract renewal period** : duration after which contract renewal is available ;
- **Invoice period** : duration between invoices ;
- **Renewal** : *Tacit* (the contract is automatically renewed if no party has ended it) or *Express* (needs agreement for renewal) ;
- **Max number of items** : attaching new items to this contract will be blocked when overflowing this number ;
- **Support hours** : support hours as defined in the contract, it is possible to distinguish week days, Saturdays and Sundays/holidays.

The different tabs

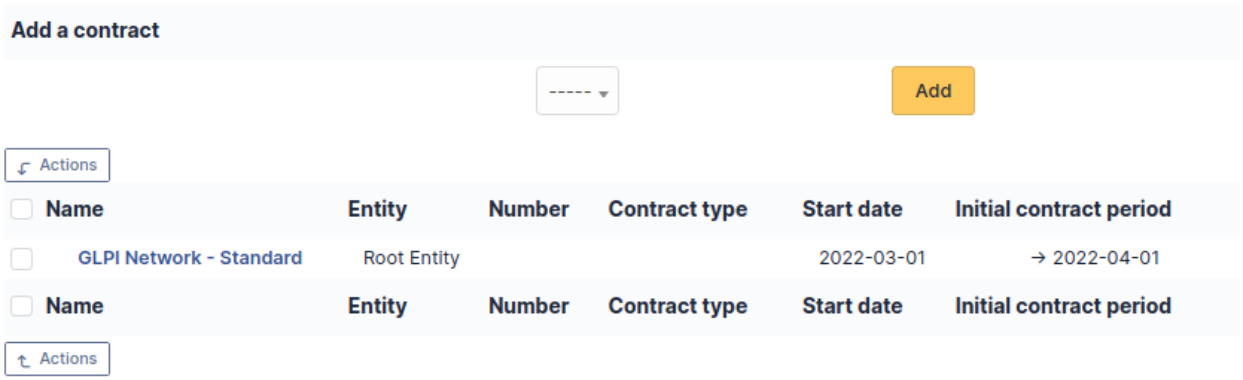
Costs

This tab allows to define a cost related to the contract and linked to a GLPI budget : the cost of the contract will be imputed to this budget.



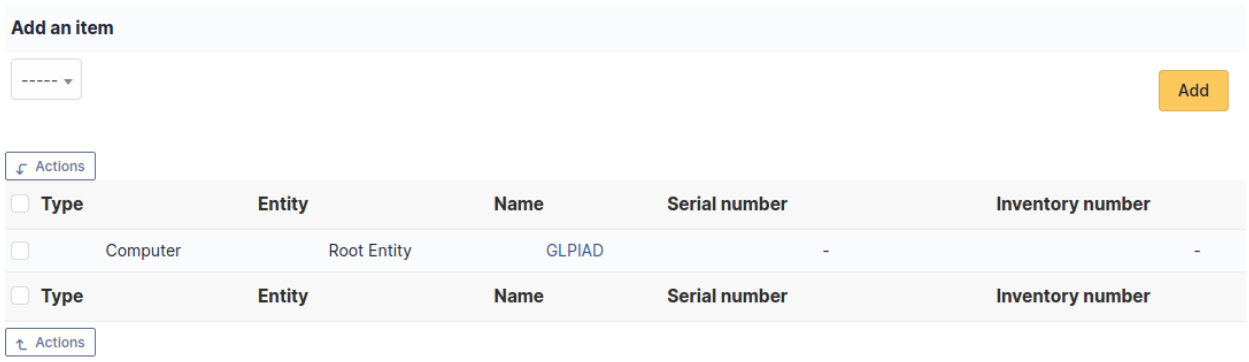
Suppliers

This tab allows to associate one or several suppliers to the contract.



Associated elements

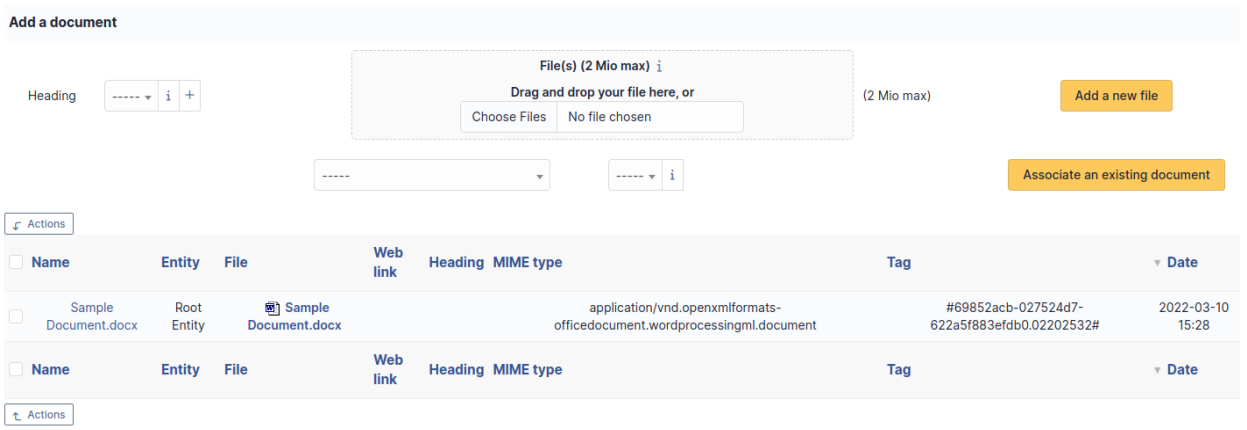
The *Items* tab is used to show or add linked assets.



Documents

Additional information is stored in the form of external documents which are files uploaded into GLPI. In the *Documents* tab, documents can be associated and unlinked with the selected item. The *management of the documents themselves* is dealt with in another chapter.

It is also possible to quickly create a document via this tab by specifying the desired file and optionally the field in which the new document is to be placed. The name of the created document will be based on the name of the added file.



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Associated External Links

The *External links* tab is used to show associated external links.

For some items, external links are managed from the menu **Setup > External links**.

These links can use object fields such as IP, name, etc. See *Configure protocol external links*.

Examples :

— A web link : http://192.168.0.1 (IP retrieved from the network port of the hardware) ;
— A RDP link for remote access : glpi ://MSTSC.EXE,pc001 (name « pc001 » retrieved from the hardware).

Notes

The *Notes* tab provides a free text field for storing additional information. Notes are displayed in the order of their creation.



History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :

- ID of the change.
- Date and time the change was made.
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Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

Debugging information

If you have *Debug* mode enabled in your preferences, a *Debug* tab will appear before the *All* tab. This tab offers information to help you resolve an issue.

For example, for a computer, you have one or more tables depending on the affected object (financial information, reservations…) listing the notifications that will be triggered on this computer with :

- Triggering event
- Recipient(s)
- Notification model used
- Recipient(s) email address

Notifications **(Ticket)**

Events	Recipients	Notification templates	Mode	Recipient
Closing of the ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New ticket	Profile: Admin	Tickets (en_GB)	mailing	admins@example.com
New ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Ticket solved	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost

All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

Documents

Documents management in GLPI allows to store digital documents or web links sorted under different headings.

A document is described by a **name** and an **comment** and can be associated to a **heading**.

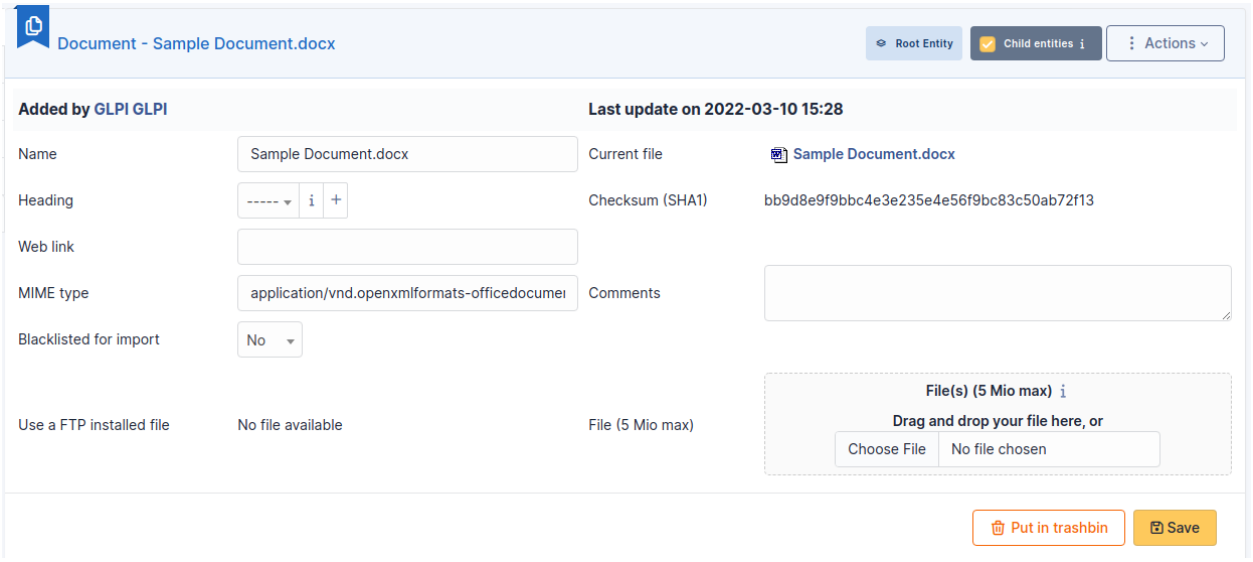
The file corresponding to the document can be added in several ways :

— From local disk ;
— Using a web link pointing to a document (image, HTML page, PDF…) ;
— Using a file previously transferred with FTP to sub-folder */files/_uploads/* of GLPI installation

A MIME type can also be given.

Note :

— Document types authorized in GLPI according to their extension are defined in **Setup > Dropdowns > Management > Document types**
— Document headings can be hierarchical
— The option **Blacklisted for import** allows to exclude this document from import by collectors ; it is useful for signature images, logos…



The different tabs

Associated elements

The *Items* tab is used to show or add linked assets.



Documents

It is possible in GLPI to attach other documents to a document, which explains why a *Document* has a *Document* tab.

Notes

The *Notes* tab provides a free text field for storing additional information. Notes are displayed in the order of their creation.



History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :

- ID of the change.
- Date and time the change was made.
- User who made the change. If this field is not filled, it means that the action was done automatically (For example : automatic inventory update).
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- Description of the change that was made.

The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

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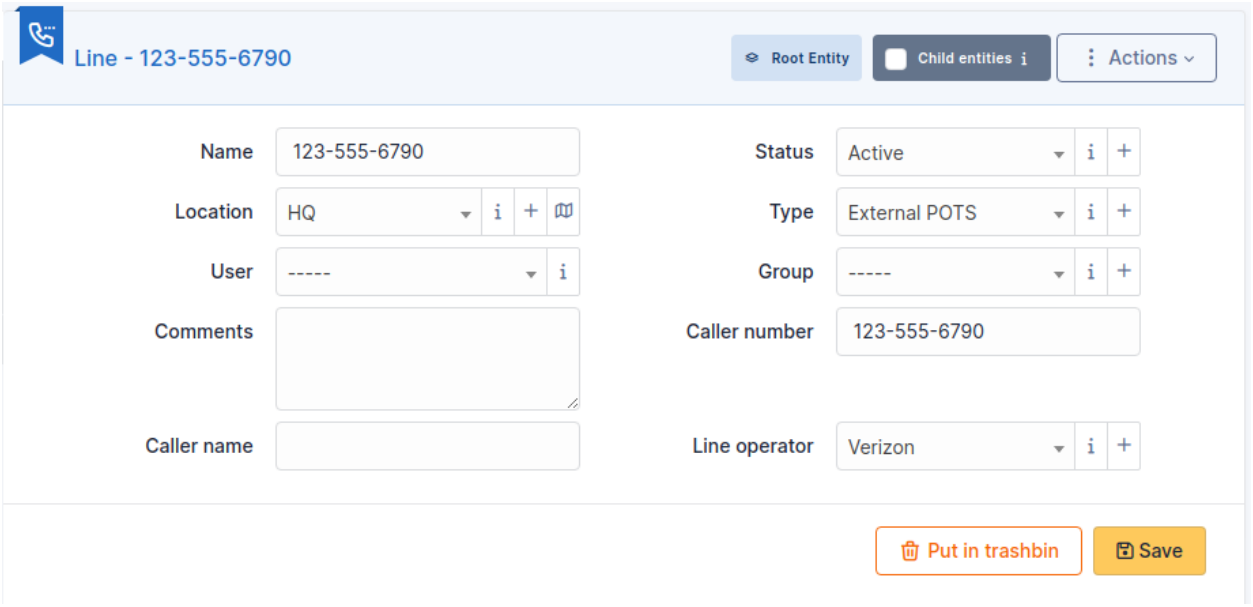
All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

Phone lines

Phone lines management in GLPI allows to :

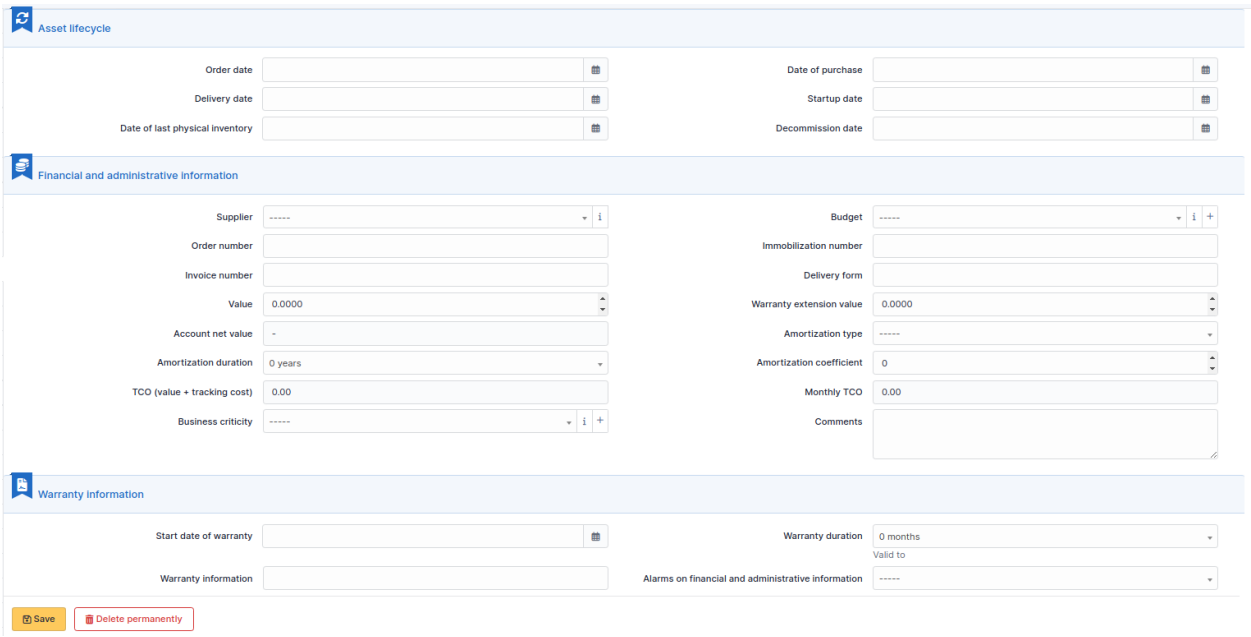
— Create an inventory of all organization's phone lines ;
— Follow information on each phone line ;
— Include phone lines in GLPI financial management.



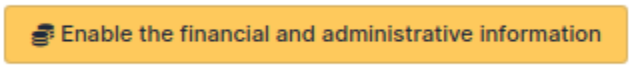
The different tabs

Management

Management of financial and administrative information, this information is visible in the "Management" tab on the computer's form.



By default this management is disabled. It is possible to activate the financial information on any type of object in the inventory by using the link in the *Management* tab of the material detail.



Note : It is possible to activate the administrative and financial information from the massive actions on a set of elements (computer, monitor, …)

Note : It is possible to activate the administrative and financial information as soon as an element is created. See « Enable default administrative and financial information » option in Setup > General > Asset tab.

Financial information consists of the following items :

Lifecycle

— Order date
— Date of purchase
— Delivery date
— Date of implementation
— Date of last physical inventory
— Date of reform

Financial and administrative information

- Supplier : Third party who sold the equipment. See *Managing suppliers*. Suppliers are managed from the menu **Management > Suppliers**.
- Order number : number of the order of the equipment.
- Asset number.
- Invoice number : equipment invoice number.
- Delivery note : delivery note for the equipment.
- Value : cost of the equipment.
- Warranty extension value : cost of the warranty extension, but preferably use contracts.
- Account net value : this is the automatic calculation of the gross value of a piece of equipment minus the amount of depreciation.
- Type of depreciation : choice of the type of depreciation between linear and declining balance.
- Depreciation period : depreciation period expressed in years.
- Depreciation coefficient : coefficient applied to a straight-line depreciation type in order to obtain the values of the declining balance type. It is therefore only used if the type of depreciation is declining balance.
- TCO (value+amount of interventions) : the total cost of ownership which includes all the constituent elements of an invoiced product.
- Budget : the budget on which this equipment was purchased See *Managing the budget*.
- Order date : date on which the material was ordered.
- Purchase date : date on which the equipment was purchased.
- Delivery date : date on which the equipment was delivered.
- Startup date : date on which the equipment was put into service.
- Date of last physical inventory : date of the last physical inventory of the equipment.
- Comments.
- Monthly TCO : TCO divided by the number of months between today's date and the date of purchase of the equipment.

Warranty information

- Warranty start date : date on which the warranty of the equipment starts
- Warranty information : text qualifying the warranty
- **Warranty period : duration of the warranty expressed in months**

  If a warranty start date and a warranty period are set, the information « Expires on » will appear with a date in red if it is earlier than the current date

All the dates defined can be managed automatically according to changes in the status of the equipment. Some dates can also be copied from another date. All this configuration is done by [entity](administration_entity_delegation.dita).

Tips

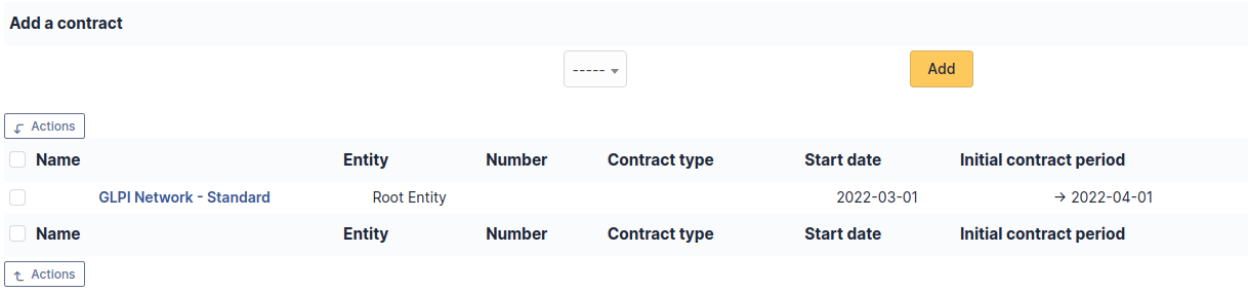
GLPI allows you to configure a notification on the expiry of the hardware warranty. This is configurable by entity in notification management to define the models and recipients used and in *the administration of entities* to enable or disable this feature, define the default values and anticipate the sending of the notification if necessary.

GLPI can perform a simple net book value calculation based on straight-line or declining balance depreciation. To do so, a certain amount of information (value, date, etc.) must be entered. The user must also enter the date of the financial year the general configuration.

The display of financial information for each type of equipment depends on the profile of the user logged in.

Associated Contracts

The *Contracts* tab is used to show or add linked contracts.



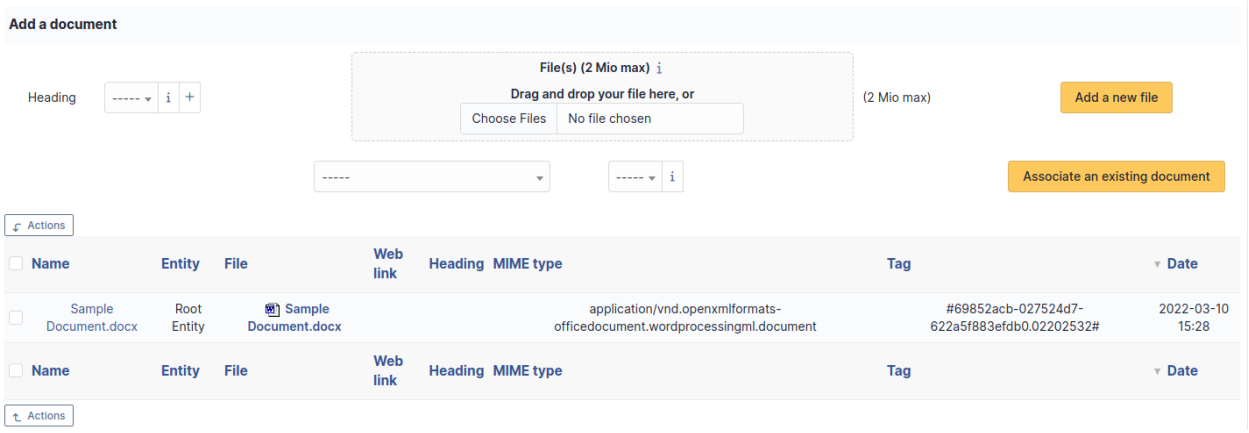
For each associated contract, the name, number, contract type, supplier, start date and initial duration of the contract are listed. In the last field, the end date of the contract is also shown with a red display if the date is earlier than the current date.

Refer to *contract management* for more information.

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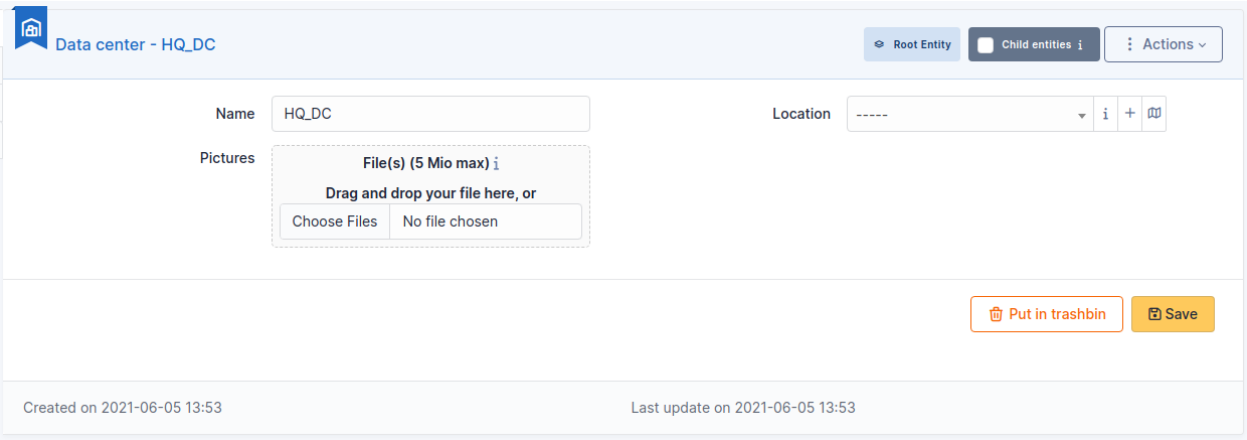
Data centers

Data centers management in GLPI, more precisely management of servers rooms and racks, allows to :

- Create an inventory of data centers, rooms and racks of the organization ;
- Include data centers in GLPI financial management ;
- Use other modules for data centers management, in particular *Assets* module which provides a detailed graphical representation of racks.

Data center

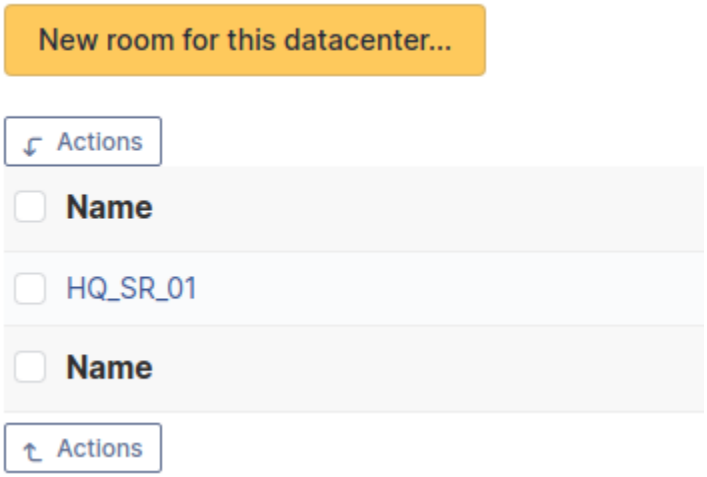
Data center in itself is a very simple object, with a name and a location, and allows only to group server rooms.



The different tabs

Server rooms

This tab displays server rooms attached to the data center and allows to add new rooms.



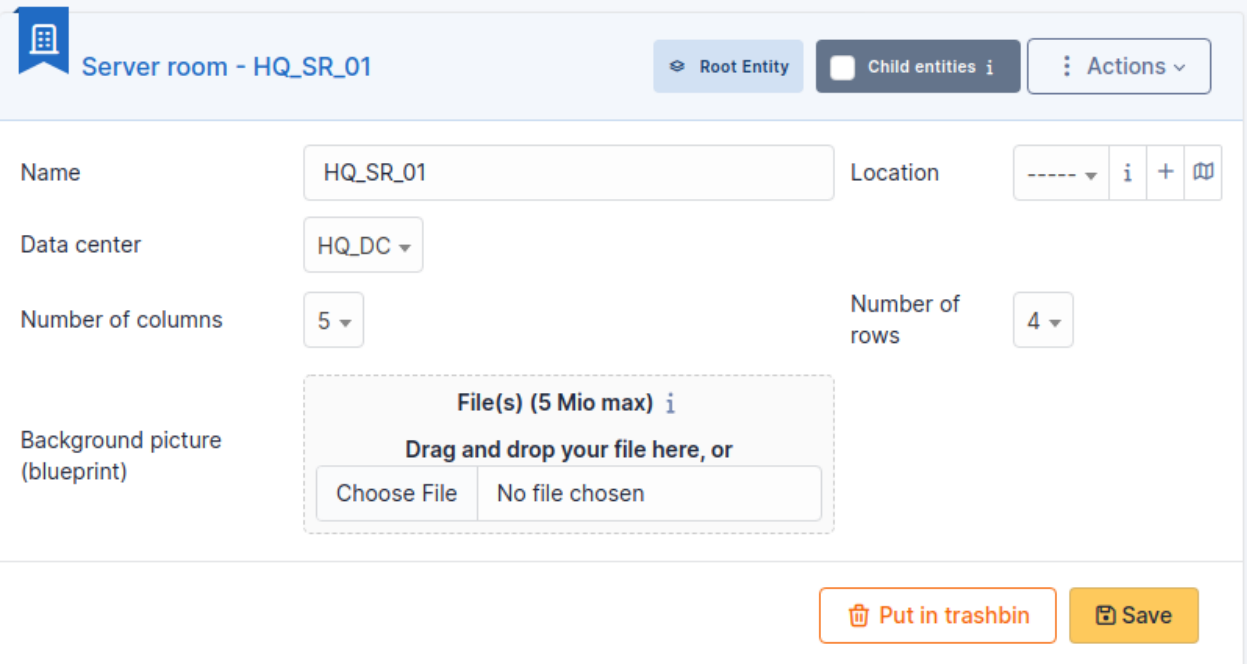
All Information

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Server room

A server room is represented in GLPI by a schematic map. This map gives the space available in the room to place racks.

A server room can be attached to a data center and to a location.



Note : The map is a grid defined by a number of lines and columns. One rack consumes one square.

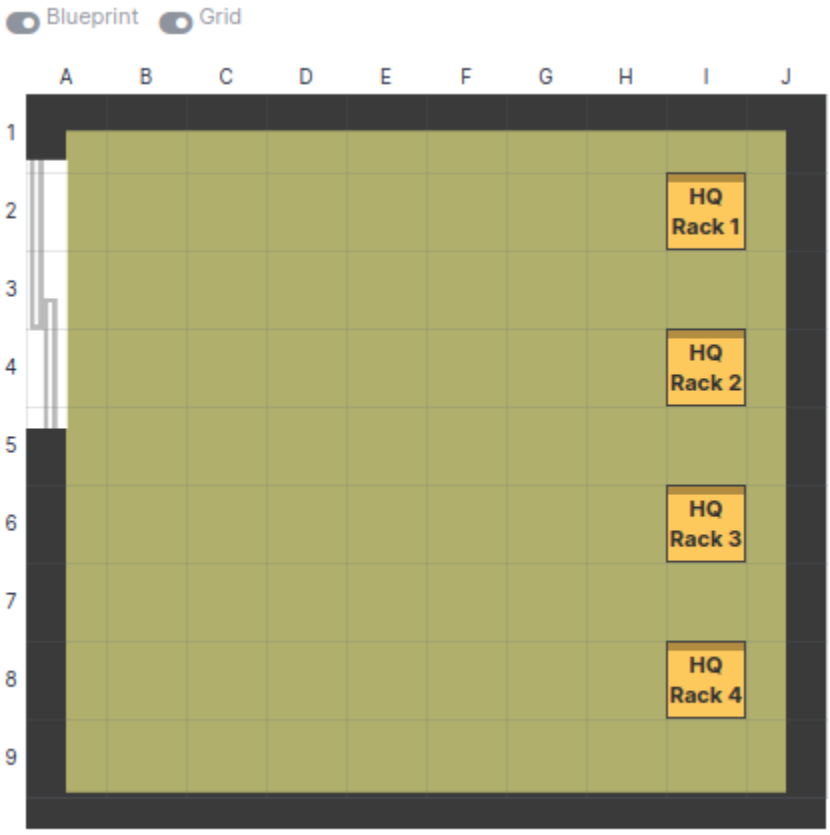
The background image can enhance room visualization, in particular if this image has been generated by a dedicated tool.

The different tabs

Racks

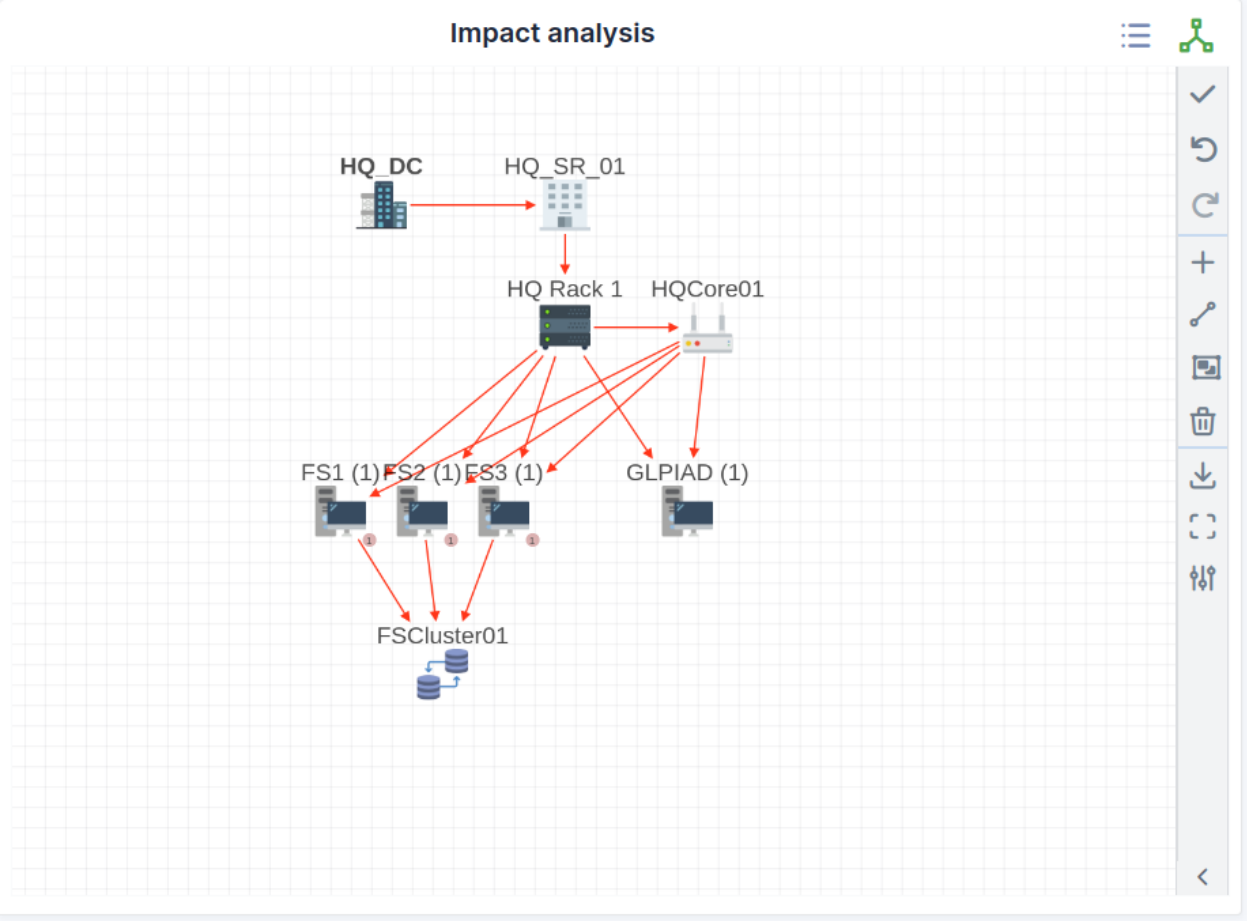
This tab allow to display and modify the map of a server room by adding directly on the map the racks composing the room.

If the room contains many elements, it is possible to switch from a grid view to a list view.



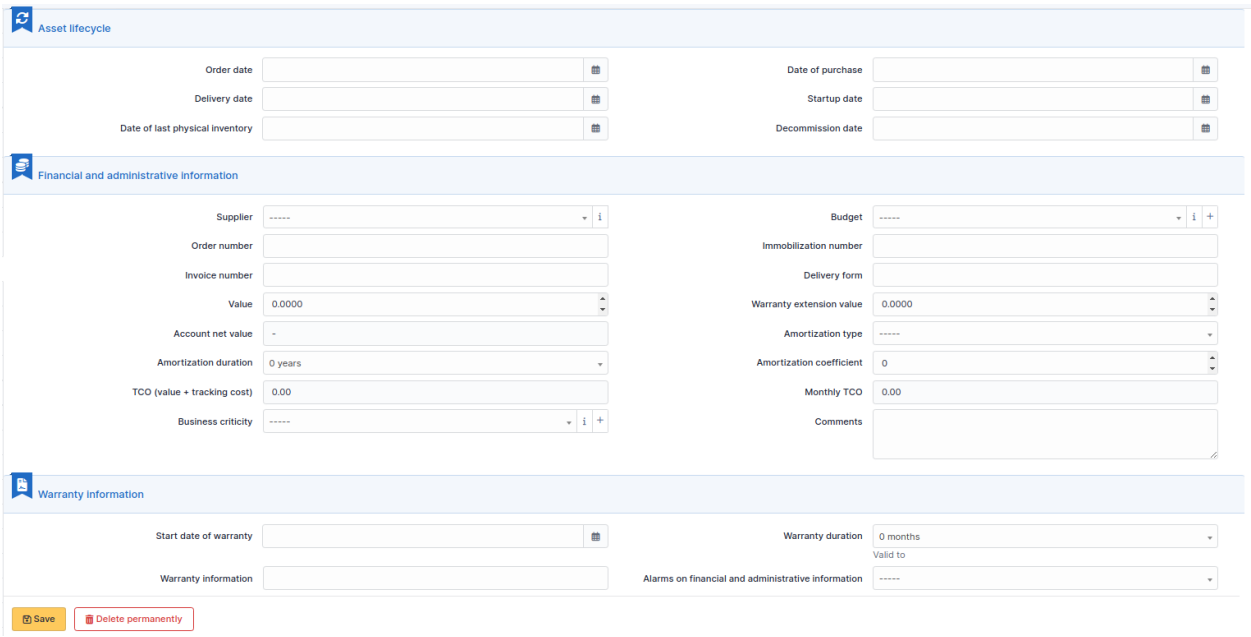
Impact analysis

This tab allow to display and build the impact schema for the data center.

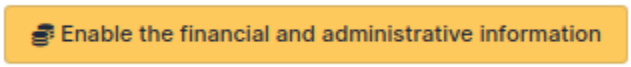


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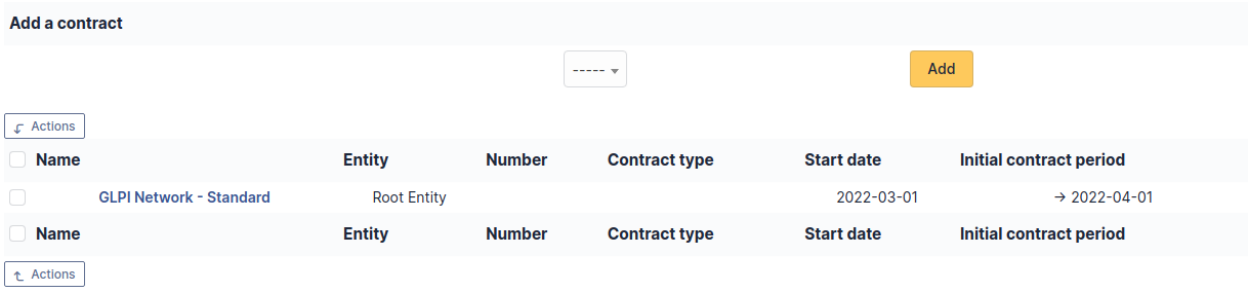
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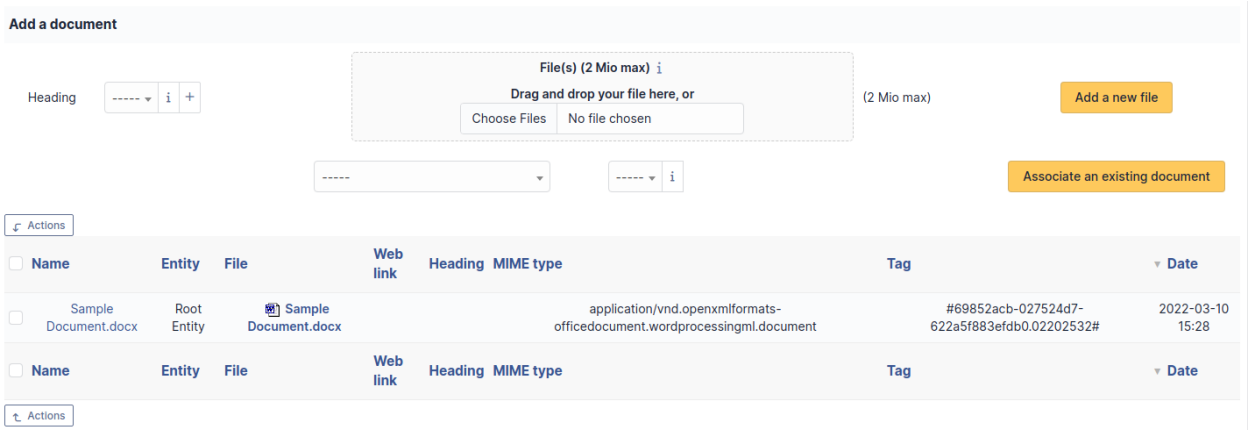
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Associated External Links

The *External links* tab is used to show associated external links.

For some items, external links are managed from the menu **Setup > External links**.

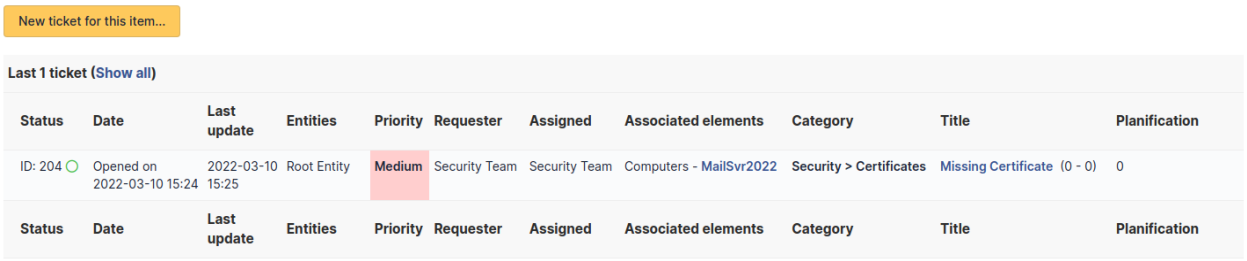
These links can use object fields such as IP, name, etc. See *Configure protocol external links*.

Examples :

— A web link : http://192.168.0.1 (IP retrieved from the network port of the hardware) ;
— A RDP link for remote access : glpi ://MSTSC.EXE,pc001 (name « pc001 » retrieved from the hardware).

Tickets

The *Tickets* tab is used to create a ticket associated with the current object. It also lists the tickets already linked to the object.



Note : A second table lists the tickets attached to the linked elements

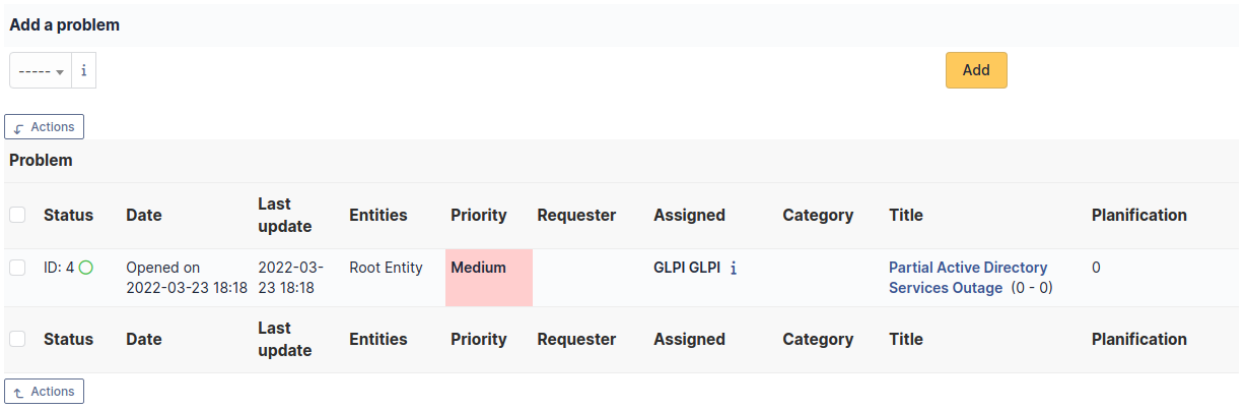
Note : Any deletion or addition of a ticket is recorded in the history.

Problems

The *Problems* tab is used to create a problem associated with the current object. It also lists the changes already linked to the object.

This summary table includes for each object :

— Status
— Date (opening or expiry date, resolution or closing date depending on the status of the problem)
— Priority
— Requestor(s) and assigned technician(s)
— Associated elements
— Category
— Name
— Column indicating the number of scheduled tasks



Note : A second table lists the problems attached to the related elements

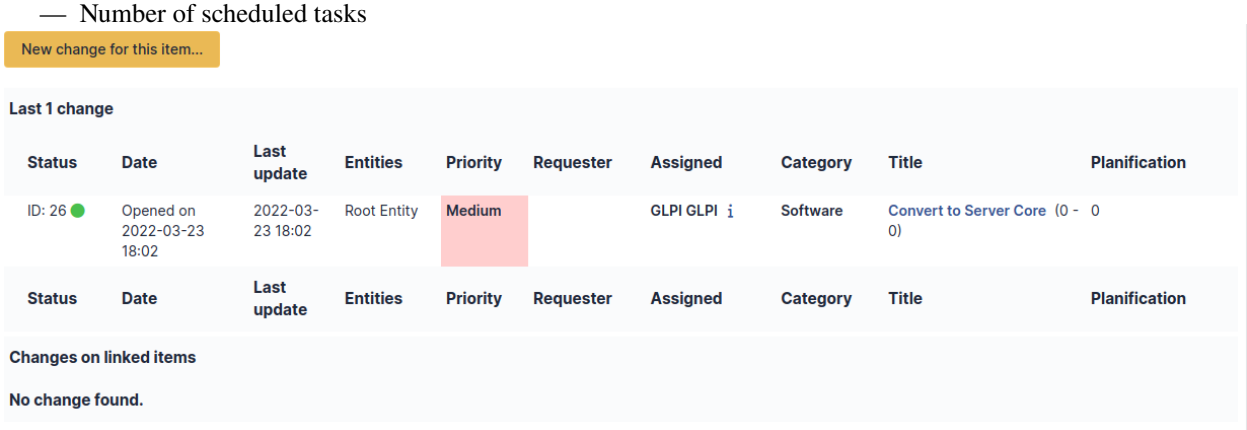
Note : Any deletion or addition of a problem is recorded in the history.

Changes

The *Changes* tab is used to create a change associated with the current object. It also lists the changes already linked to the object.

This summary table includes the following fields for each object :

- Status
- Date (opening or expiry date, resolution or closing date depending on the status of the change)
- Priority
- Requestor(s) and assigned technician(s)
- Associated elements
- Category
- Name
- Number of scheduled tasks



Note : A second table lists the changes attached to the related elements

Note : Any deletion or addition of a change is recorded in the history.

History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :

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The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

All Information

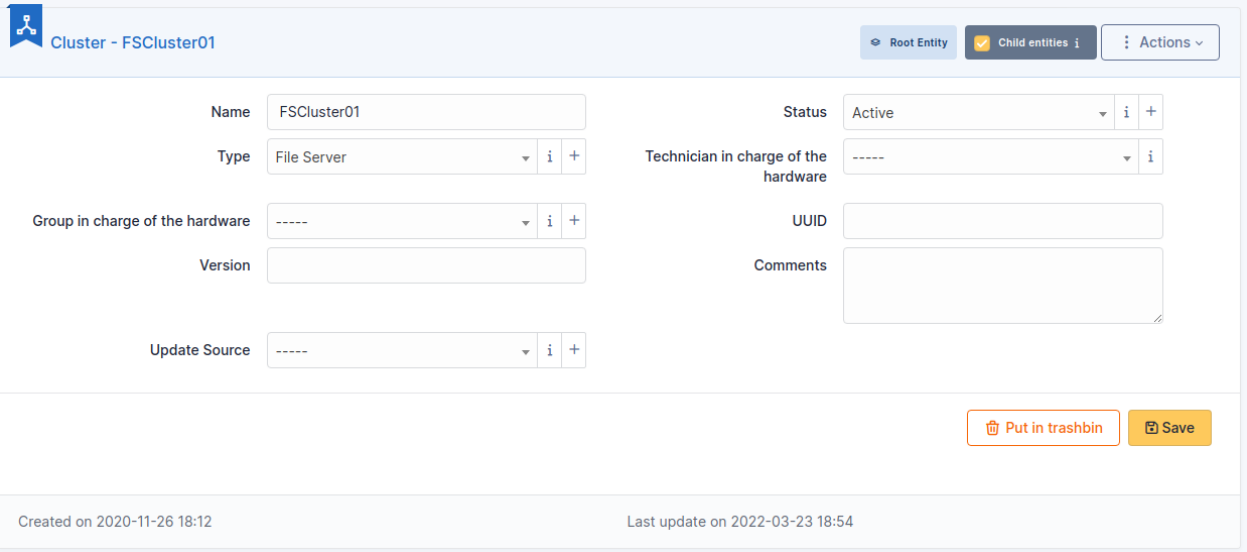
For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

Clusters

A GLPI cluster is a grouping of several assets, which can be computers or network equipments.

Note : GLPI clusters are taken into account when performing an impact analysis.

À faire : link to impact analysis representation



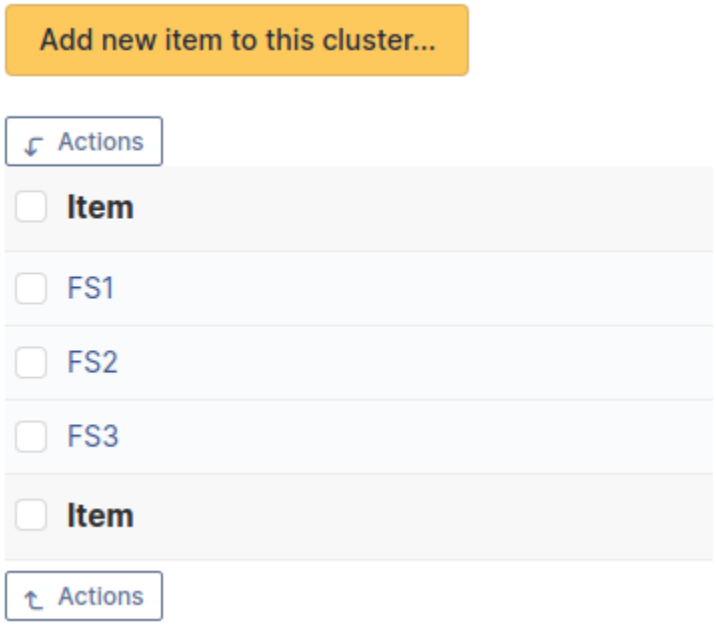
Description of specific fields

— **UUID** : Unique identifier of the cluster
— **Version** : In the case of a software cluster, the version number can be entered
— **Update Source** : How the cluster's data were updated

The different tabs

Elements

This tab lists the cluster's elements and allow to add new assets to the cluster.

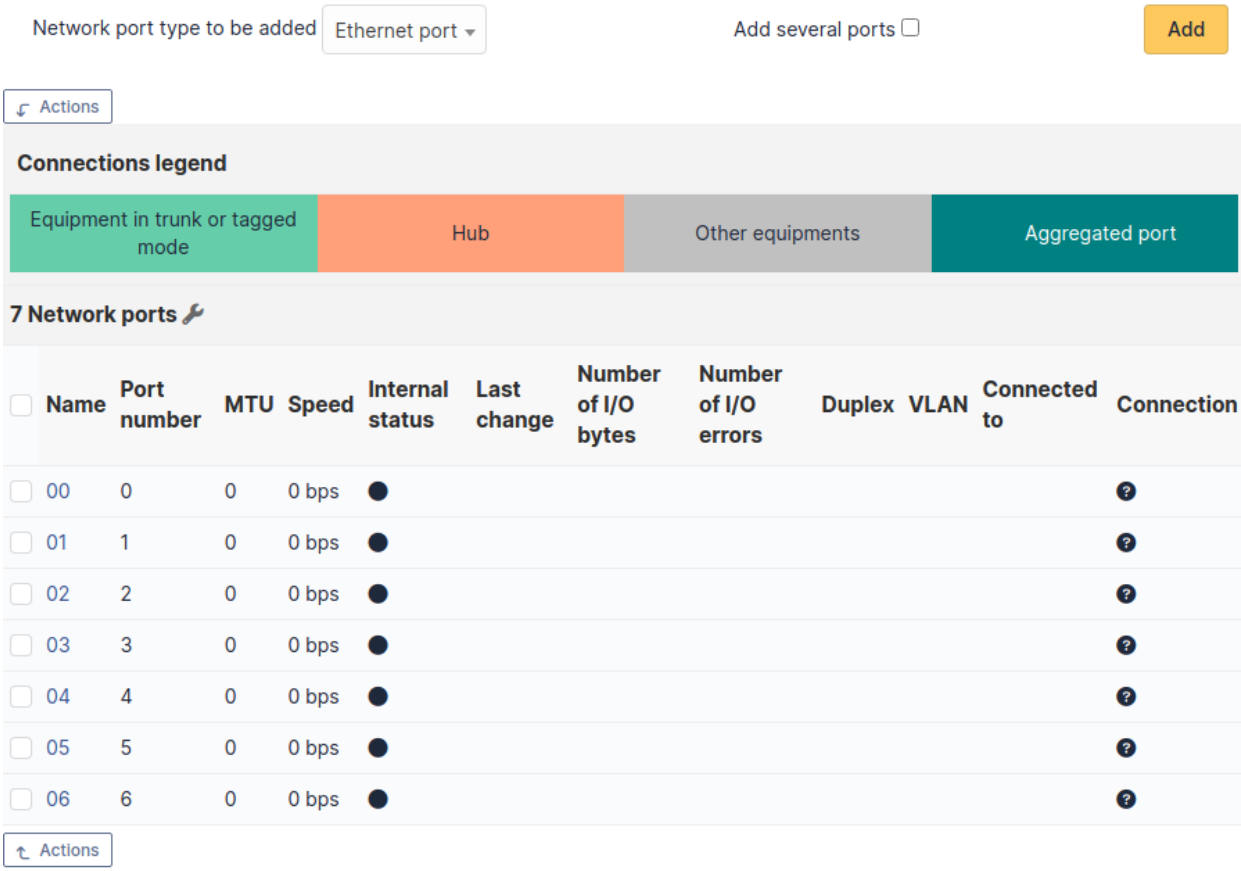


Network ports

This tab list cluster's network interfaces and allows to create new ones.

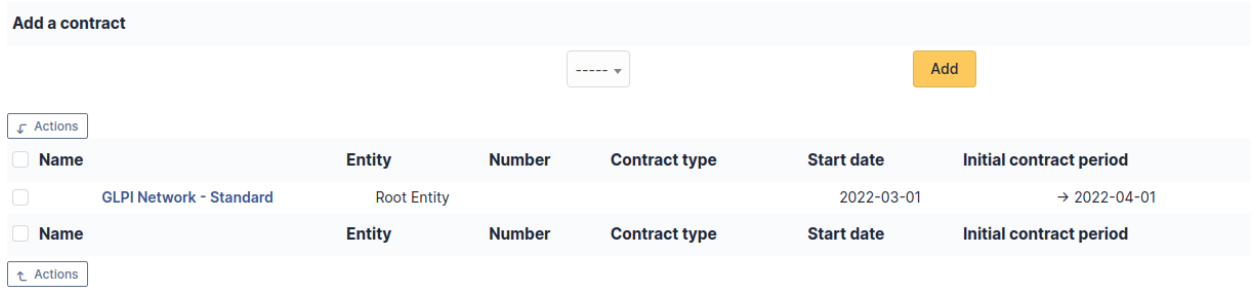
Possible interfaces are :

- Ethernet port
- WiFi port
- FiberChannel port
- Port aggregate
- Port alias
- Dial up line connection
- Local loop-back



Associated Contracts

The *Contracts* tab is used to show or add linked contracts.



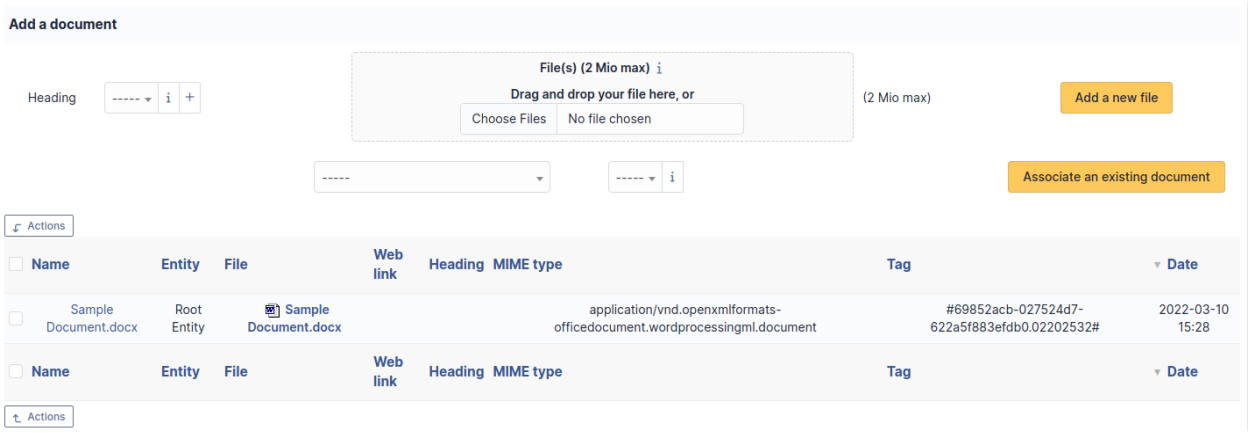
For each associated contract, the name, number, contract type, supplier, start date and initial duration of the contract are listed. In the last field, the end date of the contract is also shown with a red display if the date is earlier than the current date.

Refer to *contract management* for more information.

Documents

Additional information is stored in the form of external documents which are files uploaded into GLPI. In the *Documents* tab, documents can be associated and unlinked with the selected item. The *management of the documents themselves* is dealt with in another chapter.

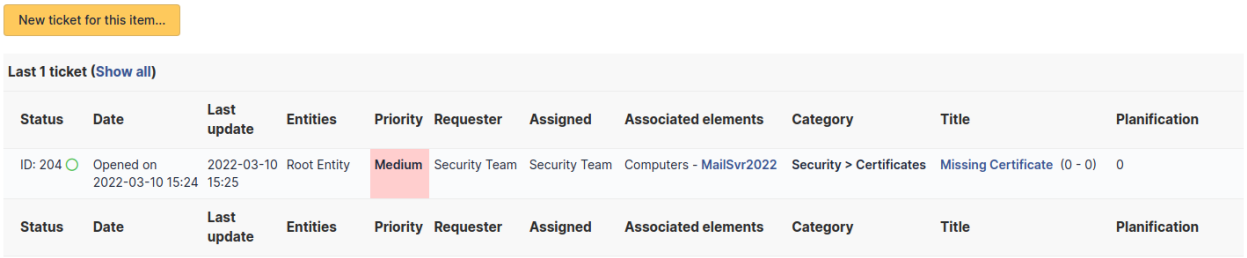
It is also possible to quickly create a document via this tab by specifying the desired file and optionally the field in which the new document is to be placed. The name of the created document will be based on the name of the added file.



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Tickets

The *Tickets* tab is used to create a ticket associated with the current object. It also lists the tickets already linked to the object.



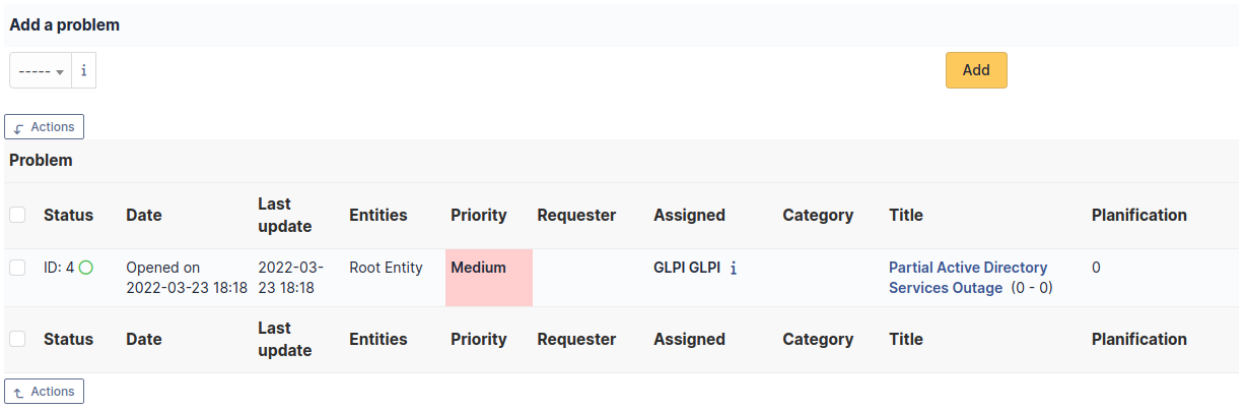
Note : A second table lists the tickets attached to the linked elements

Note : Any deletion or addition of a ticket is recorded in the history.

Problems

The *Problems* tab is used to create a problem associated with the current object. It also lists the changes already linked to the object.

This summary table includes for each object :
- Status
- Date (opening or expiry date, resolution or closing date depending on the status of the problem)
- Priority
- Requestor(s) and assigned technician(s)
- Associated elements
- Category
- Name
- Column indicating the number of scheduled tasks



Note : A second table lists the problems attached to the related elements

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The *Changes* tab is used to create a change associated with the current object. It also lists the changes already linked to the object.

This summary table includes the following fields for each object :
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- Associated elements
- Category
- Name
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Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

Domains

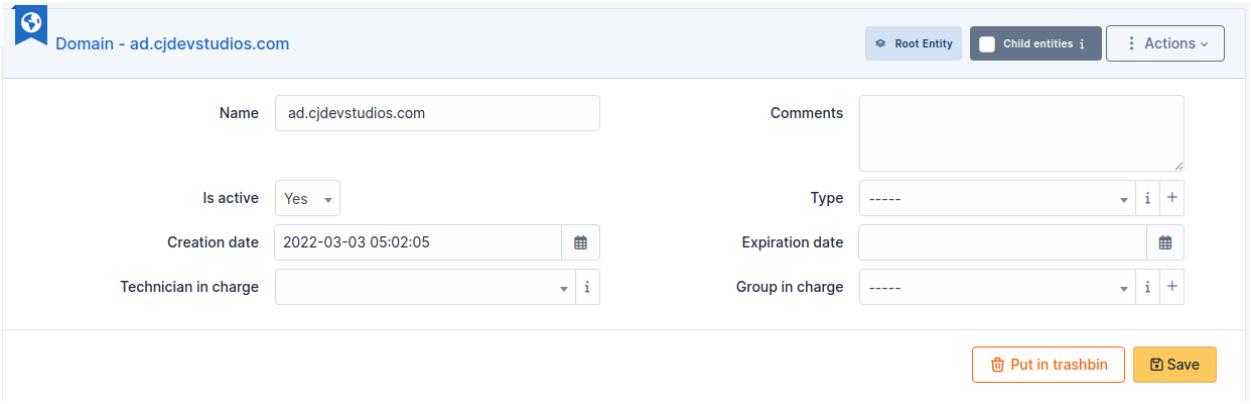
Domains management in GLPI allows to manage domains (i.e. Internet domains) and domain records :

- Inventorying domain names ;
- Inventorying domain records ;
- Anticipating and following domain names renewal ;
- Integrating domains in GLPI financial management ;
- Linking assets to domains ;
  Modifié dans la version 9.5.0.
- Include domains and records in GLPI assistance.

Note : Access to list of domain *Records* is done via the list of *Domains*.

Domain object

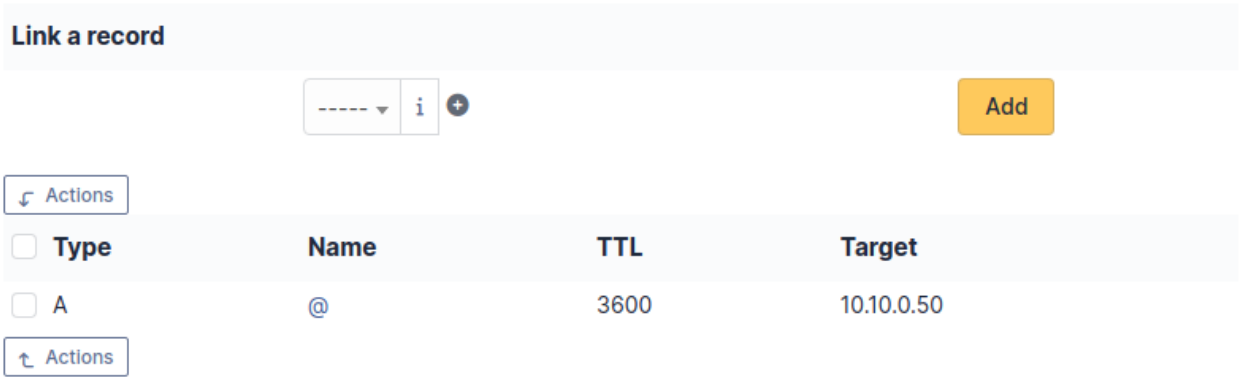
A *Domain* object represents an Internet domain, with its name, expire date… This object can be attached to other objects in GLPI assistance (tickets, problems, changes).



The different tabs

Records

This tab allow to create or select a domain record to be associated with the domain.



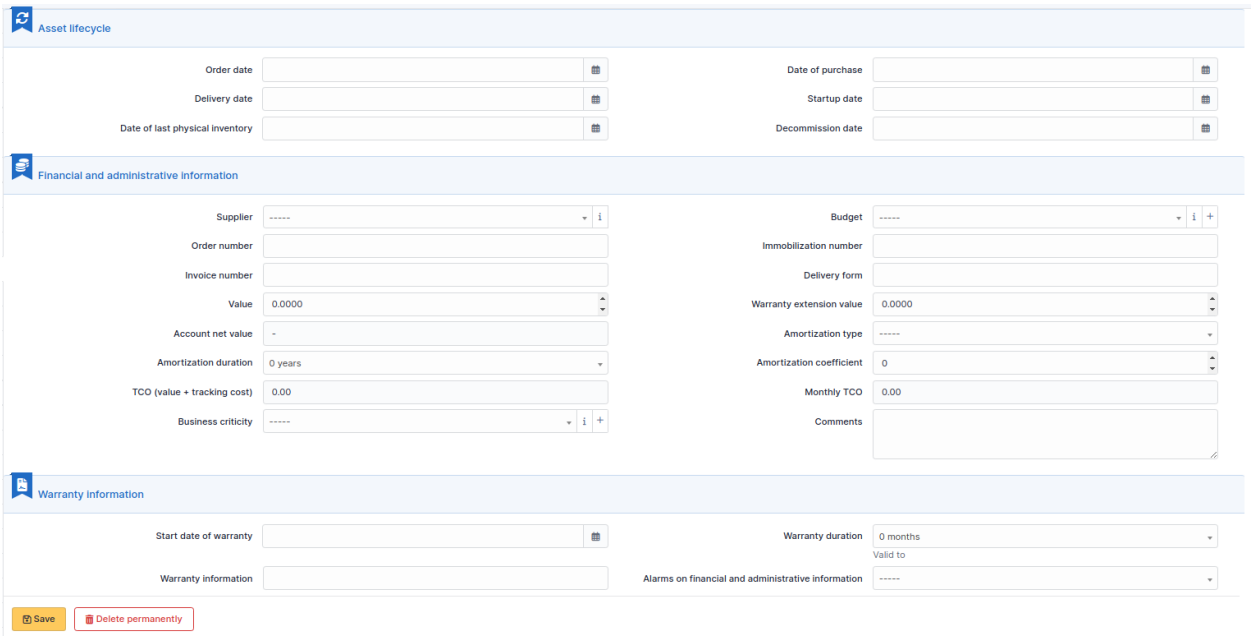
Associated elements

The *Items* tab is used to show or add linked assets.

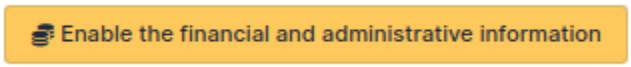


Management

Management of financial and administrative information, this information is visible in the “Management” tab on the computer’s form.



By default this management is disabled. It is possible to activate the financial information on any type of object in the inventory by using the link in the *Management* tab of the material detail.



Note : It is possible to activate the administrative and financial information from the massive actions on a set of elements (computer, monitor, …)

Note : It is possible to activate the administrative and financial information as soon as an element is created. See « Enable default administrative and financial information » option in Setup > General > Asset tab.

Financial information consists of the following items :

Lifecycle

— Order date
— Date of purchase
— Delivery date
— Date of implementation
— Date of last physical inventory
— Date of reform

Financial and administrative information

- Supplier : Third party who sold the equipment. See *Managing suppliers*. Suppliers are managed from the menu **Management > Suppliers**.
- Order number : number of the order of the equipment.
- Asset number.
- Invoice number : equipment invoice number.
- Delivery note : delivery note for the equipment.
- Value : cost of the equipment.
- Warranty extension value : cost of the warranty extension, but preferably use contracts.
- Account net value : this is the automatic calculation of the gross value of a piece of equipment minus the amount of depreciation.
- Type of depreciation : choice of the type of depreciation between linear and declining balance.
- Depreciation period : depreciation period expressed in years.
- Depreciation coefficient : coefficient applied to a straight-line depreciation type in order to obtain the values of the declining balance type. It is therefore only used if the type of depreciation is declining balance.
- TCO (value+amount of interventions) : the total cost of ownership which includes all the constituent elements of an invoiced product.
- Budget : the budget on which this equipment was purchased See *Managing the budget*.
- Order date : date on which the material was ordered.
- Purchase date : date on which the equipment was purchased.
- Delivery date : date on which the equipment was delivered.
- Startup date : date on which the equipment was put into service.
- Date of last physical inventory : date of the last physical inventory of the equipment.
- Comments.
- Monthly TCO : TCO divided by the number of months between today's date and the date of purchase of the equipment.

Warranty information

- Warranty start date : date on which the warranty of the equipment starts
- Warranty information : text qualifying the warranty
- **Warranty period : duration of the warranty expressed in months**

  If a warranty start date and a warranty period are set, the information « Expires on » will appear with a date in red if it is earlier than the current date

All the dates defined can be managed automatically according to changes in the status of the equipment. Some dates can also be copied from another date. All this configuration is done by [entity](administration_entity_delegation.dita).

Tips

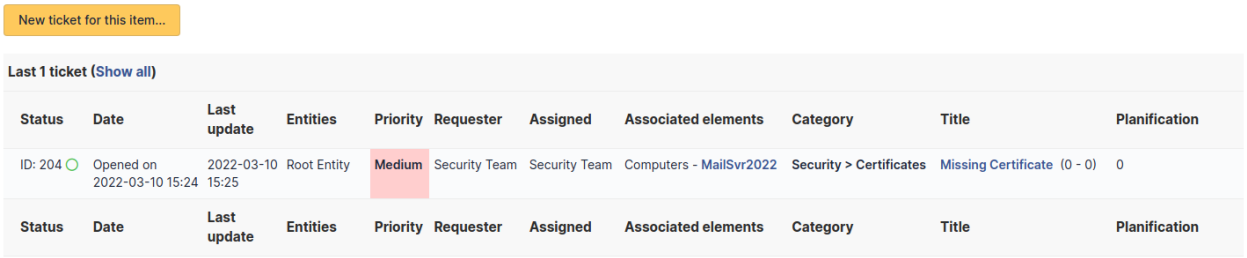
GLPI allows you to configure a notification on the expiry of the hardware warranty. This is configurable by entity in notification management to define the models and recipients used and in *the administration of entities* to enable or disable this feature, define the default values and anticipate the sending of the notification if necessary.

GLPI can perform a simple net book value calculation based on straight-line or declining balance depreciation. To do so, a certain amount of information (value, date, etc.) must be entered. The user must also enter the date of the financial year the general configuration.

The display of financial information for each type of equipment depends on the profile of the user logged in.

Tickets

The *Tickets* tab is used to create a ticket associated with the current object. It also lists the tickets already linked to the object.



Note : A second table lists the tickets attached to the linked elements

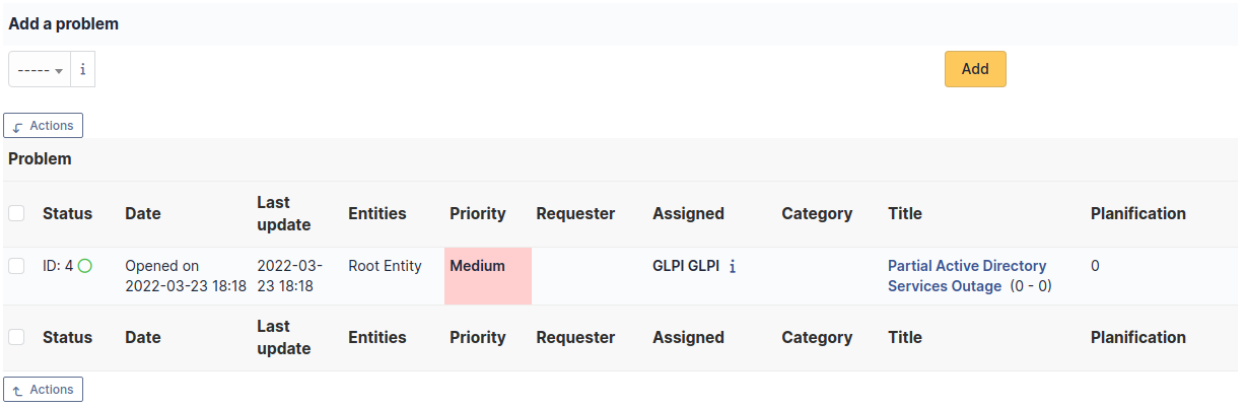
Note : Any deletion or addition of a ticket is recorded in the history.

Problems

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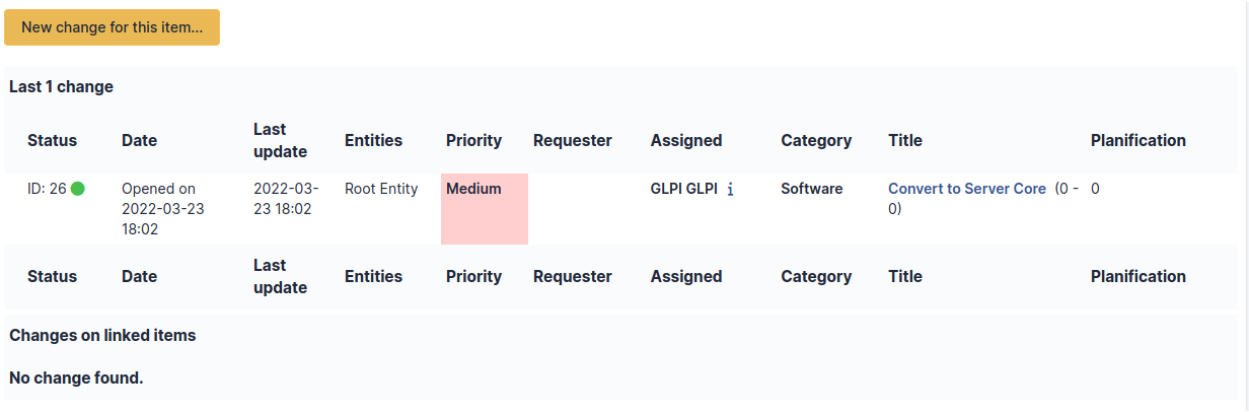
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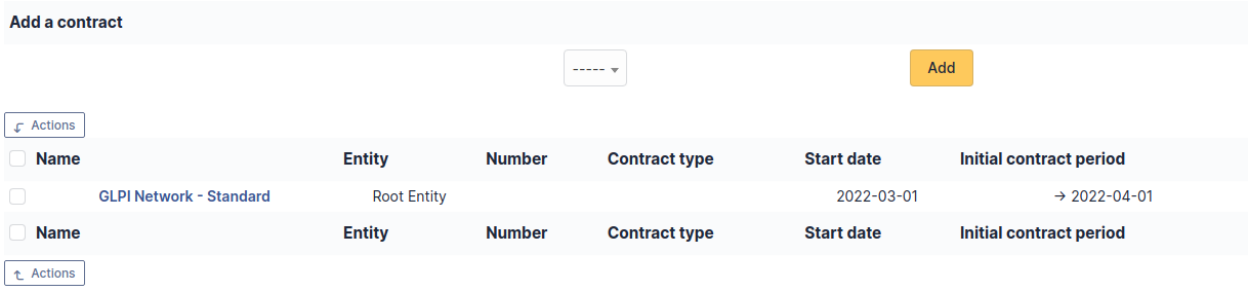


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Associated Contracts

The *Contracts* tab is used to show or add linked contracts.



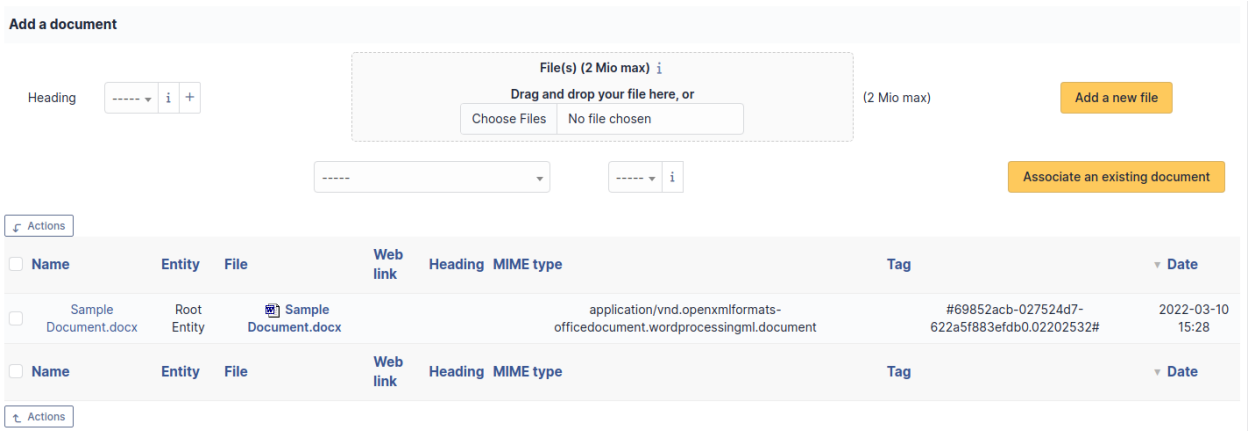
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Refer to *contract management* for more information.

Documents

Additional information is stored in the form of external documents which are files uploaded into GLPI. In the *Documents* tab, documents can be associated and unlinked with the selected item. The *management of the documents themselves* is dealt with in another chapter.

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Note : When you delete a document from this tab via mass actions, you only remove the link between the object and the document ; the document itself is still present.

Associated External Links

The *External links* tab is used to show associated external links.

For some items, external links are managed from the menu **Setup > External links**.

These links can use object fields such as IP, name, etc. See *Configure protocol external links*.

Examples :

— A web link : http://192.168.0.1 (IP retrieved from the network port of the hardware) ;
— A RDP link for remote access : glpi ://MSTSC.EXE,pc001 (name « pc001 » retrieved from the hardware).

History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :

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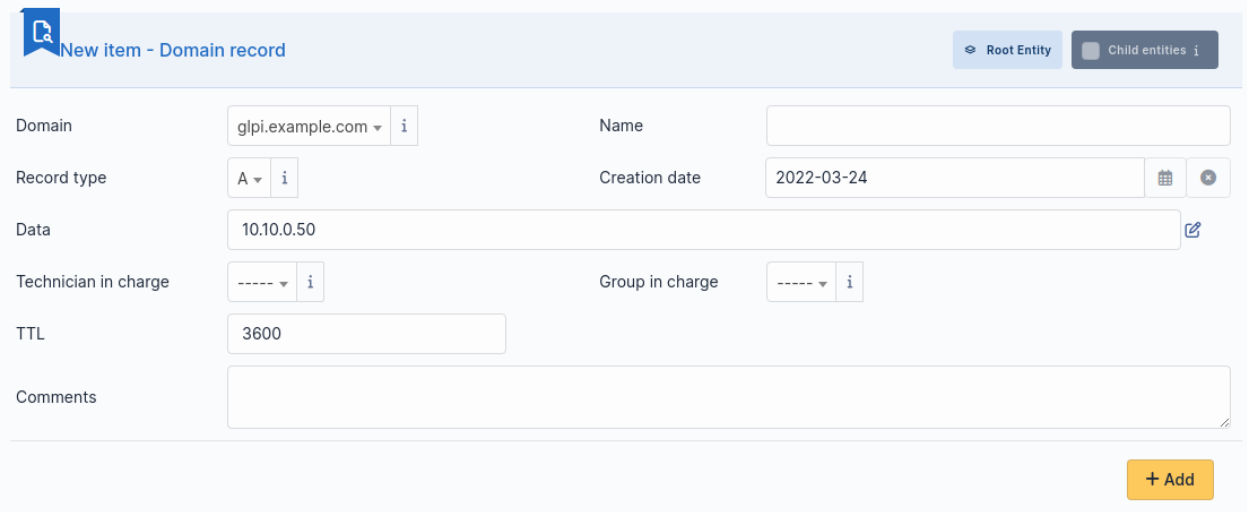
All Information

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Record object

A *Record* object stores all record types that can be found in a DNS zone or DNS configuration file : TXT, A, PTR, SDA, CNAME…

This object must be associated to a *Domain* object described earlier.

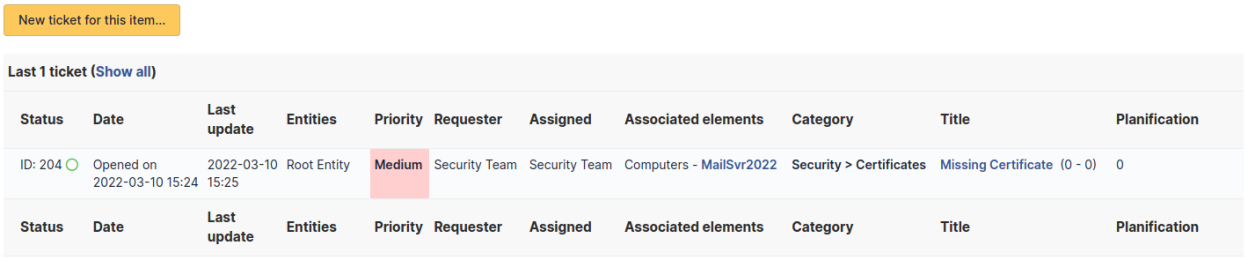


Note : Record types are not limited to the default ones and can be customized using drop-down management.

The different tabs

Tickets

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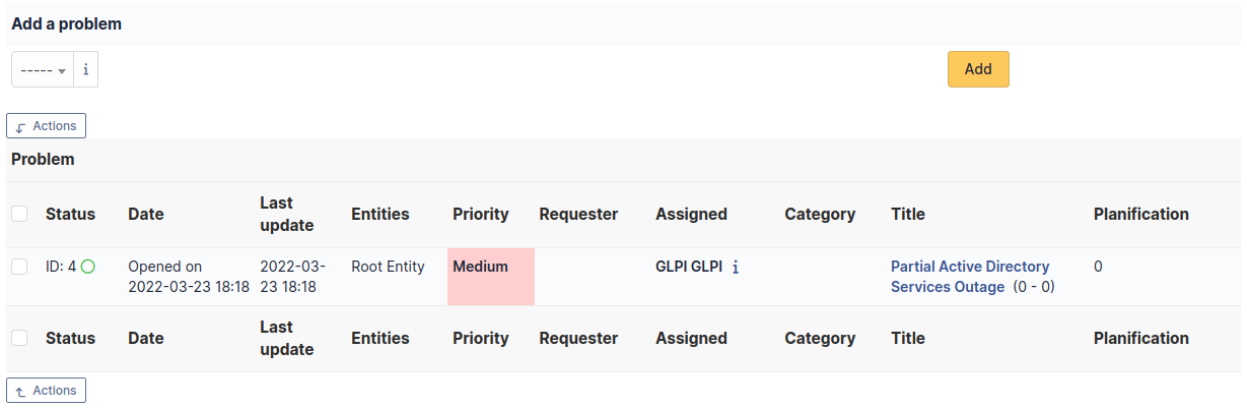
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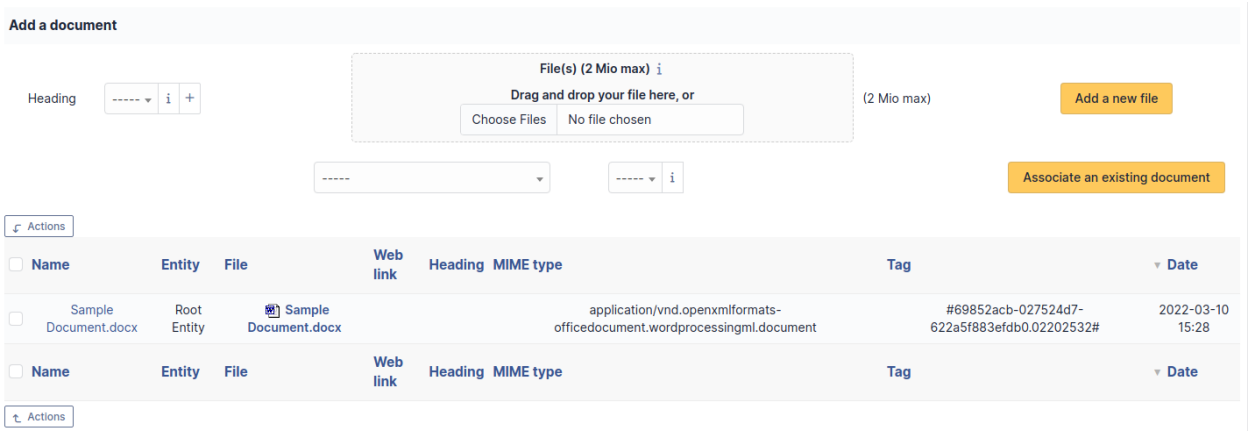
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Notes

The *Notes* tab provides a free text field for storing additional information. Notes are displayed in the order of their creation.



History

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- ID of the change.
- Date and time the change was made.
- User who made the change. If this field is not filled, it means that the action was done automatically (For example : automatic inventory update).
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All Information

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3.2.4 Tools

The GLPI Tools module is used to manage projects, reminders, RSS feeds, knowledge base, reservations and to generate reports.

Manage projects

Project management in GLPI allows to follow entirely a project's progress by creating tasks and building teams ; projects can be optionally linked to a *change*.

A GLPI project allows :
- defining tasks associated to the project and following their progress ;
- creating teams for a project and its tasks ;
- triggering sub-projects inside the project ;
- building GANTT diagrams ;
- using Kanban method ;
- attaching costs ;
- linking to GLPI ITIL items.

A project can be hierarchical, a project can therefore have sub-projects.

A project is characterized by name, code, state, type, provisional and real dates, percent done.

Distinct management teams can by composed of users, groups, suppliers and contacts.

Several GANTT diagrams are available for each project (see tab *GANTT*).

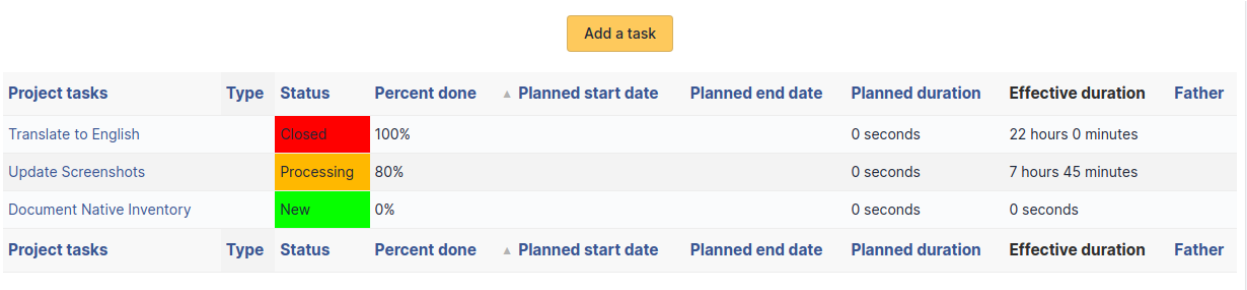
Project management relies on two types of items : project and project task.

Project

The different tabs

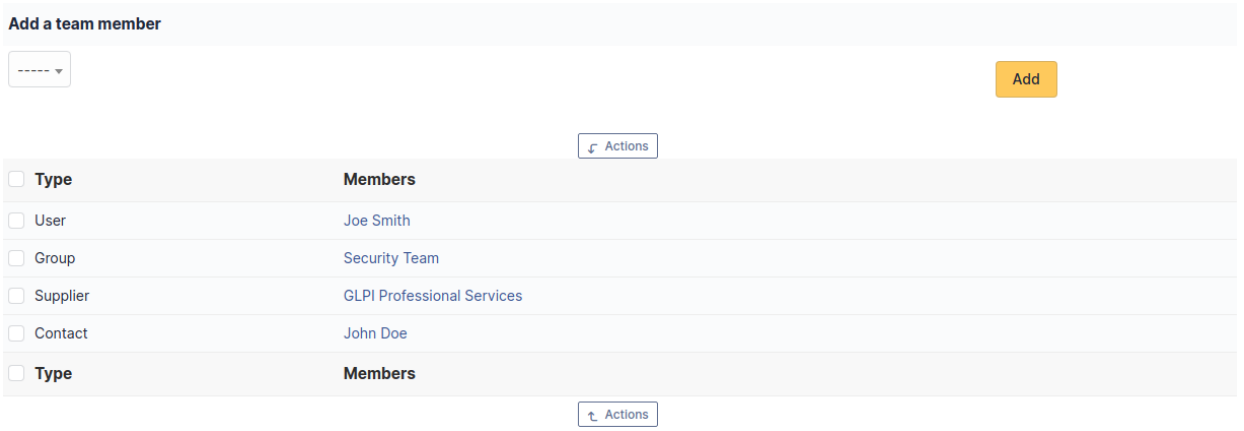
Project tasks

This tab allows to add new tasks to the project. It displays also already defined tasks with, for each task, its name, type, status, planned start and end dates, real start and end dates, percent done and parent task name.



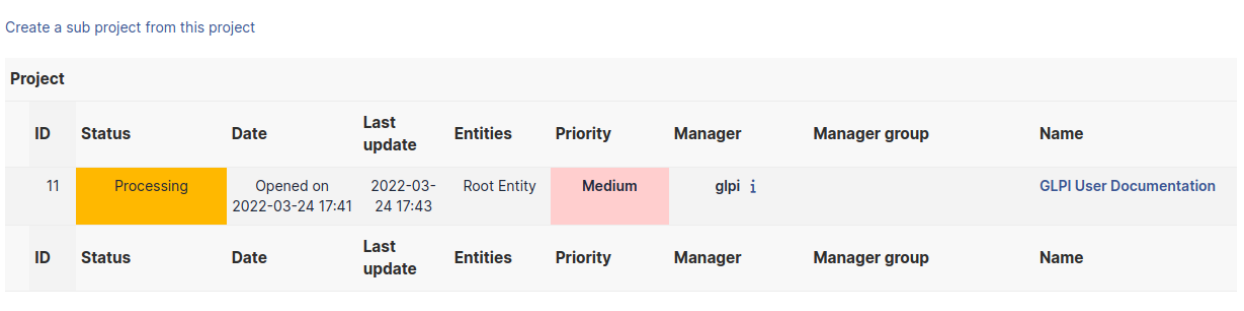
Project team

This tab allows to add new members to the project team, this member being a contact, a supplier or a group. It lists also members of project team with for each member its type.



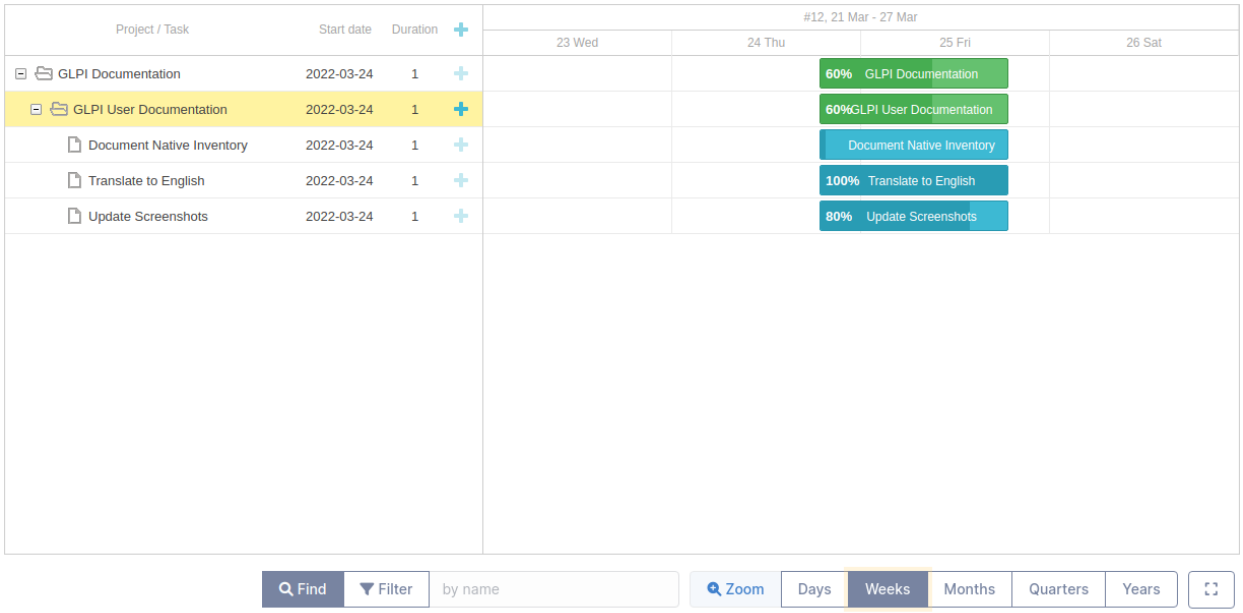
Project

This tab displays project's sub-projects. A sub-project is defined the same way as a project, the only difference being that the field *As child of* is defined.



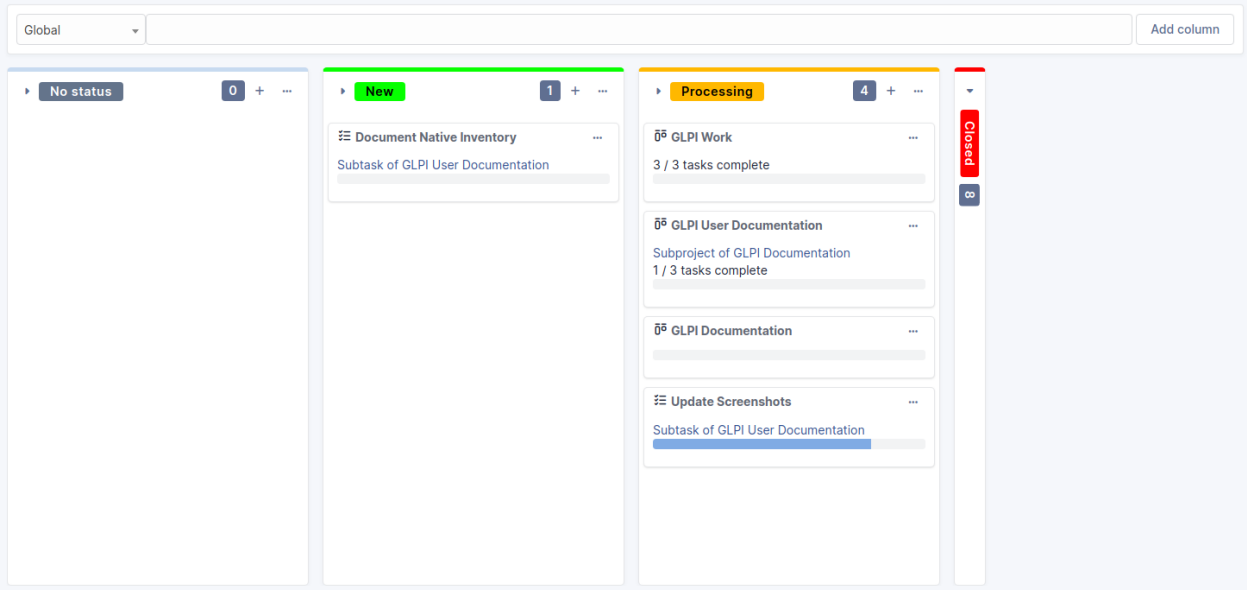
GANTT

A GANTT diagram is available for each project. A global GANTT diagram is also available, including projects defined as visible in this global diagram (field *Show on global GANTT* of the project form).



Kanban

This tab provides an interface to use Kanban method.



For more information about the Kanban feature, please refer to the *full documentation*.

Costs

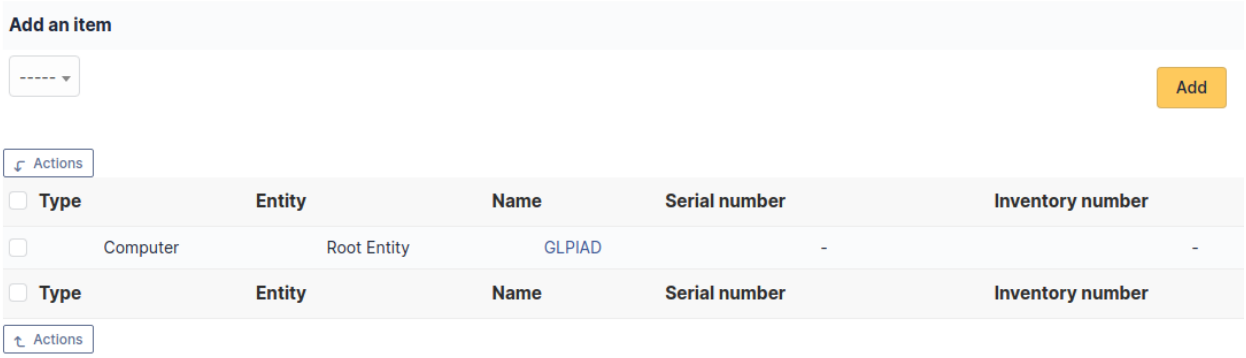
Costs can be attached to projects ; the costs of the tickets attached to project's tasks will sum up to these costs.

ITIL objects

This tab allows to attach to the project GLPI ITIL objects : tickets, problems and changes. It is also possible to create these objects directly from this tab.

Associated elements

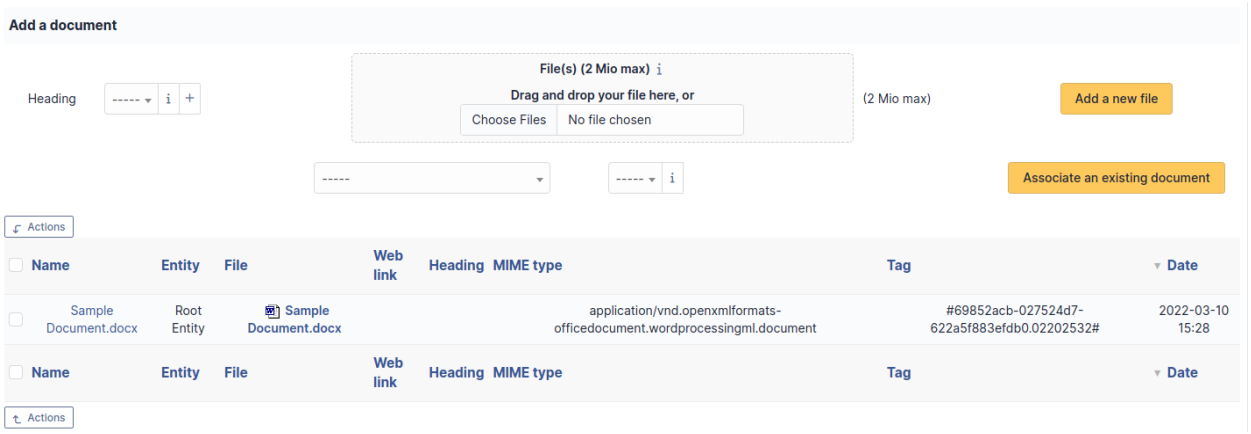
The *Items* tab is used to show or add linked assets.



Documents

Additional information is stored in the form of external documents which are files uploaded into GLPI. In the *Documents* tab, documents can be associated and unlinked with the selected item. The *management of the documents themselves* is dealt with in another chapter.

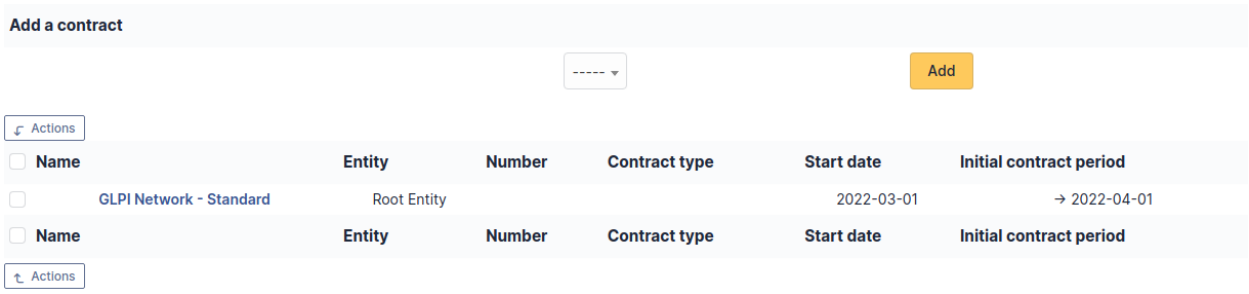
It is also possible to quickly create a document via this tab by specifying the desired file and optionally the field in which the new document is to be placed. The name of the created document will be based on the name of the added file.



Note : When you delete a document from this tab via mass actions, you only remove the link between the object and the document ; the document itself is still present.

Associated Contracts

The *Contracts* tab is used to show or add linked contracts.



For each associated contract, the name, number, contract type, supplier, start date and initial duration of the contract are listed. In the last field, the end date of the contract is also shown with a red display if the date is earlier than the current date.

Refer to *contract management* for more information.

Notes

The *Notes* tab provides a free text field for storing additional information. Notes are displayed in the order of their creation.



History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :

- ID of the change.
- Date and time the change was made.
- User who made the change. If this field is not filled, it means that the action was done automatically (For example : automatic inventory update).
- Field that was changed.
- Description of the change that was made.

The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

Debugging information

If you have *Debug* mode enabled in your preferences, a *Debug* tab will appear before the *All* tab. This tab offers information to help you resolve an issue.

For example, for a computer, you have one or more tables depending on the affected object (financial information, reservations…) listing the notifications that will be triggered on this computer with :

- Triggering event
- Recipient(s)
- Notification model used
- Recipient(s) email address

Notifications			(Ticket)	
Events	**Recipients**	**Notification templates**	**Mode**	**Recipient**
Closing of the ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New ticket	Profile: Admin	Tickets (en_GB)	mailing	admins@example.com
New ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Ticket solved	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost

All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

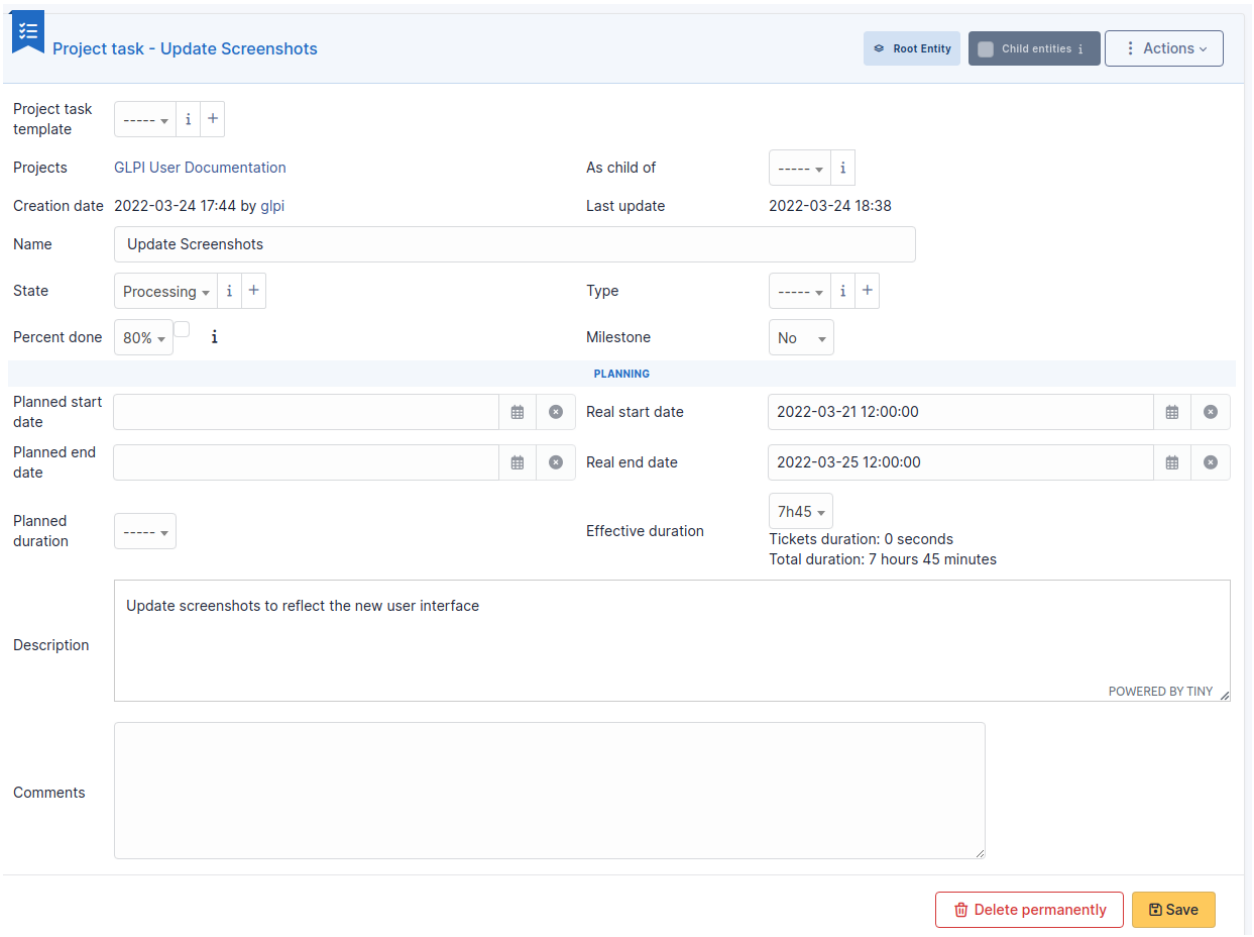
Project task

Task item is quite similar to a project.

A project task can also be a project sub-task.

A task is characterized by name, state, type, provisional and real dates, percent done.

Distinct management teams can by composed of users, groups, suppliers and contacts.



Note : A project task is not an independent item, it can only be accessed through the *Project tasks* tab of the project owning the task.

Tasks can be attached to tickets in order to plan interventions.

Planned and actual duration are also defined for a task, reported at project level together with attached tickets duration.

The different tabs

Project tasks

This tab allows to display and add sub-tasks.

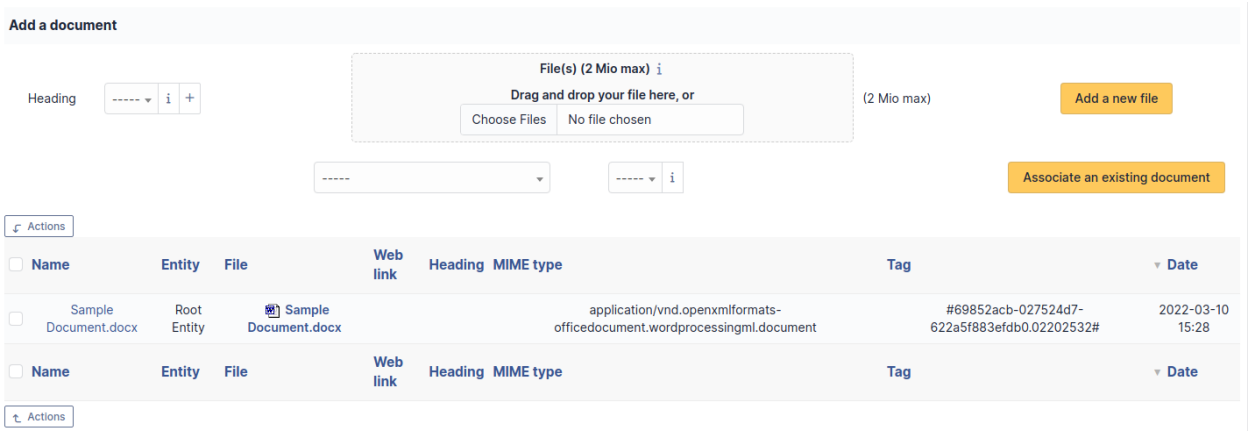
Task team

This tab defines the team in charge of the task.

Documents

Additional information is stored in the form of external documents which are files uploaded into GLPI. In the *Documents* tab, documents can be associated and unlinked with the selected item. The *management of the documents themselves* is dealt with in another chapter.

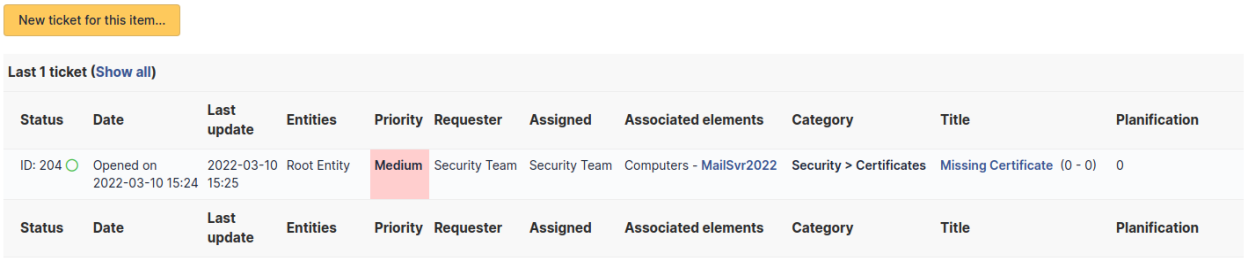
It is also possible to quickly create a document via this tab by specifying the desired file and optionally the field in which the new document is to be placed. The name of the created document will be based on the name of the added file.



Note : When you delete a document from this tab via mass actions, you only remove the link between the object and the document ; the document itself is still present.

Tickets

The *Tickets* tab is used to create a ticket associated with the current object. It also lists the tickets already linked to the object.



Note : A second table lists the tickets attached to the linked elements

Note : Any deletion or addition of a ticket is recorded in the history.

Notes

The *Notes* tab provides a free text field for storing additional information. Notes are displayed in the order of their creation.



History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :

- ID of the change.
- Date and time the change was made.
- User who made the change. If this field is not filled, it means that the action was done automatically (For example : automatic inventory update).
- Field that was changed.
- Description of the change that was made.

The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

All Information

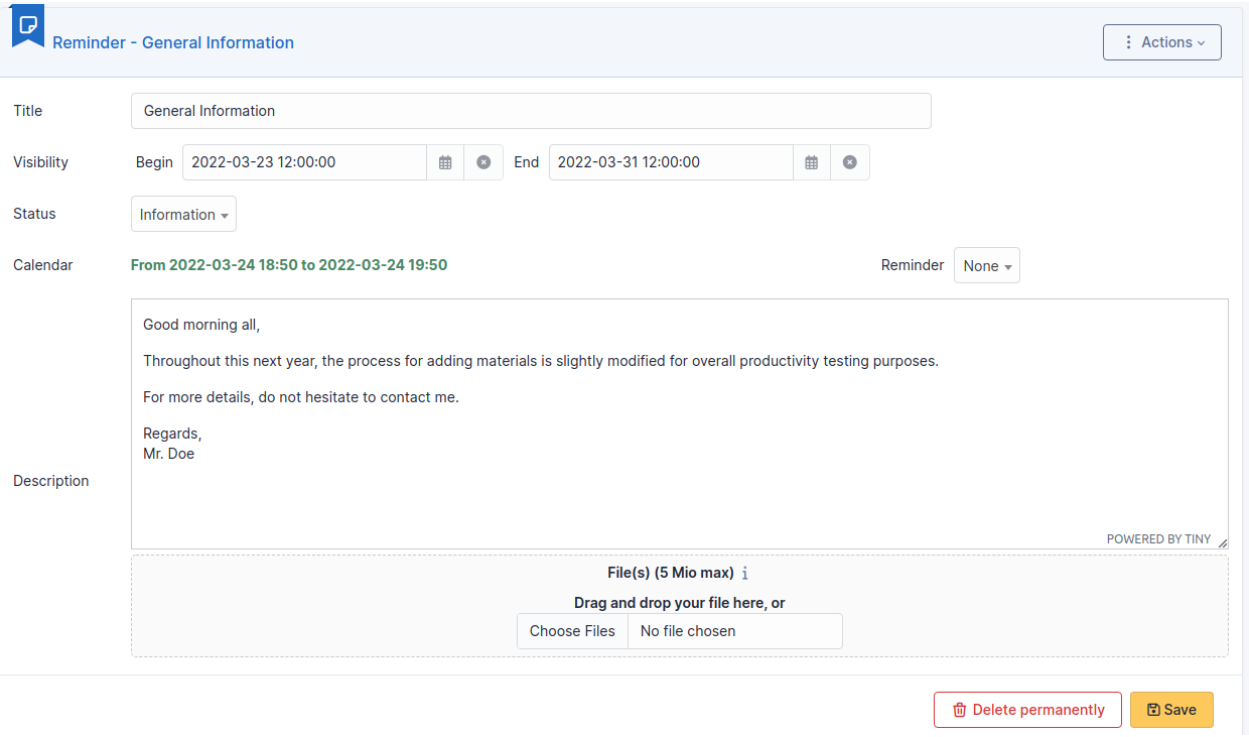
For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

Manage personal or public reminders

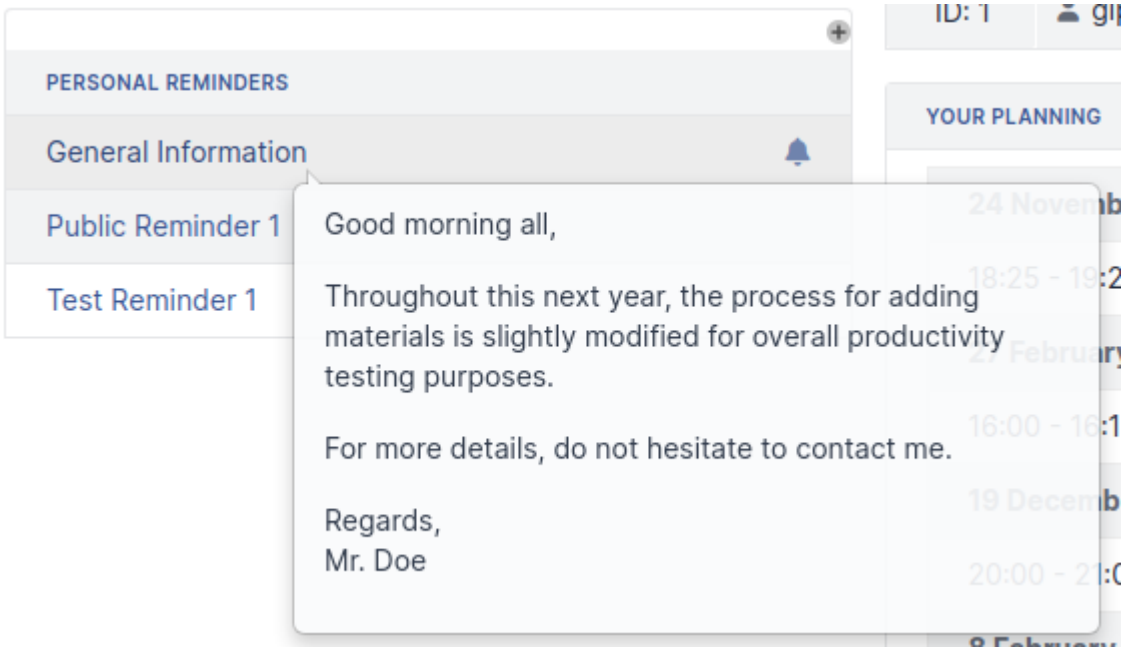
A reminder in GLPI is simple text with attached files ; it allows to transmit information to other users of the platform.

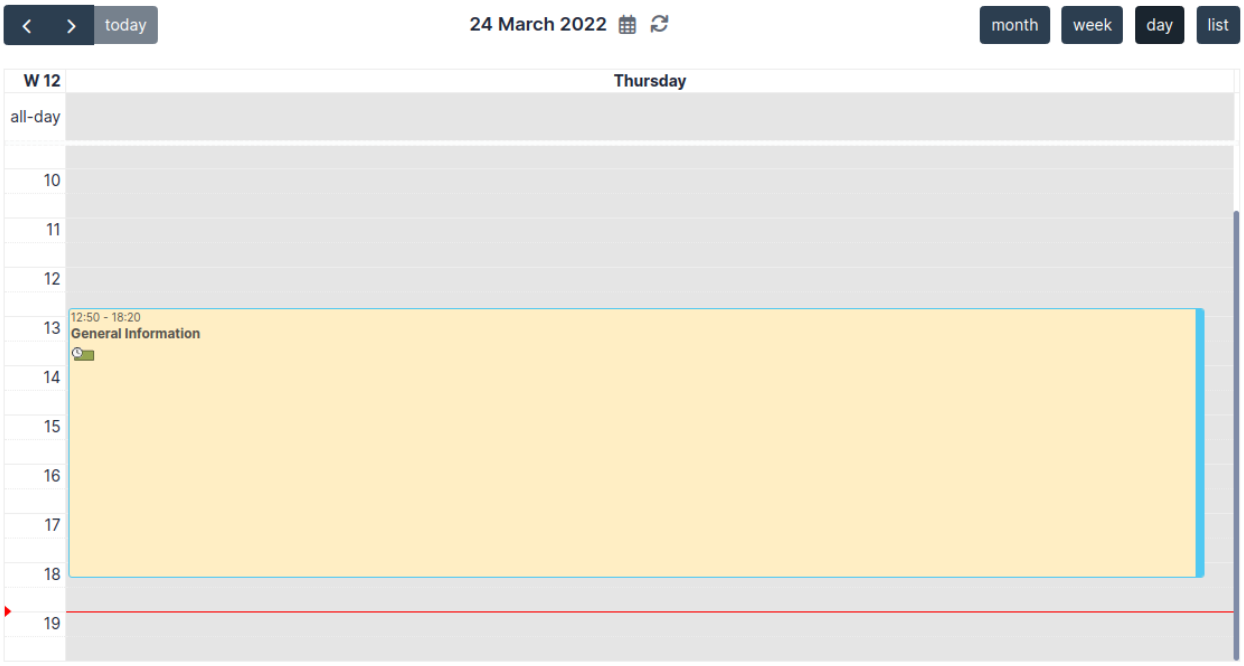
A reminder is characterized by :

- a lifetime ;
- a status ;
- the possibility to appear in planning ;
- its targets.



The created reminders will then appear in GLPI home page or in targeted users" planning.





Note : It is possible to add a start date and an end date for each reminder. If no start date is given, the reminder will be visible immediately and until its end date. If no end date is given, the reminder will be visible permanently starting from its start date.

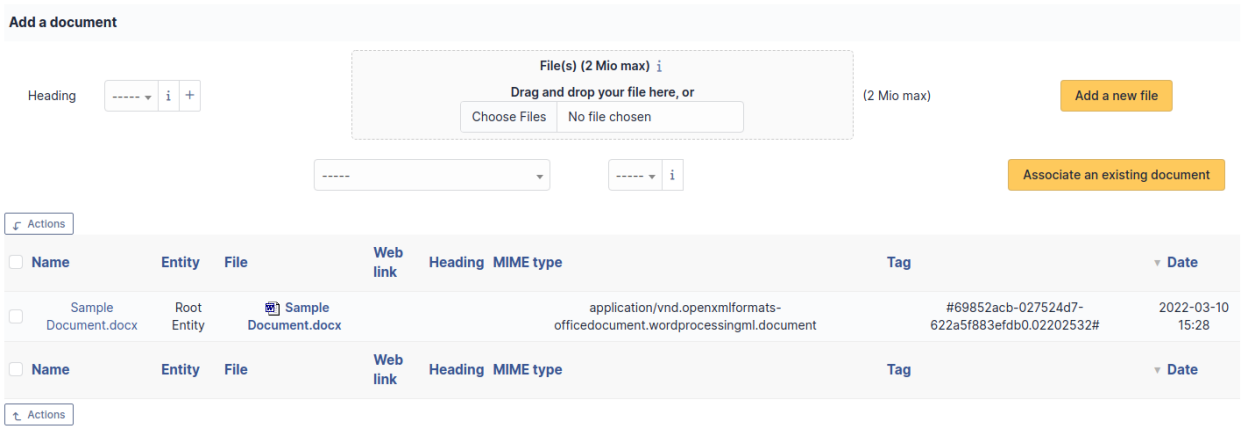
Adding a reminder to the planning makes it visible for targeted users of the reminder : the owner for a personal reminder, all users" plannings for a public note. A planned reminder is not deleted after its end date.

The different tabs

Documents

Additional information is stored in the form of external documents which are files uploaded into GLPI. In the *Documents* tab, documents can be associated and unlinked with the selected item. The *management of the documents themselves* is dealt with in another chapter.

It is also possible to quickly create a document via this tab by specifying the desired file and optionally the field in which the new document is to be placed. The name of the created document will be based on the name of the added file.



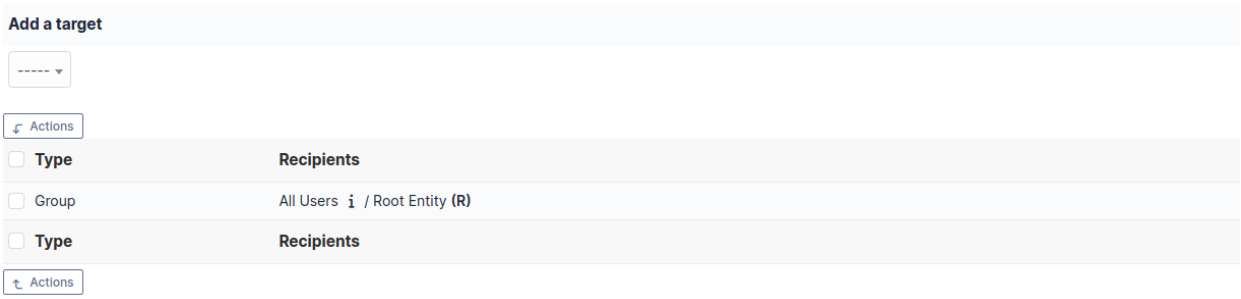
Note : When you delete a document from this tab via mass actions, you only remove the link between the object and the document ; the document itself is still present.

Target

A reminder is personal by default and therefore only visible for its writer.

For a reminder to be visible by other users (public reminder), it is necessary to add targets to the reminder. Possible targets are entity, profile, group or users.

A public reminder is visible by users associated with a profile if this profile has read permission for public reminders.



History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :

- ID of the change.
- Date and time the change was made.
- User who made the change. If this field is not filled, it means that the action was done automatically (For example : automatic inventory update).
- Field that was changed.
- Description of the change that was made.

The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

Generate reports

GLPI allows to generate reports based on managed items :

— **Default report**
This report summarizes present equipments sorted by type. Computers are also sorted by operating systems.

— **By contract**
This report shows the equipments that are under a maintenance contract with a third-party and can be detailed by equipment type and purchase date.
Multiple selection is available.
To add a type, it is possible to click in empty area and choose new type. Same applies to add a date.
Generated table lists, sorted by item type, name, if it is in trash bin, entity, location, purchase and warranty expire date, contract type and contract begin and end dates.

— **By year**
Same as report by contract, but lists also the equipments without contract.

— **Hardware financial and administrative information**
This report shows the summary of financial information for computers, printers, network equipments, displays, peripherals and phones.
It is possible to obtain a report for a given period.
The generated table lists, sorted by item type, name, entity, value, net accounting value, TCO, purchase date, starting date, warranty expire date. A summary displaying total value and net accountin value is available, both by item type and for all items.

— **Other financial and administrative information**
Same as *Hardware financial and administrative information*, but for cartridges, licenses and consumables.

— **Network report**
Three types of reports can be generated : by location, by hardware or by network plug.

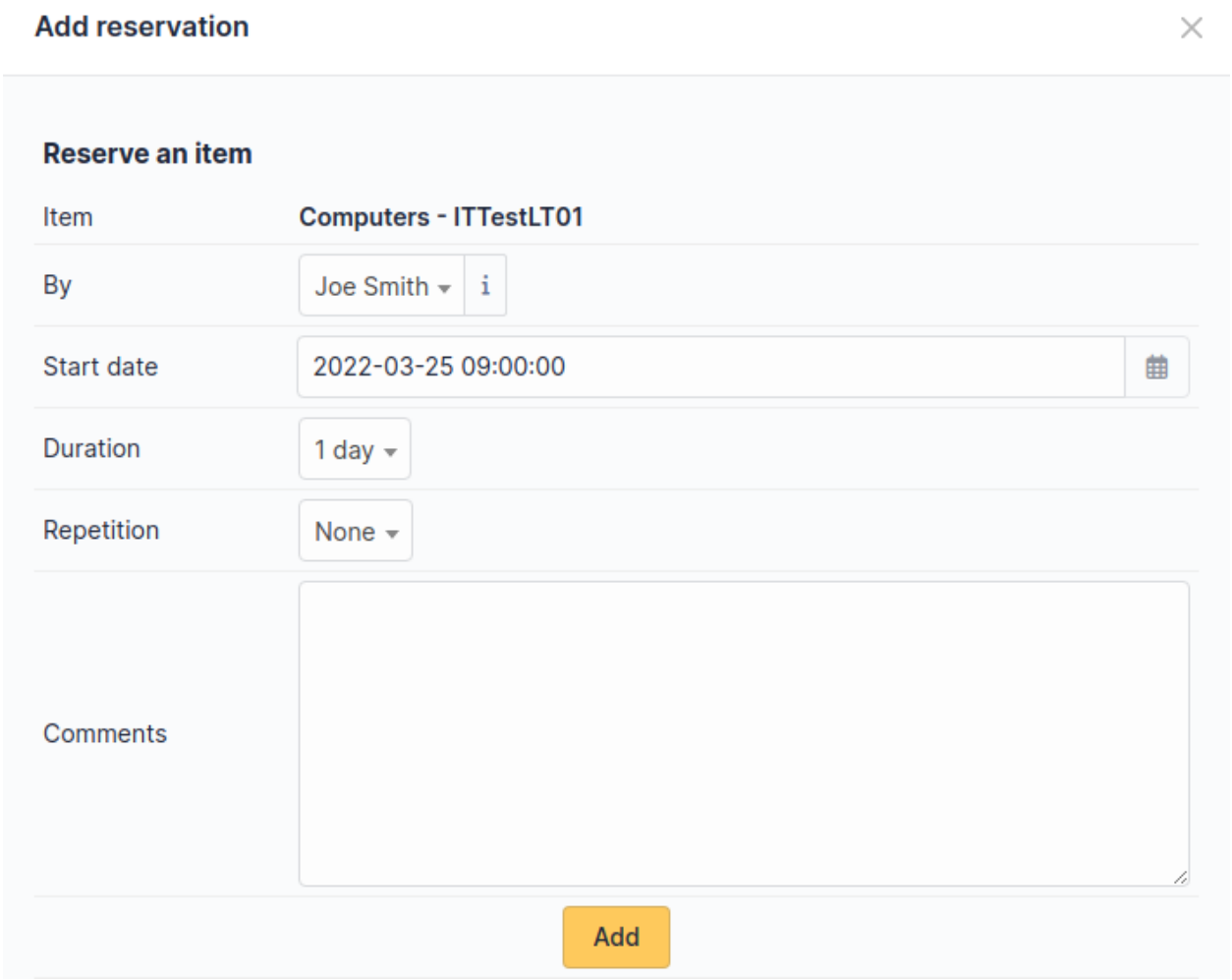
— **Loan**
This report shows a summary of current, future and past reservations for a given user.

— **Status**
This report shows a summary of different status, sorted by equipment types.

Note : The range of possible reports can be increased by adding to GLPI the following plugin : https://plugins.glpi-project.org/#/plugin/reports

Manage reservations

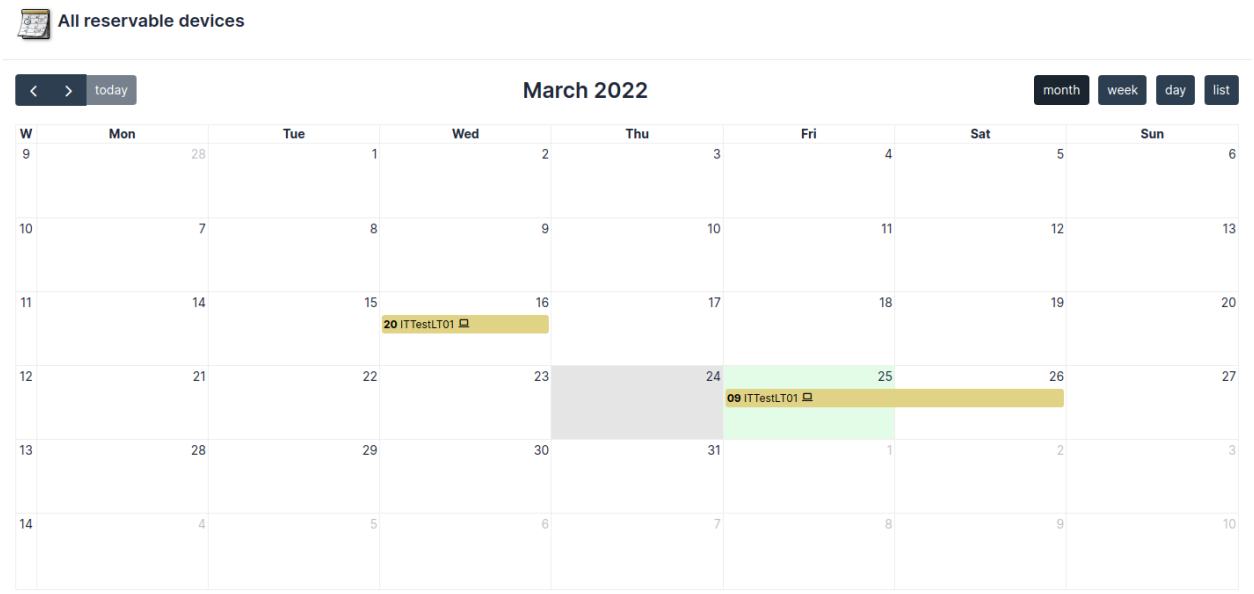
GLPI includes an equipment reservation tool that allows to select assets in order to reserve them for a time slot. For repetitive reservations, it is possible to declare a reservation as recurrent.



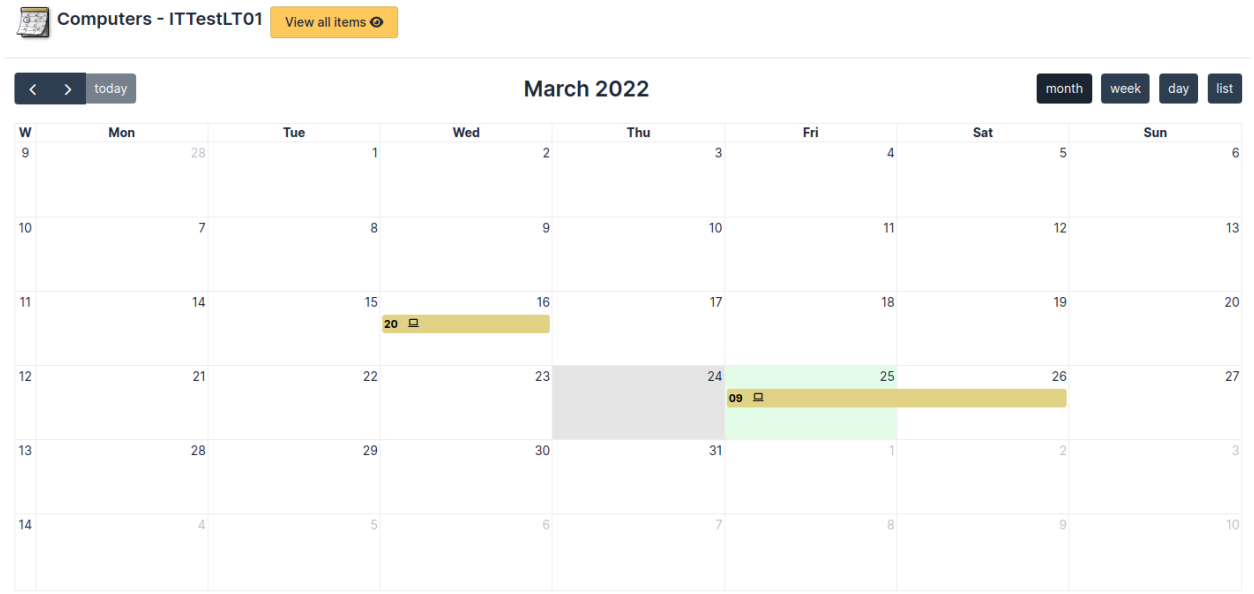
Note : By default, an equipment is not reservable !

Making an equipment reservable is done from the *Reservation* tab of the equipment's form.

A reserved equipment will be displayed in global reservation planning.



It is also possible to consult the specific planning of a reservable equipment. A reservation can also be created from this planning.



The different tabs

Reservations

This main tab of the tool allows to display and select available reservable equipments.

Administration

This tab display all reservable items and not only the available ones. As for main GLPI items, it offers a search engine with mass actions.

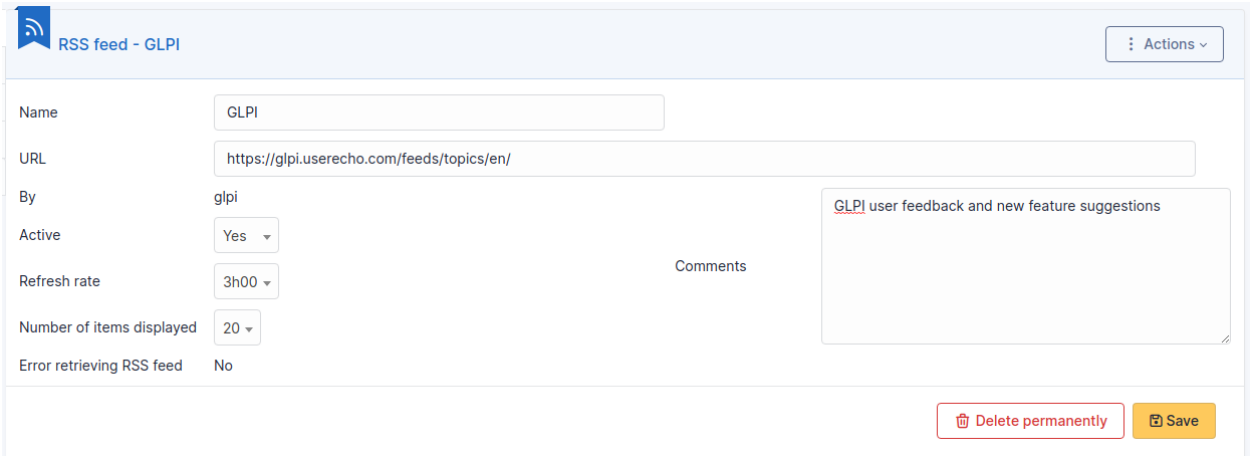
Manage RSS feeds

GLPI allows to include RSS feeds in tool home page.

A RSS feed is by default personal and therefore only visible by its creator.

For a RSS feed to become public and visible by other users, targets must be added to it, a target being either an entity, a group, a profile or a user.

Note : A public RSS feed is visible by users associated with a profile if this profile has read permission for public RSS feeds.



The different tabs

Content

This tab allows to consult the number of displayed items ; this content is the one displayed on home page.

Targets

This tab allows to display and modify the list of targets of the RSS feed.

History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :

- ID of the change.
- Date and time the change was made.
- User who made the change. If this field is not filled, it means that the action was done automatically (For example : automatic inventory update).
- Field that was changed.
- Description of the change that was made.

The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

Manage knowledge base

GLPI knowledge base has two main targets :

- Gather internal knowledge for technicians ;
- Provide information as a public FAQ to enable users to solve simple problems on their own.

Note : Only public FAQ items are visible to users of simplified interface. Other elements are visible only to technicians via standard interface.

Each article of the knowledge base must have one or more targets, being entities, groups, profiles or users, to be readable. As long as an article has no target, it is visible only by its writer, is flagged as *unpublished* and appears in table *Unpublished articles* on the home page of the knowledge base.

Note : You can publish an article for everyone by targeting the root entity.

By default, articles are not translatable. However, this functionality can be activated, see *general configuration*.

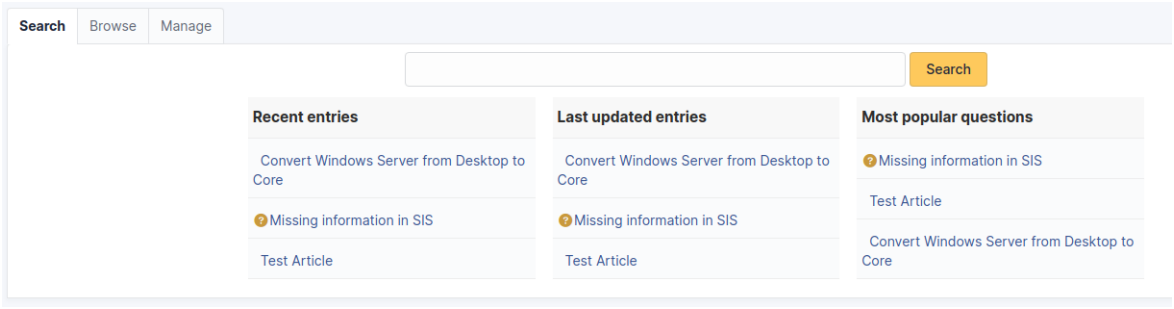
It is possible to attach documents to articles of the knowledge base.

Note : An article can be made visible during a time slot by defining a start date and an end date.

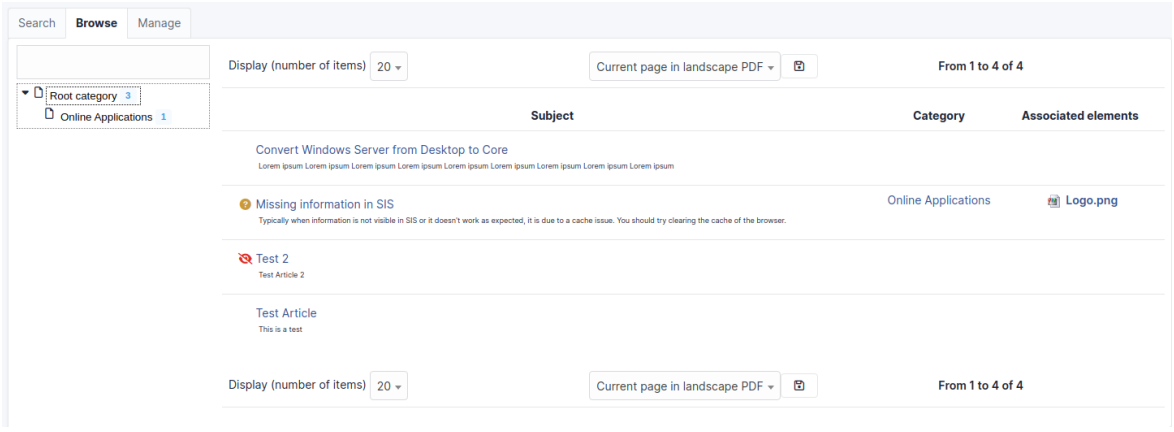
Avertissement : Elements which should not be interpreted when displayed can be defined with preformated style (<pre> in HTML). Tags like <VirtualHost> can therefore be inserted and will be displayed. Other HTML tags (<TAG>...</TAG> may disappear when editing ; to have complete visibility of the text, it is possible to switch to HTML mode where all elements will be visible. The browser may also modify dynamically content (case change, tags adding) when editing.

It is possible to create categories and sub-categories in order to organize browsing (see *Configure drop-downs*). User can then use several tabs to search and browse knowledge base :

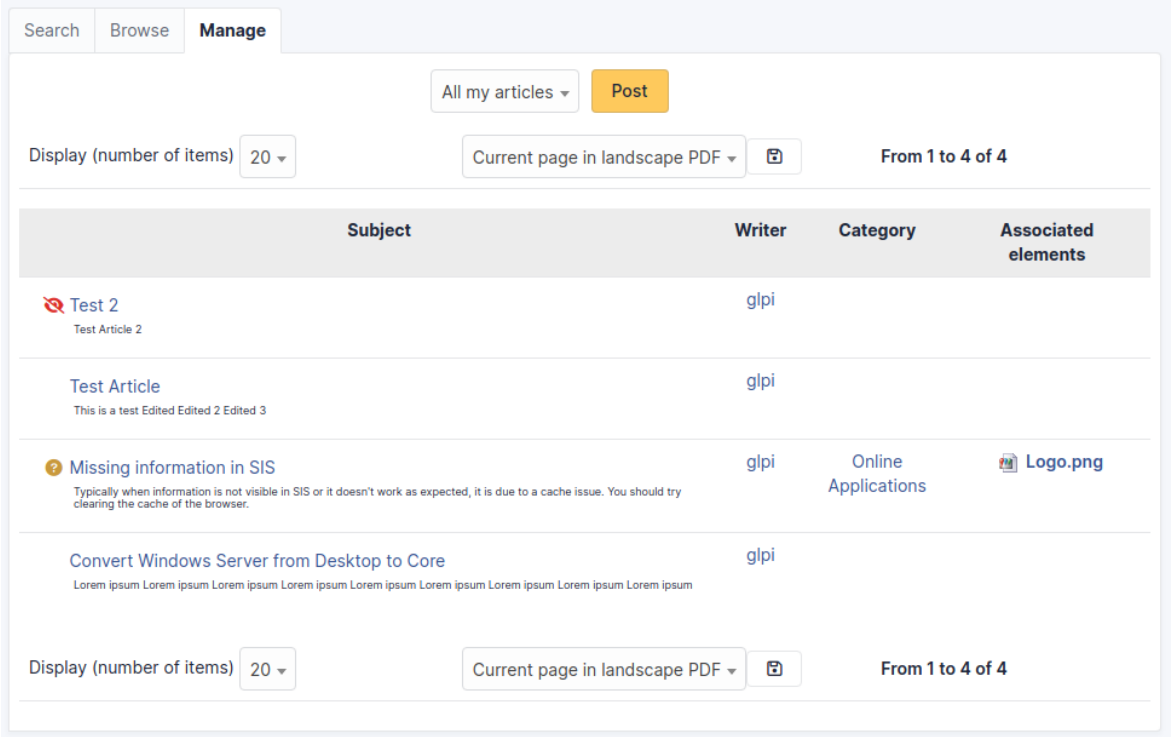
— **Search** This tab is the default tab, displaying recent articles, popular articles and last changes. It allows also to search inside knowledge base.



— **Browse** This tab allows to browse tree structure of categories.



— **Manage** This tab is only visible for knowledge base administrators. Depending on user's permissions, it is possible to access quickly user's articles, user's unpublished articles, all unpublished articles…



Note : The knowledge base search engine provides operators for complex search : `+ - ~ < > * " " ()`.

- `+` : word must be there ;
- `-` : word must not be there ;
- `*` : truncate suffix ;
- `" "` : contained sequence must be searched literally ;
- `< >` : define order on search elements ;
- `()` : group when using < and >.

```
Examples :

- printer failure
  -> Search lines containing at least one of these words

- +printer +failure
  -> Search lines containing both words

- +mail thunderbird
  -> Search lines containing word *mail* but rank higher lines containing also␣
↪word *thunderbird*

- +mail -outlook
  -> Search lines containing word *mail* but not word *outlook*

- * +mail +(>thunderbird <outlook)
  -> Search lines containing word *mail* and *thunderbird*, or *mail* and␣
↪*outlook*, in any order, but rank *mail thunderbird* higher than *mail outlook*

- open*
  -> Search lines containing words such as *openoffice*, *openwriter*, *openbar*,␣
```

(suite sur la page suivante)

(suite de la page précédente)

```
↪*openphp*...

- "openoffice suite"
  -> Search lines containing exactly sentence *openoffice suite*
```

The different tabs of an article

Knowledge base

This tab displays a table with article category, subject, content, writer, creation date, last modification date, number of views and FAQ membership.

If an article is unpublished (i.e. has no target), this information will appear in red above number of views.

Target

This tab allows to manage article's targets.

An article is by default personal and therefore only visible by its creator.

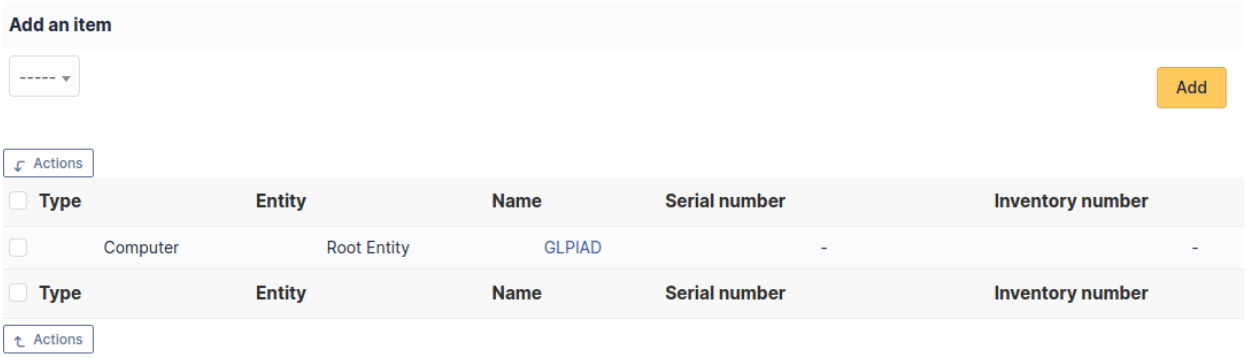
For an article to become visible by other users, targets must be added to it, a target being either an entity, a group, a profile or a user who will be able to consult the article.

Edit

This tab allows, if appropriate permission, to modify or delete an article.

Associated elements

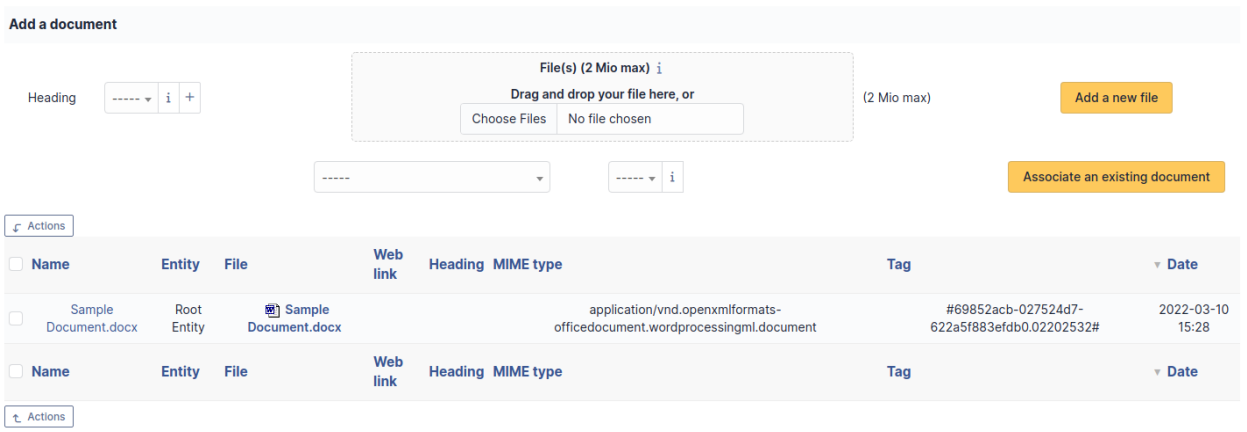
The *Items* tab is used to show or add linked assets.



Documents

Additional information is stored in the form of external documents which are files uploaded into GLPI. In the *Documents* tab, documents can be associated and unlinked with the selected item. The *management of the documents themselves* is dealt with in another chapter.

It is also possible to quickly create a document via this tab by specifying the desired file and optionally the field in which the new document is to be placed. The name of the created document will be based on the name of the added file.



Note : When you delete a document from this tab via mass actions, you only remove the link between the object and the document ; the document itself is still present.

History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :

- ID of the change.
- Date and time the change was made.
- User who made the change. If this field is not filled, it means that the action was done automatically (For example : automatic inventory update).
- Field that was changed.
- Description of the change that was made.

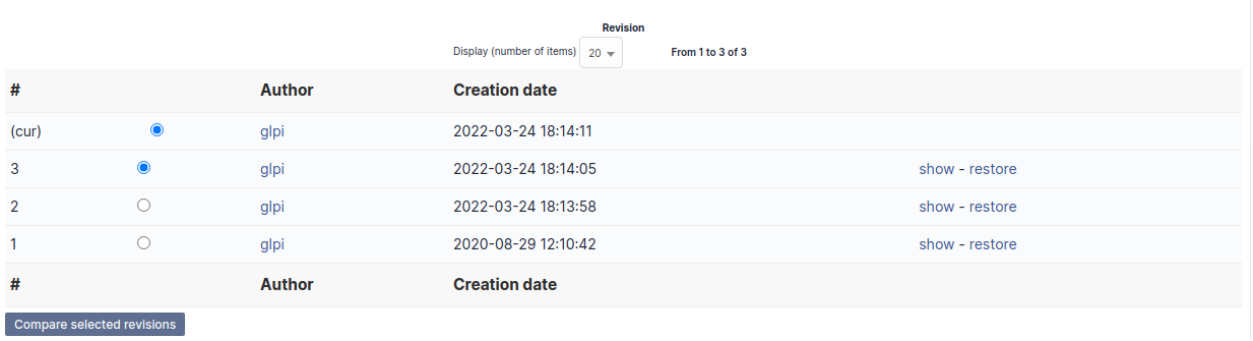
The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

Revision

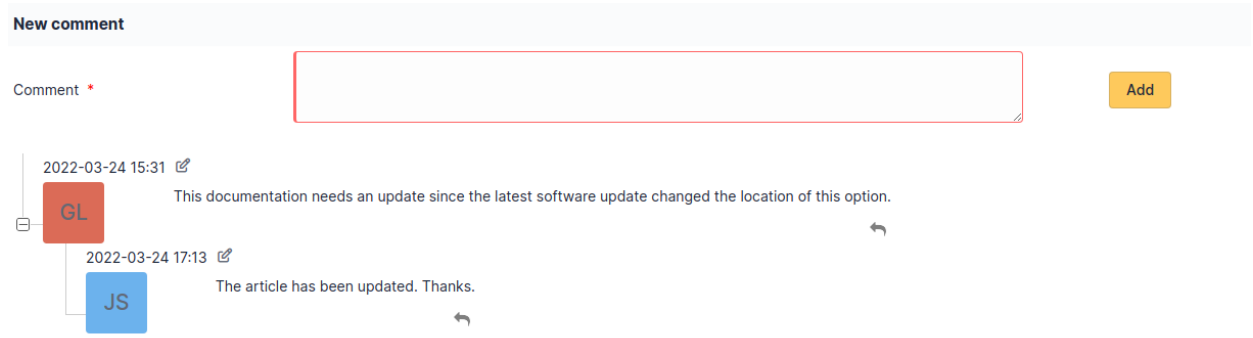
This tab allows to consult all article revisions : each saved modification of the article will create a revision storing the previous version of the article.

Revisions can be shown and restored.



Comments

This tab allows platform's users to add their comments and discuss the article.



All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

3.2.5 Assistance

Assistance module allows users to create, follow and process tickets. Plannings, statistics and recurrent tickets are also available.

Depending on profile permissions, it is possible as well to create, follow and process problems and changes.

GLPI assistance module is compliant with ITIL best practises guide and integrates therefore some fields normalization. However, following ITIL best practises is recommanded but not mandatory and it is perfectly feasible, thanks to module's flexibility, to implement an assistance service tailored to the organization's needs.

Defining actors and roles

An assistance service usually defines the following roles :

- **Requester** : user or group of users known to GLPI and affected by the ticket ;
- **Technician** : ticket processing is done by a technician, by a group or by a supplier ;
- **Watcher** : user who can follow a ticket but without modifying it ; follow-up can be done from GLPI interface or by receiving notifications.

Visible information and possible actions are defined by GLPI based on the user's role, which is defined in user's profile :

- Technicians are the actors having the most complete information on a ticket and the widest possible actions
- Requester and watcher will only view the information needed to fulfill request.

For multiple users or groups, only the first user or group is defined when creating the ticket, more actors are added later. A user who cannot modify actors but able to see the ticket can become a watcher.

When associating a new actor to a ticket, the number of tickets assigned to this actor is visible ; this eases for instance task partitioning between technicians.

Note :

- for users who are not known to GLPI, mail address can be associated to a ticket. Default choice for requester and watcher (no selected user) allows to add a mail address in these fields ; for this to be available, notifications must be activated (see notification management)
- Role attribution is done in user's authorization management (see Attribute authorizations to a user)

Matrix of calculus for priority

This matrix is common to all help desk items (tickets, problems and changes) and can be parameterized in tab *Assistance* of menu **Setup > General**.

ITIL best practices separate urgency (as defined by the user) from incident impact (a user, a service, a functionality…) which is usually set by the technician. A matrix is then used to compute the priority associated to the item of the help desk (ticket, problem or change) as a function of both urgency and impact. GLPI provides a default predefined matrix which corresponds to standard cases.

This predefined matrix can be modified in tab *Assistance* of menu **Setup > General** (see *Configure general parameters*.

Knowing that the order of items processing by technicians is based on priority, it is possible to select the different levels of urgency, impact or priorities that will be used in the help desk and to disable some of them. This action allows to ease declaration of an incident and its processing. To disable a level, this level must be set to *No*. Medium level cannot be disabled.



In example above, the urgency level *Low* will not be proposed to requester and the impact level *High* will not be proposed to the technician.

Note : The **Major** priority used by tickets is not part of the matrix. This level is higher than any other and requires the permission to modify priority in order to be able to assign it. A **Major** incident is a ticket whose processing is of such high importance that it overrides any other ticket.

Tickets

Opening a ticket

A requester formulating a need can use several tools :

- filling an online form, the requester being known to GLPI or not ;
- asking a delegate in the group to open the ticket (see *Administer groups*. In simplified interface, this is put into evidence by an option allowing to indicate if the ticket concerns the requesting user or another user. In standard interface, this mechanism is active as long as authorization **See all tickets** is set to *No* in the profile ; all users for which delegation is active will be added as requester ;
- contacting an operator directly or by phone, the operator will open the ticket ;
- sending the demand by mail.

Opening a ticket in GLPI

A ticket can be opened :

- through the anonymous ticket opening interface, this interface being accessible by all non-authenticated users if GLPI general configuration allows it ;
- through the graphical interface :
  - simplified interface : lightweight form for an authenticated end-user ;
  - standard interface : full-fledged form.

Anonymous ticket opening interface for non-authenticated users

This interface can be accessed at URL http:///front/helpdesk.html ; it allows users having no GLPI account to send an incident signaling form to the help desk. Once filled and submitted, a mail will confirm the ticket opening.

The form can be customized by modifying directly file *helpdesk.html*.

By default, ticket is created in root entity.

Opening a ticket in graphical interface

If templates are used (see *Using templates*), some fields can be made mandatory, predefined or masked when opening the ticket (content, title and/or category). If a mandatory field is missing, the ticket will not be opened.

The different fields are described in *Manage tickets*.

It is possible to attach to the ticket one or more documents in one operation.

When activating option **Use rich text for assistance** in general configuration, the *Description* field of the ticket will be able to be formatted as HTML. Moreover, an added zone will be available for images drag and drop, for example screenshots. A tag will then be added automatically to the description in order to formalize the content of the demand.

Simplified interface

This interface allows an authenticated user to open quickly a ticket, for the user or by delegation for another person.

Ticket opening form can be accompanied by a message inviting user to check personal information (location, phone number) in order to be easily contacted by technicians.

Specific fields :

- **Inform me about he actions take** : Appears if email followup are configured, see notification management. If set to *Yes*, the requester will be kept informed by mail of the different processing of the ticket. The field *Mail* contains the email address to which notifications will be sent. If several email addresses are defined, GLPI will select the default email defined in user's preferences. It is possible to select another email address or to enter an address if user's profile does not mention an email ;
- **Associated elements** : Allows to associate an item of the inventory with the ticket. The content of the list depends upon parameters defined in user's profile (see *Administer user profile*.
- **Watchers** : Allows to add a watcher and to define notification parameters.

Indication : Users can add new email addresses to the profile, see *Manager preferences*.

Avertissement : If images or documents are added to the ticket, it is important to add them **after** having filled **all** mandatory fields marked with a red star, this because the reloading of the ticket opening form triggered by a missing mandatory field suppress attached images or documents.

A message confirms the creation of the ticket which is then accessible by clicking on the ticket number highlighted in green.

Standard interface

To create a ticket, go to menu **Assistance > Ticket** then click add button with the « + » icon.

When adding a new image from tab *Documents* of the ticket, the generated tag can also be used to insert image in ticket's description.

A message confirms the creation of the ticket which is then accessible by clicking on the ticket number highlighted in green.

A validation demand can also be done at ticket opening by indicating the desired validating user.

Note : When filling assigned requester, technician or group, information is displayed about the number of tickets this person or this group has opened or is in charge of. Similarly, when selecting an item, a simplified view of current tickets for this item is displayed.

Open a ticket by mail

Opening a ticket by mail is done by sending a mail to an email address defined in the collector (see *Configure collectors*

On reception of the mail, a ticket will be opened automatically :
- message object will become ticket title
- body will become ticket description
- Cc : will become observers if emails are known to GLPI
- attachments will become attached documents of the ticket

When activating option **Use rich text for assistance** in general configuration, the images present in the message body will become visible in the description of the ticket.

Open a ticket automatically

This mechanism is activated through *Recurrent tickets*.

Ticket life cycle

Ticket life cycle is defined at *profile* level in a *life cycle matrix*. To display a life cycle and modify it, it is therefore done in profile management form (menu **Administration > Profiles**).

Ticket types

GLPI tickets are either incidents or requests, this type being stored in field *Type* of the ticket. This type field allows to perform actions based on ticket type (see business rules for tickets modification and assignment, *ticket templates* and *problem management*) and to customize the list of available categories.

Status

ITIL defines a standard for ticket status life cycle. This status life cycle is implemented in GLPI by defining the following status :
- New
- Processing (assigned)
- Processing (planned)
- Pending
- Solved
- Closed

These status can neither be parameterized nor modified.

Note : It is therefore possible to hide some status according to profile (see *Life cycle matrix*).*

To go further in status management, refer to *ticket templates* and business rules for tickets modification and assignment.

Scheduling

Ticket scheduling is done according to data provided by the requester and the technician :
- Requester defines urgency
- Technician appreciates the impact

Priority results from these two values. It is computed automatically using a matrix and provides the true importance of the ticket.

Note : To go further on this matrix configuration, see *Define the matrix of calculus for priority*.

Management rules

The ticket status follows the following process :
- upon creation, the ticket has status **New**
- when a technician assigns ticket processing to a group, a technician or a supplier, the ticket goes to status **Processing (assigned)**
- when a new task is added to the ticket and is planned, ticket status become then **Processing (planned)**
- when a solution is found for the ticket, its status become **Solved**
- at last, then requester or writer validates the proposed solution, the ticket status is **Closed**

Note :
- Technician can change ticket status at every moment, in particular to put the ticket to **Pending**. Following ITIL recommendations, a ticket must be made **Pending** only by the requester, for example if request is not complete or if requester is not available for an intervention
- Requester can delete the ticket as long as the ticket status is **New** and no action has been done on the ticket

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Manage tickets

Manage tickets following ITIL recommendations

GLPI assistance module is compliant with ITIL best practices guide for incident and request management : it integrates therefore notions such as impact, ticket urgency, priority calculus matrix and status standardization. Despite the fact that GLPI is ITIL compliant, it is not mandatory to follow these best practices and freedom is given to implement an incident management best tailored for organization's need.

Statistics are available for tickets, see *Display statistics*.

Description of specific fields

- **Opening date** : ticket creation date ;
- **Time to Resolve** : date at which ticket must be solved ;
  These two dates allow to limit in time incident or service request. A **SLA** can also be associated with the ticket ; in this case the SLA and the next escalade level are displayed (see Configure SLA).
- **By** : references the GLPI user having opened the ticket ;
- **Type** : defines whether it is a request or an incident ;
- **Category** : allows to sort request or incident by their nature, a category being associated to only one type ;
- **Status** : status attributed manualy by the technician or dynamically by performed actions, see *Management rules* and *life cycle matrix* ;

— **Request Source** : indicates the channel used to create the ticket, see *Configure drop down* ;
— **Urgency** : importance given to the ticket by the requester ;
— **Impact** : importance given by the technician ;
— **Priority** : importance of the ticket automaticaly computed from defined impact and urgency using a predefined calculus matrix, see *life cycle matrix* ;
— **Approval** : by default the ticket is *Not subject to approval* ;
— **Items** : list items associated to this ticket ; field appearing only in ticket creation form, later editions will display items in a separate tab also used to associate new items to the ticket ;
— **Location** : indicates the intervention location, has no link with the location of associated items nor with the requester location (for example roaming requester with a laptop) ;
— **Actor** : implied actors are referenced in the ticket, which allows them to be notified during ticket life cycle, see *Defining actors and roles*.
If email followup have been configured (see notification management), information about notifications are displayed for a user or a supplier : *Email Followup* (yes or no) and *Email*. Email is pre-filled with user's email if defined in user or supplier form. If no email is defined in user or supplier form, an email can be entered in text field.

À faire : proof read following paragraph

When using GLPI with multiple entities and having technicians with authorizations for several entities, it is not needed to switch current entity to declare a new incident inside an entity. Entity to which ticket will be assigned is determined as so : technician selects requester and GLPI find entities for which this requester has authorizations ; if only one entity, ticket creation form is updated and ticket will be declared in this entity, if several entities, a drop-down list allows to select the entity to which ticket will be assigned.
— **Title** : if no tile is defined by the user when creating the ticket, the first 70 characters of the description will be used to define ticket title ;
— **Description** : mandatory, for above reason ;
— **Linked Tickets** : defines a link between tickets, this link being of two types :
  — *Linked to* : a simple link only used as information ;
  — *Duplicates* : when solving one of the duplicated tickets, the same solution is applied for other duplicated tickets which are therefore automatically solved.

À faire : Missing description of *Son of* and *Parent of*

The different tabs

Processing ticket

This tab displays exchanges between requester and personal in charge of the ticket ; it allows to add information on the ticket such as requester call, ticket waiting for requester disponibility…

This tab is the default tab when consulting a ticket except when the ticket is waiting for approval.

To add a followup, click on **Followup** and enter a description.

It is possible to choose the source of the followup, see *Configure dropdown*.

A followup can be public or private. A private followup is only visible by GLPI users having the authorization *See all followup and tasks*. It allows for instance to have an exchange between technician which is not visible by requester.

Adding, modifying and deleting a followup is submited to authorizations defined in profile, see *Administer user profiles*.

Approvals

See Validation

Project Tasks

A task is an action corresponding to a technical intervention related to the ticket.

See Tasks

Solution

This tab allows resolution of a ticket by a technican and approval of solution by requester.

See Solutions

Statistics

See Statistics

Items

Allows to associate several items to the ticket.

See Items

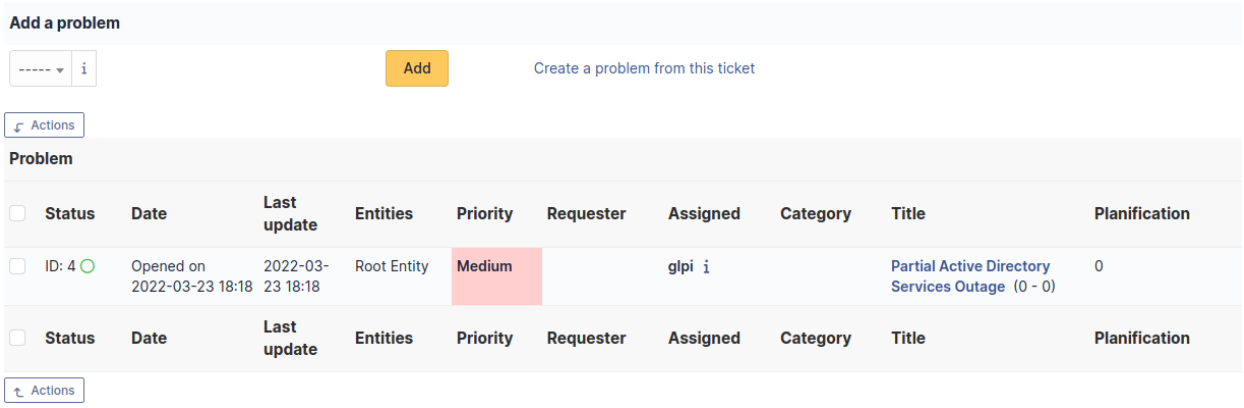
Changes

Allows to add and display changes associated with the ticket.

See Changes

Problems

Allows to display and add problems associated with the ticket, or to create a problem from this ticket.



See Problems

Historical

Display the history of the ticket.

See Historical

Debugging information

If you have *Debug* mode enabled in your preferences, a *Debug* tab will appear before the *All* tab. This tab offers information to help you resolve an issue.

For example, for a computer, you have one or more tables depending on the affected object (financial information, reservations…) listing the notifications that will be triggered on this computer with :

- Triggering event
- Recipient(s)
- Notification model used
- Recipient(s) email address

Notifications			(Ticket)	
Events	**Recipients**	**Notification templates**	**Mode**	**Recipient**
Closing of the ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New ticket	Profile: Admin	Tickets (en_GB)	mailing	admins@example.com
New ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Ticket solved	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost

All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

Reccurent tickets

Using templates, it is possible to program recurrent ticket opening.

Note :

- Open a ticket every Monday to check that weekend backup was correctly executed
- Open a ticket first day of the month to perform initialization operations

---

The different fields

— **Active** : allows to disable temporarily ticket creation ;
— **Ticket template** : model that will be used for ticket creation ;
— **Start date** : start date for ticket creation, mandatory ;
— **End date** : optional, defines ticket creation end date ;
— **Periodicity** : ticket creation period ;
— **Preliminary creation** : time for anticipated ticket creation ;
— **Calendar** : allows to limit ticket creation days.

Note : Tickets will only be created if *Active* is *Yes* and if current date is between *Start date* and *End date*.

Reccurent ticket opening is done through an automatic action named *recurrent ticket*, see *Configure automatic actions*.

To go further

Tickets categories

See *Categories*

Tickets templates

Using ticket templates, it is possible to customize ticket creation form by masking, pre-defining or making mandatory some fields.

See *Ticket templates*

Collectors

External tools can interact with assistance module using mail collectors.

Email is used to create tickets and add follow-up to existing tickets. A GLPI internal task will connect to a mailbox and fetch messages.

Note : The solution or closure of a ticket are not available via collectors.

A mail message will go through the following steps :
— Mail box ;
— Collector, configured using *Configure collectors* ;
— Rules, see *Assigned a ticked opened by mail to an entity*
— Business rules, see Business rules for tickets
— Ticket is created
An answer to a mail coming from GLPI will go through the following steps :
— Mail box ;
— Collector ;
— Creation of a follow-up for concerned ticket.

Recurrent tickets

See *Recurrent tickets*

Attached costs

See *Attached costs*

Links between tickets

It is possible to define links between tickets or to mark tickets as duplicates.

See *Links between tickets*

Processing time

Incidents resolution delays or SLA can be configured.

See Configure SLAs.

Business rules

Business rules can be defined to modify and assign tickets.

See Business rules for tickets.

Administrative closure

Administrative closure moves the status of a ticket from *Solved* to *Closed*.

ITIL best practices recommends a validation of the solution by the ticket requester, who validates that the answer provided by the technician corresponds to the demand. However, if the requester does not fulfill this validation, it is possible to parameterize an administrative closure after a delay which can be configured at entity level (see *Assistance tab*). If this delay is set to zero, the ticket is automatically closed.

Satisfaction

(I can't get no)

A satisfaction survey is triggered when the ticket status is set to *Closed* and the triggering delay is elapsed. This triggering delay is parameterized at entity level (see *Delegate administration at entity level*).

Note : The automatic task that triggers the survey must be activated.

When ticket is closed, a notification that includes a link to the satisfaction survey can be sent to the requester. The requester will also have access to the survey from the ticket form in tab *Satisfaction*.

The requester can then select the satisfaction level (from 0 to 5, given as stars) about the ticket solution. A comment can also be added.

Statistics on surveys are available in *statistics*.

Note :
— the requester can change the answer to the satisfaction survey within a delay of 12 hours after first answer
— a notification can be sent when satisfaction survey is generated, but also on each answer to this survey

See also

See *Advanced configuration*.

Manage problems

A problem is the cause of potential incidents and, once identified, can be managed in GLPI.

Creating a problem object can be done either from the ticket form, in tab *Problem*, or directly from menu *Assistance* > *Problems*.

The problem creation form is very similar to the ticket creation form and shares with it many concepts : *Requester*, *Watcher*, *Assigned to*, *Status*, *Urgency*, *Impact*, *Priority*, *Category*. For more information, see *Manage tickets*.

À faire : Check what is means From tickets list, an alternative solution can be associated to linked tickets without solving the problem. Depuis la liste des tickets, une solution de contournement peut être associé massivement aux tickets liés sans pour autant résoudre le problème.

Problems use their own notifications, see configuration of email follow-ups.

Statistics similar to tickets are available for problems, see *Display statistics*.

The different tabs

Changes

This tab allows to display changes associated with the problem and add new changes. See Solutions

Analysis

This tab contains problem analysis and describes impacts, causes and symptoms.

Solutions

This tab allows to describe the resolution of the problem. See Solutions

Statistics

Statistics similar to tickets are available for problems. See Statistics

Tasks

A task is an action linked with a problem, usually a technical intervention. See Tasks

Costs

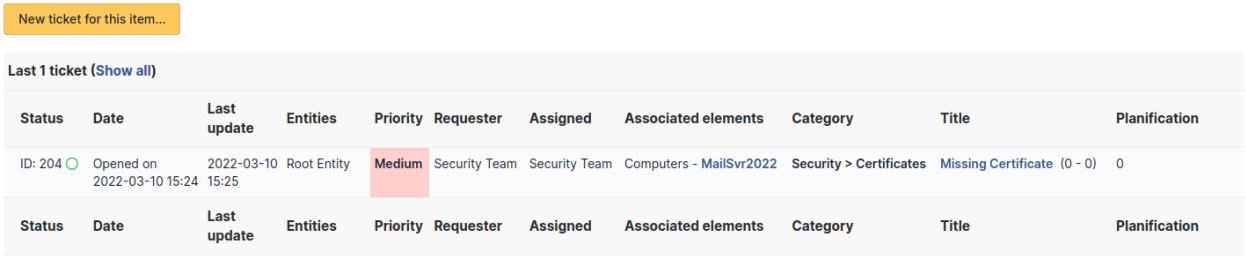
This tab defines the costs applicable to this problem. See Costs

Elements

This tab allows to attach an item to the problem by choosing the type and the selected item. See Items

Tickets

The *Tickets* tab is used to create a ticket associated with the current object. It also lists the tickets already linked to the object.



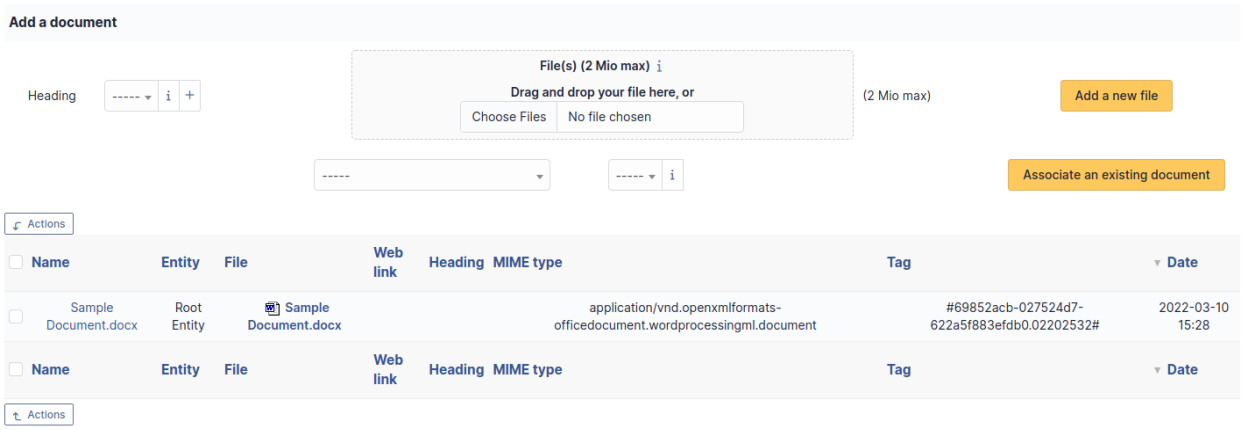
Note : A second table lists the tickets attached to the linked elements

Note : Any deletion or addition of a ticket is recorded in the history.

Documents

Additional information is stored in the form of external documents which are files uploaded into GLPI. In the *Documents* tab, documents can be associated and unlinked with the selected item. The *management of the documents themselves* is dealt with in another chapter.

It is also possible to quickly create a document via this tab by specifying the desired file and optionally the field in which the new document is to be placed. The name of the created document will be based on the name of the added file.



Note : When you delete a document from this tab via mass actions, you only remove the link between the object and the document ; the document itself is still present.

Notes

The *Notes* tab provides a free text field for storing additional information. Notes are displayed in the order of their creation.



History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :

- ID of the change.
- Date and time the change was made.
- User who made the change. If this field is not filled, it means that the action was done automatically (For example : automatic inventory update).
- Field that was changed.
- Description of the change that was made.

The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

Manage changes

A change is a modification of the information system's infrastructure.

A change can be created either from a ticket form or a problem form, in tab **Changes**, or from menu **Assistance > Changes**.

The form to create a change is similar to the ticket creation form and shares with it many terms : *requester*, *watcher*, *assigned to*, *status*, *urgency*, *impact*, *priority*, *category*. For more information see *Manage tickets*. The validation process is also the same as tickets in order to allow preliminary validation of the change (tab *Validations*).

Once the change is created, it is possible to attach tickets but also impacted items (tab *Items*). An analysis phase (tab *Analysis*) consists in describing impacts and controls list in order to implement this change through a deployment plan, a backup plan and a checklist (tab *Plans*).

Same as tickets, task, costs and solution allow to follow and solve the change. For complex changes management, a change can be linked with one or several projects allowing a mode detailed management (*Manage projects*).

Changes use their own notifications (see configuration of email follow-ups).

The different tabs

Analysis

This tab contains impacts and check-lists in order to implement the change.

Plans

This plan contains deployment plans, backup plans and check-lists.

Projects

This tab allows to attach a project to the change and displays already attached projects.

The summary table contains for each project status, opening or closing dates, priority and supervisors.

Solutions

This tab allows to describe the resolution of the change. See Solutions

Statistics

Statistics similar to tickets are available for changes. See Statistics

Approvals

See Approvals

Tasks

A task is an action linked with a change, usually a technical intervention. See Tasks

Costs

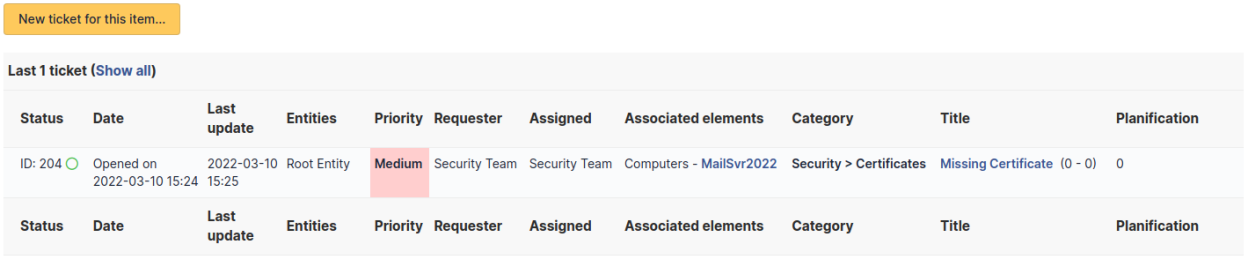
This tab defines the costs applicable to this change. See Costs

Elements

This tab allows to attach an item to the change by choosing the type and the selected item. See Items

Tickets

The *Tickets* tab is used to create a ticket associated with the current object. It also lists the tickets already linked to the object.



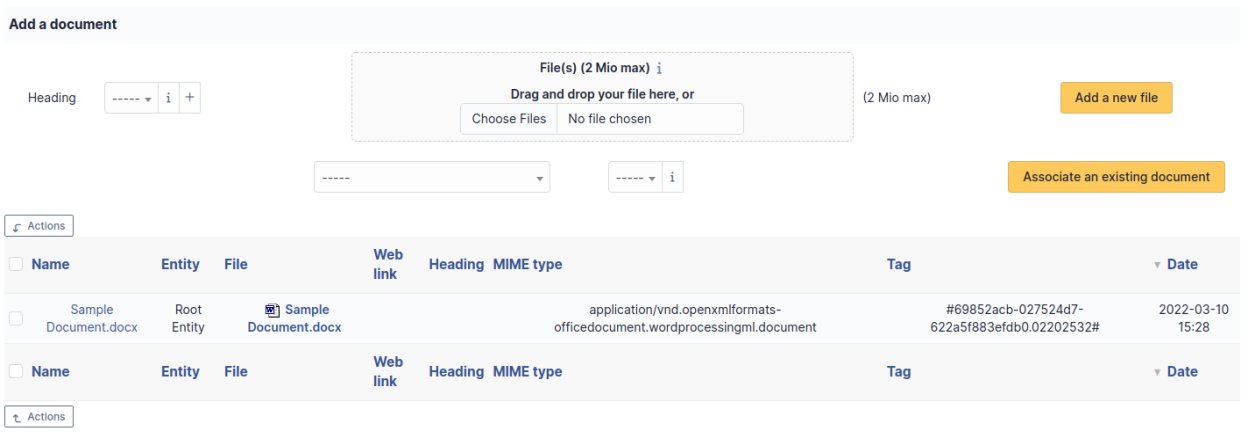
Note : A second table lists the tickets attached to the linked elements

Note : Any deletion or addition of a ticket is recorded in the history.

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It is also possible to quickly create a document via this tab by specifying the desired file and optionally the field in which the new document is to be placed. The name of the created document will be based on the name of the added file.



Note : When you delete a document from this tab via mass actions, you only remove the link between the object and the document ; the document itself is still present.

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- Field that was changed.
- Description of the change that was made.

The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

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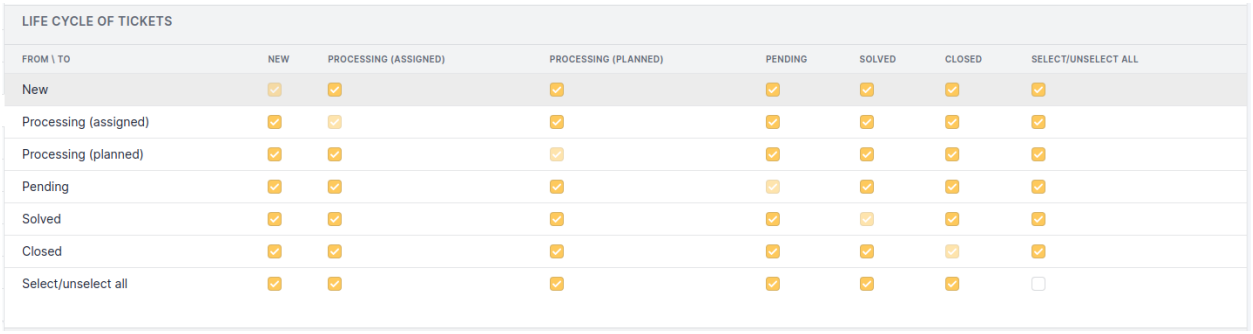
Life cycle matrix

Each profile having its own life cycle matrix, it is possible to refine which profile will be able to do which action.

The life cycle matrix controls object status changes, which implies it can block some actions. If a status is not activated, it won't be present in the list of status of the object.

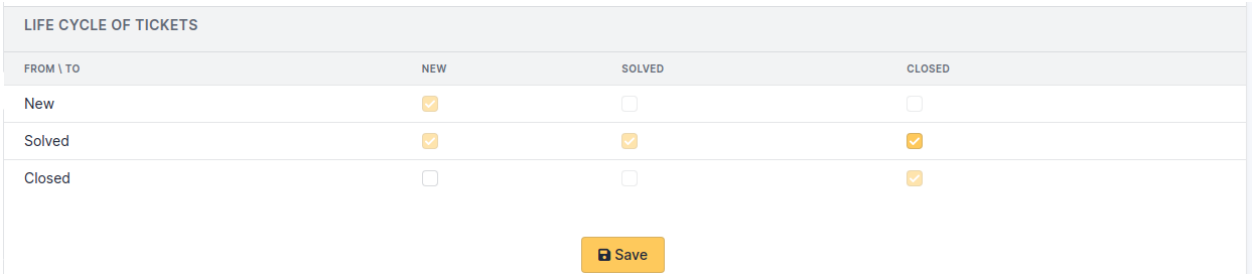
Ticket life cycle matrix

See *Ticket management rules*.



In example above, a *New* ticket will never be put to *Waiting*, this status being not proposed in the ticket.

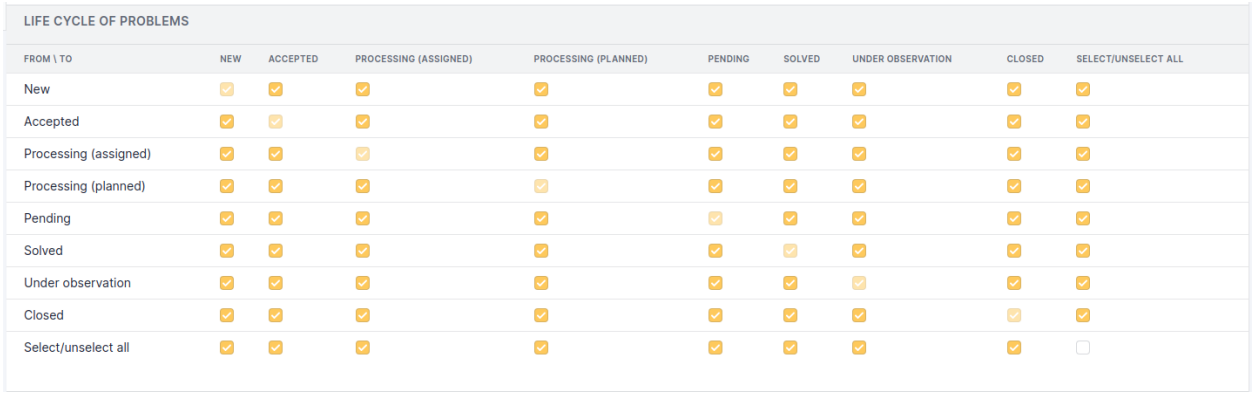
Furthermore, a requester will not have access to solution validation form, because a solved ticket for which solution has been approved becomes closed, which is not authorized by the example.



For the simplified interface, ticket life cycle allows to define if user can close a ticket (solution approved) and if user can re-open it event if it is closed.

Problem life cycle matrix

See *Ticket management rules*.



In example above, a *New* problem will never be put directly to status *Solved*, this status being not proposed in the problem.

Change life cycle matrix

See *Ticket management rules*.



In example above, a *New* change will never be *Accepted* before having its status put to *Evaluation* or *Validation*, this status being not proposed in the change.

Managing plannings

Planning view allows to display planned tasks attached to a ticket, a problem or a change as well as planned notes or plugins" planned elements.

This menu is only visible if profile includes *View planning* authorization.

Date and time slot can be selected. A filtering on objects to include in planning is also available.

Four views are available, depending upon user authorizations :
- Personal view : includes only the elements of the connected user ;
- Group view : includes only the elements of the connected user's group, needs *See planning of group's persons* authorization ;
- Users view : includes the planning of a particular user, needs *See all plannings* authorization ;
- Groups : includes the planning of a particular group, needs *See all plannings* authorization ;

This information can be exported in two formats :
- Ical, in order to integrate planning in third-party tool calendar ;
- Webcal, which allows to subscribe a third-party calendar to GLPI planning.

Note :
- Access to Ical and Webcall feed is protected by a security key integrated into the URL. It is possible to regenerate this key in menu *Preferences*. See *Manage preferences*.
- User's planning can be displayed on home page if profile has authorization *See my personal planning*. However, it is not possible to add an element to a planning from this interface ; it is mandatory to plan a task or a note so that planning fills up.

Display statistics

Statistics group reports on tickets as well as reports coming from plugins.

Reports can be parameterized on a given time slot.

Reports on tickets

- **Global :**
  Display general statistics on tickets :
  - Number of opened , solved, late and closed tickets ;
  - Average time of processing, resolution, closure and real duration ;
  - Number of satisfaction surveys, opened or answered ;
  - Average satisfaction.
- **By ticket :**
  Display statistics on tickets items, selected via a dropdown (requester, assigned technician, impact…).
  Table shows following items in four groups :
  - Number of opened , solved, late and closed tickets ;
  - Number of opened satisfaction surveys, number of answers and average satisfaction ;
  - Average *Take into account* time (duration between ticket opening and first action on ticket, follow-up, task or solution), resolution time or closure time ;
  - Real ticket duration, average and total (real duration of allocated technician time for actions relevant for the ticket).

— **By hardware characteristics :**
Displays statistics on computer items defined in associated items of a ticket (for example, model, operating system, motherboard…)
The table groups the same numbers as defined in statistics by tickets.

For these two types of reports, the button located on each result line allows to display the statistics as a graphic.

— **By hardware :**
Display number of tickets assigned to each hardware, sorted by number of tickets.

The option **See graphics**, when available, allows to display result as a pie chart.

Note : When statistics are done on a tree structured item (groups or categories for example), two presentations are available :

— Normal : all values are displayed
— Tree : only values at same level are displayed, taking into account the tickets attached to child elements. It is possible to navigate into values tree.

Categories

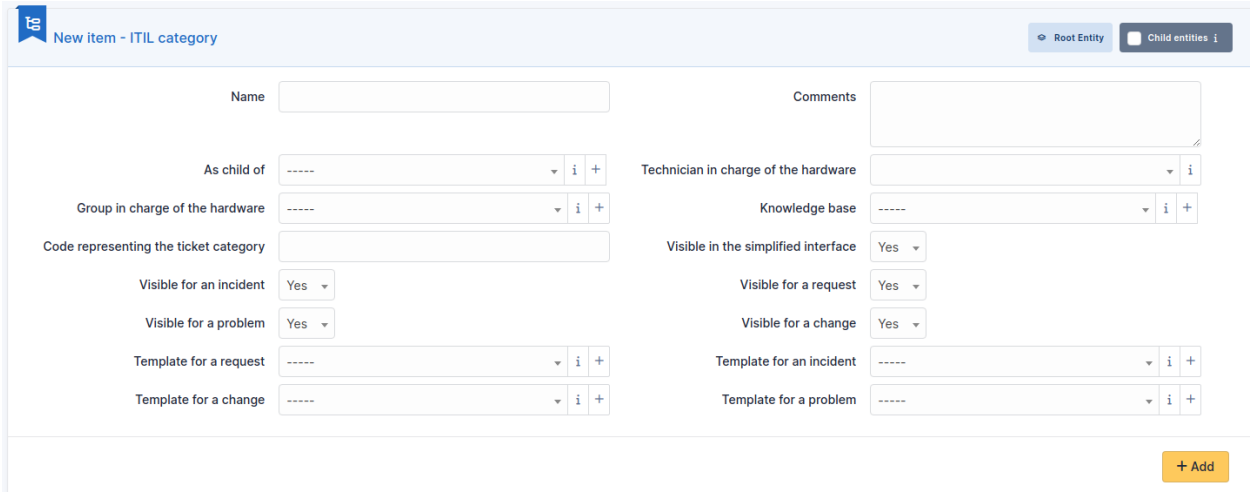
A category can be made hierarchical :

— by selecting a parent category using in first tab the field *As child of*
— by adding a new child category in tab *ITIL Categories*

ITIL categories

ITIL categories can be managed in dropdown setup *Setup > Dropdowns > Ticket Categories*.

ITIL categories are used by Tickets, Changes and Problems.



A person in charge and/or a technical group can be added to this category and will then be used for notifications.

A knowledge base category can also be associated to this category ; this will register the solution in this category of the knowledge base.

In this example, if you have a ticket with the category « Hard disk failure » which is linked to the KB category « Failure > Computer », when you add a solution to the ticket with « Save to Knowledge base » set to « Yes », the default category in the new Knowledge base Article form that opens will be « Failure > Computer ».

A category can be invisible in simplified interface, in order to reduce list of categories for end-users. It can also be made visible or not for incidents, demands, problems or changes.

A template can be associated with this category and will be loaded when this category is selected in ticket. This template can be different for demands and incidents.

Indication : When building a helpdesk, it is important to choose carefully the list of available categories : a too large number visible by end-users will make ticket creation less easy, whereas a too small number will not allow you to correctly qualify the demand.

Ticket categories allow to do automatic processing when creating a ticket, for instance modify ticket attributes ; see Business rules for tickets.

Task categories

Task categories are used to sort task in order to ease their processing or to build meaningful statistics.

Tickets, Changes and Problems can be viewed globally in a Kanban view. For more information about the Kanban feature, please refer to the *full documentation*.

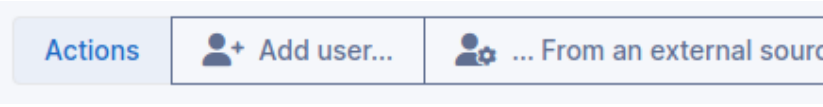
3.2.6 Administration

Administration module allows to administrate users, groups, entities, profiles, rules and dictionnaries.

Users

User management allows to add, modify, delete, search users and to import and export users list.

Import users



From users list, three options are available for adding a user

- **Add user** : Opens a user creation form, similar to the *Add* button ; requires profile to be granted user creation authorization
- **…From an external source** : Import users from external source
- **LDAP directory link** : Import and synchronize users from LDAP directory

Import users from external source

This button is available when profile is granted user *External add* authorization. The identifier of a user being known, GLPI allows to search user and to import user's authentication information from an external source. Once user's connection identifier filled, this identifier is search in available directories (button *Import from directories*) or in other sources (button *Import from other sources*).

Avertissement :
- if more that one user is identified by provided identifier, then adding is not performed
- when using a mail directory for authentication, no import user list is available

User personal information can be imported under some conditions from a LDAP directory ; users imported from a mail server do not get personal information.

Import and synchronize users from LDAP directory

This button is available when profile is granted user *External add* authorization. GLPI allows users advanced search in a LDAP directory. The interface is restricted to the list of entities for which GLPI connected user is granted authorization (see *Administer user profiles*). Once entity is selected (if GLPI is in multi-entities mode or if connected user is granted authorization for several entities), a list of criteria is displayed, based on personal information collected from directory. The search syntax for fields is similar to the syntax of GLPI search engine (see *Search*). Search can be limited to users added or modified in the directory during given time slot by following link *Activate date filtering*.

Note :

- In order to be able to use simplified interface, either LDAP parameters for the entity must have been configured first using *Administration* > *Entity* to assign a directory to the entity or a default directory must have been defined.
- This option, coupled with search on criteria, allows to bypass the limit of records returned by directory for a LDAP request (see *Authenticate users with LDAP directories*)
- Simplified interface does not require write authorization for users. An asset manager or a technician can therefore import users from the directory without having access to these imported users after import. This option is for example useful for a call center or for a directory from which mass users import is not desired.

An **Expert Mode** is also proposed by following link on the right of table header. This mode is available for users granted with update authorization either for general configuration or for entities. Unlike simple interface, results are not filtered by entity : the only available criteria are directory, based and users search filter.

> **Avertissement :** advanced interface is reserved for administrators having knowledge of both LDAP directory and GLPI users management.

Once imported from a directory, GLPI stores user's LDAP unique identifier (the *distinguedName* or *DN*) in addition to connection identifier. This allows to manage updating connection identifier when DN is left untouched. For example, if connection identifier is email address, GLPI will be able to update it without recreating a new user in the case of a change.

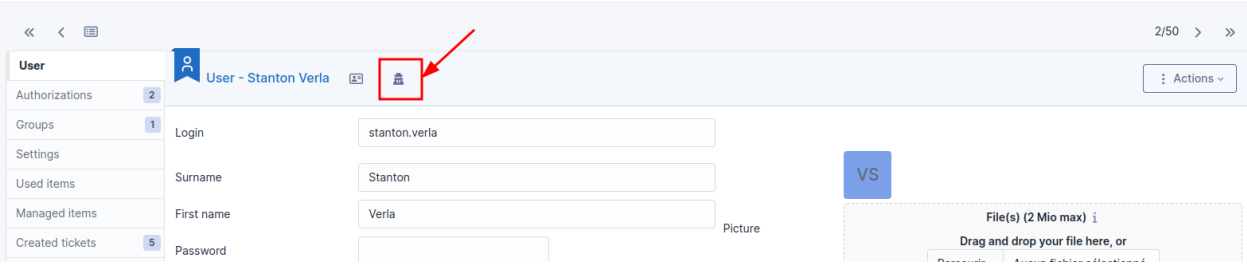
If an external authentication source is configured, it becomes possible to import and synchronize users using this source. For regular maintenance of the users base, it is recommended to use the GLPI CLI command *glpi :ldap :synchronize_users*. For daily management, the manual import mechanism is available (see above).

It is possible to deactivate a user if needed. If deactivated, the user can no longer be selected in drop-down menu for tickets or inventories, but keeps associated items and tickets. Validity dates can also define the activity time slot of user : the user account will be considered as active only after the start date and/or before the end date. Both dates can be defined independently.

A photo can be added manually or imported automatically from a directory (see Authenticate users with LDAP).

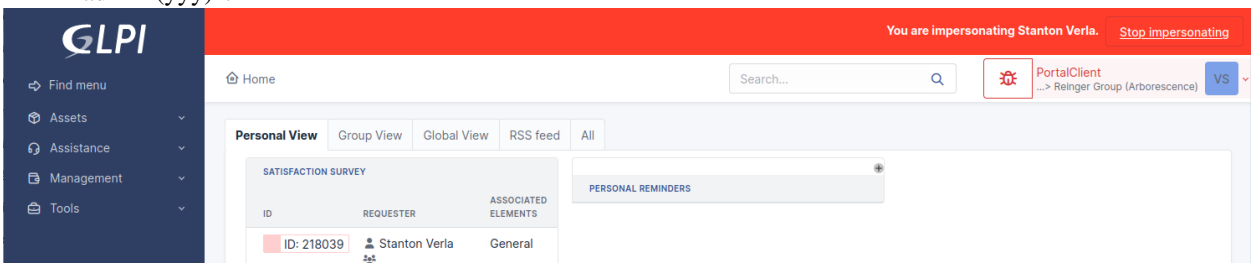
Impersonate

For debugging or administrative purposes, it's possible for a "super-admin" account (or any profile with the configuration rights) to temporarily take the ownership of another user's account without knowing its password. An icon is available at the top of the user´s form to perform this action.



To note :

- A special banner will show permanently as long as the function is active and will allow you to exit this mode.
- After the exit, the admin will retrieve its session as it was before using the feature.
- The history of actions taken by the administrator will appear with a special note : "user (xxx) impersonated by admin (yyy)".



The different tabs

Authorizations

This tab allows to manage user authorizations. To add an authorization, select entity for which authorizations must be given, then select the profile to attribute. the option *Recursive* allows to associate the chosen profile to all sub-entities of selected entities.

A summary tab displays already attributed authorizations for the user.

Groups

This tab lists the groups associated to the user. Table includes group name, whether the group is dynamic (i.e. linked to a directory service), whether the user is delegatee or manager for the group (see *Manage groups*).

If modify user authorization is granted, it is also possible from this tab to assign a group to the user.

Settings

This tab allows to edit user's settings (see *Manage settings*). In order to be able to modify data in this tab, general configuration modification authorization must be granted.

Used items

This tab lists the items for which user is defined in field *User* of the item or for which user is member of the group defined in field *Group* of the item.

See Tab « Used items »

Managed items

This tab lists the items for which user is defined in field *Technician in Charge* of the item or for which user is member of the group defined in field *Group in Charge* of the item.

See Tab « Managed items »

Reservations

This tab lists passed, current and future reservations of the user. In order to see this tab, read authorization on reservation management must be granted.

See Tab « Reservations »

Synchronization

This tab is displayed if *Update Authentication and Synchronization* right is granted. It allows to change authentication method for the user and to force its synchronization.

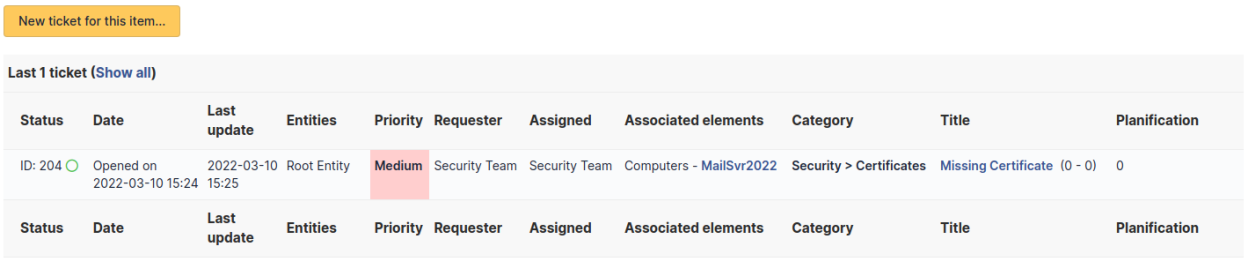
External Links

This tab list external links defined for users.

See Tab « Links »

Tickets

The *Tickets* tab is used to create a ticket associated with the current object. It also lists the tickets already linked to the object.



Note : A second table lists the tickets attached to the linked elements

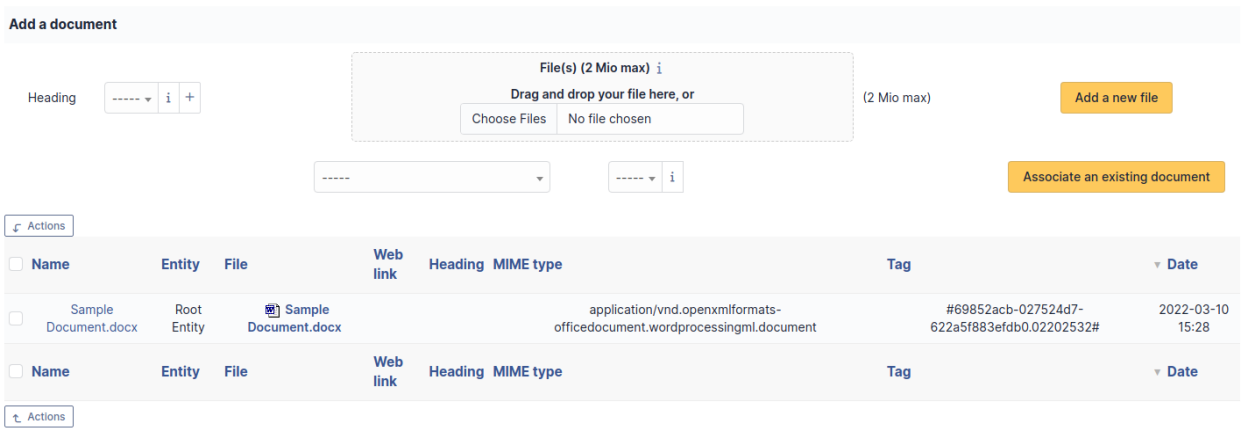
Note : Any deletion or addition of a ticket is recorded in the history.

For users, this tab allows to list tickets created by the user but also to create directly a ticket (the user will then be defined automatically as *Requester*).

Documents

Additional information is stored in the form of external documents which are files uploaded into GLPI. In the *Documents* tab, documents can be associated and unlinked with the selected item. The *management of the documents themselves* is dealt with in another chapter.

It is also possible to quickly create a document via this tab by specifying the desired file and optionally the field in which the new document is to be placed. The name of the created document will be based on the name of the added file.



Note : When you delete a document from this tab via mass actions, you only remove the link between the object and the document ; the document itself is still present.

History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :

- ID of the change.
- Date and time the change was made.
- User who made the change. If this field is not filled, it means that the action was done automatically (For example : automatic inventory update).
- Field that was changed.
- Description of the change that was made.

The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

Debugging information

If you have *Debug* mode enabled in your preferences, a *Debug* tab will appear before the *All* tab. This tab offers information to help you resolve an issue.

For example, for a computer, you have one or more tables depending on the affected object (financial information, reservations…) listing the notifications that will be triggered on this computer with :

- Triggering event
- Recipient(s)
- Notification model used
- Recipient(s) email address

Notifications			(Ticket)	
Events	**Recipients**	**Notification templates**	**Mode**	**Recipient**
Closing of the ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New ticket	Profile: Admin	Tickets (en_GB)	mailing	admins@example.com
New ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Ticket solved	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost

All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

Groups

Groups tab allows to add, modify, delete, search, export groups.

Groups can be defined in a hierarchical structure in order to ease navigation and search.

Example : groups

: :

Management > Division > Service or N3 Support > Network > LAN

Groups can be used in several way to group users by : * *skills* : for the helpdesk, for example network technicians, or database administrators, * *organizational groups* : for example all the computers of the management or the accounting department but also set of persons to be notified.

The options available to adjust these behaviors are : * **Visible in a ticket** : requesting group and/or assignment to this group ; * **Can be notified** : recipient of notifications ; * **Can be supervisor** : only for a *project* ; * **May contain** : assets and/or users.

In an item form, 2 notions of groups are available : * *technical group* which indicates which group of people is in charge of the asset (equivalent for a group of the technical manager) * *group* which indicates to which group of items it belongs.

Note : the technical group can allow the automatic assignment of a ticket to a group of technicians, see the ticket categories in the chapter : doc : *Configure dropdowns </modules/configuration/dropdowns/assistance.rst>*. Likewise, it can be used in Business rules for tickets.

Indication : if all options are set to *No*, the group will not appear in any selection list ; this can be useful for a group that is deleted and kept for history or for adding empty groups in the hierarchical structure.

A group can have one or more supervisors, concept which can then be used for notifications, for example to send an email to the supervisor(s) of the group when a ticket is opened, see notification management.

A **delegation** mechanism allows a user to declare incidents not for himself but for one of the members of this group.

Example : delegation

an assistant declaring incidents for all persons of the management

The concepts of delegation and supervisor can be configured in the « Users » tab (see below).

Assigning a user o a group is either static and done using the GLPI interface, or dynamic when this is automatically extracted from the LDAP directory.

A group is attached to the entity in which it is created and can then be visible in sub-entities.

From the list of groups, a group can be imported from a LDAP directory via the *LDAP directory link* button if external authentication is used and the « Auth and sync update » authorization is granted in profile. The assignment of users to groups will be automatic, see *Profiles*. If several directories are configured, the choice between directories is proposed, otherwise the search form is directly accessible.

Depending on how you search for groups (see : doc : *Authenticating users from LDAP directories </modules/configuration/authentification/ldap>*), a **Search filter in groups** and/or a **User search filter** appear : these allow to refine the list to be imported. If GLPI is used in multi-entities, it is necessary to select the destination entity of the group as well as its visibility in the sub-entities.

Note : importing groups cannot be filtered by entity. In addition, no group synchronization function is available. The only way to refresh from a directory the list of group members is to resynchronize users, see *Import users from an external source*.

Avertissement : when migrating from a version of GLPI lower 0.80, any manual connection previously carried out on a group coming from the LDAP directory will be lost.

The different tabs

Sub-groups

This tab allows to add a subgroup to the selected group and lists the existing subgroups.

Used items

This tab lists the elements for which the *Group* field corresponds to the current group. The search can be extended to sub-groups as well as to the members of the group (*User* field of the item).

See Tab « Used Items »

Managed items

This tab lists the elements for which the *Technical Group* field corresponds to the current group. The search can be extended to sub-groups as well as to the members of the group (*Technical manager* field of the item).

See Tab « Managed Items »

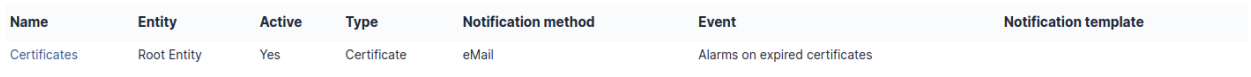
LDAP directory link

This tab only appears if the « Auth and sync update » authorization is granted in profile ; it gathers the information allowing GLPI to find the group and its users in the LDAP directory.

Users

This tab allows to add a user to this group by defining whether the added user is *delegatee* and/or *supervisor* of the group. It also lists the users of this group with possible search by criteria (delegatee or supervisor) and also in the subgroups of the current group.

Notifications

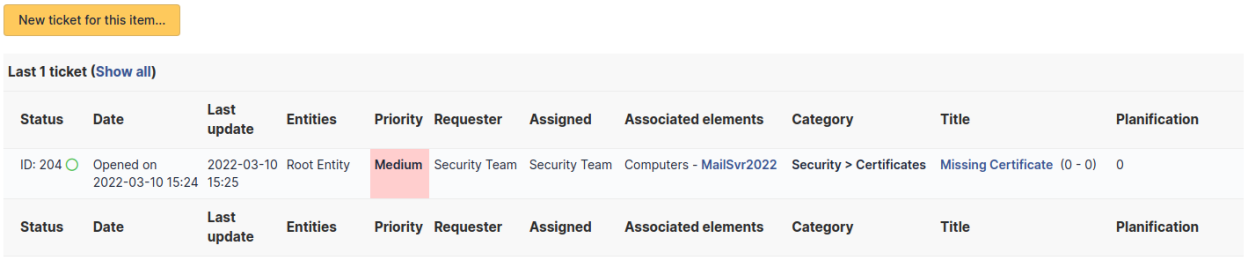


Name	Entity	Active	Type	Notification method	Event	Notification template
Certificates	Root Entity	Yes	Certificate	eMail	Alarms on expired certificates	

FIG. 1 – List of notifications for which destination is group or group supervisor

Tickets

The *Tickets* tab is used to create a ticket associated with the current object. It also lists the tickets already linked to the object.



Note : A second table lists the tickets attached to the linked elements

Note : Any deletion or addition of a ticket is recorded in the history.

For groups, this tab allows to list as well sub-groups tickets.

History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :

- ID of the change.
- Date and time the change was made.
- User who made the change. If this field is not filled, it means that the action was done automatically (For example : automatic inventory update).
- Field that was changed.
- Description of the change that was made.

The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

Debugging information

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For example, for a computer, you have one or more tables depending on the affected object (financial information, reservations…) listing the notifications that will be triggered on this computer with :

- Triggering event
- Recipient(s)
- Notification model used
- Recipient(s) email address

Notifications			(Ticket)	
Events	**Recipients**	**Notification templates**	**Mode**	**Recipient**
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Deletion of a followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New ticket	Profile: Admin	Tickets (en_GB)	mailing	admins@example.com
New ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Ticket solved	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost

All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

Entities

Entity concept is a key concept in GLPI. Having many similarities with a hierarchy or a division inside a company, it allows on a single instance of GLPI to isolate sets organized in a hierarchical manner. The chosen term is voluntarily neutral in order to adapt to many information systems.

A single instance (or installation) of GLPI, when composed of several entities, allows to consolidate common data and rules. Using entities allows to create a rather tight isolation between organizational units.

Indication : When this isolation is not desired, it is better to use the functionalities offered by GLPI *Groups*.

Segmenting in entities can have several targets :

- isolate assets of each division in order to limit assets visibility for groups or users
- isolate assets of clients
- reproduce the existing hierarchy of the directory (LDAP, Active Directory…).

Using entities is very useful for a company where management is hierarchical and where employees must have access to the assets depending on the division they belong to.

One entities creating in GLPI, assets inventory, users, profiles and assistance service become dependent upon entities : a computer can be assigned to an entity, a ticket can be declared on an entity, profiles and authorizations can be specific to entities… Automatic entity assignment for users and assets are possible thanks to rules management.

Example : entities inside a company



Mother entity (EM, or named *Root Entity* in GLPI) has two subsidiaries (EA and EB) which in turn have two divisions each (EA1, EA2 for EA, EB1, EB2 for EB). Each entity has access to its assets and subsidiary entities :

— EM has access to its assets as well as to all assets of all entities
— EA has access to its assets as well as to EA1 and EA2 assets
— EA1 has only access to its own assets

A user can be attached to several entities with different authorizations in each entity, these authorizations being kept in daughter entities or not. For example a user will be able to open a ticket only inside user's division, the ticket applying only to the items of the same division.

On the contrary, a user being granted larger authorizations will be able to view all items, tickets and other objects, and this on all entities in which user's authorizations apply.

By default, GLPI has a single generic entity named *Root Entity*. This entity can be renamed at user's convenience.

Processes may vary depending upon entity ; for this reason entities can have a delegate administration (authorization *Entities* in profile). This delegation must be granted to a very limited number of users who will be in charge of the complete management of the entity.

When using GLPI in multi-entities mode, management of some configuration parameters can apply in a different way in each entity.

The different tabs

Entities

This tab lists existing sub-entities and allows to add a sub-entity to current entity.

Address

This tab groups administrative information of current entity : address, phone numbers, email…

Advanced information

This tab groups technical identification data of the entity, those concerning generic entity assignment rules and those concerning users search interface. These data will be used by rules for automatic assignment to the entity (hardware if coupled with an inventory tool, user or group if connected to a LDAP directory, ticket if enabled ticket creation via mail collector) as well as for import and synchronization of users originating from a LDAP directory.

In order to offer to an entity administrator the possibility to import users from a LDAP directory, it is necessary to provide some parameters : directory associated with the entity and search filter. This search filter is meaningful only if entity definition is done by adding a restriction on LDAP filter. It is also possible to define the email domain specific to the entity which can be used to assign users to this entity.

Three options are available for generic entity assignment rules : the `TAG` coming from inventory tool, the LDAP information representing the entity (for example the *DN* of the entity) and the email domain associated with the entity.

Notifications

Notification setting is done at entity level. This tab groups two tables :

— global options for all GLPI notifications : administrator email (will be the `From:` for all GLPI issued emails), administrator name, prefix for notification email subject (`GLPI` by default), response email address (see configuration of email follow-ups) and email signature.
For each entity, the delay applied before sending notification can be defined. This delay allows for instance in case of fast multiples modifications of a ticket to send only one notification email. The email followup of an actor can also be defined to Yes or No.

— triggering options of alerts for cartridges, consumables, contracts, accounting information, licenses, reservations and tickets.

> **Avertissement :** Each alert option is associated with an automatic action. If action is disable by GLPI administrator, no notification will be sent.

If refining notification at entity level is not desired, these parameters can be defined once at root entity level ; each entity will then by default get the values defined at parent entity level.

Assistance

This tab is visible if *Read or Modify Entity Parameters* authorization is granted in profile. The tab groups entity parameters applicable to tickets :

— **Ticket Template** : selected template will be used for each ticket creation ;

— **Calendar** : entity default calendar for computing tickets resolution time and target date shift ; this calendar will be pre-selected when creating a SLA ;

— **Ticket Default Type** : predefined type for ticket creation ; useful for ticket creation via email collector ;

— **Automatic Ticket Assignment** : allows to assign automatically a ticket ; * *based on item then on category* : if ticket has an associated item and this item has a technical manager or group, it will be assigned to this technician and/or group ; otherwise if ticket has a defined category, it will be assigned to the technical manager or group of the category * *based on category then on item* : if ticket has a defined category and this category has a technical manager or group, it will be assigned to this technical manager or group ; otherwise if ticket has an associated item, it will be assigned to this technician and/or group of the item

— **Automatic Closure of Solved Ticket After** : allows to perform a so-called « administrative » closure ; if closure is set to *immediately*, ticket will be closed as soon as it is solved, which will block solution approval by requester. This closure is performed by an automatic action which must therefore be active

— **Satisfaction Survey Configuration** : this survey can be internal (GLPI satisfaction form) or delegated to a third-party tool. For each entity, the survey date can be defined (delay after ticket closure) as well as to be generated survey rate. In order to avoid that old tickets are taken into account when activating survey, a field *For Tickets Closed After* contains the activation date to know which tickets must be taken into account. Indeed, if survey are reactivated after a deactivation time, this field must be set to exclude old tickets. For external survey, the URL of the survey can be generated automatically using tags defined below.

List of available tags for survey URL :

— `[TICKET_ID]` : ticket id
— `[TICKET_NAME]` : ticket name
— `[TICKET_CREATEDATE]` : ticket creation date
— `[TICKET_SOLVEDATE]` : ticket resolution date
— `[REQUESTTYPE_ID]` : request source id
— `[REQUESTTYPE_NAME]` : request source name (phone, help desk…)
— `[ITEMTYPE]` : type of item associated to the ticket (computer, printer…)

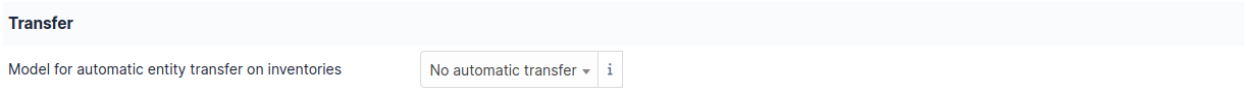
- [ITEM_ID] : id of item associated to the ticket
- [ITEM_NAME] : name of item associated to the ticket
- [TICKET_PRIORITY] : ticket priority
- [TICKETCATEGORY_ID] : ticket category id
- [TICKETCATEGORY_NAME] : ticket category name
- [TICKETTYPE_ID] : ticket type
- [TICKETTYPE_NAME] : ticket type name (incident management or service request)
- [SOLUTIONTYPE_ID] : solution type id
- [SOLUTIONTYPE_NAME] : solution name
- [SLA_ID] : id of SLA associated to the ticket
- [SLA_NAME] : name of SLA associated to the ticket
- [SLALEVEL_ID] : id of SLA level
- [SLALEVEL_NAME] : name of SLA level

Assets

This tab allows to configure the different dates present in administrative and financial information and some other entity-level asset options. The possible automatic actions are :

- filling when item gets a particular status ;
- filling by copying another date ;
- no automatic filling

The option *Software creation entity* allows to redirect software creation to another entity at a higher level in the hierarchy. This functionality applies on *all* software of the entity ; if redirection must be defined only for some software, the *software dictionary* must be used.



- **Model for automatic entity transfer on inventories** GLPI also allows to transfer a computer in another entity if one of the criteria used for the assignment to an entity is modified. If the option Model for the automatic transfer of computers in another entity indicates an existing model, then each time a computer is updated from the inventory tool, the entity assignment rules engine will be replayed. If the resulting entity is different from the current entity, the computer will be transferred to the new entity.

Note : This configuration option is not present if you have only one entity in your instance.

Users

This tab allows to add a user to the current entity and to assign to the user a profile, recursive or not. The tab lists also, sorted by profile, the entity users.

Rules

This tab allows to create rules :

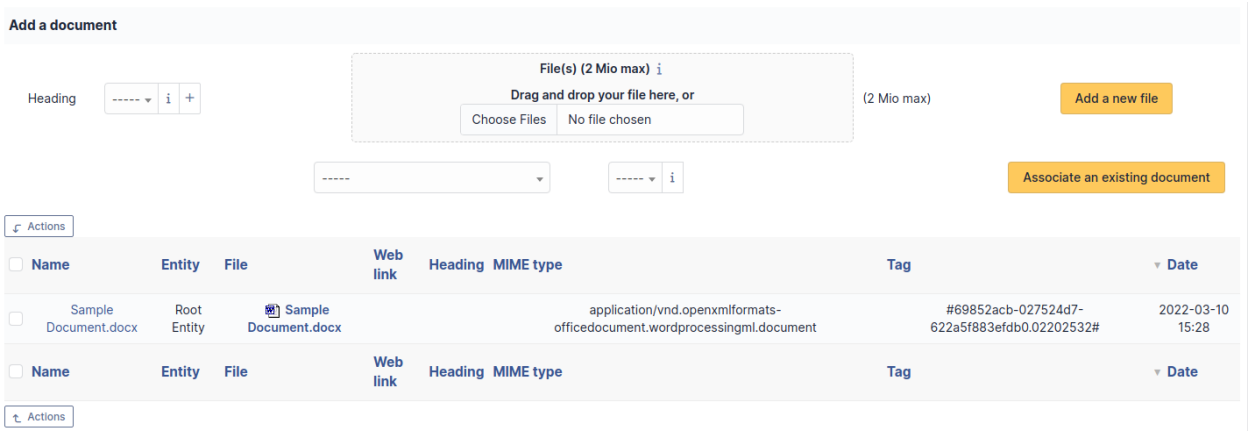
— for authorizations granting to users ;

— for assignment of tickets opened by email ; if the rule must be based on criteria, the newly created rule must be opened to define these criteria. Rules already applicable to the current entity are also displayed.

Documents

Additional information is stored in the form of external documents which are files uploaded into GLPI. In the *Documents* tab, documents can be associated and unlinked with the selected item. The *management of the documents themselves* is dealt with in another chapter.

It is also possible to quickly create a document via this tab by specifying the desired file and optionally the field in which the new document is to be placed. The name of the created document will be based on the name of the added file.



Note : When you delete a document from this tab via mass actions, you only remove the link between the object and the document ; the document itself is still present.

Notes

The *Notes* tab provides a free text field for storing additional information. Notes are displayed in the order of their creation.



History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :

- ID of the change.
- Date and time the change was made.
- User who made the change. If this field is not filled, it means that the action was done automatically (For example : automatic inventory update).
- Field that was changed.
- Description of the change that was made.

The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

Rules

Export, import and duplication is possible for all rules. These operations can be carried out globally from the main rules page or by batch from the search engines for the various rules via massive actions. These features are interesting for example in the context of switching of rules from a pre-production environment to a production environment.

Note : export or import use a XML file format

Rules engine

GLPI contains a rules engine which enables a certain number of actions and associations to be carried out automatically.

This engine is used for both :
- management rules :
  - assigning an asset to an entity
  - granting permissions to a user
  - assigning category to a software
  - routing tickets to entities
  - automatic actions when opening ticket
- *data dictionaries* :
  - manufacturers
  - software
  - printers
  - types of assets
  - models of assets
  - operating system related fields

The engine behaves differently depending on the types of rules :
- stop after first matching rule
- apply all rules
- apply rules and pass rule result to next rule

Rules can be disabled, for example when writing and testing new rules.

Indication : in general, it is recommended to test the rules well before using them and to make a backup before setting up each new rule. On the main form of a rule, a *Test* button opens an additional window that allows to see all the criteria and results of the rule.

The different rules

Rules for assigning a ticket opened via a mail collector

See *Rules for assigning a ticket opened via a mail collector*

Rules for assigning authorizations to a user

See Rules for assigning authorizations to a user

Rules for assigning a category to software

Classification by category makes it easier to display and find software. This can be done automatically for any new software, or retroactively. The available criteria are the publisher, the name and the comment of the software. The only possible action is to assign software to a category. It is possible to replay the rules from the software list, using massive action *Recalculate category*.

Business rules for tickets

When opening or modifying a ticket, a mechanism allows to modify ticket attributes automatically.

See Business rules for tickets

Rules for inventory agent

The two menus below are only visible if you use an inventory agent for an automatic inventory of computers in GLPI.
- rules for assigning an item to an entity
- rules for importing and linking computers

See Rules for inventory agent
- **Transfer** This menu allows you to define the inter-entity transfer profiles.
  Several actions are possible :
  - **Preserve** : the item will be transferred with the object ;
  - **Put in Trash Bin** : the item will be placed in the recycle bin of the ceding entity ;
  - **Delete Permanently** : the item will be deleted from the database ;
  - **Keep** : the item will remain in the ceding entity ;
  - **Disconnect** : the connection between element and object will be deleted
- **Blacklists** Thanks to the GLPI blacklist mechanism, it is possible to exclude certain values from processing by the rules engine. The types that can be taken into account are :
  - IP address ;
  - MAC address ;
  - serial number ;
  - UUID ;
  - email

  This allows, for example, to exclude certain IP addresses from the inventory agent (for example an IP 127.0.0.1 or 0.0.0.0) or not to create a ticket from a particular email address (for example daily backup of a server).

Create a rule

A rule is composed of a series of criteria. Depending on the option chosen (OR/ ND) one or all of the criteria must be verified to trigger an action list.

A preview mechanism allows you to test the rules being written before putting them into production.

Several criteria are available :
- simple :
  - is
  - is not
  - contains
  - does not contain
  - starts with
  - ends with
  - under (for tree dropdowns, indicates to be this dropdown or one of the child dropdowns)
  - not under (for tree dropdowns, indicates not to be this dropdown or one of the child dropdowns))
- complex :
  - regular expression match
  - regular expression does not match

Regular expressions (otherwise known as regex) return one or more results which can then be used by actions using the #x directive (where x is the number of the result of the regular expression).

Example

Criteria : name matching regular expression `/DESKTOP\_(.\*)/` If object is named `DESKTOP_0001`, then it will be possible to use `0001` in the actions of the rules using parameter `#0`

Dictionaries

Dictionary's allow to modify data already existing in GLPI or new data in order to group redundant data.

Dictionaries are based on GLPI *rules engine* and are available for some types of items (software, suppliers, dropdowns). The rules associated with a dictionary will modify values that are either manually inserted or automatically inserted via an inventory tool or via plugins (for instance CSV file injector).

Import, export and duplication

Export, import and duplication are available for dictionarys or rules. These operations can be realized globally from dictionary's main page or by batch using mass actions from dictionary's search results. These functionalities are useful for instance when migrating rules from a pre-production environment to a production one.

Note : export or import use a XML file format

Configure data dictionaries

A dictionary works the following way :

1. data to be added enters the dictionary ;
2. rules engine plays all rules applying to this type of data and stops on first matching rule ;
3. modified data is returned by the dictionary and inserted into database.

The *Replay the dictionary rules* button (under the list of rules of the dictionary) allows to replay the rules on data already existing in database.

Avertissement : if database is big, the parameter *memory_limit* in PHP configuration file must be carefully adjusted : processing by a dictionary can be heavy.

Indication :

— it is highly recommended to play rules on a test database and to backup database before production launch of the dictionary or before inserting new rules

— a script is available in directory *scripts* of GLPI installation, named *compute_dictionnary.php*, that allows to launch dictionnary processing in command line mode ; this allows to bypass problems of execution limit and provides a significant speedup

Global dictionaries

Software

The software dictionary modifies software data (name, version, manufacturer) in order to complete or merge software's. It is used to make more coherent equivalent software for which name is not identical (for example Mozilla Firefox 3.0 and Mozilla Firefox 3.6) or to add a manufacturer if it is not present.

This dictionary allows also to redirect the creation of a software or of a set of software in a given entity, by choosing action *Entity* and to select the entity in which to create the software. This functionality can also be used with general option *Entity for software* available in entity configuration.

Note : for an optimal management of software and licenses in a multi-entity environment, it is possible to use the software dictionnary simultaneously with software visible in sub-entities and thus to use grouping functionality.

Avertissement : using action *Add regexp result* on a version must be used with maximum care ; indeed, this action is only taken into account when importing data coming from an inventory tool and will be ignored when re-applying dictionary on an existing database.

As an example, following image describes grouping Mozilla software. Criteria are accumulated with AND.

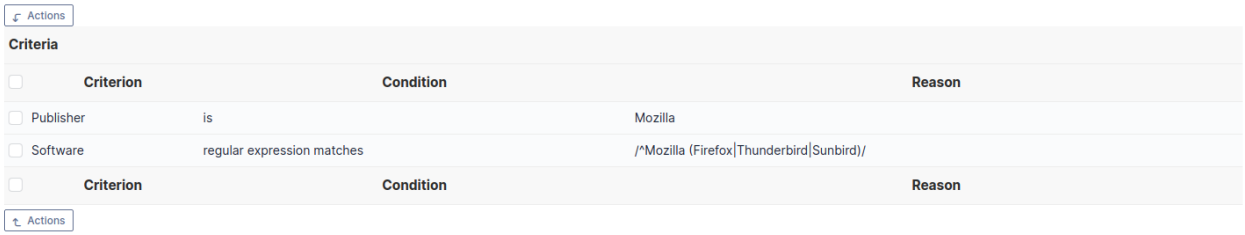


Fig. 2 – Criteria for grouping Mozilla software

The following image describes associated action for grouping Mozilla software.

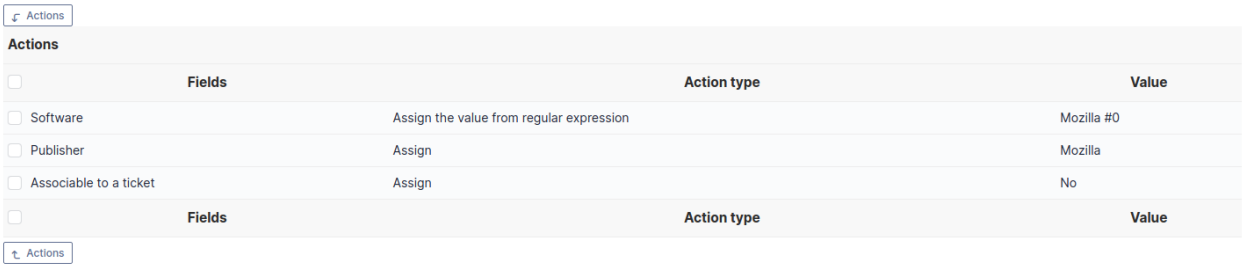
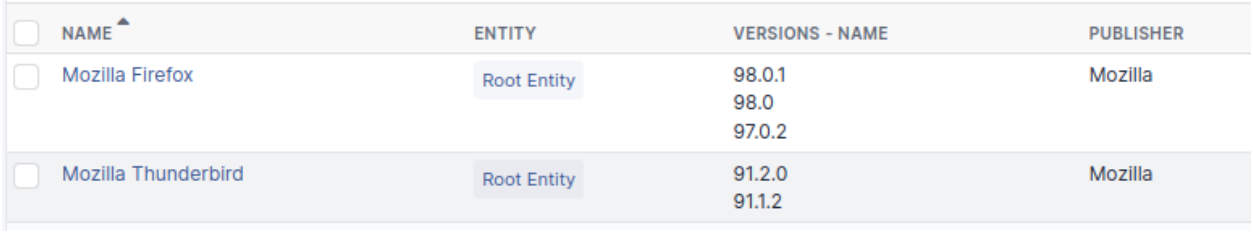


Fig. 3 – Action for grouping Mozilla software

The following image presents result of grouping Mozilla software : software are grouped by type (Mozilla Thunderbird, Mozilla Firefox…) and versions are grouped by type.

Example for Windows updates grouping, very unclear !



NAME	ENTITY	VERSIONS - NAME	PUBLISHER
Mozilla Firefox	Root Entity	98.0.1 98.0 97.0.2	Mozilla
Mozilla Thunderbird	Root Entity	91.2.0 91.1.2	Mozilla

FIG. 4 – Result of grouping Mozilla software

Autre exemple pour regrouper les mises à jour Windows. Cette fois le critères sont des OU et non des ET *Critères* Logiciel expression rationnelle vérifie /Correctif.*XP.*KB([0-9]*)/ Logicel expression rationnelle vérifie /Mise.*XP.*KB([0-9]*)/ Logiciel expression rationnelle vérifie /Update.*XP.*KB([0-9]*)/ *Actions* Logiciel assigner Mise à jour Windows Version assigner valeur depuis regex #0

Manufacturer

This dictionary allows to group under a unique name the manufacturer names coming from an inventory tool under different forms.

Exemple for manufacturer grouping, unclear !

regrouper les fabricants . Sun_Microsystems . Sun Microsystems, Inc. for the OpenOffice.org-Community . Sun Microsystems, Inc. . Sun Microsystems, Inc sous le nom Sun Microsystems.

Printers

This dictionary allows to modify printer information based on manufacturer and/or name. It is possible to reject an import (for example printer name starting with //), to group printers under same name, to assign a manufacturer or to force management type (global or unitary).

Drop-downs

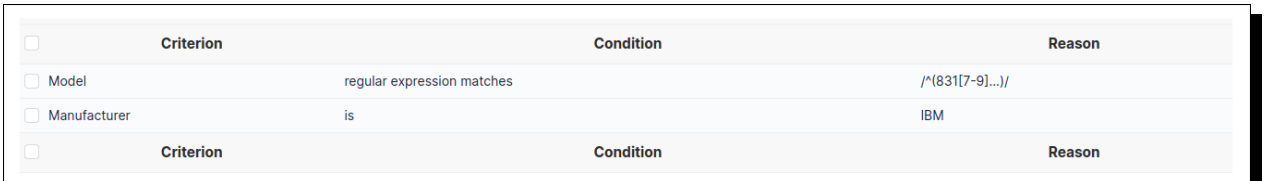
This dictionary allows to modify drop-downs related to inventory : types and models of items, operating system, version and service pack.

Models

Possible criteria are manufacturer and item model.

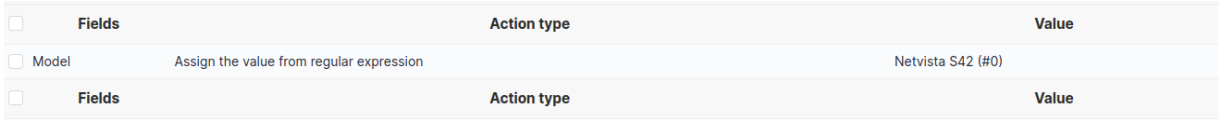
Example : transforming technical number into commercial model name

Often inventory tools extract model technical number, which is irrelevant for user. This example allows to extract commercial model name while keeping technical number which can be required in case of requesting a provider intervention.



	Criterion	Condition	Reason
	Model	regular expression matches	/^(831[7-9]...)/
	Manufacturer	is	IBM
	Criterion	**Condition**	**Reason**

Fig. 5 – Example of dictionary for computer model : rule



	Fields	Action type	Value
	Model	Assign the value from regular expression	Netvista S42 (#0)
	Fields	**Action type**	**Value**

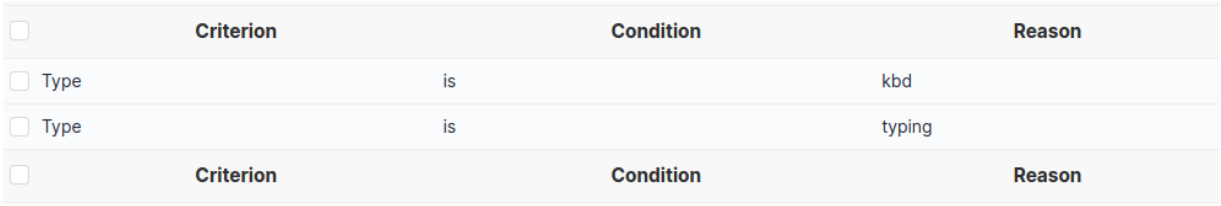
Fig. 6 – Example of dictionary for computer model : action

The obtained result will be for instance : Netvista S42 (8319LGV)

Types

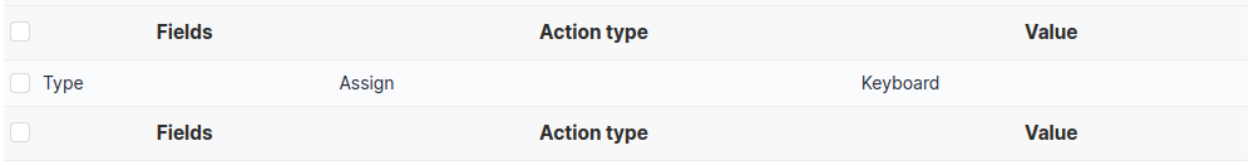
Only possible criteria is item type.

Example : harmonizing peripheral names



	Criterion	Condition	Reason
	Type	is	kbd
	Type	is	typing
	Criterion	**Condition**	**Reason**

Fig. 7 – Example of dictionary on peripheral type : rule



	Fields	Action type	Value
	Type	Assign	Keyboard
	Fields	**Action type**	**Value**

Fig. 8 – Example of dictionary on peripheral type : action
The obtained result will be for instance : Keyboard

Operating systems

Depending on chosen dictionary, the criteria will be based on operating system itself, on operating system service pack or on operating system version.

User profiles

Profile is central in GLPI configuration : profile is the key for users permissions granting and for securing and isolating data.

A profile is associated with :
- a user
- an entity, in a **recursive** or **dynamic** manner

In order to enable permissions to be passed to child entities, the profile must be associated recursively.

À faire : old version : Pour répercuter les droits liés à ce profil, à toutes les entités filles de l'entité enregistrée, il faut associer le profil de manière récursive. C'est là tout le principe de la récursivité.

Different profiles can be associated with the same user, based on entities and whatever the relation between these entities : this can be achieved by adding the profile to the user for each entity where user profile must be different.

By default, 7 profiles are pre-registered in GLPI :
- **Super-Admin** : This profile is granted **all** permissions ! .. warning : : if the super-admin profile is deleted or if the **simplified interface** is associated with this profile, access to the GLPI configuration may be permanently lost.
- **Admin** : This profile has administration rights for all GLPI. Some restrictions are applied to it at the level of the configuration of rules, entities as well as other items which may alter the behavior of GLPI.
- **Supervisor** : This profile incorporates the elements of the *Technician* profile by adding elements allowing management of a team and its organization (allocation of tickets, etc.).
- **Technician** : This profile corresponds to the one used for a maintenance technician, having read access to the inventory and to the help desk in order to process tickets.
- **Hotliner** : This profile corresponds to the one that could be given for a hotline service ; it allows to open tickets and follow them but not to be in charge of them as a *Technician* can be.
- **Observer** : This profile has read permission to all inventory and management data. In terms of assistance, it can open a ticket or be assigned one, but cannot administer this section (assign a ticket, steal a ticket…).
- **Self-Service** : This profile is the most limited. It is also the only one to have a different interface, the *simplified interface*, as opposed to the **standard interface**. However, it can declare a ticket, add a follow-up, consult the FAQ or reserve asset. This profile is set as the default profile.

Permissions description

Once the profile has been created, it will be possible to establish the permissions on the various functionalities of GLPI. Seven tabs corresponding to the different menus of GLPI are then available to manage this set of permissions and are described below.

The different permissions of an object are listed on the line of its name. To activate an permission, the corresponding box must be checked and vice versa to delete an permission the box must be unchecked.

Avertissement : no permission deduction is done ; for example in order to be able to modify an object, read permission must also be granted.

Permissions after migration : migration takes over old permissions in full, regardless of the purpose, and activates the corresponding values in the new system. Previous *Write* permission is transformed into *Read*, *Update*, *Create*, *Delete* and *Purge* for most objects and must then be refined if needed. For others, the permissions are grouped by object, for example, FAQ permission are permissions of the Knowledge Base object.

Some permissions are standards for all objects :

- **Read** : allows to display an object, it is also often this permission which displays or not the object in the different menus
- **Update** : allows to display an object data
- **Create** : allows to create a new element of the type of the object
- **Delete** : allows you to place the object in the trash bin. If this permission is not present, it means that the object does not have a trash bin.
- **Purge** : deletes the object from the trash bin and therefore permanently from the database. The permissions can therefore be refined between temporary deletion (placing in the trash bin) and permanent deletion (purging the trash bin)
- **Read notes** : allows to display the *Notes* tab, if object has one
- **Update notes** : allows to modify the content of a note or to delete it

The different tabs

Note : the display of profile management depends on the profile of connected user. It can therefore vary depending on the profile.

Assets

The 7 standard permissions described above apply to the elements of tab **Assets**.

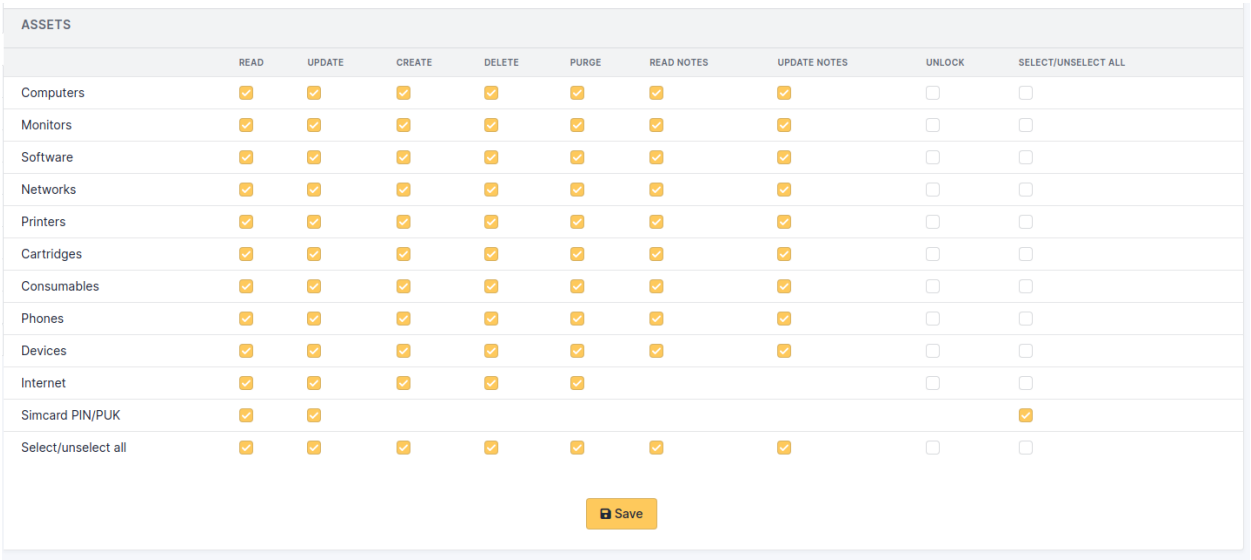


Fig. 9 – Permissions on assets

The **Internet** permission applies to :

- IP field of a network port
- association or disassociation of a network name to a network port

— Internet part of dropdowns (IP networks, internet domains, WiFi networks, network names)

Assistance

This tab manages permissions on tickets, follow-ups, tasks, validations, associations, problems and changes. It also manages the visibility of statistics and schedules as well as the assignment of a template to the profile.

See Tab « Assistance »

Life cycle

This tab manages the permissions on the status life cyle of tickets, problems and changes.

See *Tab « Life cycle »*

Management

The 7 standard permissions described above apply to the elements of tab **Management**.

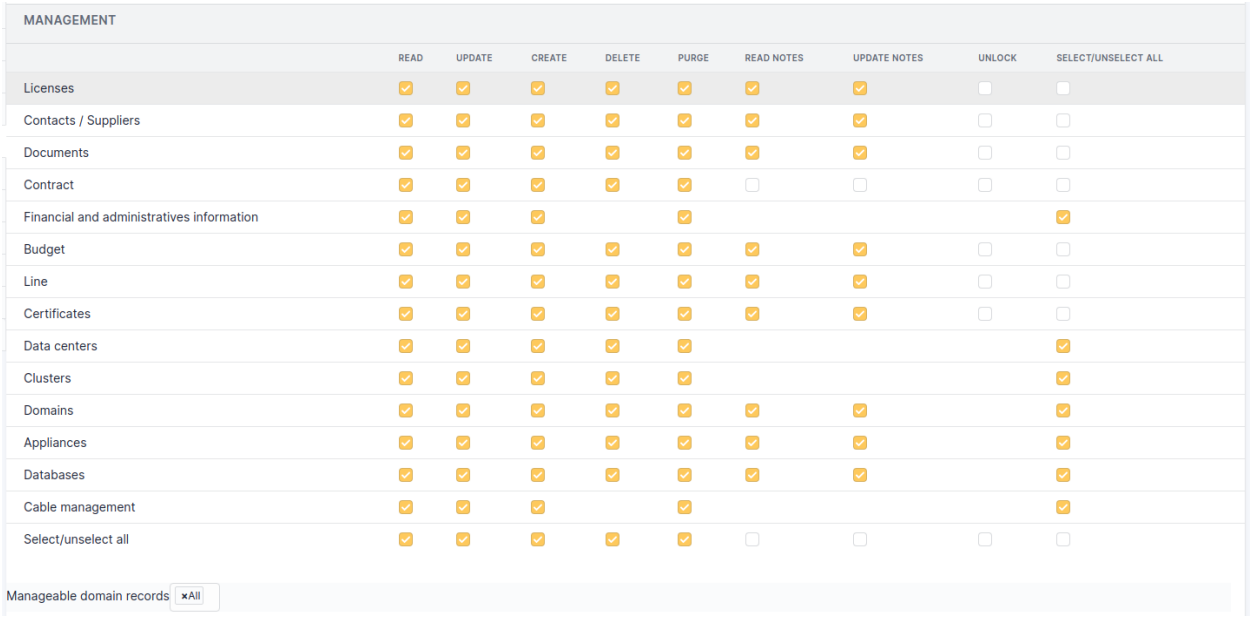


FIG. 10 – Permissions on management

Avertissement : The permissions on **Financial and administrative information** applies also to objects containing financial information ; for instance it is not allowed to purge a computer containing financial information if profile is not granted with *Purge* permission on financial information.

Tools

This tab manages permissions on notes, RSS feeds, public bookmarks, reports, reservations, knowledge base as well as projects and tasks of a project.

See Tab « Tools »

Administration

This tab manages permissions on users, entities and business rules on tickets.

See Tab « Administration »

Configuration

See Tab « Configuration »

Users

This tab lists the entities in which this profile is assigned. To see the corresponding users, click on the concerned entity. *« D »* means the permissions have been assigned dynamically, *« R »* means the permissions are recursive from the assignment entity.

Historical

See Tab « Historical »

All

See Tab « All »

Mailing queue

All notification emails go through a queue before actual delivery. This allows keeping a history and a list of the various emails sent.

An automatic action (`queuedmail`) allows the sending of pending emails (see *Configure automatic actions*). Another automatic action (`queuemailclean`) cleans the queue by keeping only recent emails.

The delay applied for sending notifications can be defined at entity level, see *administration by entity*). This allows for example in the case of rapid multiple modifications of an object to send only one notification.

> **Avertissement :** using the queue does not work for a change, problem or ticket itself, only for a sub-object. For example, when changing the impact of a ticket, the email will be sent immediately ; on the other hand, in the event of addition or modification of a follow-up, a task, a validation request… the email will be placed in the queue.

In the example above, the deadline for sending email notifications has been set to 20 minutes in the configuration of the entity ; as a consequence the sending date is set at 20 minutes after the creation date.

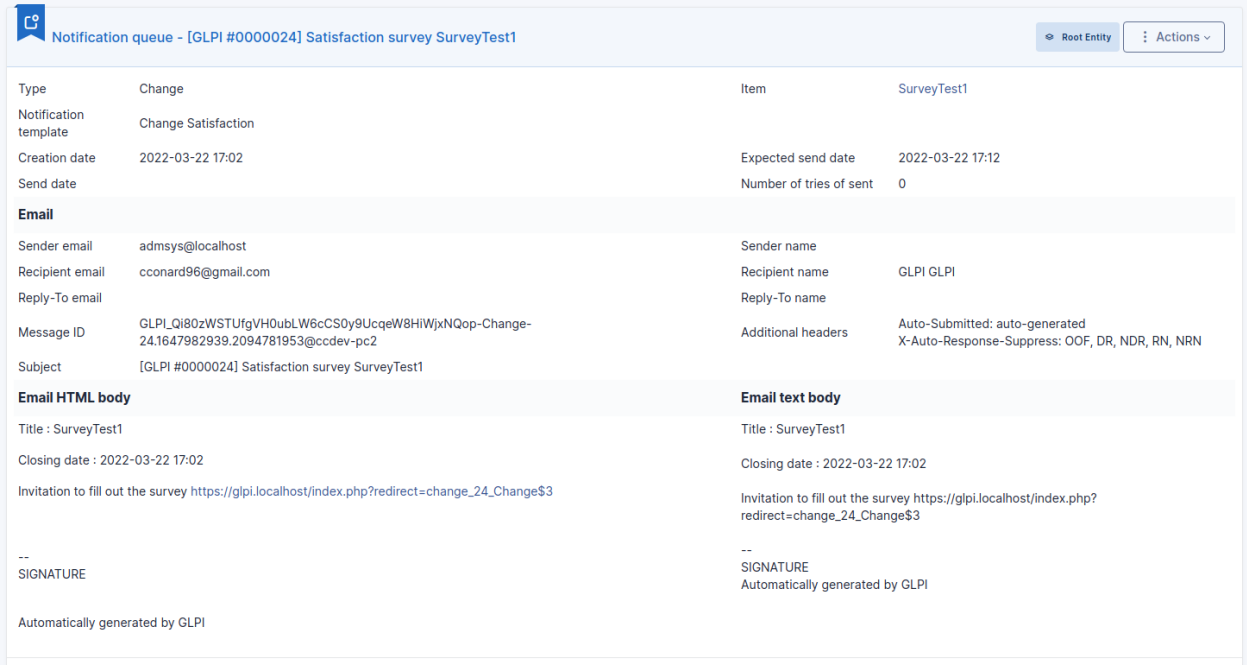


FIG. 11 – Example of queue

Once the notification has been sent, the queue is placed in the recycle bin with the date sent.

Note : there will be as many queues in the recycle bin as there are recipients, each with its own sending date.

Logs

This menu allows to display and sort logs.

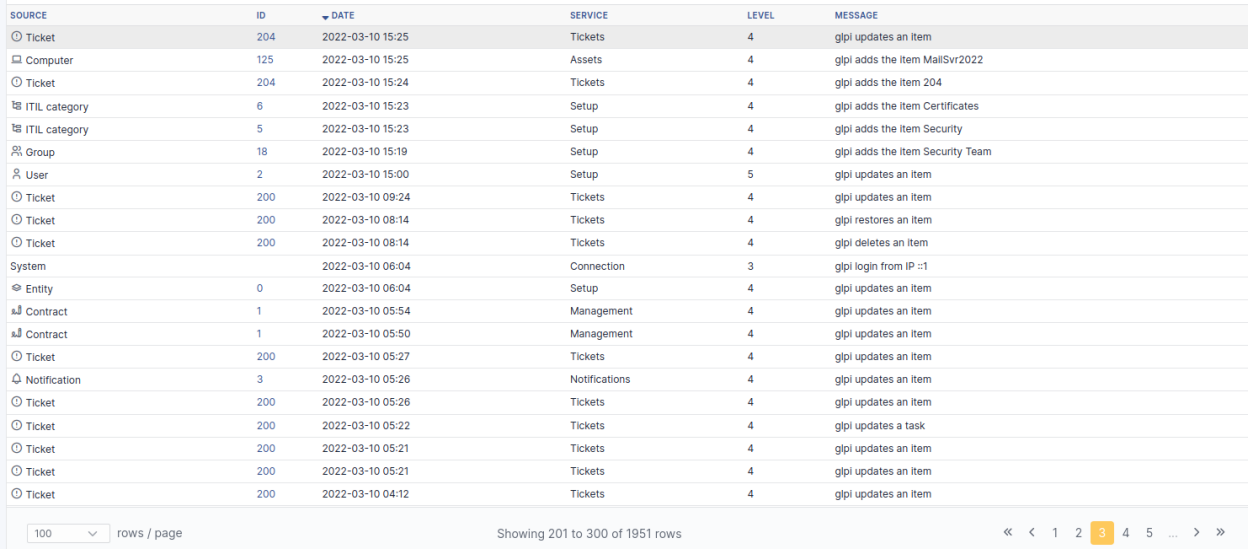
The logs page displays type of modified information (computer, reservation, ticket…), the modification date, GLPI service (inventory, configuration, tickets…) and a message detailing the event.

Note :

— Log level can be parameterized in field **Log Level** of tab **System** of general configuration.
— Log retention period can be parameterized in automatic actions.

3.2.7 Configuration

Configuration module gives access to all GLPI configuration options such as : - Global configuration - Notifications - Mail Collectors - Automatic actions - Authentication - Plugins - Unicity criteria - External links



SOURCE	ID	DATE	SERVICE	LEVEL	MESSAGE
Ticket	204	2022-03-10 15:25	Tickets	4	glpi updates an item
Computer	125	2022-03-10 15:25	Assets	4	glpi adds the item MailSvr2022
Ticket	204	2022-03-10 15:24	Tickets	4	glpi adds the item 204
ITIL category	6	2022-03-10 15:23	Setup	4	glpi adds the item Certificates
ITIL category	5	2022-03-10 15:23	Setup	4	glpi adds the item Security
Group	18	2022-03-10 15:19	Setup	4	glpi adds the item Security Team
User	2	2022-03-10 15:00	Setup	5	glpi updates an item
Ticket	200	2022-03-10 09:24	Tickets	4	glpi updates an item
Ticket	200	2022-03-10 08:14	Tickets	4	glpi restores an item
Ticket	200	2022-03-10 08:14	Tickets	4	glpi deletes an item
System		2022-03-10 06:04	Connection	3	glpi login from IP ::1
Entity	0	2022-03-10 06:04	Setup	4	glpi updates an item
Contract	1	2022-03-10 05:54	Management	4	glpi updates an item
Contract	1	2022-03-10 05:50	Management	4	glpi updates an item
Ticket	200	2022-03-10 05:27	Tickets	4	glpi updates an item
Notification	3	2022-03-10 05:26	Notifications	4	glpi updates an item
Ticket	200	2022-03-10 05:26	Tickets	4	glpi updates an item
Ticket	200	2022-03-10 05:22	Tickets	4	glpi updates a task
Ticket	200	2022-03-10 05:21	Tickets	4	glpi updates an item
Ticket	200	2022-03-10 05:21	Tickets	4	glpi updates an item
Ticket	200	2022-03-10 04:12	Tickets	4	glpi updates an item

100 rows / page Showing 201 to 300 of 1951 rows « ‹ 1 2 3 4 5 ... › »

Authentication

This is where GLPI manages the authentication and information of users.

GLPI uses its own internal database of users. These are either created in GLPI itself or imported from one or more external sources. Depending on the type of source, the import can be done in bulk or at the time of login if the user is not yet known to GLPI but exists in an external authentication server with matching credentials.

The general authentication configuration and the management of external authentication servers can be done in the *Setup > Authentication menu*.

The attribution of authorizations is described in the Rules for assigning authorizations to a user documentation.

Note : The authentication process is as follows :

1. A user enters their login and password in GLPI
2. GLPI checks if the user is already registered in its database and if not :
    1. GLPI tries the configured methods of authentication one after another (Internal > LDAP > IMAP > Other)
    2. When the authentication is successful, the user is created in the GLPI database and the method of authentication is stored with it
    3. If no method of authentication is able to authenticate the user, they are shown an error indicating that their username or password is incorrect
3. If the user already existed in the GLPI database or was imported in the previous step :
    1. GLPI tries authenticating the user only with the last source that was able to successfully authenticate them
    2. If the authentication fails, they are shown an error indicating that their username or password is incorrect
4. The authorization engine is launched with the user's information :
    1. If the engine has granted one or more authorizations to the user, then that user has access to GLPI
    2. If the user is not granted any authorizations, then the user will be known to GLPI but will not be able to login

---

In order to use an external source of authentication you may need to enable the relevant PHP extension(s). For example, LDAP sources will require the *php-ldap* extension.

There is no limit to the number of authentication sources that can be configured.

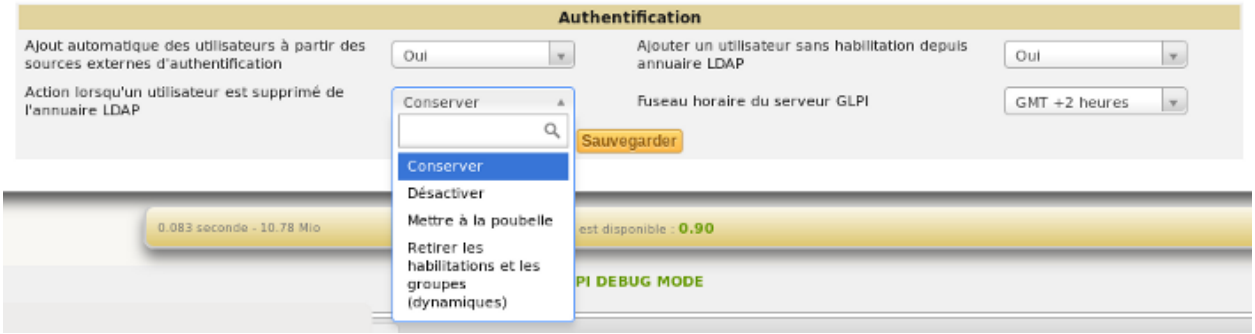
To allow GLPI to create users automatically from external authentication sources as they try to log in, it must be enabled in the **Setup > Authentication > Setup** form. When using LDAP directories, it is possible to configure the action that GLPI takes when a user is no longer present in the LDAP directory from this same form.

Configure external authentication

This menu allows you to configure the general settings for integration with external authentication sources.

In order to be able to use these external authentication sources, the corresponding extensions must first be activated in the PHP configuration. There is no limit to the number of external sources configured in the application.

To use the capacity of GLPI to create on the fly users present in the external sources of authentication, it is necessary to activate it in the menu Configuration > Authentication > Configuration.



The LDAP directories also allow you to refuse the creation of users who do not have authorizations. Deleting a user from the directory can also lead to an action such as trashing the user, deleting his permissions or deactivating him. You also have the option to specify how to handle users that were previously deleted from the directory but are now restored. You can set the restore action to do nothing, restore the user from the trashbin, or re-enable the user.

It is also at this level that the time zone of GLPI is set.

External authentication sources that can be used inside GLPI are :

- *LDAP directories*
- *Email servers*
- *CAS server*
- *x509 certificate*
- *Delegate authentication to web server*

LDAP directories

GLPI can interface with one or more *LDAP directories* in order to authenticate users, control their access, retrieve their personal information and import groups.

All the directories compatible LDAP v3 are supported by GLPI. It is thus also the case for the "*Active Directory* of Microsoft. There is no limit as to the number of directories informed. However, the higher the number, the longer the search for a new user to authenticate can be.

It is possible to import and synchronize users in 2 ways :

- At the first login, the user is created in GLPI. At each login, his personal information is synchronized with the directory. In the case where the mail collectors are used and there is an email not associated with an existing user, the unknown email address will be searched in the directory to create the associated user.
- In mass either via the web interface or the CLI *glpi :ldap :synchronize_users* command.

Avertissement : If no LDAP configuration is visible (see an error message on this part) it means that the LDAP module for PHP is not installed.

Under Linux, install the ldap package for PHP (for example *php7.4-ldap* on Debian), then restart the web server.

Under Windows it is necessary to uncomment in the file *php.ini* (file present in the directory *apache/bin*) the line *extension=php_ldap.dll* then restart the Web server.

The process of authentication of the users is divided into 3 parts : authentication, access control and finally the recovery of the personal data.

LDAP Authentication

At the time of the first login of the user, GLPI will search all of the configured directories until finding one that contains the user. If the option allowing to import users from an external source is active, then the user is created and the identifier of the method of connection and the LDAP server are stored in database.

Then, at each login the user is authenticated on the directory whose identifier is stored in GLPI. The other directories are not used ; If a user is deactivated in the directory which it used until then to connect, it cannot connect with another source of authentication.

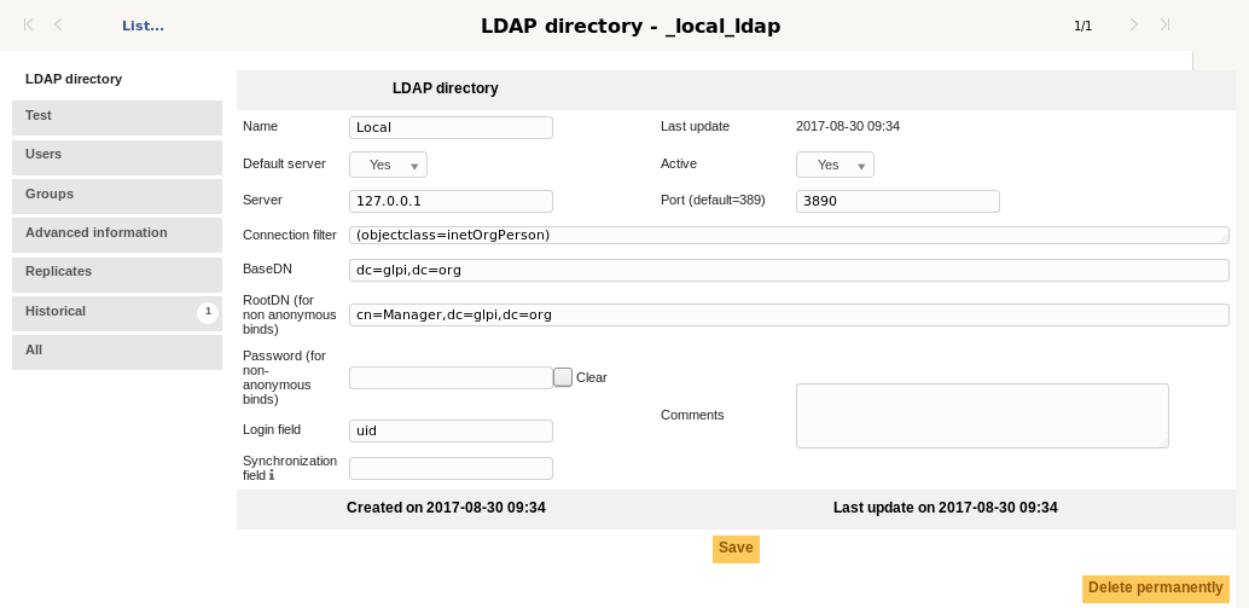
Access Control

Access control is the assignment of permissions to a user. Even if a user is authenticated on a directory it is not necessarily entitled to connect to GLPI.

This mechanism is based on the use of Authorization Assignment Rules.

The different tabs

LDAP directory



Note : There is an Active Directory pre-configuration template, which pre-fills a certain number of fields.

To load it, click on the **Active Directory** link when adding a directory. The **Default value(s)** link will reset the values to the default.

— **Default server** : If you have multiple LDAP servers set up, you can only define one default server. Choosing this setting will remove it from the server it was previously set to.
— **Server and Port : Represent the address and port of the LDAP directory.**
GLPI can connect to an LDAP directory through an LDAPS connection. To enable this, prefix your server field with *ldaps ://* and change the port to the LDAPS one of your LDAP directory (default 636).
— **Connection filter** : Allows you to restrict the search for users in the directory. For example, if only a restricted set of users have the right to connect to GLPI, you can create a condition to restrict the search to that set of users.

Some example filters :
— A classic LDAP filter : `(objectclass=inetOrgPerson)`
— An Active Directory filter to return only enabled users : `(&(objectClass=user)(objectCategory=person)(!(userAccountControl:1.2.840.113556.1.4.803:=2)))`

The example Active Directory filter is automatically populated when the Active Directory pre-configuration template is selected.

— **BaseDN** : The location in the directory from which the searches will be made.
— **RootDN** : The distinguished name of the user account to authenticate to LDAP with when not using anonymouse binds.

Note : RootDN and BaseDN are case sensitive and must not contain spaces betwen the parts. Examples :
— `cn=Admin, ou=users, dc=mycompany` : incorrect
— `cn=Admin,ou=users,dc=mycompany` : correct

— **Password** : The password for the account specified (if any) in the RootDN field.
— **Login field** : The name of the field in the LDAP directory corresponding to the user's login (Ex : `uid` in LDAP or `samaccountname` in Active Directory).
— **Synchronization field** : The name of the field in the LDAP directory used for Synchronization. This field must be unique for every user (Ex : `employeeuid` in LDAP or `objectguid` in Active Directory).

The parameters to enter are simple. For example :
— Server : *ldap.mycompany.fr*
— BaseDN : *dc=mycompany,dc=fr*
This should be enough if anonymous binds are allowed. If not, and if all users are not located within the same DN, you have to specify the DN of an authorized user and his password through the RootDN/Password parameters. For Active Directory, it is required to specify an account that has the right to authenticate on the domain.

Note : If some of the users have connection restrictions to certain machines configured in their Active Directory profile, a user not found error may be seen. The solution is to add the Active Directory server to the list of computers the user is allowed to connect to.

Avertissement : Do not forget to activate your directory and set it as the default (if wanted) if you have multiple directories.

Test

Allows the testing of the configuration defined in the LDAP directory tab.

The message **Connection test successful** indicates that GLPI was able to connect to the LDAP directory with the information provided (host, port, user account).

It remains now to import the users. For that, it is necessary to check the other parameters (connection filter, login field, etc).

Users

Allows you to configure how the link between the fields of the directory and those of GLPI will be made. Most of the fields are automatically mapped for you but can still be changed.

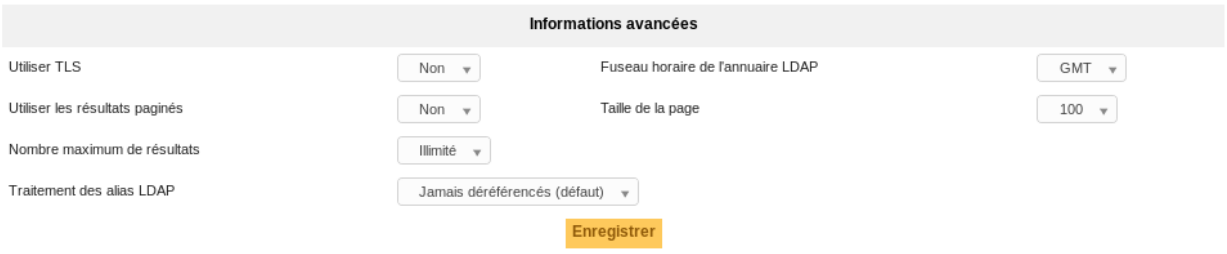


Groups

Allows you to configure the method for retreiving groups from the LDAP directory.



Advanced Information



In case the server hosting the LDAP directory is in a different timezone as GLPI, it is necessary to modify the **Timezone** variable to account for the difference.

Limit of the number of records returned

There are often two limits on the number of records retured per request.
- The client limit (defined for example on Debian/Ubuntu in `/etc/ldap/ldap.conf`)
- The server limit : If the server limit is lower than the client limit, then that is the effective limit

Avertissement : If the limit is reached, the optional GLPI behavior for LDAP user deletion can not work. Moreover, GLPI will display a warning message during the import or synchronization.

It is possible to bypass the limitation by enabling **Pagination of results** in the **Advanced Information** tab of the LDAP directory in GLPI. This will split requests into smaller requests that are under the configured limit.

The **Page size** option adjusts the number of results retreived per « page » with pagination enabled. The **Maximum number of results** option is the limit for the total number of records. This option may be useful to avoid high memory usage.

Note : On an OpenLDAP directory, the default limit is 500 and in Active Directory, it is 1000.

In Active Directory it is possible to modify the value of *MaxPageSize* with the following commands (This modification is global for the whole directory) :

```
C:> ntdsutil
ntdsutil: ldap policies
ldap policy: connections
  server connections: connect to server 192.168.1.1 ( here a few messages regarding␣
↪connectivity are displayed)
server connections : q
ldap policy : show values ( here we will see all the values including MaxPageSize which␣
↪is 1000 currently)
ldap policy : set maxpagesize to 5000
ldap policy : commit changes
ldap policy : q
ntdsutil : q
```

Replicates

If an LDAP directory is not accessible, the users provided by it will not be able to connect to GLPI.

To help avoid this situation, replicates can be declared in GLPI. These are LDAP servers that have the same data as the main server, but are available at a different address.

Replicates are only used when the connection to the main server is lost. The addition of replicates in GLPI is done by entering a **Name** which is displayed in GLPI, as well as a **Server**, **Port**, and **Timeout** in the **Replicates** tab in the LDAP directory. To enable LDAPS, prefix your server entry with *ldaps :// * and change the port to the LDAPS one of your LDAP directory (default 636). There is no limit to the number of replicates per LDAP directory.

History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :

- ID of the change.
- Date and time the change was made.
- User who made the change. If this field is not filled, it means that the action was done automatically (For example : automatic inventory update).
- Field that was changed.
- Description of the change that was made.

The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

The different actions

See the *common actions*.

Authenticate from IMAP

The interfacing of GLPI with mail servers as a source of authentication.

This authentication source is configured from the menu Configuration > Authentication > Mail servers.

This ability can compensate for the absence of directory or of CAS server. However, contrary to what is possible with other sources of other authentication sources, no mass import is available. A user is authenticated by GLPI if the server of mail server has authenticated him beforehand.

The connection to the mail server uses the IMAP or POP protocols. The options of SSL and TLS encryption are available. The distinction is made between the mail domain which is the part of the of the mail address that follows the asterisk character, and the fully qualified name of the mail server, which can serve several mail domains.

Other external authentication methods

The integration of GLPI and authentication sources beyond internal, LDAP, and IMAP is configured from the **Setup > Authentication > Other authentication methods** menu.

Central Authentication Service (CAS)

The configuration of a CAS server is comprised on the address of the server and its port (default 443). A base directory can be specified if needed. The return web address parameter allows you to redirect the user to a specific page after they log out from GLPI.

Avertissement : Once the CAS authentication is activated, each authentication is automatically redirected to the CAS server. In order to log into an internal account or one authenticated through a different method, you have to add « ?noAUTO=1 » to the login URL.

Note : The *php-curl* or *php-dom* extensions are required to be enabled for CAS authentication to function.

x509 certificate

The **Email attribute for x509 authentication** tells GLPI to look at the value of this attribute in the SSL_CLIENT_S_DN HTTP request variable passed by the authentication system.

It is possible to restrict the accepted values for the O, OR, and CN fields of the client certificate. In order to specify multiple values for each field, you may separate each value with the *$* symbol.

Other automatic authentications

GLPI can rely on other external systems to authenticate users such as :

- Basic Apache authentication
- Windows domain authentication
- Authentication coming from an authentication server like LemonLDAP : :NG, Shibboleth, etc

When the user wishes to reach GLPI, this one checks the presence of a variable in the HTTP headers storing the login/username. If the variable is present, the authentication is allowed to be done. We can map the *data transmitted by the authentication system* with the *fields of the user account of GLPI* (name, first name, email, language…). To finish, the controls of authorizations are carried out. An option allows to remove the domain of the user's login (Ex : testuser@example.com > testuser).

Note : The list of possible names for the headers is configurable, although the most common ones are already provided by GLPI. See Configuring headings.

Dropdowns

Some dropdown lists can be configured in GLPI including but not limited to :

- Locations
- Status of items
- Ticket categories
- Software names
- Manufacturers

Some of the dropdowns have some default values added during the installation of GLPI when they may benefit many users. For example, GLPI defines multiple files system formats by default.

The list of dropdown types may vary depending on the user's current profile.

The dropdown options can be translated into multiple languages, however this feature is disabled by default. It can be enabled in *Setup* > *General* > *General setup*. This will add a new tab in the dropdown form to manage the translations.

Some of the dropdowns are simple, flat lists while others can be organized into a tree structure by defining their parent option.

All dropdown options can be given a comment that will show in other GLPI forms by hovering over the **Help** icon next to the dropdown.

The types of dropdowns that can be associated with specific entities will show a « stack » icon (Same as the Entity menu item).

Common

Locations

The list of locations is organized into a tree structure. Each location can have sub-locations (Location 1 > Sub-location 1 > Sub-sub-location 1). It can be delegated by entity.

In the record of a location, there is some information about it including :
- The parent location
- Building number
- Room number
- GPS coordinates (longitude, latitude, altitude)
- Street address

If you allow GLPI to use your location, the map displayed when creating a new location will automatically show your approximate location to help make assigning GPS coordinates easier.

Locations

Displays a list of locations that are children of the current location and gives an option to add new child locations.

Items

Displays a list of items that have this location assigned to them. You are able to filter this list by a specific item type (Computers, Monitors, etc).

History

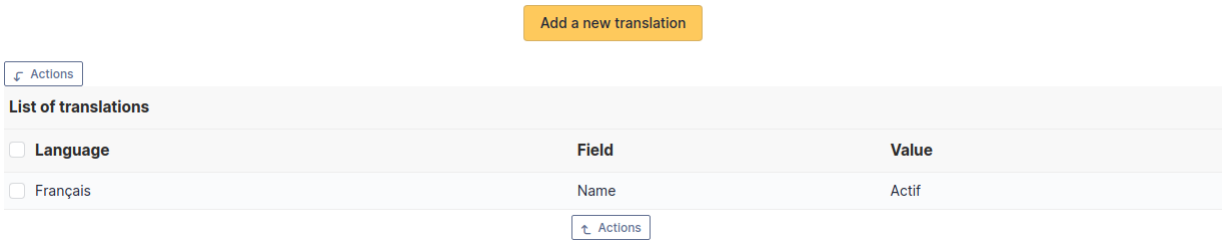
The *History* tab is used to show any changes made to an item. The following information about the changes is available :
- ID of the change.
- Date and time the change was made.
- User who made the change. If this field is not filled, it means that the action was done automatically (For example : automatic inventory update).
- Field that was changed.
- Description of the change that was made.

The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

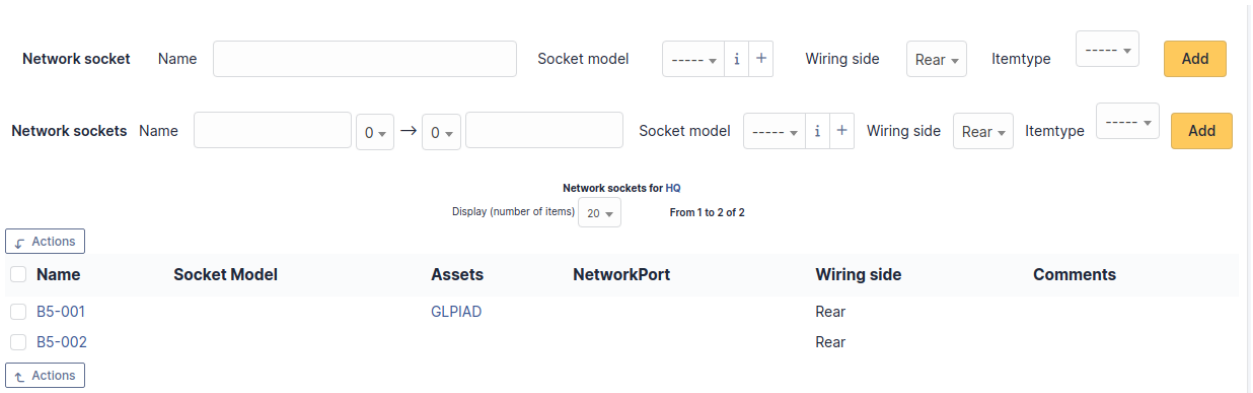
Translation

This tab is reserved for names and only appears if the translation of dropdown names has been enabled in the general configuration.



This tab lists all current translations of the dropdown name and allows you to add new ones.

Sockets



Lists the network sockets assigned to this location and allows to add a new one. In this case, when selecting a socket on a network port of a device, only the available network sockets of the device location (and child locations) are shown. The addition can be single via the top part or multiple via the bottom part. For adding multiple sockets, you can prefix the socket number as shown in the screenshot. Another example : considering the prefix *bru*, *9* and *11* the socket numbers and *srv* the suffix ; the network sockets created will be named : *bru09srv*, *bru10srv* and *bru11srv*.

All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

Status of items

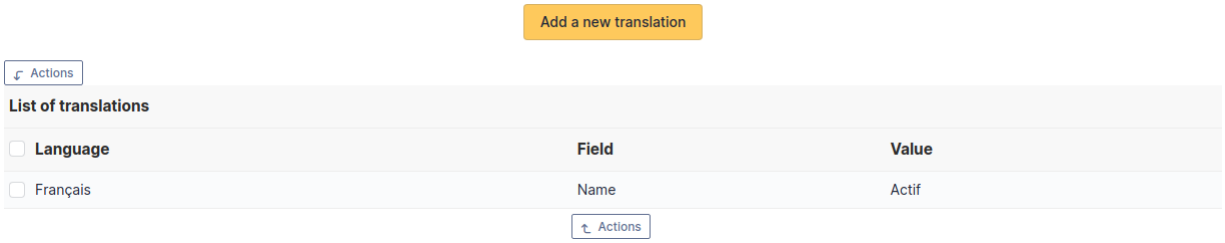
The list of statuses is organized into a tree structure. Each status can have sub-locations (Status 1 > Sub-status 1 > Sub-sub-status 1). It can be delegated by entity.

Statuses of items

Displays a list of statuses that are children of the current status and gives an option to add new child statuses.

Translation

This tab is reserved for names and only appears if the translation of dropdown names has been enabled in the general configuration.



This tab lists all current translations of the dropdown name and allows you to add new ones.

All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

Manufacturers

This list is a flat list of values valid for all entities.

This dropdown type cannot be translated.

Blacklists

This list is a flat list of values valid for all entities.

It includes the value you want to blacklist as well as what type to blacklist (IP, MAC, serial number, UUID or email). Blacklists are used for automatic imports via an inventory agent or by the email collector.

This dropdown type cannot be translated.

History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :

- ID of the change.
- Date and time the change was made.
- User who made the change. If this field is not filled, it means that the action was done automatically (For example : automatic inventory update).
- Field that was changed.
- Description of the change that was made.

The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

Blacklisted email content

This list is a flat list of values valid for all entities.

It allows the email collector to not import an email containing the defined text. This can allow, among other things, to fight against spam in the case of the authorization of ticket creation for anonymous emails.

This dropdown type cannot be translated.

Assistance

Ticket categories

The list of ticket categories is tree-like : each element can have sub-elements. It can be delegated by entity.

In the form of a ticket category, you can find some information about this category including but not limited to :

- Responsible and technical group for the automatic assignment of tickets
- Default category of the knowledgebase when you want to add a solution of a ticket
- Visibility of the category depending on the interface (simplified/standard) or object
- Ticket template to use for this category
- Parent category

If a template is chosen, it will be assigned to the choice of the category and will therefore override the one that would have been defined in the entity or via a business rule.

A link with the categories of the knowledge base is possible. If a category is chosen, clicking on the ticket category help in a ticket leads directly to all the articles in the knowledge base for this category.

Ticket categories

Displays a list of child ticket categories and allows adding new ones.

History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :

- ID of the change.
- Date and time the change was made.
- User who made the change. If this field is not filled, it means that the action was done automatically (For example : automatic inventory update).
- Field that was changed.
- Description of the change that was made.

The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

Task categories

The list of task categories is tree-like : each element can have sub-elements. It can be delegated by entity.

In the form of a task category, you can find some information about this category including but not limited to :

- Name
- Parent category

Task categories

Displays a list of child task categories and allows adding new ones.

History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :

- ID of the change.
- Date and time the change was made.
- User who made the change. If this field is not filled, it means that the action was done automatically (For example : automatic inventory update).
- Field that was changed.
- Description of the change that was made.

The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

Solution types

This list is a list of valid flat values. It can be delegated by entity.

Request sources

This list is a list of valid flat values for all entities.

It specifies if this source should be defined by default for tickets and/or collectors.

Solution templates

This list is a list of valid flat values. It can be delegated by entity.

It allows to predefine the content as well as the type of a solution and can be visible or not from the sub-entity.

Note : Solution templates cannot be translated

History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :

- ID of the change.
- Date and time the change was made.
- User who made the change. If this field is not filled, it means that the action was done automatically (For example : automatic inventory update).
- Field that was changed.
- Description of the change that was made.

The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

Project states

This list is a flat value list valid for all entities.

It allows to define the statuses applied to a project as well as its state.

Project types

This list is a list of flat values valid for all entities.

It is used to define the types applied to a project.

Project task types

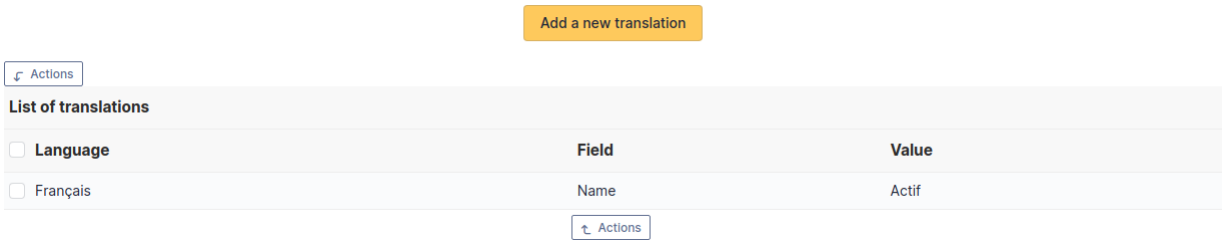
This list is a flat value list valid for all entities.

It is used to define the types of tasks applied to a project.

The common tabs

Translation

This tab is reserved for names and only appears if the translation of dropdown names has been enabled in the general configuration.



This tab lists all current translations of the dropdown name and allows you to add new ones.

All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

Calendar

The calendars used within GLPI are configurable by entity. They are characterized by periods of opening as well as periods of closing.

These calendars are used in the *SLA* (see Configure SLAs) and the *configuration of entities*.

Calendar

Time ranges

Corresponds to the opening time slots of the entity. You can add as many as necessary per day as long as these slots do not overlap.

Close times

Lists the closing periods assigned to this calendar and allows you to add a new one ; see *lca configuration of closing periods*.

All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

Close times

The list of closure periods is a flat list of valid values. It can be delegated by entity.

A closure period consists of a name, a period and whether this closure is recurring or not.

Concerning the field Recurring, if it is in Yes it means that the period indicated is valid all the time. In this case GLPI would not care about the year indicated.

Very useful to indicate the holidays recurring each year (Christmas, Victory of 1945, May 1 ...) or the period of closure of the company (closed every year from 1 to 31 August) and especially it avoids re-entering the same dates each year.

Internet Dropdowns

The IP protocol is represented in several forms :
- IP addresses
- IP networks
- *FQDN*

A device connects to a network through network ports.

To a network port, one or more Network Names are associated (see below).

A Network Name can belong to an Internet Domain. It can contain one or more IP addresses (see below) and it can have several aliases.

An IP address belongs to an IP network (see below).

At the IP protocol level, networks are either in IPv4 or IPv6.

Note : GLPI manages IPv4 and IPv6 differently. The only differences are the format of the addresses and masks.

212.85.137.66 is an IPv4 address, while *2a00 :1450 :4007 :803 : :1012* is an IPv6 address.

GLPI considers IPv4 as a subset of IPv6 through IPv4-mapped IPv6 addresses and treats them the same.

GLPI uses two representations for the IP addresses (IPv6 ad IPv4) :

— The binary representation allows GLPI to make the analysis of the relations between networks, addresses and masks. It is inaccessible to the user.
— The textual representation is used for displaying and entering data.

IPv4 addresses and masks are represented in their classic form (e.g., *212.85.137.66*, *255.255.255.0*). The *representation of IPv6 addresses is the canonical notation* (ie : *2001 :db8 :0 :85a3 :0 :0 :ac1f :8001* rather than *2001 :0db8 :0000 :85a3 :0000 :0000 :ac1f :8001*). In this form, you may omit 1 - 3 leading zeros in each group. IPv6 masks are represented in the form of the subnetwork prefix (ie : number of bits to 1 in the mask).

IP networks

IP networks allows you to define the network topology. They group together a set of IP addresses grouped according to the topology defined by the network administrators" addressing plan.

They can be nested, and the hierarchy of IP networks depends on the addresses and masks of these networks as as well as their associated identities. For example, *192.168.1.0/255.255.255.0* is a sub-network of *192.168.0.0/255.255.254.0*.

Avertissement : The hierarchy is managed implicitly and cannot be modified manually.

A network is composed of at least an address and a mask. A gateway can optionally be included.

A network is said to be addressable if it is used for internal routing of computers. In other words, its subnet mask and its gateway are used by all the equipment on the network (if one or more computers do not have the same information, this can cause routing problems…). Generally a network with a gateway is addressable because the gateway is known by all the equipment and it can only belong to one subnet. But an addressable network does not necessarily have a gateway. This is for example the case of private networks (*192.168.48.0/255.255.255.0*…) or the local loop (*127.0.0.0/255.255.255.0* or *: :1/128*).

VLAN

Displays a list of *VLAN* associated with this IP network and allows adding new ones.

IP addresses

Lists the IP addresses of this network.

You can sort this list by IP number by clicking on the IP Addresses link or by type of equipment by clicking on the Sort by Item Type link. In this case, you will have a table by type of element.

History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :

— ID of the change.
— Date and time the change was made.
— User who made the change. If this field is not filled, it means that the action was done automatically (For example : automatic inventory update).
— Field that was changed.
— Description of the change that was made.

The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

Internet domains

Network names

Displays a list of network names for the domain.

Wi-Fi networks

TO BE DONE

Network names

A network name is the unique identification of a machine from the Internet point of view.

Generally, a device is identified by one or more particular names on the network. The DNS server will resolve this name to an IP address. In case both IPv4 and IPv6 are used, this name will return two IP addresses : one in IPv4 and the other in IPv6. This is why a network name can have several IP addresses.

A network name is composed of a name that corresponds to the *FQDN* label and one or more IP addresses.

The IP network field appears in order to retrieve information about the different IP networks available. This information is not kept in the network name because it can have several IP addresses and each can belong to several IP networks.

Note : When entering a network name, the validity of the name as well as that of each IP address is checked. If one of these elements is not valid then it is rejected.

To add an IP address to a network name, click on the *plus button* in front of the IP address entry fields. To remove an IP address, simply delete the contents of the IP field you wish to remove.

Network alias

Displays a list of aliases for this network and allows adding new ones.

Traditionally, the network name is the one used by DNS for reverse resolution of an IP address, while the aliases correspond to the *CNAME* of the *FQDN* name.

Similarly, the alias name must have a valid *FQDN* label

History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :

- ID of the change.
- Date and time the change was made.
- User who made the change. If this field is not filled, it means that the action was done automatically (For example : automatic inventory update).
- Field that was changed.
- Description of the change that was made.

The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

Others

Note : Some plugins can provide additional headings, which are configurable in the same menu.

Types

Whatever the type, the list is a flat list of values valid for all entities.

It allows to define the name of the tab type and can be translated.

Models

Whatever the model, the list is a list of flat values valid for all entities.

It allows to define the name of the model of the tab and can be translated.

Virtual machines

Whatever the sub-title (models or virtualization system, state of virtual machines), the list is a flat value list valid for all entities.

It allows you to define the name of the virtualization model or system or the name of the state of the virtual machines.

Only the state of the virtual machines can be translated.

Document headings

This list is tree-like : each element can have sub-elements. It is valid for all entities.

The *Document headings* tab lists the subheadings already created and allows you to add a new one.

Document types

This list is a flat list of values valid for all entities.

The application offers a number of types by default, but it is possible to add more by providing the following information :

- the name of the document type
- the extension, for example : *.txt* or *.pdf* ; the detection of the documents that can be added is based on this information
- the file name for the desired document icon (Place the icon files in the pics/icones directory under the GLPI installation file tree)
- the MIME type if necessary
- the authorization to download this type of file (yes or no)

Note : The type of document can be a regular expression. This allows for example to authorize to define a set of documents FILENAME.XXXXYYY where XXXX is a number and YYYY the date of the current fiscal year. In this case the regular expression could be /[0-9]+/ to indicate any extension composed exclusively of numbers.

Knowledge base categories

This list is tree-like : each element can have sub-elements, which facilitates navigation and search. It can be delegated by entity.

In the record of a category in the knowledge base, in addition to the name of the category, there is information about the parent category (as a child of) and whether the category can be visible to sub entities.

The *Knowledge Base Categories* tab lists the sub-categories already created and allows you to add a new one.

Operating systems

Whatever the sub-title, the list is a flat list of values valid for all entities.

Only the update sources can be translated.

Networks

All lists in this part are flat value lists.

Network interfaces, firmware and networks are valid for all entities.

Network sockets, domains and VLANs can be delegated per entity with or without sub-entity visibility.

Software categories

This list is tree-like : each element can have sub-elements. The values are defined for all entities

The *Software categories* tab lists the subcategories and allows you to add a new one.

User titles

The lists in this part are flat lists of values valid for all entities.

LDAP criteria

This list is a list of flat values valid for all entities.

It is also possible to add a particular LDAP criterion.

Ignored values for the unicity

This list is a list of flat values which can be delegated by entity and applicable or not to the sub-entity.

It is possible to indicate, for each type of object, values that must not be taken into account when checking the uniqueness of an object in the database.

For example not to use the generic serial number « To Be Filled By OEM » to check if a computer already exists in GLPI.

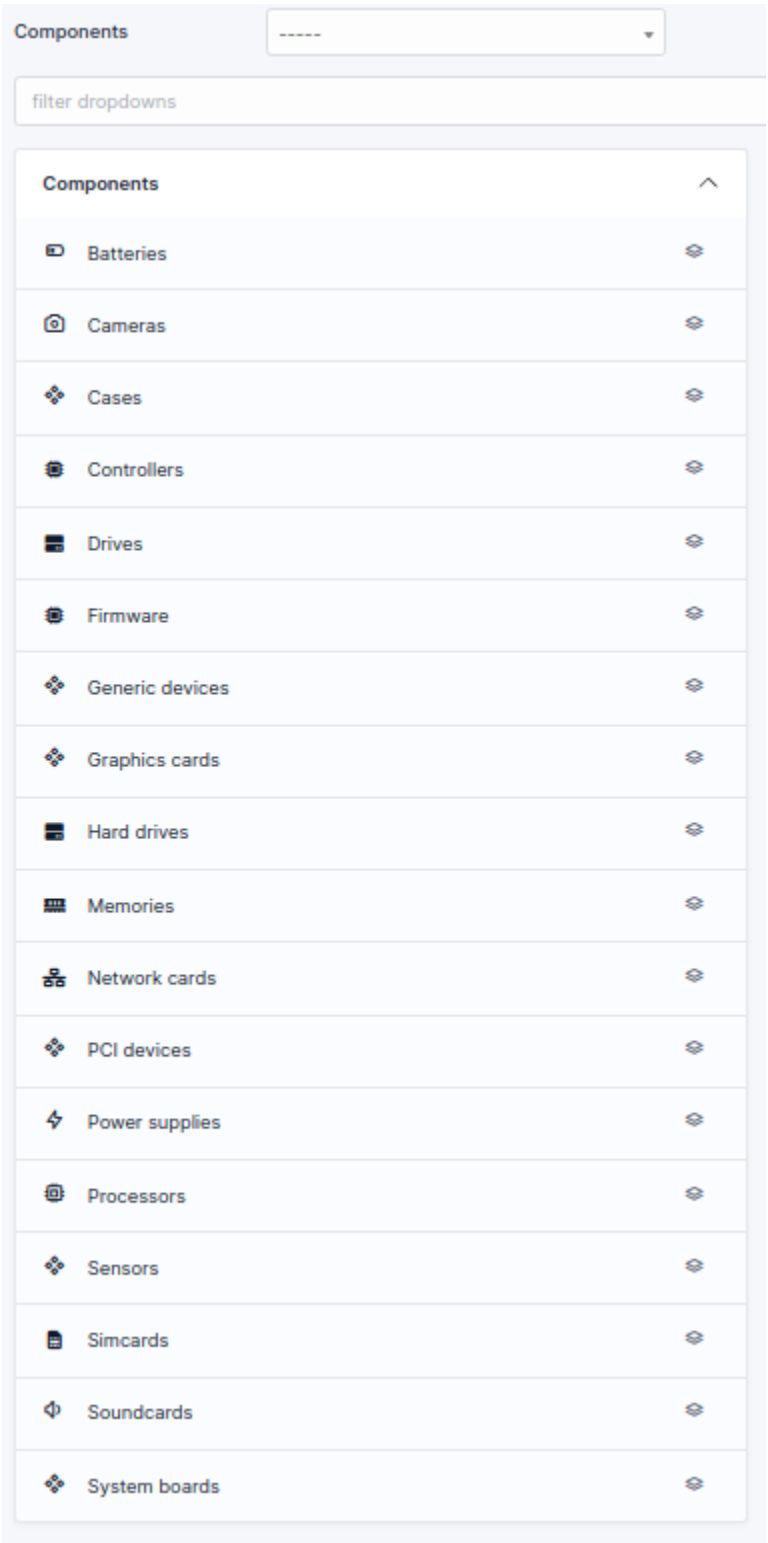
Fields storage of the login in the HTTP request

The list is a list of flat values valid for all entities.

Components

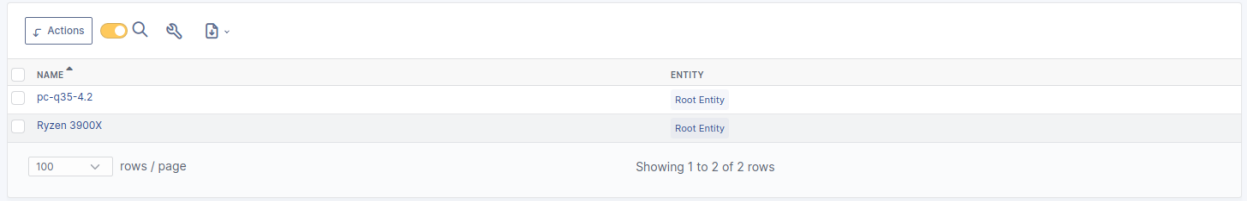
The hardware components that can be added to computers are configurable.

A hardware component is defined by a type, a name, a manufacturer, a comment, and several fields specific to the type of component. For example, for a system board, you can enter the chipset.



Note : It is possible to fill in other component types inside the *Other Components* type. However, it is not possible to add other types than those listed here.

Once a component type has been selected (*Motherboard*, *Processor*…), you are redirected to the list of components already created.

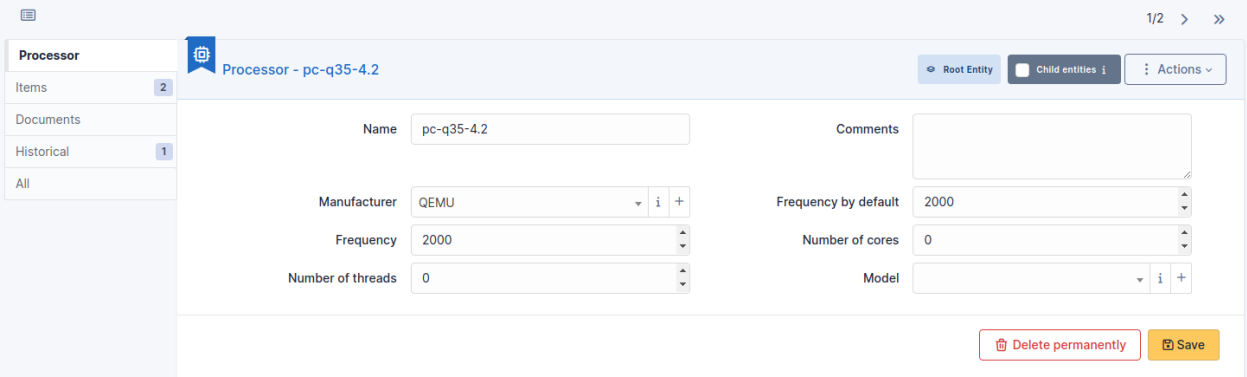


The different tabs

Main

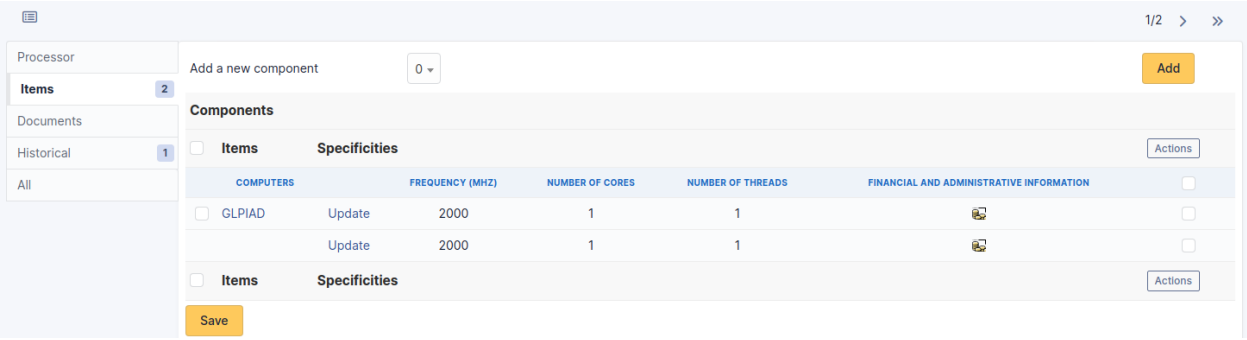
Information that defines a hardware component (different information depending on the type of component).

Example for a Processor :



Items

The elements tab allows to visualize the computers linked to the component.



Note :

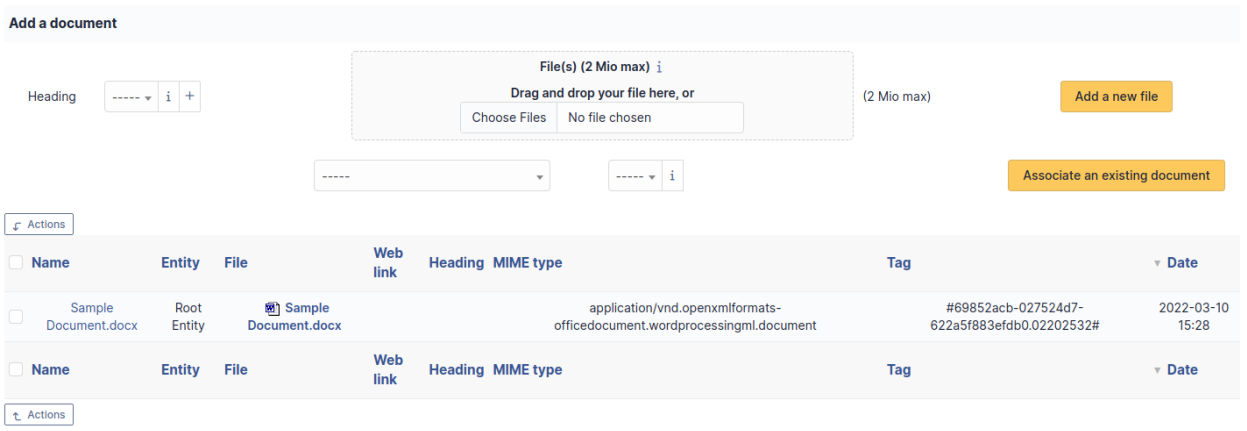
— **It is possible to modify the characteristics of a component only for the linked item**
From the *Elements* tab of the component, click on the **Update** link.
Several tabs are then proposed :
— *Element - Component name link tab* : lists the characteristics of this component
— Management tab : manage financial and administrative information

— Documents tab
— Historical tab
— Debug tab : only shown if you have debug mode enabled
— All tab : for an item, all information is displayed on a page

Documents

Additional information is stored in the form of external documents which are files uploaded into GLPI. In the *Documents* tab, documents can be associated and unlinked with the selected item. The *management of the documents themselves* is dealt with in another chapter.

It is also possible to quickly create a document via this tab by specifying the desired file and optionally the field in which the new document is to be placed. The name of the created document will be based on the name of the added file.



Note : When you delete a document from this tab via mass actions, you only remove the link between the object and the document ; the document itself is still present.

History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :

— ID of the change.
— Date and time the change was made.
— User who made the change. If this field is not filled, it means that the action was done automatically (For example : automatic inventory update).
— Field that was changed.
— Description of the change that was made.

The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

E-Mail collectors

E-Mail Collectors configuration can be reached from *Configuration -> Collectors* menu.

A mail collector allow to import emails from a mailbox ans turn them into GLPI tickets. A *routing mechanism* will bring them to the destination entity.

A mail collector is associated with an email address. It is possible to add as many collectors as you want. Of course, the more collectors you configure, the more import will take time.

To declare a new collector, you will have to provide a server name, as well as connection options (IMAP or POP, SSL, TLS, certificate validation). It is possible to limit the maximum size for attachments (no import, or from 1 to 100 Mio). This configuration value is inherited from the main configuration (*Setup -> General -> Assistance*) A configuration option permit to switch tickets creation date between import date or email date.

Optionally, you can set an archive directory in the mailbox where imported and refused emails will be stored.

Collectors that have errors will be indicated above the list. In that case, number of successive errors will be displayed in collector configuration form.

Once the form validated, you can test connection and messages retrieving by using the dedicated button.

An automatic action will do the import on configured collectors ; time between two executions can be configured in automated task form.

Another automatic action will send notifications when any collector repetitively fails to import emails. See *notifications configuration <modules/configuration/notifications>*.

Avertissement : Answers to emails generated from GLPI for tickets are cleaned when importing from a collector : all content between up and bottom tags will be removed. Answers must be done before or after original message.

Blacklists

Collectors can use a blacklist mechanism in order to remove recurrent but useless contents, like email signatures.

Blacklist can also prevent emails to be imported from specific email addresses ; this can be useful to prevent spam, or to handle emails aliases.

Rules for assigning a ticket opened via a mail collector

GLPI implements a mechanism for routing tickets opened by email, in order to create them in the right entity. This is based on the rules engine.

Note : if notifications are not enabled in the configuration, the menu does not appear in **Rules**.

Available criteria are :
- name of mail collector
- requester

— email domain, whether it is known or not
— email headers : `auto_submitted`, `from`, `in_reply_to`, `received`, `subject`, `to`, `X-Auto-Response-Suppress`, `X-priority`, `X-UCE-Status`
— email body.

Finally, there is a third type of criteria which operates on data specific to the user or to the configuration of the entities :

— **known email domain** : checks that the email domain of the email sent corresponds to a domain entered in an entity. This criterion makes it possible to eliminate, for example, all spam, i.e. messages not coming from authorized domains
— **user : group** : checks that the GLPI user associated with the sender's e-mail address belongs to a given group ;
— **user with profile** : the user has a given profile ;
— **user with single profile** : the user has one and only one profile in GLPI. If the profile is associated with several different entities, then the one that is defined as the default entity in the user's personalization options will be the entity of the ticket. If none is defined in the preferences, the rule does not match
— **user with the profile only once** : the user has a given profile only once : it does not have the profile assigned on several separate entities.

The actions are either the refusal of the ticket (with or without notification of the refusal to the issuer), or the import into an entity (manual, from TAG, from mail domain, from user profile).

Avertissement : The engine stops at the first matching rule.

À faire : example

An example of using the engine is as follows :

1. rule refusing emails whose email domain is unknown (not taking spam into account) ;
2. rule refusing messages from mailing lists ;
3. rules affecting emails if the user has only one profile (case of users of the simplified interface) ;
4. rule affecting emails to an entity if the user has a particular profile (e.g. for super administrators, who have access to all entities, but are physically in a particular entity).

Notifications

GLPI has a notification feature that allows it to send messages following an event in the application, to users via email, browser notifications, and other methods (expandable by plugins).

GLPI comes with notification definitions pre-defined and they can be used out of the box right away after enabling notifications.

To do this, you must activate the **Enable followup** option then **Enable followup via email** or **Browser followups from browser** to display the settings menu :

Notification templates

A template is a global object of GLPI that defines the information included in a notification and the formatting of the information.

The creation of a template is a complex operation, which impacts the users. Therefore, templates can only be modified by Administrators with the *Update* permission for the *Config* right. Moreover a template is not linked to an entity, which means that it is not possible to delegate its management to an administrator of a of a sub-entity.

A template reflects a communication to a user and can be available in several languages thanks to a translation mechanism. The use of tags (i.e. markers that are independent of the language used) language used) makes it possible to create a generic translation, available for all the languages of GLPI.

GLPI comes with a set of pre-defined templates for all notifications (tickets, reservations, financial information, cartridges, consumables, licenses, MySQL synchronization …).

Parameters

Notification template

First tab.

- **Name** : Template name
- **Type** : Type of GLPI object to which the template relates
- **Comments** : (optional) Additional information
- **CSS** : (optional) Style sheet used for the template in HTML

Note : Templates are global, they are not defined at the entity level, as notifications.

Template translation

Tab that lists the different notifications defined by language and allows adding a new language.

- **Language** : Indicates the language to which this translation refers. If no language is selected in the drop-down list, this translation will be the default for this template.
- **Subject** : Subject of the mail.
- **Email text body** : Plain text without layout, used in cases where HTML is not allowed. If the field is empty then it is generated from the HTML body text.
- **Email HTML body** : Text with HTML layout.

Note : A default translation is applicable to all GLPI languages that do not have their own translation.

Tags

The tags allow to display data of the notification trigger object. **e.g.** : in a ticket you can retrieve its title, description, actors, …

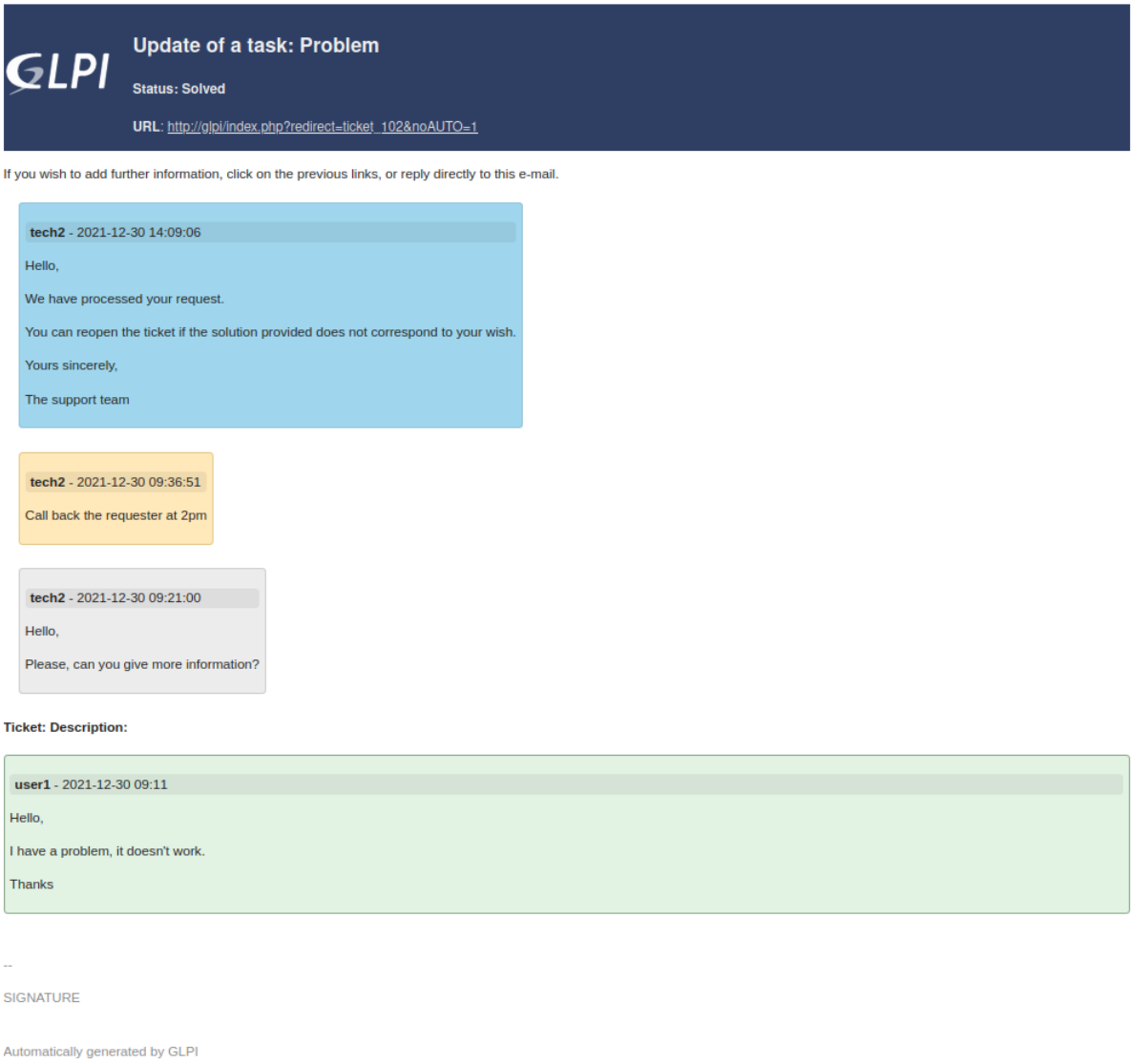
A tag is identified by ## at the beginning and at the end.

There are several types of tags :

- **Simple** : ##<object>.<field>## for the field value of a GLPI object
- **Label** : ##lang.<object>.<field>## for the translated label of the object's field
- **Condition** : to test if a field has :
  - a value : ##IF<object>.<field>## … ##ENDIF<object>.<field>##
  - a value = <V> : ##IF<object>.<field>=<V>## … ##ENDIF<object>.<field>##
- **Loop** : to display sub-objects :
  - all <objects> : ##FOREACH<objects>## … ##ENDFOREACH<objects>##
  - first <N> <objects> : ##FOREACH FIRST <N> <objects>## … ##ENDFOREACH<objects>##
  - last <N> <objects> : ##FOREACH LAST <N> <objects>## … ##ENDFOREACH<objects>##

Template example

In this example, we will create a template for ticket mail notifications.



In the end, this template can be used for several ticket events :

— New ticket
— Add followup
— Add task
— Resolve ticket
— …

Create template

1. Go to **Setup > Notifications > Notification templates**
2. Click on **Add** button
3. Fill in fields
   — **Name** : `Generic tickets with timeline` *for example*
   — **Type** : `Ticket`
   — **Comments** : `Generic template for tickets, using timeline` *for example*
   — **CSS** : *leave empty for now*
4. Save to be redirected to the template translation

Basic data

We are now in the editing mode of a template translation.
— **Language** : `Default translation` *The minimum required. We will see later how to add other languages.*
— **Subject** : `##ticket.action##: ##ticket.title##` *« [GLPI <ticket_number>] » will be automatically added to the email subject*

Note :
— `##ticket.action##` : action that triggered the notification
— `##ticket.title##` : ticket title

— **Email text body** : *leave empty to be filled automatically*
— **Email HTML body** : *this is the field that we will mainly modify in the next chapters*

Case : New ticket

Let's start by adding some basic data. You can add more by using the « **Show list of available tags** » button to display the available tags.
— **Email HTML body** :

```
##ticket.action##: ##ticket.title##
##lang.ticket.status##: ##ticket.status##
##lang.ticket.url##: ##ticket.url##

##lang.ticket.description##:
##ticket.authors## - ##ticket.creationdate##
##ticket.description##
```

Note :
— `##lang.ticket.status##` : text « Status » *automatically translated into the recipient's language*
— `##ticket.status##` : ticket status
— `##lang.ticket.url##` : text « URL » *automatically translated*
— `##ticket.url##` : ticket url
— `##lang.ticket.description##` : text « Ticket Description » *automatically translated*
— `##ticket.authors##` : ticket requesters *separated by "," if there is more than one*
— `##ticket.creationdate##` : ticket creation date
— `##ticket.description##` : ticket description text

Case : Add followup, Add task, Resolve ticket

Follow-ups, tasks and solutions are elements of a ticket's timeline, so we'll loop through « timelineitems » using `FOREACHtimelineitems`.

— **Email HTML body** :

```
##ticket.action##: ##ticket.title##
##lang.ticket.status##: ##ticket.status##
##lang.ticket.url##: ##ticket.url##

##FOREACHtimelineitems##
 ##timelineitems.author## - ##timelineitems.date##
 ##timelineitems.description##
##ENDFOREACHtimelineitems##

##lang.ticket.description##:
##ticket.authors## - ##ticket.creationdate##
##ticket.description##
```

Note :

— `##FOREACHtimelineitems##` : loop over all timeline items
— `##timelineitems.author##` : author of the timeline item
— `##timelineitems.date##` : date of the timeline item
— `##timelineitems.description##` : description text of the timeline item
— `##ENDFOREACHtimelineitems##` : end of the loop

Layout

For now, we have only retrieved tags but there is no formatting yet.

Put in bold

1. Select text : *e.g.* `##ticket.authors##`
2. Click on **Bold** button

Clickable link

1. Select URL text : *e.g.* `##ticket.url##`
2. On right-click menu, click on **Link...**
3. Fill in the field **URL** = `##ticket.title##`
4. You can leave the other fields unchanged and **Save**

Add headings

1. Select text : *e.g.* `##ticket.action##: ##ticket.title##`
2. Click on the **format** drop-down list and select **Headings > Headings 1**

Add a logo

1. Without selecting any text, click on the place where you want to put your image
2. Click on **Insert image** button
3. Browse to add your image
4. If necessary, you can resize via **right-click** menu > **Image...**

Add a table

This table will allow us to display the logo at the same row as the ticket title and its URL.

1. Without selecting any text, click on the place where you want to put your table
2. Click on **Insert table** button
3. The generated table has 2 columns and 2 rows, we only want one row, so delete one :
    1. Right-click on the generated table
    2. Clic on **Row > Delete row**
4. Select the previously added image, to drag and drop it into the left cell
5. Select the text of the tags below, to drag and drop it into the right cell

```
##ticket.action##: ##ticket.title##
##lang.ticket.status##: ##ticket.status##
##lang.ticket.url##: ##ticket.url##
```

6. **Right-click** on table > **Table properties**
7. In **Advanced**, click on **Background color** field to select **Dark Blue**
8. Click on **Save** button

Change colors

As the background of the table is dark, we will write in white to be more readable.

1. Select the text in the table 3. Click on the **Text color** drop-down list and select the color **White**

Add conditional emoticon

If the ticket is in pending status, we want to display an emoji.

1. Add 2 test tags : `##IFticket.storestatus=4##` `##ENDIFticket.storestatus##`
2. **Right-click** between the 2 tags > **Emoticon**
3. Add emoticon named **Pause button**

Translations

So far, we have only used `##lang....##` tags which are automatically translated. So we could be satisfied with a single translation in the **Default translation** language.

Let's take the case where we have users who only understand one language (English, French or Spanish). And we want to add a text under the URL that everyone can understand :

— If you wish to add further information, click on the previous links, or reply directly to this e-mail. *English*
— Si vous souhaitez ajouter des informations supplémentaires, cliquez sur les liens précédents, ou répondez directement à cet e-mail. *French*
— Si desea añadir más información, haga clic en los enlaces anteriores, o responda directamente a este correo electrónico. *Spanish*

1. In the **Default translation** we add the English text
2. Remember to **Save**
3. **Right-click** in « Email HTML body » field > **Source code**
4. Select all the code to **copy** it
5. Go back to the template header by clicking on the **Notification templates** value at the top
6. In **Template translations** tab click on **Add a new translation** button
7. Select Language = **Français**
8. **Right-click** in « Email HTML body » field > **Source code**
9. **Paste** the previously copied code
10. **Save** to exit code view
11. Updates the fields :

— **Subject** = `##ticket.action##: ##ticket.title##`
— In **Email HTML body** replace English text with the French text

12. **Save**

Repeat steps 3 to 12 for all useful languages.

Going further with HTML and CSS

Avertissement : Part for people already familiar with HTML and CSS.

Everything we have done in the « Email HTML body » field is converted into HTML code which you can edit via **right-click > Source code**. So if you are familiar with HTML, you can edit the code directly. Depending on the case and your skills, this is sometimes easier.

The following code repeats what we did earlier by separating the CSS layout from the HTML and adding colors to the timeline items. It is not explained, it is just an example.

Code in « Email HTML body » field

```
<table class="header" border="0">
 <tbody>
  <tr>
   <td class="logo">
    <img src="
↪iVBORw0KGgoAAAANSUhEUgAAAGQAAAA3CAYAAAD6+O8NAAAAGXRFWHRTb2Z0d2FyZQBBZG9iZSBJbWFnZVJlYWR5ccllPAAABWVJR
↪eW92jU5vpKeFxX7vzfzmz2/eLkkSJUqUKFGiRIkSJcr/
↪XhpVLzAej9tTt8rfBzRQ8kajUTDnbcElm7jFnkMzbxMuTcZXBrDuQMg2uZTRmzA6MHZgHMM4HfPkA3O9rmKOYwE9WmM/
↪+YB7Yq61pdIhDfAiRHedrlmgLZrMz68r7mUCvtUJ2P8B2GUTrhuOEaPSIUm5ngmXxxNpR0oKAQALgX0sB34f0+gF2OkXh/
↪Sp0uEydQABPW8LxqaHFxaUF88mfr66DxvOAxWfUUYAkExoDkyfDzwAGdjA6FB+5ObTPSq6VZCEpmbdrsDcn8dy0vWoVW1tVMA4YG7g
↪xt5JaXiJHkQzb9/
↪yd6yFh0z2qNKhPwMIFSNXMA5hMxtVGcIgqzplAqUdwNxeMebU6VBcAwSbOgad7QMQvRt04iDhFD8p7uUSUeQYIZffAaFUtclQfp5g
↪ue3QgUdN0eJfajMurfAQZWplIDeNcAeczY+OEco6NVMyCuzeu65n7OKPRXOqTUwLmGXO4THbDGElzuwrhD10kZwXgH854HnHnlgZH
↪GpUjgCoL4O4znzMM/
↪Ccrb4gJN9UzXJhSG1L5sisSU0XdolYfNrRAYZQoaEShcYJY8PFmC8mYavY7J04spD8c+omOIrJ4BTNV3ziYBkehmMf+fGyKnTGErLu
↪wt6GlF2nZlBFsCCdze65JMVi7Tpi2sDafKSoERs4ZYYvHLDueypuK+pHlu4vSDaEljfSo7knKso0llkV9nzHpps/
↪DIGr87hiK4dDDu6qivIMKwLBS3u+A0OIDxqTHTDAQiF8NYJx7erIEIVmtiCh4sdRJ2rvNrCUHjmDcpg78dgAYdTeF4szTkFX6SkCo
↪9Uo2gPjIp5dI9xrNCkz+/RQh+pK/8E4z8Yb2De157KLGo8/
↪IJhvJwygAvQeQWALHsDUjIvUBhD92mifgBjA2faI5Zgvt+S2cPAgupJ4eHJnPzfVhCXrEaGlYnVQHp9c0/
↪4VUvn10Cl1lXMq/q3idMq0NBsacdEexNDtGCjtA3jZ/h1g2pMVZ7EKeoccS3UderVd05ZBnCQHp/
↪QY9qnyY9n5Wi0Wwn/fz1cQjdPwunpkWPxflWR8Yspxxqo9G54hB4a/9HUuRRS2Nf47GOKUrqAk8/
↪h7ccbK40AILCf+AvGn5YXE6JIAkLdNp5DrdEtjAKkr5cRiBoBISAQhId0DoVp6S2A8D6arUZApoD4F1MS5flRNFfNgNAbfJie/
↪onRcAOkqv8LjBIlSpQoUaJEiRJlvvJNgAEAqG9GVu+GoEcAAAAASUVORK5CYII="
      alt="GLPI" width="100" height="55" /></td>
   <td class="title">
    <h2><strong>##ticket.action##</strong>: ##ticket.title##</h2>
    <h4>##lang.ticket.status##: ##ticket.status## ##IFticket.storestatus=4###
↪#ENDIFticket.storestatus##</h4>
    <strong>##lang.ticket.url##</strong>: <a href="##ticket.url##">##ticket.url##</a>
   </td>
  </tr>
 </tbody>
</table>
<p>If you wish to add further information, click on the previous links, or reply␣
↪directly to this e-mail.</p>
<p>##FOREACH LAST 5 timelineitems##</p>
<div class="timeline ##timelineitems.type##">
 <p class="attributes"><strong>##timelineitems.author##</strong> - ##timelineitems.date##
↪</p>
 <p>##timelineitems.description##</p>
</div>
<p>##ENDFOREACHtimelineitems##</p>
<h4>##lang.ticket.description##:</h4>
<div class="request">
 <p class="attributes"><strong>##ticket.authors##</strong> - ##ticket.creationdate##</p>
 <p>##ticket.description##</p>
</div>
```

Code in « CSS » field

```
.header {
   width: 100%;
   background-color: #2f3f64;
   color: #eeeeee;
   border: none;
}
.title {
   padding: 10px;
}
.title a {
   color: #dddddd;
}
.attributes {
   background-color: #1111;
   border-radius: 4px;
   padding: 0 5px;
}
.timeline, .request {
   padding: 5px;
   border: thin solid;
   border-radius: 4px;
}
.timeline {
   margin: 5px 15px;
   display: inline-block;
}
.ITILFollowup {
   background-color: #ececec;
   border-color: #cccccc;
}
.TicketTask {
   background-color: #ffe8b9;
   border-color: #e5c88c;
}
.ITILSolution {
   background-color: #9fd6ed;
   border-color: #90c2d8;
}
.request {
   background-color: #e2f2e3;
   border-color: #87aa8a;
}
```

Notification Definitions

A notification definition in GLPI is comprised of :

- **One or more notification templates**
  Templates are added for specific notifications modes. This allows you to use one template for email notifications and another for browser notifications.
- **A set of recipients**
  The list of recipients could include specific users, groups, etc or can include dynamic recipients such as « Requester » which would be replaced by all user's listed as requester on a Ticket for example.
- An item type (Ex : Ticket)
- An event from the specified item type (Ex : Add)

The different tabs

- **Notification**

  A notification is composed of a certain number of specific fields to fill in :
  - **Name** : Name of the notification
  - **Active** : Allows you to temporarily deactivate a notification
  - **Type** : Type of GLPI object to which the notification refers
  - **Notification mode** The notification method (Email and Browser available by default)
  - **Event** : Indicates what will be the triggering event following the type of the object
- **Notification templates** : Indicates the notification that will be sent for the object type and the event defined previously
- **Recipients**
  This is where you define who will receive the notification.
  A certain number of actors of the application are proposed and the list The list varies according to the type of object defined.
  This list includes but is not limited to :
  - **Administrator** : person whose email address has been defined in the global *configuration of email follow-ups*
  - **Entity Administrator** : person, for each entity, whose email address is defined in the entity *configuration of email follow-ups*
  - **Requester** : The person who is listed as the requester in the ticket
  - **Technician in charge of the ticket** : Users assigned to the ticket
  - **Group XXX** : All the people who have access in the entity and who are part of the group
  - **Group XXX without supervisor** : All members of the group except the person declared Manager of the group
  - **Group in charge of the ticket** : All the members of the group to which the ticket is assigned
  - **Group in charge of the ticket without supervisor** : All members of the group assigned to the ticket except for the person declared Manager of the group
  - **Requesting group** : All members of the group indicated as the requesting group of the ticket
  - **Observer group** : All members of the group indicated as the observer group of the ticket
  - **Observer** : The person who is the observer of the ticket
  - **Profile XXX** : All the people who have access in the entity and who have this profile
  - **Writer** : person who enters the information ;
  - **Technical manager** : The person designated as the user responsible for the asset(s) related to the ticket

Email followups configuration

For GLPI to be able to send notification via email, an email server connection will need configured.

The email server configuration can be configured globally, and then some options can be overridden at the entity level.

Global settings can be accessed from the « Email followups configuration » option on the **Setup > Notifications** page.

Global Configuration

The global configuration allows you to set the following options : - Administrator email - GLPI Administrator email. This can be used as a special recipient in notifications. - Administrator name - The display name to use for the Administrator email address. - From email - The email address to use in the From field for emails sent by GLPI. - From name - The display name to use for the From email address. - Reply-to address - The email address to use when user's reply to the email notifications. - Reply-to name - The display name to use for the Reply-to email address. - No-Reply address - The email address to use for emails that shouldn't be responded to. - No-Reply name - The display name to use for the No-Reply email address. - Add documents into ticket notifications - If enabled, documents attached to a ticket will be added to related notifications as links. The links will use the GLPI URL specified in the general configuration. - Email signature - Text added at the end of every notification. - Way of sending emails - Method to send emails (PHP, SMTP, SMTP+SSL, SMTP+TLS). - Max delivery retries - Number times GLPI will try to send a notification. - Try to deliver again in (minutes) - Time between notification delivery attempts.

You can test the sending of notifications from the global notification configuration form by trying to send an email to the specified Administrator email address.

Email Method - PHP

This option cannot be configured within GLPI and must be done in your PHP configuration. This option uses the *mail()* function of PHP.

Note : The PHP email method is blocked by most hosting providers

---

Email Method - SMTP

The following configuration options are available for the *SMTP* email method(s) :

- Check certificate - Verify the email server has a valid certificate.
- SMTP host - The SMTP server address.
- **Port - The port to communicate with the SMTP host over.**
  Typically, this is port 25.
- SMTP login (optional) - Username to authenticate with the email server.
- SMTP password (optional) - Password to authenticate with the email server.
- **Email sender - This may be needed for some email providers.**
  If this is not specified, the Administrator email will be used.

Email Method - SMTP+SSL

The configuration options are the same as the *SMTP* option but GLPI will use *SSL* security for the connection.

Email Method - SMTP+TLS

The configuration options are the same as the *SMTP* option but GLPI will use *TLS* security for the connection.

Entity Configuration

The following options can be overridden at an entity level (See global configuration for more information about each option) : - Administrator email - Administrator name - Reply-to address - Reply-to name - Email signature

The entity level options can be accessed for the **Notifications** tab in the entity's form.

The following options can only be configured at the entity level : - Prefix for notifications - Text to prefix to the subject of email notifications. - Delay to send email notifications - Optional delay to the initial sending of notifications. - Enable notifications by default - If enabled, a user is automatically set to receive notifications in some cases such as when they are assigned to a ticket.

Fields that are no set, will be inherited from their parent entity by default.

Alarm options

At the entity level, you can configure the alarm options (cartridge/consumable stock alarms, expiration alarms, etc). By default, these options will inherit the value from their parent entity.

As of GLPI 10.0, the following alarm options are available : - Cartridges > Reminders frequency for alarms on cartridges - Cartridges > Default threshold for cartridges count - Consumables > Reminders frequency for alarms on consumables - Consumables > Default threshold for consumables count - Contract > Alarms on contracts - Contract > Default value - Contract > Send contract alarms before - Financial and administrative information > Alarms on financial and administrative information - Financial and administrative information > Default value - Financial and administrative information > Send financial and administrative information alarms before - Licenses > Alarms on expired licenses - Licenses > Send license alarms before - Certificates > Alarms on expired certificates - Certificates > Send certificates alarms before - Reservations > Alerts on reservations - Tickets > Alerts on tickets which are not solved since - Domains > Alarms on domains expiries - Domains > Domains closes expiries - Domains > Domains expired

---

Note : Notifications work as follows (*e.g. : ticket creation notified by email*) :

1. The ticket is created in GLPI
2. GLPI looks for notifications of the « **ticket creation** » event in the ticket entity (otherwise in the parent entities)
3. GLPI builds the list of recipients according to the settings
4. For each recipient, GLPI generates the mail in the language of the user if the translation exists, otherwise it is the « **Default translation** ».
5. The emails are placed in **Administration > Notification queue** waiting to be sent by the automatic task `queuednotification`.

Avertissement : When new notifications are added to GLPI through an update, they are enabled by default.

Configure automatic actions

GLPI has multiple automatic actions (also referred to as crontasks) that are periodically scheduled jobs. These actions can be configured to run at a specific frequency and run in either GLPI or CLI mode.

In GLPI mode, the actions are started occasionally when users navigate GLPI. In CLI mode, the actions are started in their own session via cron, Scheduled Tasks, or some other external task scheduler. You may configure some actions to run in GLPI mode and others to be CLI. Some actions may support only one of the modes.

Configure CLI mode

To run CLI mode tasks, you will need to configure your external task scheduler to call GLPI's *front/cron.php* file periodically. It is recommended to have it run every minute to ensure that actions that are ready to run, get ran as soon as possible.

For Linux/MacOS, you should add the following to the web server's user's (www-data, apache, etc) crontab :

```
* * * * * php GLPI/front/cron.php
```

You will need to replace *GLPI* with the path to your GLPI folder. You may also need to replace *php* with the full path to your php binary if it is not in the PATH.

Force execution of action from CLI

To execute a specific action from the command-line, you can run (for mailgate action) :

```
php GLPI/front/cron.php --force mailgate
```

You will need to replace *GLPI* with the path to your GLPI folder.

Forcing the action to run will ensure it is run even if it is not scheduled to run again yet.

Default actions

alertnotclosed (Ticket)

Send notification alerts for tickets that have been open a certain number of days without being closed. Notifications must be enabled for this action to work. The number of days can be configured for each Entity.

cartridge (CartridgeItem)

Send notification alerts for cartridge stock under the alert threshold. Notifications must be enabled for this action to work. The alert threshold can be changed for each Cartridge.

certificate (Certificate)

Send notification alerts for certificates that are about to expire. Notifications must be enabled for this action to work. The expiration warning delay can be changed for each Entity.

checkAllUpdates (GlpiMarketplaceController)

Checks all installed plugins to see if there is an update available. The plugins must be available via the marketplace even if they weren't installed that way in order for the update detection to work. If you have notifications enabled, you can receive a notification regarding the available updates. Otherwise, the available updates are listed in the action's log.

checkdbreplicate (DBconnection)

Checks the status of all database replicates including that it is reachable from GLPI and that it is in sync with the main database. If you have notifications enabled, you can receive a notification regarding any issues with the replicates. Otherwise, the issues are listed in the action's log.

checkupdate (CronTask)

Checks for a new GLPI version.

circularlogs (CronTask)

Removes entries in logs in the *files/_log* folder that are older than a certain number of days which is configurable within the action form itself.

cleanorphans (Document)

Deletes all documents that aren't associated with other GLPI items like Tickets.

Note : This doesn't account for direct links to documents added for example in Ticket tasks, comments, etc.

---

cleanorphans (GlpiInventoryInventory)

Deletes all inventory submission files that are not related to an existing asset in GLPI.

cleansoftware (CleanSoftwareCron)

Deletes all software versions without an installation and deletes all software without a version.

cleantemp (GlpiInventoryInventory)

Deletes all temporary inventory files older than 12 hours.

closeticket (Ticket)

Closes all tickets that were solved for a certain amount of working time. The amount of time can be configured for each Entity.

Note : The working hours on the Entity's calendar are considered when determining how much working time had passed.

---

consumable (ConsumableItem)

Send notification alerts for consumable stock under the alert threshold. Notifications must be enabled for this action to work. The alert threshold can be changed for each consumable.

contract (Contract)

Send notification alerts for contracts that are about to expire. If you don't have notifications enabled, the expiration warnings are still listed in the action's log. The expiration warning delay can be changed for each Entity.

countAll (SavedSearch)

Updates the estimated execution time for saved searches.

createinquest (Ticket)

Creates ticket satisfaction surveys after a certain amount of time and closes surveys after a certain amount of time. Both durations can be changed for each Entity.

DomainsAlert (Domain)

Send notification alerts for domains that are about to expire. If you don't have notifications enabled, the expiration warnings are still listed in the action's log. The expiration warning delay can be changed for each Entity.

graph (CronTask)

Cleans generated graphs older than an hour.

These graphs were only created in GLPI before version 9.2 for statistics and possibly some plugins from those versions or newer.

infocom (Infocom)

Send notification alerts for warranties (Set in the Management tab on an asset form) that are about to expire. If you don't have notifications enabled, the expiration warnings are still listed in the action's log. The expiration warning delay can be changed for each Entity.

logs (CronTask)

Cleans old automatic action log entries. The amount of time to keep log entries can be changed for each automatic action.

mailgate (MailCollector)

Retrieves emails from configured mailboxes and creates tickets from the mail.

mailgateerror (MailCollector)

Send notification alerts for any errors encountered when collecting emails by the collectors.

olaticket (OlaLevel_Ticket)

Evaluate OLA levels for tickets.

passwordexpiration (User)

Send notification alerts for user passwords that expired and handle disabling the affected accounts.

pendingreason_autobump_autosolve (PendingReasonCron)

Automatically add followups for tickets that are in a pending status to try and get a response from or to remind an end-user of the pending reason. If the end-user doesn't respond after a certain number of reminders, the ticket will be automatically resolved.

planningrecall (PlanningRecall)

Send notification reminders for planned events.

PurgeLogs (PurgeLogs)

Deletes historical data entries that are older than a certain amount of time. The amount of time can only be changed globally for all Entities, but some of the types of entries can be configured with different durations.

purgeticket (Ticket)

Purge tickets that have been closed for a certain amount of time. The delay can be changed for each Entity.

queuednotification (QueuedNotification)

Try sending all queued notifications. If a notification cannot be sent, the failure is recorded and then the notification will try to be sent again during the next action run in case it was a temporary issue. After continued failures, the notification is cancelled.

queuednotificationclean (QueuedNotification)

Deletes all notifications that are older than a certain number of days. The number of days can be configured within the action itself.

RecurrentItems (CommonITILRecurrentCron)

Create scheduled recurring tickets or changes.

reservation (ReservationItem)

Send notification alerts for the end of reservations.

savedsearchesalerts (SavedSearch_Alert)

Send notification alerts for saved searches.

session (CronTask)

Delete expired session files.

slaticket (SlaLevel_Ticket)

Evaluate SLA levels for tickets.

software (SoftwareLicense)

Send notification alerts for software licenses that are about to expire. Notifications must be enabled for this action to work. The expiration warning delay can be changed for each Entity.

telemetry (Telemetry)

Send telemetry information.

temp (CronTask)

Clean all temporary files older than an hour.

unlockobject (ObjectLock)

Automatically remove locks on items older than a specific number of hours. The number of hours can be changed within the action itself.

watcher (CronTask)

The watcher automatic action is an action that monitors the execution of the other automatic actions. If one of them has an error, a notification will be sent. For this to work properly, notifications will need to be configured.

The different tabs

- **Automatic action**
  For each action, it is possible to configure :
  - Run frequency
  - Status (Allows you to disable the action if needed)
  - Run mode
  - Run period (Allows you to disable certain actions at night for example)
  - Number of days this action's logs are stored

  The interface also allows you to reset the execution date and to manually force the execution manually.
  Some automatic actions can have particular parameters, such as the maximum number of emails to be sent each time for the mailqueue action. Also plugins can define their own automatic actions.
- **Statistics** Displays information about the execution of this task (number of executions, start date, minimum, maximum, average and total durations).
- **Logs** Lists the last executions according to the parameter defined in the *Automatic action* tab (see above). A link on the execution date allows to have the details of a specific execution.

The different actions

— **Reset last run** : Clear the last run

Fields unicity

GLPI has a mechanism to perform uniqueness checks before the creation of an object in the database.

This allows you to track and/or block the presence of duplicate objects based on matching certain fields. For example, you can configure a fields unicity rule for computers using the serial number field. This applies to manual additions and additions made from an external source such as an inventory tool.

Uniqueness is defined by a name, an object type, and one or more fields. When multiple fields are specified, all of them are checked together instead of individually (Ex : serial number AND UUID match another computer. Uniqueness checks for fields only apply if the field is not empty. For example, multiple computers with a blank serial number would be allowed. Each uniqueness rule has options to refuse the addition of the object and/or send a notification if it is determined to not be unique.

Th criteria added in the blacklists will be ignored when calculating uniqueness.

The different tabs

Duplicates

The duplicates tab lists all the values corresponding to the criteria that are currently duplicated.

History

The *History* tab is used to show any changes made to an item. The following information about the changes is available :

— ID of the change.
— Date and time the change was made.
— User who made the change. If this field is not filled, it means that the action was done automatically (For example : automatic inventory update).
— Field that was changed.
— Description of the change that was made.

The description of the change represents either the difference between the old and the new value (For example with location field : Change HQ to Remote Office A), or the explanation of the action which was carried out (For example : Uninstallation of a software : « Gimp 2.0 »).

Note : For dropdowns or objects with a parent/child relationship, the modification of a child will appear in the history of the parent element.

Debugging information

If you have *Debug* mode enabled in your preferences, a *Debug* tab will appear before the *All* tab. This tab offers information to help you resolve an issue.

For example, for a computer, you have one or more tables depending on the affected object (financial information, reservations…) listing the notifications that will be triggered on this computer with :

- Triggering event
- Recipient(s)
- Notification model used
- Recipient(s) email address

Notifications **(Ticket)**

Events	Recipients	Notification templates	Mode	Recipient
Closing of the ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Deletion of a ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
New ticket	Profile: Admin	Tickets (en_GB)	mailing	admins@example.com
New ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Ticket solved	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a followup	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a task	Administrator	Tickets (en_GB)	mailing	admsys@localhost
Update of a ticket	Administrator	Tickets (en_GB)	mailing	admsys@localhost

All Information

For an item, all information is displayed on one page from the *All* tab. This shows all of the tabs of an object's form in one view, one below the other.

Service Levels

There are two types of service level agreements that can be tracked in GLPI. - Service Level Agreement (SLA) : Agreement between an IT provider and the customer - Operation Level Agreement (OLA) : Agreement between groups/departments of the IT provider

Both of these types of agreements are used in GLPI to optionally track : - The maximum amount of time that should pass before a ticket has a technician assigned - The maximum amount of time that should pass before a ticket is resolved

A calendar can be associated with an SLA/OLA (see *calendars*). By default, no calendar is associated and calculations are done on a working basis 7 days a week and 24 hours a day. It is also possible to use the calendar associated with the ticket (i.e. the one of the entity to which the ticket is attached).

Note : If the maximum resolution time is expressed in days, all the calculations will be done in days (D+1, D+4 for example) taking into account the calendar to determine the working days. In the use of the End of the working day indicator, the due date will correspond to the end of the corresponding working day. If the maximum resolution time is expressed in hours or minutes, then the calculations will be made taking into account the opening hours.

For example, for an SLA in H+4 with a calendar defining opening hours from 8am to 6pm, a ticket opened at 4pm will have a due date of 10am the next day.

Changing the ticket to pending status puts the SLA in sleep mode. If the ticket remains pending for 3 hours for example, the due date will be postponed by 3 hours.

Automatic assignment of service levels

You can automatically assign an SLA or OLA to tickets through the ticket rules engine. The association of the SLA with the ticket allows the automatic calculation of its the expiration date. Several SLA/OLAs can thus be defined and assigned according to precise criteria.

For example, SLA 1 will be assigned if the ticket is associated to a specific category and SLA 2 for the other categories.

> **Avertissement :** If an SLA/OLA is assigned manually when the ticket is opened (by the user or via a ticket template), the business rules cannot redefine it.

When it is assigned, it will be completely replayed and the actions associated with the escalation levels will be executed.

Escalation levels

After adding an SLA/OLA to a service level, you can click on the name of the SLA/OLA in the related tab of the service level to configure it more including escalation levels.

After adding an escalation level to an SLA/OLA you can click its name to configure the criteria to trigger it and the actions to take after it is triggered.

Each level triggers automatic actions to resolve the ticket as soon as possible. A level is triggered before or after the expiration date of the SLA/OLA according to the defined delay.

```
For example, one day before the deadline, the ticket is assigned to level 2 support and␣
↪its priority is changed to High.
```

Escalation levels can be conditioned by trigger criteria. Without criteria, the level will be triggered but if criteria are criteria are defined, they will be checked before applying the escalation level.

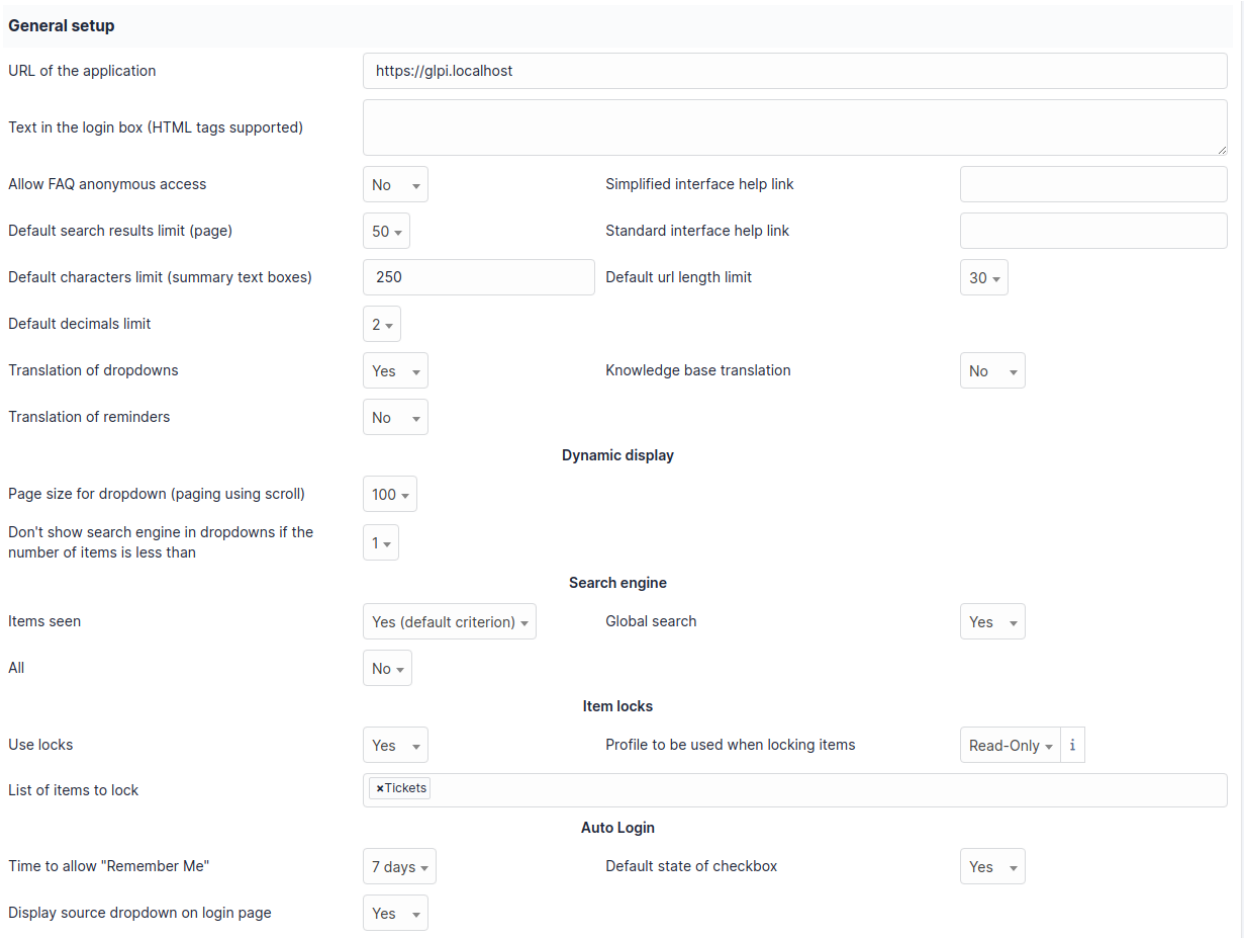
```
For example, if 1 day before the due date you want to send a reminder to the␣
↪administrator if the ticket is still in *New* status, you need to set the criteria as␣
↪`Status is New`.
```

General configuration

GLPI general configuration allow global GLPI configuration. Some of the parameters can be changed by users in their session.

General configuration

This tab permits to customize main application appearance.



Description of fields

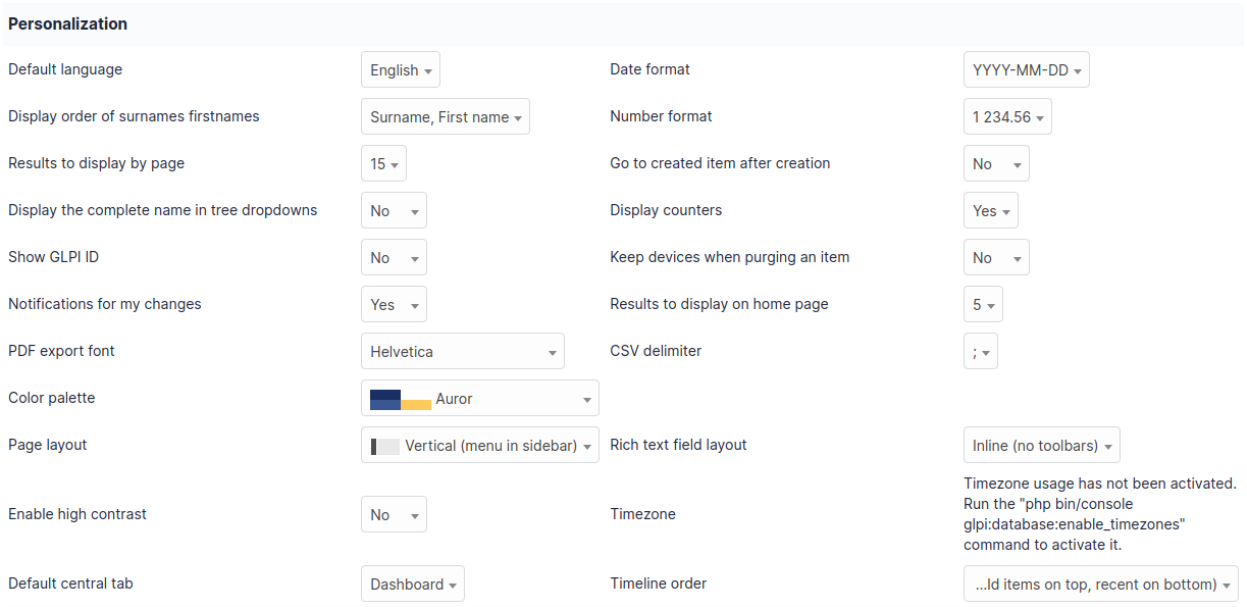
- **URL of the application** : used in different links provided in the application, in notifications, and for the API. Its defined at install time depending on the URL that has been used for it.
- **Text in the login box** : specific text to be displayed at the top of the login block
- **Allow FAQ anonymous access** : allows Frequently Asked Question <FAQ> access without any login in GLPI. A link to access the FAQ will be displayed below the login box when enabled.
- **Default search results limit** : maximum number of search results displayed at once on all search pages
- **Default characters limit** : maximum number of displayed characters visible in search results. If you display a ticket content for example, it will be truncated on this number of characters
- **Default url length limit** : same as the above, but applying on URLs
- **Default decimals limit** : number of decimals displayed for amounts
- **Translation of dropdowns** : allows dropdowns do be translated. Once this parameter enabled, a translation tab will be added on dropdown forms (see dropdowns translations)
- **Translation of reminders** : same as the above, but applying on reminders
- **Knowledge base translation** : same as the above, but applying on knowledge base entries
- **Simplified interface help link** : link to help displayed for users using simplified interface
- **Standard interface help link** : link to help displayed for users using standard interface

— **Page size for dropdown** : number of elements displayed in a dropdown on each scroll
— **Don't show search engine in dropdowns if the number of items is less than** : search in dropdown won't be displayed if there are less results than configured here
— **Items seen**
— **Global search** : enable global search adding a search field at the top of the interface

Default values

This tabs allows to configure the display preferences that are used by default. They can be overridden for each user (see manage preferences).

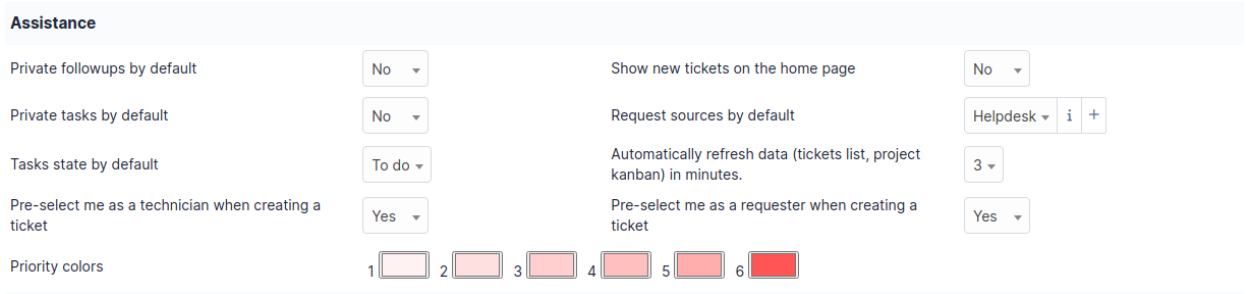
Personalization



— **Default language** The language to use in the GLPI interface
— **Results to display by page** The number of results displayed in the search results list. If a user sets this higher than what is specified in the general setup, then they will be limited to the general setup's value.
— **Display the complete name in tree dropdowns** Display the full name of child items in a tree dropdown
— **Show GLPI ID** Adds the GLPI ID after its name on the item's edit form
— **Notifications for my changes** Receive notifications for the actions that the logged in user has done. This does not apply to the creation of a ticket for which the notification is systematically sent (proof of creation).
— **PDF export font** The font used when generating PDF exports
— **Go to created item after creation** If enabled, the user would be redirected to the edit from of the item after it gets created. Otherwise, they would remain on the new item form to be able to add more items.
— **Date format** Display format for dates
— **Number format** Display format for numbers
— **Display order of surnames/firstnames** Display order for a user's first and last name
— **Display counters** If enabled, the number of elements will be shown next to some tab names such as the *Items* tab in a Ticket.
— **CSV delimiter** Character to delimit fields in a CSV export
— **Results to display on home page** The number of items to display in the Ticket, Change, and Problem tables on the home page. If this parameter is set to 0, only the table titles will be displayed but you can access their respective contents by clicking on the name of the table.

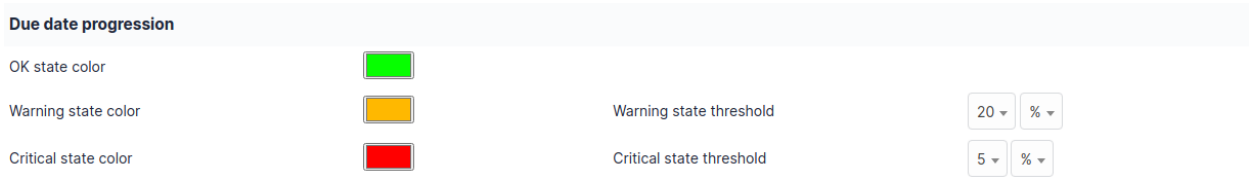
— **Keep devices when purging an item** : If enabled, the components linked to an item that is being deleted can be preserved. Otherwise, they will be deleted along with the item.

Assistance



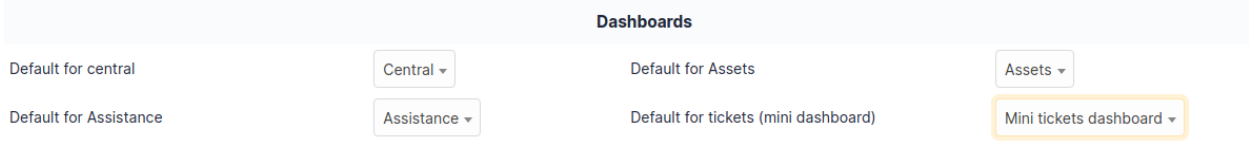
— **Private followups by default** If enabled, followups are pre-selected to be private.
— **Private tasks by default** If enabled, tasks are pre-selected to be private.
— **Tasks state by default** Pre-selected state for tasks
— **Pre-select me as a technician when creating a ticket** The logged in user will automatically be assigned to the ticket while creating it. This only applies to users who can be assigned to tickets.
— **Priority colors** Define the colors used in the interface to differentiate the different priority levels.
— **Show new tickets on the home page** If the logged in user has the right to see all tickets, a table listing all tickets with the « New » will be displayed in the *Overview* tab of the home page.
— **Request sources by default** Pre-selected request source for new tickets
— **Automatically refresh data (tickets list, project kanban) in minutes** : Automatically refresh the information in the tickets list and Kanban. If set to 0, the automatic refresh is disabled.

Due date progression



Allows to define the colors that will be applied in the progress bar of an object. These different states depend on the thresholds set in percent, hours or days.

Dashboards

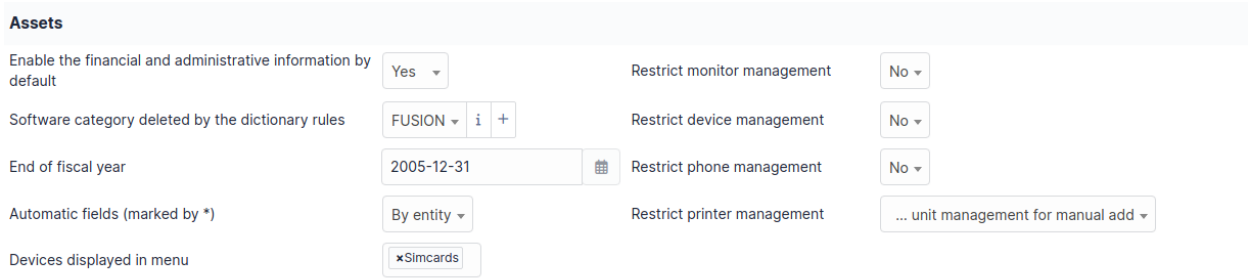


Configure the default dashboards for the home page (central), assistance module, assets module, and above the tickets search results list.

Assets

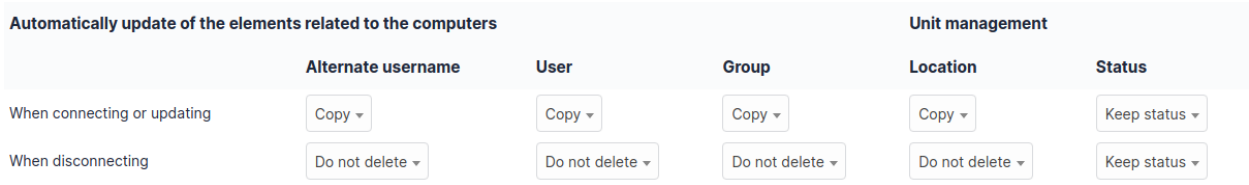
This tab permit to configure global parameters for inventory.

Assets



- **Enable the financial and administrative information by default** Applicable for all objects in the inventory
- **Software category deleted by the dictionary rules** It is possible to automatically change the category of software deleted by dictionary rules. By default they are automatically moved to the FUSION category.
- **End of fiscal year** Used in the Management section
- **Automatic fields (marked by*)** When a template is created, it is possible to add automatically generated fields from a template. For example, the name of the asset or the inventory number. The values of these fields can be incremented either by entity or globally.
- **Restrict monitor management**
- **Restrict device management**
- **Restrict phone management**
- **Restrict printer management** When creating a device manually, the user is asked to choose the type of management (unitary or global). A global management only imports an element once, unlike a unitary management which imports it as many times as it is used. For example, a printer shared by several users or a monitor connected to a screen switch. Subsequently, a unitary managed equipment can be switched to global management mode. It is possible to restrict the type of management depending on the equipment.

Automatically update of the elements related to the computers



Interfacing with an inventory tool makes it possible to take an automated inventory of the equipment. This interfacing is possible through the native inventory feature or a plugin.

- **When connecting or updating** When connecting a device (that is unit managed) directly to a computer, it is possible to have information retrieved from the computer assigned to it such as the User.
- **When disconnecting** When disconnecting a device (that is unit managed) from a computer, it is possible to remove some of the data in the Computer such as the User.

For example, When the inventory is first retrieved, you can define that the monitor connected to the computer will have the status « Production ». Then, when disconnected, it will take the status « Available ».

Assistance

This tab allows management of GLPI assistance part.

Assistance

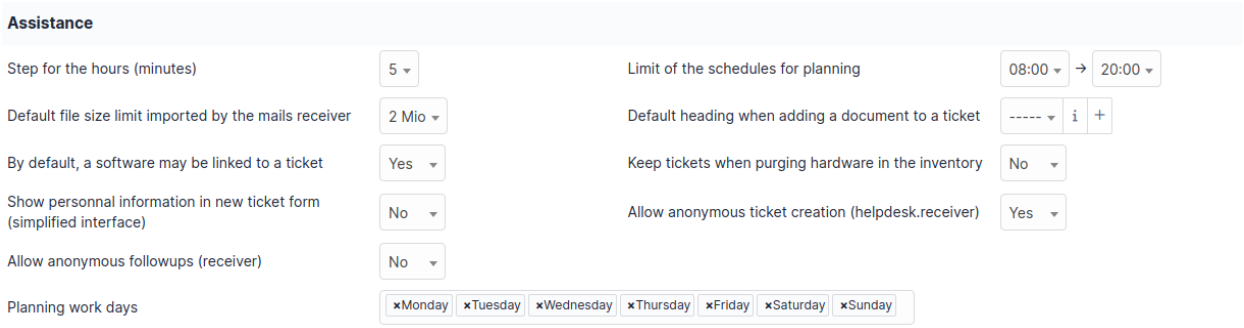
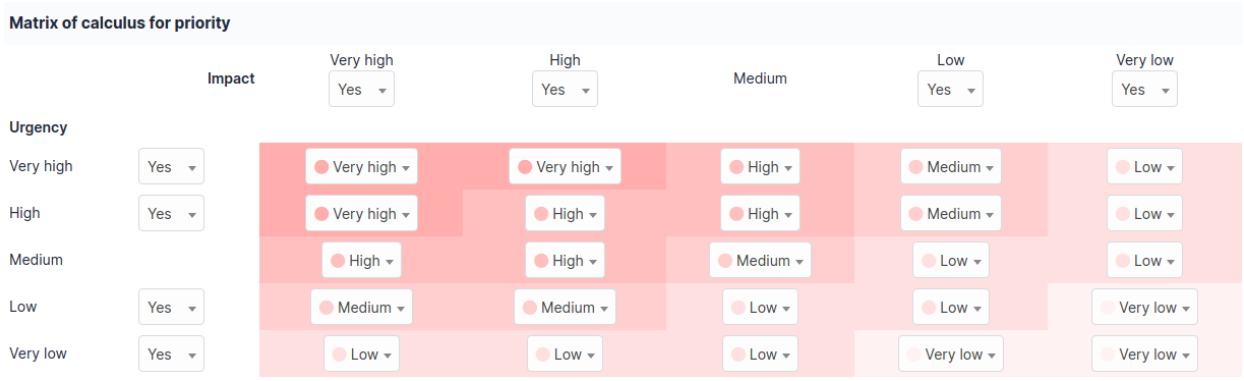


FIG. 12 – image

— **Step for the hours (minutes)** Amount of minutes between each step for minutes under an hour in duration dropdowns. Example : 5 minutes shows 5, 10, 15, 20, …, 55, 60.
— **Default file size limit imported by the mails receiver** Maximum size of files to allow to import by the mail collector. This should be adjusted along with the maximum file size option on the management tab and the *max_upload_size* PHP directive.
— **Default heading when adding a document to a ticket** Allows you to set a default classification for documents uploaded to a ticket.
— **Keep tickets when purging hardware in the inventory** If enabled, the tickets related to an asset being purged will remain. Otherwise, they are purged along with the asset.
— **Allow anonymous ticket creation (helpdesk.receiver)** Anonymous ticket creation is disabled by default. Activating the option is necessary when using a collector or the anonymous ticket entry form to allow the creation of tickets by users not recognized by GLPI.
— **Limit of the schedules for planning** Time range displayed in the planning screen.
— **By default, a software may be linked to a ticket** Allow associating a software with a ticket by default.
— **Show personal information in new ticket form (simplified information)** Display the name, phone number, and location of the user. If needed, the **Edit** button redirects to the main tab of the user's preferences.
— **Allow anonymous followups (receiver)** Allows a user not present in GLPI to respond to an email from GLPI.

Matrix of calculus for priority



The priority definition matrix allows you to define the priority of tickets according to the level of impact and urgency. The availability of these levels in the application can also be defined but the Medium level cannot be deleted.

Management

The only configuration parameter available on this page is the size limit for uploaded documents.

Note : If the *upload_max_filesize* PHP directive is lower than what is set here, then *upload_max_filesize* will be the limiting factor. You may also need to ensure the *post_max_size* directive is set at least a little above *upload_max_filesize*.

Logs purge

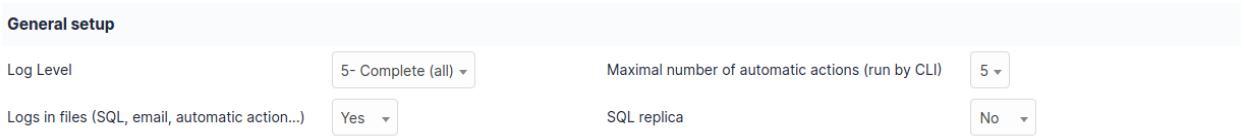
Log purge configuration.

Configure how long to keep historical log entries base on the type of the entry or globally.

The log purge is done by the *PurgeLogs* automatic action.

System

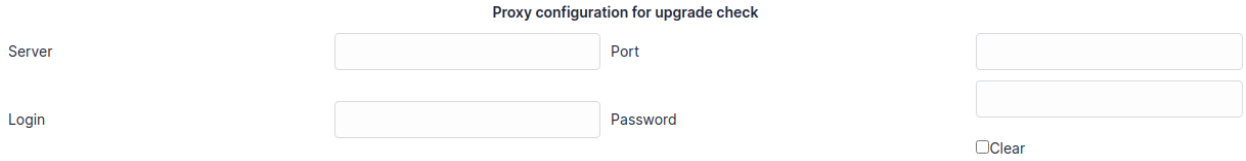
This tab allows you to view a summary of information about the web server, configure the proxy information, and to define the logging information to be recorded.



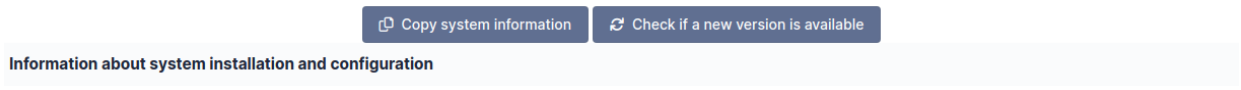
— **Logging level** Each internal event of the application is recorded in the logs which are visible in Administration > Logs.
— **Logs in files (SQL, email, automatic action…)** : It is possible to record certain additional events (SQL, notifications, automatic action…) in files. These files are then available in the *files/_log* directory.
— **Maximum number of automatic actions (run by CLI)** When configuring automatic actions, it is possible to determine that they will be executed by a system external to GLPI (CLI). By default, it executes these actions one by one. It possible to increase the number of executions launched simultaneously.
— **SQL replica** Enable to usage of one or more replica databases. The replicas can be further configured in the *SQL replicas* tab after this option is enabled.



A maintenance mode can be activated to allow a technical operation such as an update for example. A maintenance message is configurable and would show on the login page. In maintenance mode, you can still access GLPI via `index.php?skipMaintenance=1`.



In the case GLPI sits behind a proxy, it is necessary to indicate the information to allow GLPI to access the Internet. This affects the checking of new versions, fetching RSS feeds, etc.



The following screen lists all the information of GLPI necessary to report a malfunction to the GLPI development team. It is preferred to click the *Copy system information* button which will add a rich-text version of the system information tables to your clipboard. This format shows up in a cleaner format on GitHub than if you copy it directly.

Security

Security related parameters such as the password security policy and password expiration policy.

Password security policy

The following options can be configured as part of the password security policy :

- Password security policy validation - The security policy is only enforced if this is enabled
- Password minimum length
- Password need digit
- Password need uppercase character
- Password need lowercase character
- Password need symbol

Password expiration policy

The following options can be configured as part of the password expiration policy :

- Password expiration delay (in days) - Can be set to never to disable password expiration
- Password expiration notice time (in days)
- Delay before account deactivation (in days)

Performances

Displays information related to the different caching systems used by GLPI including :
- PHP opcode cache - Improves performance of the PHP engine when interpreting the different PHP files.
- User data cache - General-purpose cache used by GLPI.
- Translation cache - Cache used for translations to avoid having to read the locale files for all translations.

You also have the ability to clear the different caches from here.

The cache systems for user data and translations can be changed or configured from the *cache :configure* CLI command.

API

API configuration parameters and access limitations.

Here you can see/set the URL for the API. This should match your GLPI URL with */apirest.php* at the end.

There is also a link for the API documentation.

Authentication

There two methods of logging in to the API that can be individually enabled. - Credentials - Allows the use of a user's login and password - External token - Allows the use of a personal token which can be found on the user's personal page (Only visible to them)

You can also manage the registered API clients from this tab. Each client is comprised of a name, a logging method (historical, logs, or none) and an application token at least. You may also configure an IP range to limit access to specific clients.

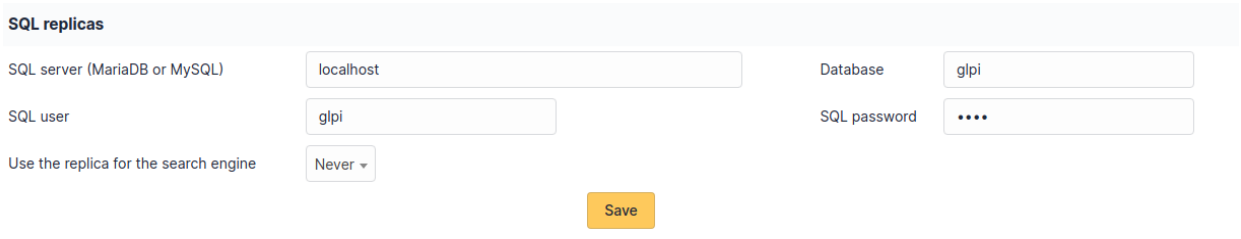
Impact analysis

This tab allows you to control which types of items have the Impact analysis feature enabled.

SQL replicas

GLPI can be configured to use replica databases in some cases to improve performance.

This tab is only visible if the option has been enabled in the system tab.



To activate the replica management, you just have to fill in the connection parameters. It is advisable to use a login that has only read privileges on the database.

You can use several replicates by separating them with a **blank space**. As the result in the config_db_slave.php file, the dbhost parameter will be an array.

A specific port can also be added.

Avertissement : If you use multiple replicas, the settings will apply to them all.

The SQL replicas will be used in at least the following cases :

- The main server cannot be reached. In this case, GLPI will switch to read-only mode.
- Running reports to reduce the load on the main server.

It is also possible to use replicas for the search engine depending on the option chosen.

- **Never**
- **If synced (all changes)** GLPI will check the synchronization and use the replica if all changes have been replicated.
- **If synced (current user changes)** GLPI will check the synchronization and use the replica if all the changes for the current user have been replicated. If using a read-only account, the replica will always be used.
- **If synced or read-only account** GLPI will check the synchronization and use the replica if all changes have been replicated. If using a read-only account, the replica will always be used.
- **Always**

Avertissement : When always using the replica, it is possible that the results will be out of date. A different option should be considered before this one.

Note : The replication configuration of your database is not set by GLPI. You still need to configure that with the appropriate tools for your database management system.

GLPI Network

Here you can enter your GLPI Network registration key.

External links

Some elements of GLPI can be associated with a set of links to external applications. These are visible from the **Links** tab of the various forms.

To parameterize a link, it is possible to use tags which will be replaced by the values of the element. The tags are :

- [LOGIN] : The logged in user's username
- [ID] : The internal numeric ID for the item
- [NAME] : The name of the item
- [LOCATION] : The name of the item's location
- [LOCATIONID] : The internal numeric ID for the item's location
- [IP] : The IP address of the item
- [MAC] : The MAC address of the item
- [NETWORK] : The item's network
- [DOMAIN] : The item's domain. If more than one domain is associated with the item, the first one is used.
- [SERIAL] : The item's serial number
- [OTHERSERIAL] : The item's inventory number/asset tag
- [USER] : The item's user
- [GROUP] : The item's group
- [FIRSTNAME] : The user's first name (Only applies to User external links)
- [REALNAME] : The user's surname (Only applies to User external links)

— **[FIELD :*] : If the field you want is not available as a separate tag, it may still be possible to use it by referencing its internal field name.**
For example, the comment field would be *[FIELD :comment]*. The field name is case sensitive and typically it will need to be all lowercase.

Each link can be associated with one or more element types.

If the content is empty, a simple link will be generated. If content is present, it is a link to the download of the content that will be generated.

The link can be opened in a new window according to the *Open in new window* parameter.

A web type link

Create an external protocol link with the name *https ://[IP]* and assign it to the network hardware.

An RDP link

For remote access on computers, create an external protocol link with the name link with the name *RemoteAccess.rdp* and set the **file content** by inserting the content of an RDP type file and replacing the ip / name / domain by TAGS like [IP], [NAME], [DOMAIN].

Note : When using tags from network ports (IP, MAC), if the hardware has several, then this will create as many create as many links as there are ports. For example, for a machine with 2 different IP addresses, 2 links will be displayed.

Remote control through a VNC extension

Some VNC implementations provide an extension that allows to take control of a computer through a browser. In general, the port used is 5900. The corresponding link will be of type *https ://[IP] :5900* or *https ://[NAME].[DOMAIN] :5900*.

Install and update plugins

Adding and maintaining extensions (plugins) in GLPI.

Avertissement : Before installing or updating a plugin, it is recommended that you perform a backup of your GLPI database.

Starting in GLPI 9.5.0, you can install and update plugins directly from the GLPI web interface.

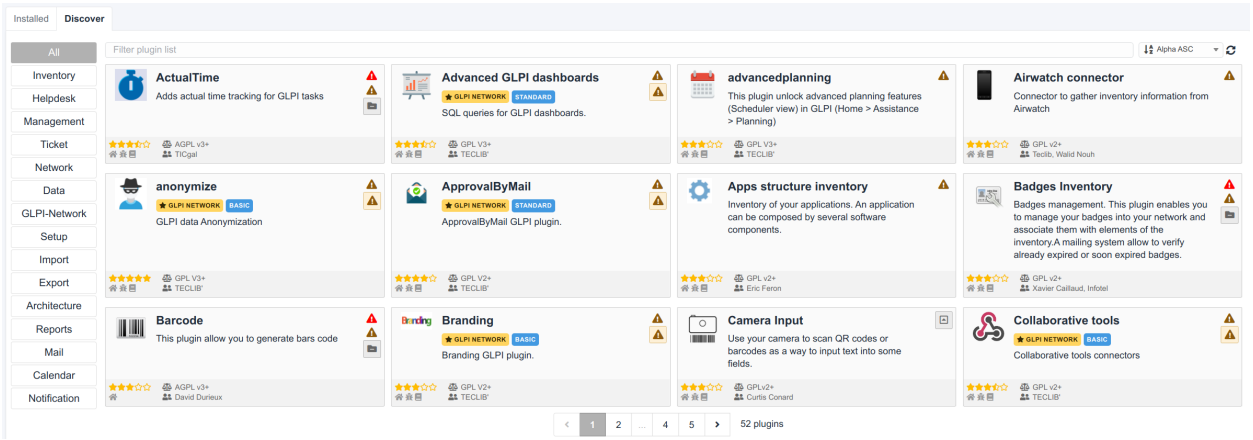
The first time you go to the plugins page under *Setup* > *Plugins*, you will be asked if you want to use the marketplace UI by default or the older plugin list. Regardless of your choice, you can always switch UIs by clicking the « Marketplace » and « Plugins » buttons at the top of the page. You may install plugins using both methods. If a plugin is install through the marketplace and manually for some reason, the version installed through the marketplace will be used.

Using the plugin marketplace

To use the marketplace, you will need a GLPI Network registration key. If you are not paying for a GLPI Network subscription, you can still get a free key from https://services.glpi-network.com. After you get the key, you may enter it under *Setup* > *General* on the *GLPI Network* tab.

Finding plugins

In the plugin marketplace UI, click on the *Discovery* tab to view the list of all plugins offered through the marketplace. These include official plugins (free and subscription) and community plugins. On the left, you can select a category to filter plugins and use the search bar to further limit the results.



Any plugin that has a *GLPI NETWORK* requires a non-free subscription. These plugins will also indicate the tier required such as *BASIC* or *STANDARD*. Each paid tier includes the plugins from the lower tiers.

Installing plugins

On the right side of each plugin, you should see a button to install it or one or more errors explaining why it cannot be installed. When you find a plugin available to install, you can click the install button to automatically download the latest version available for your GLPI version and install it.

Plugins installed via the marketplace are stored in the *marketplace* folder in the root of your GLPI instance.

After installation, the install button will change to an enable toggle. You will need to click that button to enable the plugin after installation.

Updating plugins

In the marketplace UI on the *Installed* tab, you can see all the plugins currently installed.

Similar to installing plugins, there will be an update button showing if an update is available or one or more errors if there is some issue preventing an update. Like with installing plugin, you will need to re-enable the plugins after an update.

Manually managing plugins

The main way to discover new plugins is through the plugin catalog. Each plugin should have a download link that will take you to a GitHub page, the GLPI Network Services website (if it is a subscription-only plugin), or some other page that offers the downloads.

Note : A plugin can have several versions and each version usually supports only certain versions of GLPI so be sure to download the version of the plugins that are compatible with your version of GLPI. If you try to install or update a plugin that is not compatible with your GLPI version, it should tell you in the GLPI web interface.

After you download the plugin, you will need to extract it to the *plugins* folder in your GLPI directory. The new folder inside *plugins* should be the « internal » name of the plugin. This is an all lowercase identifier containing no spaces. Inside that folder should be at least two files named *hook.php* and *setup.php*.

Once the plugin is in the *plugins* folder, it will be automatically detected by GLPI and will show up in your plugin list.

All plugins listed will have a group of actions along the right side (or a message indicating why they cannot be installed or updated). After installing or updating a plugin, you will need to re-enable it.

Uninstalling plugins

When you uninstall a plugin using the uninstall button in the plugin list or in the marketplace UI, it does not remove the plugin code and the plugin will still show in the list of plugins to re-install.

To permanently remove the plugin, it is necessary to delete the plugin's folder. After removing the plugin's folder there should be a new « cleanup » action available for the plugin in GLPI. This will remove the reference to the plugin from the database.

3.3 Advanced Configuration

3.3.1 Using the cache

Information on cache usage is available in Configuration / General / System).

Nouveau dans la version 9.2.

Modifié dans la version 9.2.1.

If one of the APCu or WinCache cache systems is present on the server, it will be automatically used by GLPI. The system is based on Symfony Cache.

The cache makes it possible to improve performance on certain relatively heavy operations, such as loading translations, or calculating entity trees.

There are two distinct caches in GLPI :
- The database cache
- The translations cache

This distinction makes it possible to avoid storing the translation cache on a network, which could produce too many requests on the network and ultimately have a negative impact.

Conversely, the database cache should be on the network in case of multiple front-ends.

In order to allow you to refine the settings, or to use another cache system, a manual solution is proposed. To take advantage of it, add to the `glpi_configs` table a `cache_db` and/or `cache_trans` key for the `core` context and adapt the value according to what you want.

Note : If the goal is to disable either of these caches, create the key in the table, but leave the value blank.

```
{"adapter":"apcu"}
```

```
{"adapter":"redis","options":{"server":{"host":"127.0.0.1"}}}
```

Refer to the `Config::getCache()` method and Symfony Cache documentation for more information.

Avertissement : If you install several instances of GLPI on the same server, the cache namespace must be unique per instance, which was not the case in GLPI before version 9.2.4.

If you have specified your own namespace in the configuration, make sure that it is unique on each instance !

If your version of GLPI is earlier than 9.2.4, you will need to add the namespace in the cache configuration of each of your instances.

3.3.2 OPCache

OPCache stores pre-compiled PHP files in memory, which improves performance. The only thing to do is to install it on your PHP instance and configure it (the default configuration should be fine in the vast majority of cases).

However, on instances that could be heavily used, it may be useful not to include font files for PDFs in this cache. Indeed, they take up a lot of space, and the gain is relatively minimal.

In order to exclude the font files from the cache, all you have to do is enter their full path in a blacklist file for opcache. The path to this file is determined by the configuration diective `opcache.blacklist_filename` (`/etc/php.d/opcache-glpi.blacklist` for example under Fedora). If your GLPI instance is in the folder `/var/www/`, the path to exclude will be `/var/www/html/glpi/glpi-9.2.1/vendor/tecnickcom/tcpdf/fonts/`.

Of course, the location of the configuration file and the path to the fonts should be adapted according to your system and your type of installation.

3.3.3 GLPI Status Monitoring

GLPI contains a helpful endpoint for monitoring its health at */status.php* and the *glpi :system :status* CLI command. The */status.php* endpoint does not require you to be logged in and therefore only shows basic status information. Sensitive information like the GLPI version and plugin names and versions (could be used to identify vulerabilities) are not shown. The difference with the CLI command though is that since it isn't accessible from the web, you can optionally retrieve private information too.

Services

The status of GLPI is separated into multiple « services ». These services can be listed using the *glpi :system :list_services* CLI command.

A non exhaustive list of services available :

- db - Database (Main and replicants)
- cas - Central Authentication Server
- ldap - LDAP/Active Directory
- imap - Email Server(s)
- mail_collectors - Email collectors

- crontasks - Automatic actions
- filesystem - Filesystem access
- plugins - Plugins status

Status Endpoint

By default, the */status.php* endpoint provides a plain-text output of the public status information. The plain-text output is deprecated in favor of the JSON format, but it remains the default for backwards compatibility.

The following formats are currently supported and can be chosen by using the HTTP *Accept* header or the *format* query parameter. When using the *format* parameter, the short format identifier should be used.

- JSON
  - HTTP Accept - application/json
  - Format parameter - json
- Plain-text (deprectated)
  - HTTP Accept - text/plain
  - Format parameter - plain

You can filter the output to a specific service using the *service* query parameter.

CLI Command

Similar to the */status.php* endpoint, the CLI command *glpi :system :status* only shows the public status information by default. However, since this tool is not available from the web interface, you may add the *-p* or *–private* option to see all of the status information.

By default, it uses the plain-text format for its output for backwards compatibility, but this is deprecated. The same formats are supported as listed above in the « Status Endpoint » section and the short identifier can be passed in the *-f* or *–format* option.

You can filter the output to a specific service using the *-s* or *–service* option.

3.3.4 Override GLPI locales

GLPI uses the gettext tool to manage its translations. You can override the default. This is the preferred method rather than editing the original po files and risk losing your changes when updating GLPI.

To do so, you need to create a file named `filename.po` in the `files/_locales/core/` directory. You can also create overrides for plugins with the same method in `files/_locales/pluginkey/` directory where `pluginkey` matches the plugin folder name.

Note : Depending on your GLPI configuration, the `_locales` directory can be located elsewhere (if you provided a `local_define.php` file with a `GLPI_LOCAL_I18N_DIR` constant). It's possible to have multiple files, to manage several languages for example.

The file must be a valid *gettext* file. You can use Poedit to create it.

```
# Override PO file
#
msgid ""
msgstr ""
"Project-Id-Version: PACKAGE VERSION\n"
"Report-Msgid-Bugs-To: \n"
```

(suite sur la page suivante)

(suite de la page précédente)

```
"POT-Creation-Date: 2019-04-13 10:43+0200\n"
"PO-Revision-Date: 2019-04-13 10:43+0200\n"
"Last-Translator: Automatically generated\n"
"Language-Team: none\n"
"Language: en_GB\n"
"MIME-Version: 1.0\n"
"Content-Type: text/plain; charset=UTF-8\n"
"Content-Transfer-Encoding: 8bit\n"
"Plural-Forms: nplurals=2; plural=(n != 1);\n"

msgid "Login"
msgstr "Login from local gettext"
```

`msgid` is the source string, `msgstr` is the translation. You can find the correct source sentences to use in the `locales/glpi.pot` file.

Next you need to compile your .po file into a .mo file readable by GLPI. To do so, you can use the following command :

```
$ cd files/_locales/core/
$ msgfmt -o filename.mo filename.po
```

Finally, GLPI uses a cache system to avoid loading MO files at each request. You need to clear the cache to see your changes. To do so, in Debug mode, go to « Setup > General », « Performance » tab and click on « Reset » button on the « Translation cache » section. If you have command-line access, you may also clear this cache using the *glpi :cache :clear* CLI command. If you clear the cache with the CLI command, make sure you run the command as the web server user.

3.4 GLPI command-line interface

GLPI includes a CLI tool to help you to manage your GLPI instance. This interface is provided by the *bin/console* script which can be run from the root of your GLPI directory.

Each command may have zero or more arguments or options. Arguments are positional pieces of information while options are not and are prefixed by one or two hyphens

3.4.1 glpi :assets :cleansoftware

Aliases : *assets :cleansoftware*

Description

Remove software versions with no installation and software with no version

Arguments/Options

There are no arguments for this command

Options :

Name	Shortcut	Description	Required	Default	Array	Negatable
–max	-m	Max items to handle in one execution	Yes	500	No	No

3.4.2 glpi :build :compile_scss

Aliases : *build :compile_scss*

Description

Compile SCSS file.

Arguments/Options

There are no arguments for this command

Options :

Name	Shortcut	Description	Required	Default	Array	Negatable
–file	-f	File to compile (compile all SCSS files by default)	No	[]	Yes	Yes
–dry-run		Simulate compilation without actually save compiled CSS files	No		No	No

3.4.3 glpi :cache :clear

Aliases : *cache :clear, glpi :system :clear_cache, system :clear_cache*

Description

Clear GLPI cache.

Arguments/Options

There are no arguments for this command

Options :

Name	Shortcut	Description	Required	Default	Array	Negatable
–context	-c	Cache context to clear (i.e. “core” or “plugin :plugin_name”). All contexts are cleared by default.	Yes	[]	Yes	No

3.4.4 glpi :cache :configure

Aliases : *cache :configure*

Description

Define cache configuration

Arguments/Options

There are no arguments for this command

Options :

Name	Shortcut	Description	Required	Default	Array	Negatable
–context		Cache context (i.e. “core” or “plugin :plugin_name”)	Yes	core	No	No
–dsn		Cache system DSN	Yes	[]	Yes	No
–use-default		Unset cache configuration to use default filesystem cache for given context	No		No	No
–skip-connection-checks		Skip connection checks	No		No	No

Help

Valid cache systems are : <comment>Memcached</comment>, <comment>Redis (TCP)</comment>, <comment>Redis (TLS)</comment>.

Memcached DSN format : memcached ://[user :pass@][ip|host|socket[:port]][?weight=int] Redis (TCP) DSN format : redis ://[pass@][ip|host|socket[:port]][/db-index] Redis (TLS) DSN format : rediss ://[pass@][ip|host|socket[:port]][/db-index]

Cache namespace can be use to ensure either separation or sharing of multiple GLPI instances data on same cache system.

Usage

— glpi :cache :configure –use-default
— glpi :cache :configure –dsn=memcached ://cache1.glpi-project.org –dsn=memcached ://cache2.glpi-project.org
— glpi :cache :configure –dsn=redis ://redis.glpi-project.org :6379/glpi

3.4.5 glpi :cache :debug

Aliases : *cache :debug*

Description

Debug GLPI cache.

Arguments/Options

There are no arguments for this command

Options :

Name	Shortcut	Description	Required	Default	Array	Negatable
–key	-k	Cache key to debug.	Yes	[]	Yes	No
–context	-c	Cache context to clear (i.e. “core” or “plugin :plugin_name”).	Yes	core	No	No

3.4.6 glpi :cache :set_namespace_prefix

Aliases : *cache :set_namespace_prefix*

Description

Define cache namespace prefix

Arguments/Options

Arguments (in order) :

Name	Description	Required	Default
prefix	Namespace prefix	Yes	

There are no options for this command

3.4.7 glpi :config :set

Aliases : *config :set*

Description

Set configuration value

Arguments/Options

Arguments (in order) :

Name	Description	Required	Default
key	Configuration key	Yes	
value	Configuration value (ommit argument to be prompted for value)	Yes	

Options :

Name	Shortcut	Description	Required	Default	Array	Negatable
–context	-c	Configuration context	Yes	core	No	No

3.4.8 glpi :database :check_schema_integrity

Aliases : *db :check_schema_integrity, glpi :database :check, db :check*

Description

Check for schema differences between current database and installation file.

Arguments/Options

There are no arguments for this command

Options :

Name	Shortcut	Description	Required	Default	Array	Negatable
–strict		Strict comparison of definitions	No		No	No
–check-all-migrations		Check tokens related to all databases migrations.	No		No	No
–check-innodb-migration		Check tokens related to migration from « MyISAM » to « InnoDB ».	No		No	No
–check-timestamps-migration		Check tokens related to migration from « datetime » to « timestamp ».	No		No	No
–check-utf8mb4-migration		Check tokens related to migration from « utf8 » to « utf8mb4 ».	No		No	No
–check-dynamic-row-format-migration		Check tokens related to « DYNAMIC » row format migration.	No		No	No
–check-unsigned-keys-migration		Check tokens related to migration from signed to unsigned integers in primary/foreign keys.	No		No	No

3.4.9 glpi :database :configure

Aliases : *db :configure*

Description

Define database configuration

Arguments/Options

There are no arguments for this command

Options :

Name	Shortcut	Description	Required	Default	Array	Negatable
–db-host	-H	Database host	No	localhost	No	Yes
–db-name	-d	Database name	Yes		No	No
–db-password	-p	Database password (will be prompted for value if option passed without value)	No		No	Yes
–db-port	-P	Database port	No		No	Yes
–db-user	-u	Database user	Yes		No	No
–reconfigure	-r	Reconfigure database, override configuration file if it already exists	No		No	No
–strict-configuration		Use strict configuration, to enforce warnings triggering on deprecated or discouraged usages	No		No	No

3.4.10 glpi :database :enable_timezones

Aliases : *db :enable_timezones*

Description

Enable timezones usage.

3.4.11 glpi :database :install

Aliases : *db :install*

Description

Install database schema

Arguments/Options

There are no arguments for this command

Options :

Name	Shortcut	Description	Required	Default	Array	Negatable
–db-host	-H	Database host	No	localhost	No	Yes
–db-name	-d	Database name	Yes		No	No
–db-password	-p	Database password (will be prompted for value if option passed without value)	No		No	Yes
–db-port	-P	Database port	No		No	Yes
–db-user	-u	Database user	Yes		No	No
–reconfigure	-r	Reconfigure database, override configuration file if it already exists	No		No	No
–strict-configuration		Use strict configuration, to enforce warnings triggering on deprecated or discouraged usages	No		No	No
–default-language	-L	Default language of GLPI	No	en_G	No	Yes
–force	-f	Force execution of installation, overriding existing database	No		No	No
–enable-telemetry		Allow usage statistics sending to Telemetry service (https://telemetry.glpi-project.org)	No		No	No
–no-telemetry		Disallow usage statistics sending to Telemetry service (https://telemetry.glpi-project.org)	No		No	No

3.4.12 glpi :database :update

Aliases : *db :update*

Description

Update database schema to new version

Arguments/Options

There are no arguments for this command

Options :

Name	Shortcut	Description	Required	Default	Array	Negatable
–allow-unstable	-u	Allow update to an unstable version	No		No	No
–force	-f	Force execution of update from v-1 version of GLPI even if schema did not changed	No		No	No
–enable-telemetry		Allow usage statistics sending to Telemetry service (https://telemetry.glpi-project.org)	No		No	No
–no-telemetry		Disallow usage statistics sending to Telemetry service (https://telemetry.glpi-project.org)	No		No	No

3.4.13 glpi :ldap :synchronize_users

Aliases : *ldap :sync*

Description

Synchronize users against LDAP server information

Arguments/Options

There are no arguments for this command

Options :

Name	Sc	Description	Rq re	D fa	A ra	Ne-ga-table
–only-create-new	-c	Only create new users	N		N	No
–only-update-existing	-u	Only update existing users	N		N	No
–ldap-server-id	-s	Synchronize only users attached to this LDAP server	N	[]	Y	Yes
–ldap-filter	-f	Filter to apply on LDAP search	N		N	Yes
–begin-date		Begin date to apply in « modifyTimestamp » filter (see http://php.net/manual/en/datetime.formats.php for supported formats)	N		N	Yes
–end-date		End date to apply in « modifyTimestamp » filter (see http://php.net/manual/en/datetime.formats.php for supported formats)	N		N	Yes
–delete user-strategy	-d	Force strategy used for deleted users (current configured action : « 1 ») Possible values are : — 0 : Preserve — 1 : Put in trashbin — 2 : Withdraw dynamic authorizations and groups — 3 : Disable — 4 : Disable + Withdraw dynamic authorizations and groups	N		N	Yes
–restore user-strategy	-r	Force strategy used for restored users (current configured action : « 0 ») Possible values are : — 0 : Do nothing — 1 : Restore (move out of trashbin) — 3 : Enable	N		N	Yes

3.4.14 glpi :maintenance :disable

Aliases : *maintenance :disable*

Description

Disable maintenance mode

3.4.15 glpi :maintenance :enable

Aliases : *maintenance :enable*

Description

Enable maintenance mode

Arguments/Options

There are no arguments for this command

Options :

Name	Shortcut	Description	Required	Default	Array	Negatable
–text	-t	Text to display during maintenance	No		No	Yes

3.4.16 glpi :marketplace :download

Aliases : *marketplace :download*

Description

Download plugin from the GLPI marketplace

Arguments/Options

Arguments (in order) :

Name	Description	Required	Default
plugins	The plugin key	Yes	[]

Options :

Name	Shortcut	Description	Required	Default	Array	Negatable
–force	-f	Force download even if the plugin is already downloaded	No		No	No

3.4.17 glpi :marketplace :info

Aliases : *marketplace :info*

Description

Get information about a plugin

Arguments/Options

Arguments (in order) :

Name	Description	Required	Default
plugin	The plugin key	Yes	

There are no options for this command

3.4.18 glpi :marketplace :search

Aliases : *marketplace :search*

Description

Search GLPI marketplace

Arguments/Options

Arguments (in order) :

Name	Description	Required	Default
term	The search term	No	

There are no options for this command

3.4.19 glpi :migration :appliances_plugin_to_core

Aliases : *None*

Description

Migrate Appliances plugin data into GLPI core tables

Arguments/Options

There are no arguments for this command

Options :

Name	Shortcut	Description	Required	Default	Array	Negatable
–skip-errors	-s	Do not exit on import errors	No		No	No

3.4.20 glpi :migration :build_missing_timestamps

Aliases : *None*

Description

Set missing *date_creation* and *date_mod* values using log entries.

3.4.21 glpi :migration :databases_plugin_to_core

Aliases : *None*

Description

Migrate Databases plugin data into GLPI core tables

Arguments/Options

There are no arguments for this command

Options :

Name	Shortcut	Description	Required	Default	Array	Negatable
–skip-errors	-s	Do not exit on import errors	No		No	No

3.4.22 glpi :migration :domains_plugin_to_core

Aliases : *None*

Description

Migrate Domains plugin data into GLPI core tables

Arguments/Options

There are no arguments for this command

Options :

Name	Shortcut	Description	Required	Default	Array	Negatable
–skip-errors	-s	Do not exit on import errors	No		No	No

3.4.23 glpi :migration :dynamic_row_format

Aliases : *None*

Description

Convert database tables to « Dynamic » row format (required for « utf8mb4 » character support).

3.4.24 glpi :migration :myisam_to_innodb

Aliases : *None*

Description

Migrate MyISAM tables to InnoDB

3.4.25 glpi :migration :racks_plugin_to_core

Aliases : *None*

Description

Migrate Racks plugin data into GLPI core tables

Arguments/Options

There are no arguments for this command

Options :

Name	Shortcut	Description	Required	Default	Array	Negatable
–ignore-other-elements	-i	Ignore « PluginRacksOther » models and elements	No		N	No
–skip-errors	-s	Do not exit on import errors	No		N	No
–truncate	-t	Remove existing core data	No		N	No
–update-plugin	-u	Run Racks plugin update (you need version 1.8.0 files to do this)	No		N	No
–without-plugin	-w	Enable migration without plugin files (we cannot validate that plugin data are compatible with supported 1.8.0 version)	No		N	No

3.4.26 glpi :migration :timestamps

Aliases : *None*

Description

Convert « datetime » fields to « timestamp » to use timezones.

3.4.27 glpi :migration :unsigned_keys

Aliases : *None*

Description

Migrate primary/foreign keys to unsigned integers

3.4.28 glpi :migration :utf8mb4

Aliases : *None*

Description

Convert database character set from « utf8 » to « utf8mb4 ».

3.4.29 glpi :plugin :activate

Aliases : *plugin :activate*

Description

Activate plugin(s)

Arguments/Options

Arguments (in order) :

Name	Description	Required	Default
directory	Plugin directory	No	[]

Options :

Name	Shortcut	Description	Required	Default	Array	Negatable
–all	-a	Run command on all plugins	No		No	No

3.4.30 glpi :plugin :deactivate

Aliases : *plugin :deactivate*

Description

Deactivate plugin(s)

Arguments/Options

Arguments (in order) :

Name	Description	Required	Default
directory	Plugin directory	No	[]

Options :

Name	Shortcut	Description	Required	Default	Array	Negatable
–all	-a	Run command on all plugins	No		No	No

3.4.31 glpi :plugin :install

Aliases : *plugin :install*

Description

Run plugin(s) installation script

Arguments/Options

Arguments (in order) :

Name	Description	Required	Default
directory	Plugin directory	No	[]

Options :

Nam	Sh cut	Description	Re qui rec	De fau	A ra	Ne- ga- table
–all	-a	Run command on all plugins	No		N	No
–pa- ram	-p	Additionnal parameters to pass to the plugin install hook function — « -p foo » will set « foo » param value to true — « -p foo=bar » will set « foo » param value to « bar »	No	[]	Y	Yes
–use nam	-u	Name of user used during installation script (among other things to set plugin admin rights)	Yes		N	No
–for	-f	Force execution of installation, even if plugin is already installed	No		N	No

Usage

— glpi :plugin :install -p foo=bar -p force myplugin

3.4.32 glpi :rules :process_software_category_rules

Aliases : *rules :process_software_category_rules*

Description

Process software category rules

Arguments/Options

There are no arguments for this command

Options :

Nai	Short-cut	Description	Re-qui-red	De-fault	Ar-ray	Ne-ga-table
–all	-a	Process rule for all software, even those having already a defined category	No		No	No

3.4.33 glpi :rules :replay_dictionnary_rules

Aliases : *rules :replay_dictionnary_rules*

Description

Replay dictionnary rules on existing items

Arguments/Options

There are no arguments for this command

Options :

Currently only available for Software dictionnary.

- — Yes
- —
- — No
- — No

3.4.34 glpi :security :change_key

Aliases : *None*

Description

Change password storage key and update values in database.

3.4.35 glpi :system :check_requirements

Aliases : *system :check_requirements*

Description

Check system requirements

3.4.36 glpi :system :list_services

Aliases : *system :list_services*

Description

List system services

3.4.37 glpi :system :status

Aliases : *system :status*

Description

Check system status

Arguments/Options

There are no arguments for this command

Options :

Nam	Sho cut	Description	Re- qui- red	De fau	A ra	Ne- ga- table
–for- mat	-f	Output format [plain or json]	No	pla	N	Yes
–pri- vate	-p	Status information publicity. Private status information may contain potentially sen- sitive information such as version information.	No		N	No
–ser- vice	-s	The service to check or all	No	all	N	Yes

3.4.38 glpi :task :unlock

Aliases : *task :unlock*

Description

Unlock automatic tasks

Arguments/Options

There are no arguments for this command

Options :

Nan	Shor cut	Description	Re- qui- red	De- faul	Ar ray	Ne- ga- table
–all	-a	Unlock all tasks	No		Nc	No
–cyc	-c	Execution time (in cycles) from which the task is considered as stuck (delay = task frequency * cycle)	No		Nc	Yes
–de- lay	-d	Execution time (in seconds) from which the task is considered as stuck (default : 1800)	No		Nc	Yes
–tas	-t	Itemtype : :name of task to unlock (e.g : « MailCollector : :mailgate »)	No	[]	Ye	Yes

3.4.39 glpi :tools :check_database_keys

Aliases : *tools :check_database_keys*

Description

Check database for missing and errounous keys.

Arguments/Options

There are no arguments for this command

Options :

Name	Short- cut	Description	Requi- red	De- fault	Ar- ray	Nega- table
–detect-misnamed-keys		Detect misnamed keys	No		No	No
–detect-useless-keys		Detect misnamed keys	No		No	No

3.4.40 glpi :tools :check_database_schema_consistency

Aliases : *tools :check_database_schema_consistency*

Description

Check database schema consistency.

3.4.41 glpi :tools :delete_orphan_logs

Aliases : *tools :delete_orphan_logs*

Description

Delete orphan logs

Arguments/Options

There are no arguments for this command

Options :

Name	Shortcut	Description	Required	Default	Array	Negatable
–dry-run		Simulate the command without actually delete anything	No		No	No

3.5 Glossary

Accepted
State of a demand which has been validated by an approver.

Accreditation
Authorization to perform a set of actions on several entities, given by rights attribution process.

Actions
Grouping in a list of available handling of GLPI objects.

Active Directory service
Directory service compatible with *LDAP directory*, provided by Microsoft. Also known as *AD*.

Adaptive rule
Rule in which at least one action is the result of a regular expression defined in a criteria.

Administrative closing
Modification of a ticket status to closed (manually or automatically).

Alert threshold
Minimal value from which an alert is triggered.

Asset
Generic term for an element that can be inventoried and managed in GLPI.

Automatic action
Process for regular actions triggering, either internal to GLPI or external (Unix cron, Windows planned tasks…).

Automatic closing
GLPI internal process that closes unresolved tickets after a given time.

Booking
Element that is booked for a given period.

Bookmark
Stored link to a GLPI page that allows to access the page quickly.

Budget
Accounting operation that groups all provisional expenses and receipts.

Cartridge
Consumable used by a printer and specifically managed in GLPI.

Case
Physical element that contains a computer's components (motherboard, processor, disk…).

Closed (ticket)
Status of a ticket whose solution has been approved by the ticket issuer or that has been close automatically.

Collector
Functionality of GLPI that allows to create tickets or followup by importing messages from a mailbox.

Connection (network)
Link between two network ports.

Contact
Referent person linked to a supplier.

Contract
Financial document linked to assets and to suppliers.

Controller
Device that interfaces with other peripheral device.

Criteria
Element or pattern used by search engines to select an information or used by rules engines and dictionaries to perform actions.

Default profile
Profile attributed by the application in the absence of particular settings (rules, manual attribution…).

Depreciation type
Characteristic of depreciation which balance can be linear or declining.

Dictionary
Set of rules that allow to modify GLPI data.

Direct connection
Physical link between a computer and another asset.

Document
Element that defines a link and/or store a file and that can be associated to other objects of GLPI.

Domain
Group of assets connected to a network.

Dropdown
Customizable dropdown list used in GLPI and plugins.

Entity
Organizational object allowing to partition view and action scope of users.

Express renewal
The contract is renewed only if both parties agree for its renewal (opposite to tacit renewal).

External link
Link displayed on an asset form in GLPI and built dynamically using the asset data.

Financial information
Data for invoicing and warranty.

Followup
Exchange between a ticket issuer and the persons in charge of it.

FQDN
A FQDN (Fully qualified domain name) is a fully qualified domain name.
For example : *www.glpi-project.org*, *forge.glpi-project.org*…

Frequently Asked Questions (FAQ)
Specifically in GLPI, selection of elements of the knowledge base that can be provided independently, for example articles that are made accessible to users having only access to the simplified interface.

Global management
Management mode in which a unique inventory object can be connected to several computers.

Global note
Public note that is also visible from sub-entities.

Global right
Permission on objects that are not linked to an entity.

Global view
In a GLPI menu, display of columns in a list that is common to all users.

Group
Grouping of users.

Grouping
Action of merging similar elements of distinct entities into the parent entity.

Hive
Entry in Windows registry.

ICAL (ICalendar)
Calendar import/export format.

ID
Technical identifier of an element.

Identifier
Connection name of a user (login).

IMAP/POP
IMAP (Internet Message Access Protocol) and POP (Post Office Protocol) are messaging protocols allowing to retrieve mail messages.

Impact
Measure of the effect of an incident, problem or change in business process.

In progress (attributed) (Ticket)
Status of a ticket that is attributed to a technician or a group of technicians.

In progress (planned) (Ticket)
Status of a ticket that is attributed to a technician or a group of technicians and for which an action is planned.

Incident
Unplanned interruption or quality decrease of a service.

Intervention
Action of a technician to solve an incident.

Knowledge base
Database allowing to gather, analyze, store and share knowledge and information inside an organization.

Label FQDN
A *FQDN* is composed of labels separated by dots (".").

For example, *www.glpi-project.org* is composed of labels *www*, *glpi-project* and *org*.

A computer name is composed of a label and the name of the domain it belongs to, for example *www* name in domain *glpi-project.org*.

In GLPI, labels are compliant with section 2.1 of RFC 1123.

LDAP directory
Directory service using the LDAP PROTOCOL (Lightweight Directory Access Protocol). Allows in particular to store user accounts.

Local right
Permission applicable to a given scope (entity).

Location
Name in GLPI allowing geographical localization of an asset.

Logs
List of events occurring during use of GLPI application.

Mail domain
Part of a mail adress that is after character @.

Manufacturer
Company producing a hardware.

Mount point
Directory from which the data contained in a partition can be accessed.

Network
Name defining the connection type (internet, local…).

Network port
Network interface that can be virtual or physical.

Networks
Hardwares providing interconnection of computer equipments.

New (ticket)
Default status of a ticket.

Path
Address allowing to localize an element in a tree structure.

Pattern
Character string used for comparison in a criteria.

PDU
Power Distribution Unit.

Pending (Ticket)
Status of a ticket which processing is temporarily suspended (does not impact processing time).

Personal note
Note visible only by its writer.

Personal view
In a GLPI menu, display of columns in a list that is specific to a user.

Planning
Scheduling of a task in time scale.

Plugin
GLPI extension that allows to add functionalities and/or to modify application behaviors.

Power supply
Bloc providing electric current to the components of a computer.

Preferences
Personal parameters of a user.

Priority
Scale that identifies the relative importance of a ticket and that results from impact and urgency.

Private
Element that is visible only by its writer (bookmark, note…).

Profile
Set of rights.

Provider
Legal structure toward which a contractual relation can be established (purchase, contract…).

Public
Element that is visible by all authorized users of an entity.

Public note
Note that is visible by all users of the note's entity.

Purge
Permanent deletion of elements placed in the trash bin.

Recursivity
Property of an object belonging to an entity that makes it visible from sub-entities.

Refused
State of a demand that has been invalidated.

Registered user
Person having an accreditation allowing to connect to GLPI.

Regular expression
Character string (often called pattern) that describes a set of accepted strings according to a well-defined syntax.

Replicate (MySQL)
MySQL database used by GLPI if main database is not available.

Report
Document that sums up GLPI data.

Requester
Person at the origin of an incident ticket or a service request.

Restoration
Recovery of an element of the trash bin.

Right
Authorization of a user for a given action.

Root entity
First entity of GLPI entities tree structure, that is always present even if no other entity is defined and that cannot be deleted.

Rule
List of criteria that trig a list of actions if criteria are satisfied.

Saved search
Recording of GLPI search engine state that allows to store and perform again the search.

Service
General action of GLPI listed in the events.

Simplified interface
GLPI user interface that gives access to a reduced set of functionalities and that targets end users (opposite to *standard interface*).

SLA
SLA (for Service-Level Agreement) is a contract between a service provider and a client that defines the requested quality of service and the responsibilities in case of failure.

Solved (ticket)
Ticket state when a technical solution was provided for an incident.

SSO
Unique authentication system (SSO (Single Sign On)).

Standard interface
GLPI user interface that gives access to all functionalities (opposite to *simplified interface*).

Statistics
Summary of GLPI data linked to tickets.

Status
State of an asset or of a ticket, belonging to its life cycle.

Sub-entity
Child entity of an entity ; on a form, indicates recursivity status.

Subject
Title or question of an element of the knowledge base.

Supervisor
Person in charge of a group of users.

Tacit renewal
The contract is renewed automaticaly if none of the parties declares its will to break it.

Tagged VLAN
A tagged VLAN (Virtual Local Area Network) is a *VLAN* which tag is transmited in network frame (see 802.1Q).

Task
Action corresponding to a technical operation that can be planned.

Technician
User in charge of tickets processing.

Template
Reusable model of object containing predefined fieds and allowing easier user entry.

Ticket
GLPI object representing an incident or a service request.

Tier type
Category of providers.

Transfer
Action of moving an object from one entity to another.

Trash bin
Container of elements deleted by users. Similar to the trash bin in a desktop environment, it is an intermediate state before purge.

Tree
Hierarchical organization of data using a tree structure.

Unitary management
Management mode in which an inventory object can be connected to only one computer.

Urgency
Criteria defined by the requester that specifies for a ticket the desired resolution speed.

User
User of an asset that is not registered in GLPI user base.

Validation
Action of authorizing a ticket processing.

Validator
Person performing the validation of a ticket.

VCard
Virtual visit card.

Virtual network port
A virtual network port is a port which does not correspond to a physical network hardware.

VLAN
VLAN : Virtual Local Network.

Volume
Storage area attached to a computer.

Webcal
Exchange format for calendar data.

CHAPITRE 4

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