

Design Data Management in Allegro® X System Capture

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Design Data Management in Allegro System Capture

Allegro System Capture is an ecosystem for PCB design that offers scalable data management, ranging from individual designers to designers working in enterprises.

The services and features provided in Allegro System Capture in the individual or enterprise environment are powered by Allegro Pulse. Services include, but are not limited to, data management, version control, Publish for Manufacturing, and design analytics. Because changes to designs by engineers are saved to the Pulse data platform, data can be easily synchronized across systems.

In an individual Allegro System Capture setup, design and library data is stored on the same machine.

In an enterprise environment, System Capture designers connect to a remote Pulse server with the design and library data managed in the server. This server has common settings and parts, and is used to store designs and information about the designs connected to it. Working on a common server enables additional features. For example, designs are accessible to all the designers connected to the server, share common workflows, and so on.

Pulse-powered services are also available in PCB Editor or APD Plus if the `allegro_pulse_enable` environment variable is defined. When specified, Pulse automatically starts up in the background when PCB Editor or APD Plus is launched.

Related Topics

[Designing When Connected to a Remote Data Server](#)

Design Data Management in Allegro X System Capture

Design Data Management in Allegro System Capture

System Maintenance in Single-Designer Environment

Because Allegro System Capture is powered by Allegro Pulse, launching System Capture automatically starts Pulse in the background. To manage design and library data on your machine, you must open the Pulse Manager web page. The web page works only on the latest versions of Google Chrome and Mozilla Firefox.

Using Pulse Manager, you can:

- Manage libraries
- Manage data storage
- Modify disk quota or purge data
- Schedule data backups

You can also perform the following tasks:

- [Customization of Single-Designer Environment](#)
- [Indexing Libraries for Part Search](#)
- [Shutting Down Pulse in Single-Designer Environment](#)
- [Switching from Single to Multi-User Environment](#)
- [Troubleshooting Pulse](#)

Pulse Manager Web Page User Interface

Use this web page in the single-user System Capture environment to:

- Access the *Pulse Manager Settings* page
- View node-related information

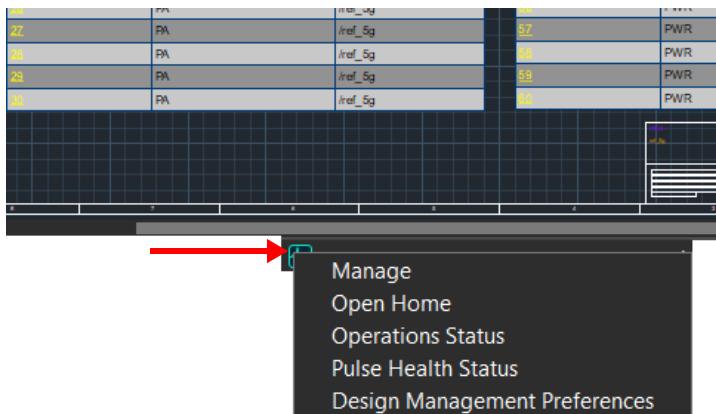
Design Data Management in Allegro X System Capture

System Maintenance in Single-Designer Environment

- View Pulse health details
- Free up disk space manually
- Generate diagnostic data for problem analysis
- Manage storage
- Manually back up and restore data

Access Using

1. Right-click the Pulse icon in the System Capture status bar or in the taskbar notification area of the operating system.



2. Select *Manage*.

Pulse Manager is displayed in a browser. On Linux, a default browser must be defined for the web page to be opened. If not defined, you can open Pulse Manager by using the following URL: <http://127.0.0.1:<port>/element>.

Pulse Manager Web Page

Nodes	By default, the Pulse Manager page opens with <i>Nodes</i> selected in the left pane. It displays all the servers in the cluster.
Nodes — Information	Displays information about the node in the server cluster.
Nodes — Health	Displays Pulse health details.

Design Data Management in Allegro X System Capture

System Maintenance in Single-Designer Environment

<i>Nodes — Disk Cleanup</i>	Enables manual cleanup of the Pulse user home using the <i>Clean Space</i> button.
<i>Nodes — Diagnosis</i>	Generate a diagnostic test case for Cadence to review. This action collects the client and server logs along with some additional diagnostics from Pulse. The testcases are generated on the Pulse primary node in the following directory: <code><Pulse Home>/server/data/medic/testcases</code>
<i>Services</i>	Clicking this displays the <i>Storage Management</i> and <i>Backup & Restore</i> tiles.
<i>Services — Storage Management</i> tile	The <i>Clean Space</i> button frees up disk space by purging temporary files.
<i>Services — Backup & Restore</i> tile	Even if you have scheduled regular backups, you might sometimes need to manually back up data. The <i>Backup</i> button creates a snapshot of the state of the design data version stored on disk by Pulse. Restore any of these backups by using the <i>Restore</i> button.

Pulse Manager Settings Web Page User Interface

Use this web page in the single-user System Capture environment to:

- Manage libraries
- Manage data storage
- Schedule disk space management
- Schedule data backups

Design Data Management in Allegro X System Capture

System Maintenance in Single-Designer Environment

Access Using

Settings gear icon () in the top right of the Pulse Manager browser page

Pulse Manager Web Page - Settings page

Nodes — General By default, Pulse data is stored in the user home. If you work across releases, the folders in the user home have version numbers. This makes it easy for you to clean up and ensure more space in the Pulse home folders for different versions.

Modify the value and specify where you want Pulse to store data. After you modify this value, you need to restart Pulse.

Nodes — General The URL of the Pulse primary server for access to design and library data
Settings— Remote URL

Nodes — Storage Management — Purge Settings

1. Purge data regularly to improve system performance by specifying settings for two types of data:
 - Log Indexes*
 - Design vault data* - only System Capture design versions and derived data, such as the PDF preview of a design for version control

2. Select one or both of the following two options:
 - Disk Low* - Pulse purges data if the disk space falls below the default or specified disk quota.
 - Scheduled* - Pulse purges data based on the defined Cron job. The Pulse Cron scheduler is based on the Quartz Job Scheduler. As a result, it supports most of what has been described here: [Cron Trigger Tutorial](#).

Nodes — Storage Management — Purge Policy Define the age of the data to be purged.

Nodes — Disk Cleanup — Purge Policy Purges the Pulse temporary working data and log files.
Specify the purge schedule and the age of the data to be purged for temporary or log files.

Design Data Management in Allegro X System Capture

System Maintenance in Single-Designer Environment

<i>Nodes — Backup & Restore</i>	<ol style="list-style-type: none">1. Specify the location where you want Pulse to back up design vault data, that is, .sdax and design metadata.2. If you want to schedule regular backups using a Cron job, toggle <i>Automatically run backups as a scheduled task</i> and define the Cron script. The Pulse Cron scheduler is based on the Quartz Job Scheduler. As a result, it supports most of what has been described here: <u>Cron Trigger Tutorial</u>.3. In <i>Backup Retention Policy</i>, define the number of backups you want Pulse to maintain. Pulse also automatically creates a backup of data before restoring it. This helps you in case you did not intend to restore a backup.
<i>Nodes — Mail</i>	Not used in the single-user System Capture environment.
<i>Nodes — Library Management — Library Indexing</i>	Deselect if you do not want DE-HDL or OrCAD Capture libraries indexed.
<i>Nodes — Library Management — DE-HDL Library Indexing</i>	Deselect if you do not want DE-HDL libraries indexed.
<i>Nodes — Library Management — Configure</i>	Legacy option
<i>Nodes — Library Management — Capture Library Indexing</i>	Deselect if you do not want OrCAD Capture libraries indexed.
<i>Nodes — Library Management — Prefer Site Capture INI Over Home Capture INI</i>	Select if you want Allegro System Capture to honor the site-level capture.ini file over the .ini file in the HOME directory.
<i>Nodes — Library Management — Index Relational Database Tables</i>	Select if you want System Capture to index OrCAD Capture vendor data. OrCAD library indexing is only supported on Windows.

Customization of Single-Designer Environment

In the single-designer environment, you can customize the following:

Live BOM headers

[Unified Search User Guide](#)

Disable content providers

Manage property visibility in Unified Search

Configure the outputs and package structure to
publish ECAD data to the file system for
publishing.

[Publish for Manufacturing User
Guide](#)

Indexing Libraries for Part Search

When designers create new projects in Allegro System Capture, an index is also automatically created for all the configured libraries. This index is used by Part Information Manager in Design Entry HDL and Unified Search in Allegro System Capture to show parts from all the libraries. The index can be maintained at the project level or in the Pulse primary node, which is central repository of parts.

Indexing for the first time might be a time-consuming or resource-intensive task. This means that designers cannot add parts until the indexing is complete. To avoid such situations, use central indexing.

As the name suggests, an index is created and is saved at a central location. All the client applications get a copy of the central index and use that to access the library parts. This eliminates the requirement of generating an index repeatedly on every designer machine. In the case of large libraries, this cuts down the getting started time on a new project.

To create a central library index and use it across System Capture designs for installations that are not using EDM Library Manager, do the following:

1. Have a SITE area configured.
2. To implement central indexing, make changes to the following files in the SITE area:
 - ❑ For Design Entry HDL libraries, add all the libraries that need to be included in the central index to this file: \$CDS_SITE/cdssetup/cds.lib.

Design Data Management in Allegro X System Capture

System Maintenance in Single-Designer Environment

- For OrCAD Capture libraries, add all the libraries that need to be included in the central index to this file: \$CDS_SITE/cdssetup/OrCAD_Capture/<22.1.0>/Capture.ini
3. Specify the location of the central index file in the site.cpm file.
4. Open the \$CDS_SITE/cdssetup/projmgr/site.cpm file and make the following changes:

```
START_COMPBROWSER  
central_index_path '<central_index_path>'  
END_COMPBROWSER
```

where, central_index_path is a directory that must be accessible to all the designers and can be written to by the library administrator.

For example:

```
central_index_path '${CDS_SITE}/central_indexed_database'  
central_index_path 'D:/central_indexed_database'
```

After the above configuration is complete, the next step creates the central index database.

5. Use the following commands to run the indexer process on the same machine where the central libraries are to ensure that the process completes quickly and is not affected by the network speed and latency:

- For Design Entry HDL libraries:

```
<Cadence installation directory>/tools/pcbdw/bin/  
indexer.bat
```

All the library data is read, and the central index database is created at the location specified in the CPM file directive in a folder called de_hdl.

- For OrCAD Capture libraries:

```
<Cadence installation directory>/tools/pcbdw/bin/  
indexer.bat - capture
```

All the library data is read, and the central index database is created at the location specified in the CPM file directive in a folder called capture.

Using Central Index Database

After the central index is set up at the site level, whenever a new project is created, System Capture copies the index data from the central index path to the local machine, if it is not already available there.

This copy of the index is then used by the part search browsers. If the libraries are modified, the index data in the project area is dynamically updated.

Updating Central Index Database

The central index can get out of sync as changes are made to the reference libraries. As libraries keep getting updated, the central index also needs to be updated. Whenever there is an update in the central index database, the connected client applications detect the changes and get a new copy of the central index. This ensures that the latest data is always available to designers.

After the libraries have been updated, run the indexer command again to update the index data. This can be run manually after the library update or can be configured as a Cron job running at regular intervals. The updated and latest library changes are reflected in Part Information Manager and Unified Search across System Capture designs.

Note: If the location of the central index is not specified or not found, System Capture categorizes the libraries in projects into two categories: those from the site and others. Site libraries are indexed once and shared across projects. Other libraries are indexed per project.

Shutting Down Pulse in Single-Designer Environment

By design, Pulse does not shut down even when you exit a client application, such as Allegro System Capture. This helps the client application launch quicker when you start it again. However, if there is no activity in a client application for more than 24 hours, Pulse shuts down automatically.

You can also manually shut down Pulse, such as when you modify some settings that need you to restart Pulse, need to install a hotfix, or update other software on your machine. Pulse indicates that restart is needed in the Pulse Manager user interface or through messages.

You can shut down Pulse in two ways:

- Click **SHUTDOWN** in Pulse Manager.
- Click the Pulse icon () in the taskbar notification area and click **Shutdown**.

Note: Closing the web browser being used to view the Pulse Manager page does not

shut down Pulse.

Switching from Single to Multi-User Environment

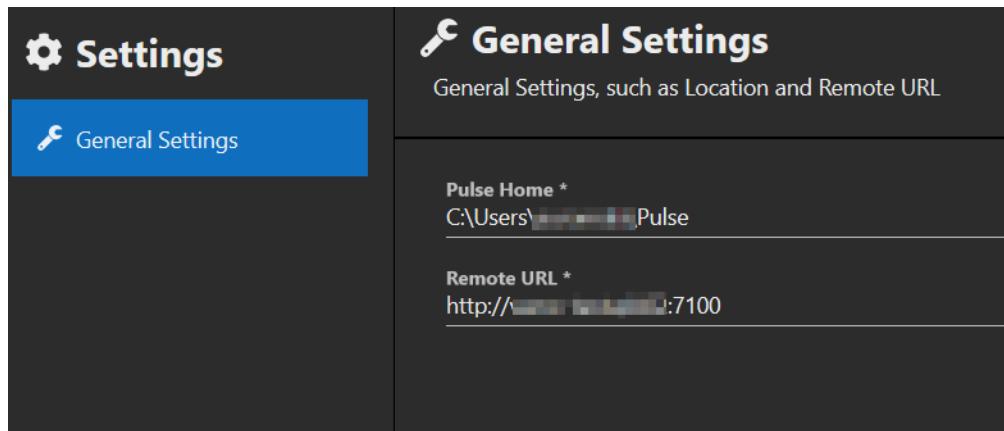
In certain situations, you might need to move from a single-designer environment to a multi-user environment. For example, this change might be needed when a startup starts out with one person and becomes bigger, or when a company has engineers in small groups working on prototyping or confidential projects in a temporarily isolated environment that is away from the larger production team. Before a single-designer environment can be converted to a multi-user environment, Pulse must be configured for the multi-user environment.

Note: When you switch from a local machine to a remote server environment, design versioning starts from v1 in the remote server.

To work in the multi-user environment, you must specify the URL of the remote server. You can also change your Pulse home location if required using Pulse Manager.

To specify the remote URL or modify the Pulse home, do the following:

1. Open the *Settings* page of Pulse Manager.
2. Specify the remote URL or modify the Pulse Home. Do not have a slash at the end of the URL.



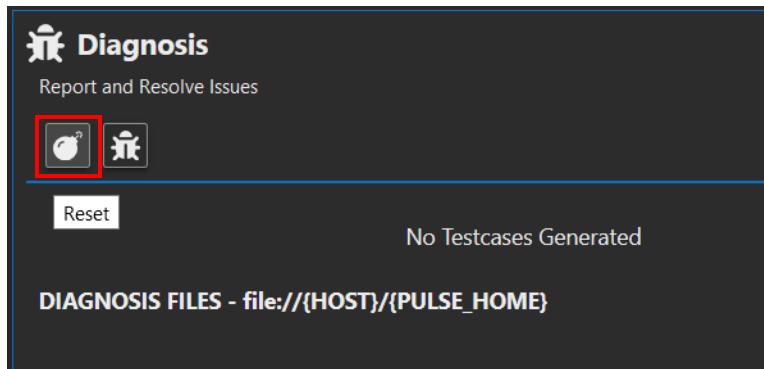
Related Topic

[Pulse Manager Web Page User Interface](#)

Troubleshooting Pulse

The following table lists some problems you might encounter and possible solutions:

Problem	Solution
Pulse has hung or crashed	If you have insufficient free disk space in your Pulse home drive, Pulse can hang or crash. To avoid this, ensure that at least 1GB of free disk space is available before you launch System Capture.
Data in the Pulse home gets corrupted	You can delete all data from the Pulse folder in the user home account by clicking the <i>Reset</i> button in the <i>Diagnosis</i> tile of the Pulse Manager web page.



Related Topics

- [Pulse Manager Settings Web Page User Interface](#)
- [Shutting Down Pulse in Single-Designer Environment](#)

Designing When Connected to a Remote Data Server

Additional features, such as team design, workflows that enable consistent processes across teams, the option to raise new part requests, are available when designers connect to a remote Pulse server. To access these features, you must first configure the URL of the remote Pulse server.

Typically, enterprises with a large user base distributed geographically, work in a multi-user System Capture environment.

In certain situations, you might need to move from a single-designer environment to a multi-user environment. For example, this change might be needed when a startup starts out with one person and becomes bigger, or when a company has engineers in small groups working on prototyping or confidential projects in a temporarily isolated environment that is away from the larger production team.

Configuring Pulse Server Connection

Configuring the Pulse server connection is a one-time task. To configure, do the following:

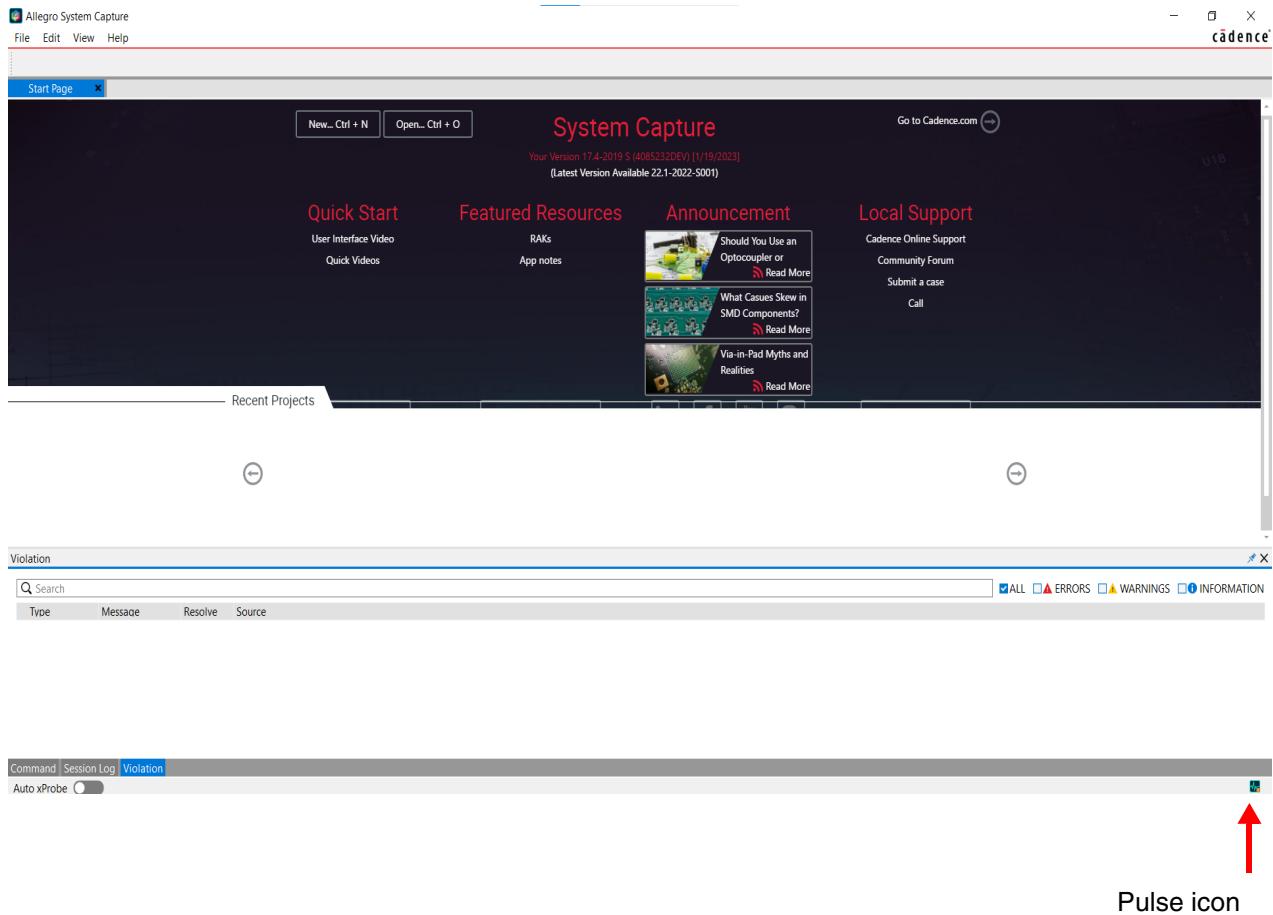
1. Launch Allegro System Capture.

Allegro System Capture is displayed.

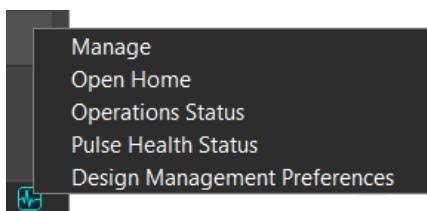
Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

2. Hover the mouse cursor over the Pulse icon in the bottom right of the System Capture window.



3. Right-click the Pulse icon in the status bar.
4. Select *Manage* from the context menu.



Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

The Pulse Manager page opens in the default web browser configured on your system.

A screenshot of the Pulse Manager interface. At the top, there's a navigation bar with a home icon, 'Pulse Manager', and 'Open Cluster Manager'. On the right of the bar is a 'Settings' icon, which is highlighted with a red arrow pointing to it. Below the bar, there are several sections: 'Clients' (with a note 'Pulse - Provides Platform-Related Services'), 'RESTART' and 'SHUTDOWN' buttons, a timer showing '0 D 0 H 20M 7 S MAINTENANCE 4', and four main monitoring panels: 'INFORMATION' (listing Hostname, Port, Access URL, OS, Home, Version, Release, and Remote URL), 'HEALTH' (listing Processors, CPU Speed, Disk, Memory, and Services), 'Disk Cleanup' (showing current usage of 779.21 MB / 2 GB with Log Files, Temporary Files, and Miscellaneous), and 'Diagnosis' (noting 'No Testcases Generated').

5. Click the *Settings* icon on the top right of the page.

The Pulse Manager Settings page is displayed.

A screenshot of the Pulse Manager Settings page. On the left, a sidebar lists 'Nodes' (highlighted with a blue box) and other settings categories: 'General Settings' (highlighted with a blue box), 'Storage Management', 'Disk Cleanup', 'Backup & Restore', 'Mail', and 'Library Management'. On the right, the 'General Settings' section is expanded, titled 'General Settings: General Settings, such as Location and Remote URL'. It contains two fields: 'Pulse Home *' with the value 'C:\Users\[REDACTED]\Pulse' and 'Remote URL *'.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

6. Specify the URL of the Pulse primary node in *Remote URL*.

Contact the Pulse server administrator for the URL.

7. Close Allegro System Capture.

8. Click *Save*.

9. Right-click the Pulse icon in the task bar notification area.

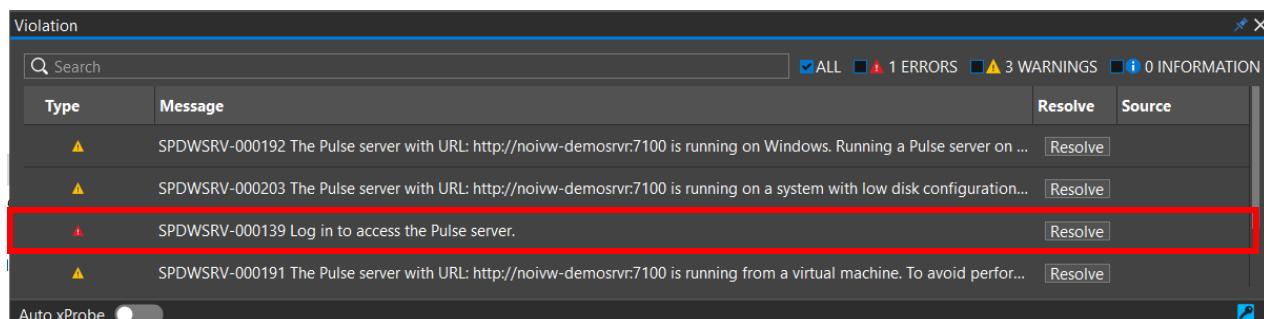
10. Click *Shutdown*.

11. Restart Allegro System Capture for the new setting to take effect.

Because you are now connected to the Pulse server, a browser page automatically opens and you are prompted to log in to the Pulse platform. Data from the Pulse platform is available after you log in.

If the login page is not automatically displayed, do one of the following:

- Click *Resolve* in the System Capture *Violation* pane to open the Pulse login page.



- Right-click the Pulse icon in the status bar and select *Manage* from the context menu to open the Pulse login page.

Related Topics

[Use of Predefined Workflows](#)

[Team Design](#)

[Requesting New Library Parts](#)

[Configuring Design Management Preferences](#)

[Open Projects Dialog Box](#)

Creating Projects When Connected to Pulse Server

When connected to a central Pulse server, you can create a blank project from scratch, or reuse existing projects as templates for new projects. Local copies of projects created from templates are by default stored in the Pulse folder in the user home.

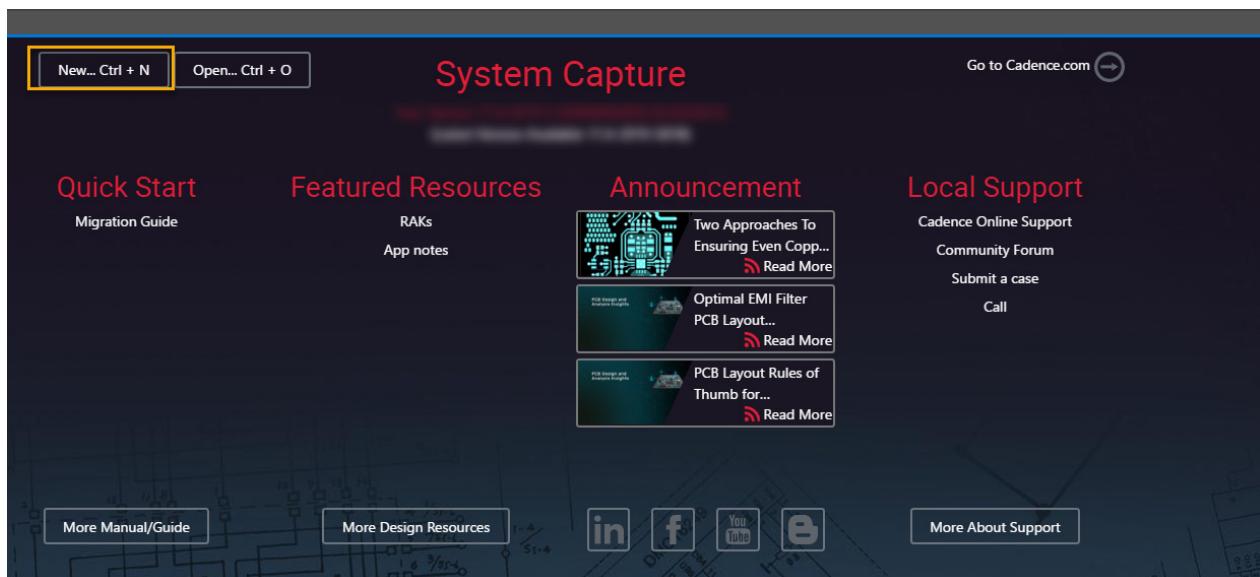
There are three ways to create a new project:

- [Creating a Blank Project](#)
- [Creating Projects Based on Templates](#)
- [Creating Projects from Pulse Web Dashboard](#)

Creating a Blank Project

A blank project has no existing or reused information. Everything that a design requires needs to be specified. To create a blank project, do the following:

1. Click *New* on the *Start Page*.

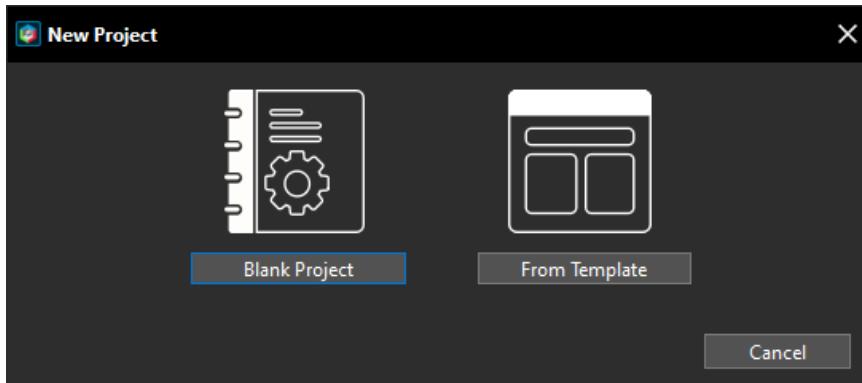


The *New Project* window opens.

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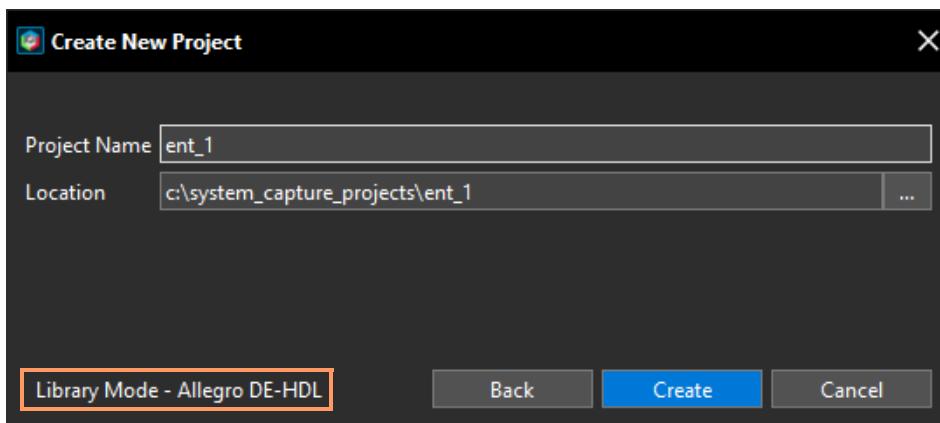
Designing When Connected to a Remote Data Server

2. Choose *Blank Project*.



3. Specify a name and location for the project.

4. Check the library mode.



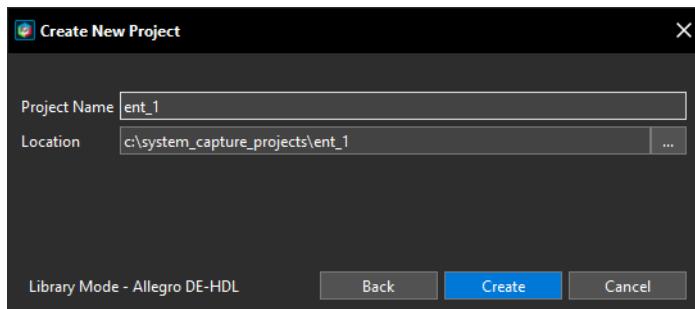
Unlike standalone System Capture, which is not connected to a Pulse remote server, the library mode for enterprise users is controlled by the type of libraries available on the server.

If multiple library types are available in your setup, select the appropriate one for your design.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

5. Click *Create*.



The new project opens.

Creating Projects Based on Templates

Administrators of the Pulse remote server might provide some projects that can be used as templates when creating projects. This can be to drive a consistent process or to include company standards for the following:

- Schematic content such as TOC or block diagram
- BOM content including mechanical or electrical parts
- Physical layout content, including constraints or other physical manufacturing process parameters

When creating a project from a template, you have two options:

- Select a project marked as a template.
- Make a copy of a project not marked as a template. This is useful in cases of an ECO.

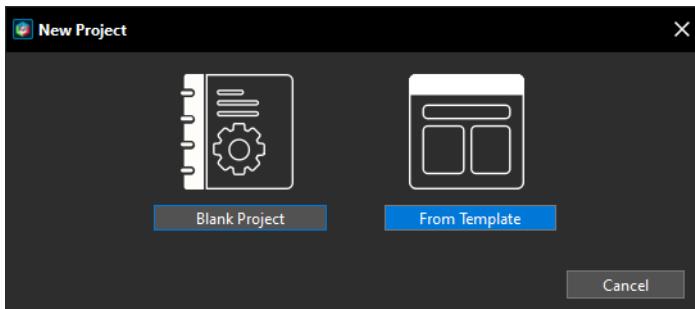
To create a project based on a template, follow these steps on a system that is connected to the central Pulse server:

1. Click *New* on the *Start Page*.

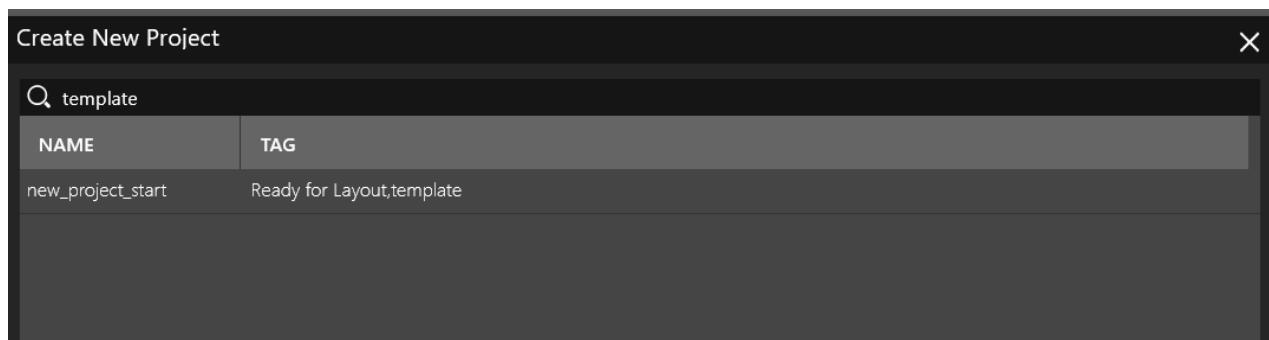
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2. Click *From Template*.



The *Create New Project* dialog is displayed.



3. Do one of the following:

- To create a project based on a template, select a project marked as a template and click *Next*.
- Remove the word `template` from the filter to view all the projects available on the Pulse server. Select a project and click *Next*. This provides an easy way to start a new design based on an existing one.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

The *Create New Project* form is displayed.

Create New Project

Project Name *	Project Status												
Program Name	Target Release Date												
PCB Assembly Part Number	Schematic Number												
Title	Attachments												
Designed By	Power capacity analysis.xlsx Design Specification.docx												
Spec Name	Layouts												
Job Number	<table border="1"><thead><tr><th></th><th>SOURCE NAME</th><th>NAME</th><th>BLOCK NAME</th></tr></thead><tbody><tr><td><input type="checkbox"/></td><td>6-layer.brd</td><td>new_project_start</td><td></td></tr><tr><td><input type="checkbox"/></td><td>4-layer.brd</td><td>new_project_start</td><td></td></tr></tbody></table>		SOURCE NAME	NAME	BLOCK NAME	<input type="checkbox"/>	6-layer.brd	new_project_start		<input type="checkbox"/>	4-layer.brd	new_project_start	
	SOURCE NAME	NAME	BLOCK NAME										
<input type="checkbox"/>	6-layer.brd	new_project_start											
<input type="checkbox"/>	4-layer.brd	new_project_start											
Description													

Back **Create** **Cancel**

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

If you are making a copy of an existing project that is not marked as a template, the design might have .mdd files.

SOURCE NAME	NAME	BLOCK NAME
ref_5g.brd		ref_5g
power_block.mdd	power_block.m...	power_block
5g_modem.mdd	5g_modem.mdd	5g_modem
5g_modem.mdd	5g_modem.mdd	5g_modem

4. Specify the required details.

If a Pulse administrator provides an option to attach files during project creation, third-party documents and files can be attached to a project with the following conditions:

- ❑ Designers with read-write permission for a design or project owners can upload and remove attachments.
- ❑ Attachments must have unique names. In cases of attachments with the same name, only the latest attachment is available.
- ❑ You cannot view versions or roll back to a previous version of an attachment.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

If the project used as a template has attachments that you do not want to retain in the new project, click the cross icon to delete them.

In the *Layouts* table, System Capture displays Pulse-managed layouts associated with the project selected as a template, and the blocks within those layouts. The layouts are linked to the project via the Pulse netlist exchange flow.

Only layouts shared with you, and not *Removed* from the project list, are displayed in this table.

Do the following:

- a. Specify a name for `.brd` and `.mcm` layouts in the new project.
- b. Optionally, control which layouts are to be included in the new project by selecting the required layout check box.
- c. Optionally, modify the `.mdd` file name as required.

Note: The layout type cannot be modified. For example, `.brd` cannot be changed to `.mdd`.

Pulse-managed layouts can include boards, packages, and modules. The user who runs the flow becomes the owner of all the designs in the project. Because layouts are already associated with the schematic, you do not need to manually import the netlist from Pulse. Layout engineers can immediately view netlist update notifications when schematic designers commit a schematic with the Ready for Layout tag.

5. Click *Create*.

Template-Based Project Creation vs. Copied Projects

To simplify project creation, you can:

- Create a design using the source project as a template.

The new project from the template copies the attachments, live BOM parts, project metadata attribute values, default search criteria in Unified Search, the currently selected workflow in System Capture, and so on.

- Copy a design using *Copy Project*. This copies the `.sdax` file.

When a designer edits any portion of a shared design, design objects are automatically locked. For example, design objects can be blocks, pages, or variants. This is controlled by the locking level that the design owner specifies at the time of sharing the design. The locking level can be *Block* or *Page*.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

Designs locked at the block level can be switched to page-level locking by design owners. However, switching back from the page-level to the block-level sharing mode is not supported. In such cases, copying a design using *Copy Project* or creating a project based on a template are useful options. In both cases, the new Team Design Tasks or copied design:

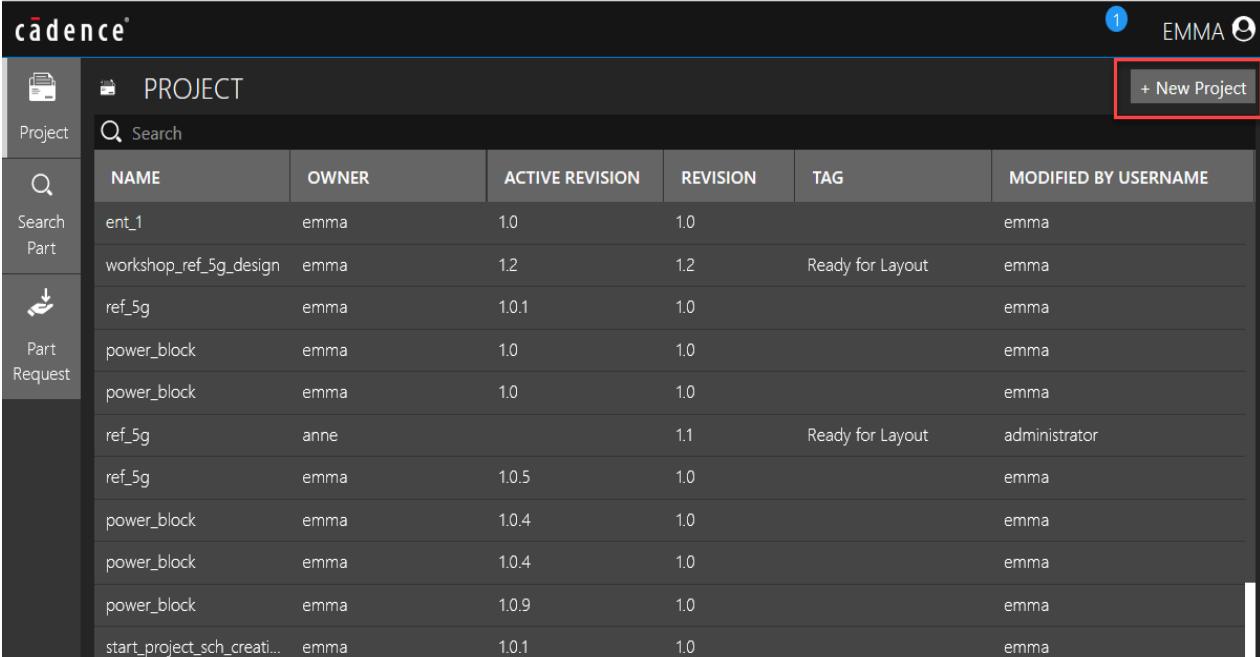
- defaults to the block-level sharing mode.
- the sharing configuration is not preserved, so you must add the team again via the *Share Design* panel.
- Does not maintain the version history of the source project.

Creating Projects from Pulse Web Dashboard

You can also create a project using the Pulse web dashboard if you do not want to launch the Allegro System Capture desktop application.

To create a project using the web dashboard, do the following:

1. Open a web browser.
2. Access the Pulse web dashboard using the following URL: `http://<Pulse access URL>/projects`



NAME	OWNER	ACTIVE REVISION	REVISION	TAG	MODIFIED BY USERNAME
ent_1	emma	1.0	1.0		emma
workshop_ref_5g_design	emma	1.2	1.2	Ready for Layout	emma
ref_5g	emma	1.0.1	1.0		emma
power_block	emma	1.0	1.0		emma
power_block	emma	1.0	1.0		emma
ref_5g	anne		1.1	Ready for Layout	administrator
ref_5g	emma	1.0.5	1.0		emma
power_block	emma	1.0.4	1.0		emma
power_block	emma	1.0.4	1.0		emma
power_block	emma	1.0.9	1.0		emma
start_project_sch_creati...	emma	1.0.1	1.0		emma

3. Click *New Project*.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

4. Follow the steps described in [Creating Projects Based on Templates](#).

Related Topics

[Sharing a Design](#)

[Sharing Parts of a Design](#)

[Team Design Tasks](#)

[Tasks for Owners of Shared Designs](#)

[Associating Schematic and Layout Versions](#)

[Team Design](#)

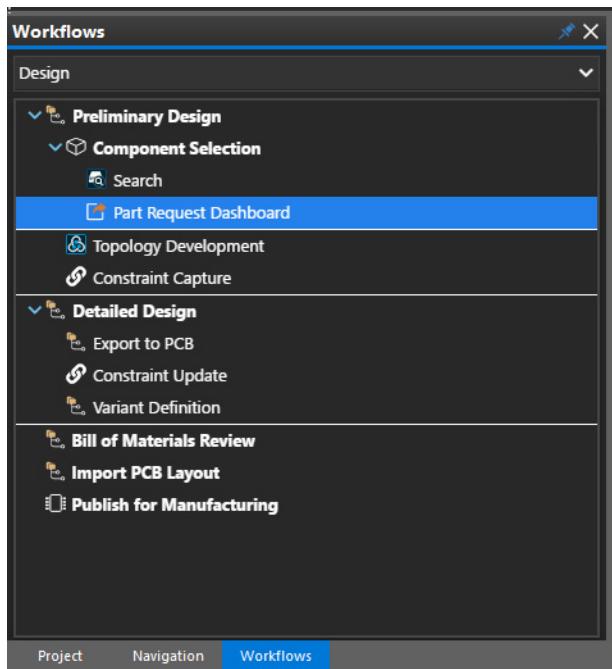
[Requesting New Library Parts](#)

[Working with Pulse Web Dashboard](#)

[Configuring Design Management Preferences](#)

Use of Predefined Workflows

When designers launch System Capture connected to a central Pulse server, a *Workflows* pane is displayed. A default workflow, *Design*, is provided. This workflow has tasks that designers follow when creating a logical design. Tasks can include searching for parts, setting up constraints, transferring the design to layout files, importing back the changes made in the layout application, and so on.



The default workflow:

- Enables a Pulse administrator to build internal development process guidance within the ECAD application
- Provides designers who are new to System Capture, or an organization, a quick way to correlate design tasks with the required features or applications without having to recall which window or menu option is needed

The following table describes the workflow steps of the *Design* workflow and has links to sections where you can learn more about each phase of the design process.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

Table 3-1 Design Workflow

Workflow Step	Description
Preliminary Design	
<i>Component Selection</i>	
Search	<p>Opens <i>Unified Search</i> from where designers can search for parts across all available libraries. The part is then placed on the design canvas.</p> <p>Refer to:</p> <ul style="list-style-type: none">■ <i>Unified Search User Guide</i> for details on searching for parts, adding filters, setting search criteria as a project default filter, and so on.■ <i>Allegro System Capture User Guide</i> for details on adding components to a design.
Part Request Dashboard	Opens the <i>Part Request Dashboard</i> where you can see the requests you have made for new parts or for changes in existing parts from the enterprise libraries or external content providers.
Topology Development	Launches Allegro Sigrity products, depending on the license selected, that are used for power integrity (PI) or signal integrity (SI) analysis.
	See <i>Allegro Sigrity</i> documentation to learn more.
Constraint Capture	<p>Launches <i>Allegro Constraint Manager</i>, which is a worksheet-based application where designers can define, view, and validate constraints at each step in the design flow.</p> <p>See <i>Allegro Constraint Manager</i> documentation to learn more about the different types of constraints and how to apply them.</p>
Detailed Design	

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

Workflow Step	Description
<i>Export to PCB</i>	Opens the <i>Export to PCB Layout</i> dialog box. From here, the logical schematic design translation to netlist and layout files is done. Refer to <i>Allegro System Capture User Guide</i> for details on exporting a logic design to the physical design.
<i>Constraint Update</i>	Launches <i>Allegro Constraint Manager</i> where designers can refine the constraints captured based on feedback from the PCB designers, if applicable
<i>Variant Definition</i>	Opens Variant Editor, where versions of the design can be created using a spreadsheet viewer. Refer to <i>Allegro System Capture User Guide</i> for details on the variant spreadsheet editor.
<i>Bills of Material Review</i>	Launches Live BOM. Designers can review the design BOM prior to release to layout or manufacturing.
<i>Import PCB Layout</i>	Opens the <i>Import from PCB Layout</i> dialog box, using which you can run the back-to-front flow to update the schematic design with changes made in the physical layout. Refer to <i>Allegro System Capture User Guide</i> for details on updating the schematic with changes made in PCB Editor.
<i>Publish for Manufacturing</i>	Launches the <i>Publish for Manufacturing</i> application, which enables designers to publish ECAD data to a set of manufacturing-focused files that are published to a PLM system or delivered to a manufacturer.

Related Topics

[Requesting New Library Parts](#)

[Publish for Manufacturing User Guide](#)

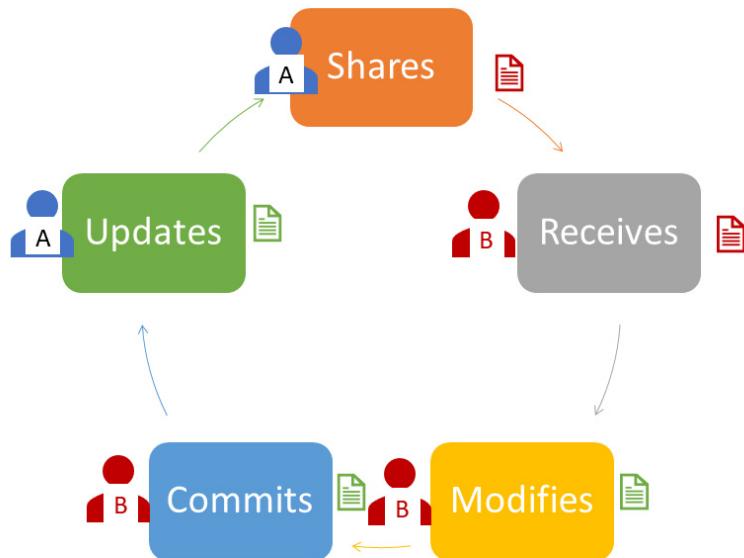
Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

Team Design

Team design enables multiple designers to work on the same System Capture design. A design can be shared with any designer who is connected to the same remote Pulse server.

After their work is complete, designers commit their local designs to the Pulse server. The latest version from the server is then available to all the other designers in the project team. Here is a simple pictorial overview.



Team Design Basics

Before you work on shared designs, here are some team design concepts that you need to know.

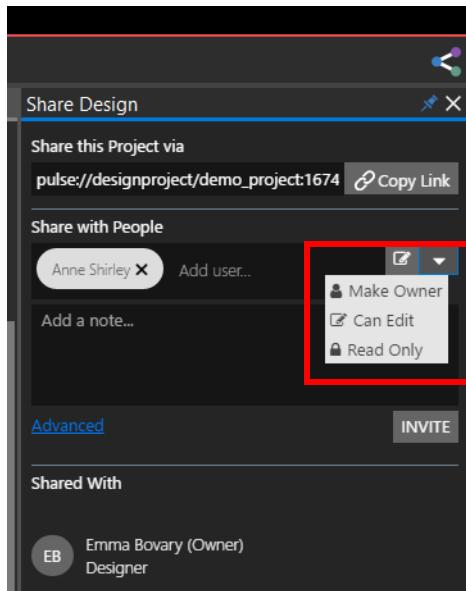
- [Access Levels](#)
- [Design Locks](#)
- [Commit vs. Save](#)

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

Access Levels

The user who creates the design and initiates sharing is the design owner by default. When a design is shared with other designers, each designer can have one of the following access permissions.



Access Permission	Description
Owner	The owner has full read and or write permissions and can add or remove users from the shared design. Only the owner can change the locking mode of the design.
Can Edit	These users have read and or write permissions to the entire design. They can lock portions of the design and commit their changes. These users cannot add or remove other users from the shared design.
Read Only	These users can only view the design and cannot lock any portion of the design for editing. All pages show read-only watermarks for these users.

Design Locks

To ensure that other designers cannot modify design elements you are working with:

Design Data Management in Allegro X System Capture

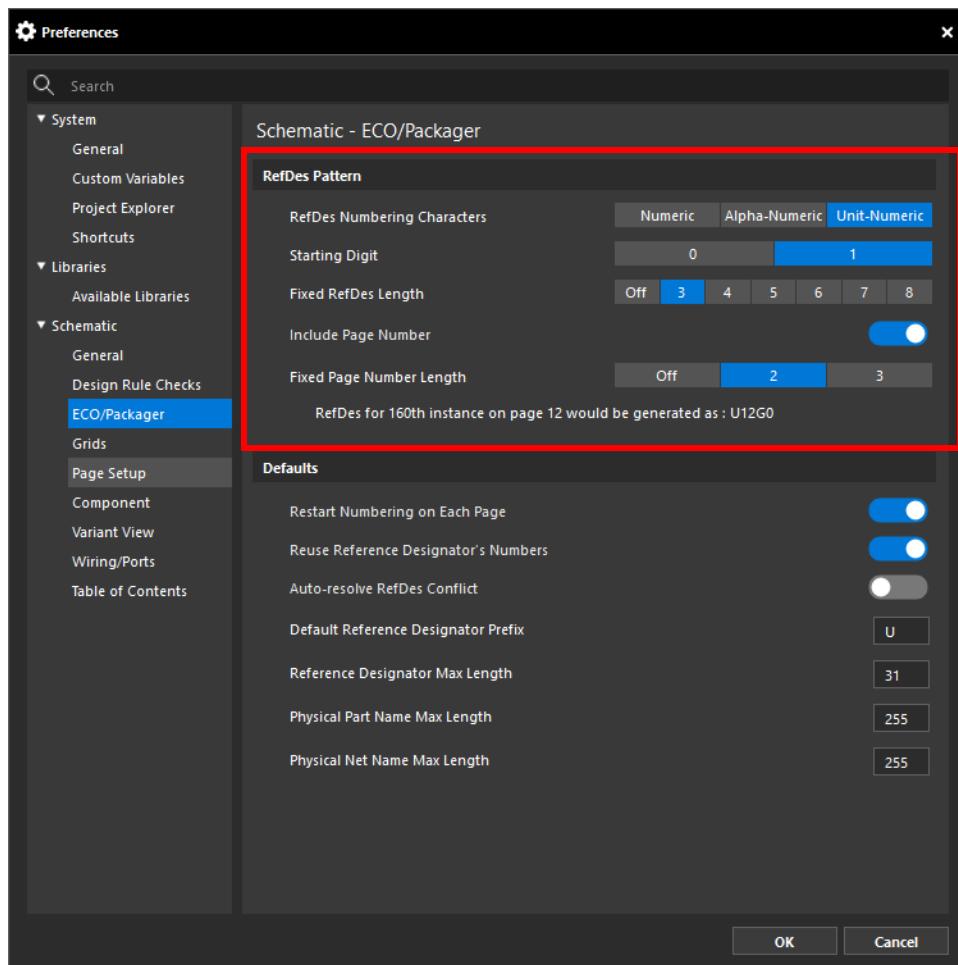
Designing When Connected to a Remote Data Server

- **Auto lock:** The design object you are working on is auto locked for you when you start editing a shared design. For example, design objects can be blocks, pages, or variants. This is controlled by the locking level that the design owner specifies at the time of sharing the design.
- **Manual lock:** If you do not want to currently work on the design, you can explicitly lock an object, such as page or symbol, to ‘reserve’ it for future editing.

Design Data Management in Allegro X System Capture

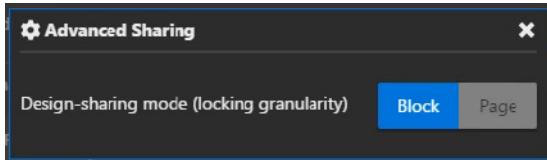
Designing When Connected to a Remote Data Server

Locking Level	Description
Block	When any designer starts making changes, the entire block is locked.
Page	When any designer starts making changes, only the page is locked. For page-level locking, the page number must be included in the <i>RefDes Pattern</i> in the project configuration. If the page number is not included, System Capture automatically adds it to the beginning of the reference designator pattern configured for the project.



Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server



Commit vs. Save

Comment: *Note to self: Many snapshots in this section are from Bruce's PPT and have arrows in all directions. To be replaced with proper snapshots.*

An understanding of the terms and concepts behind versioning and committing makes it easier to understand adhoc team design.

Save

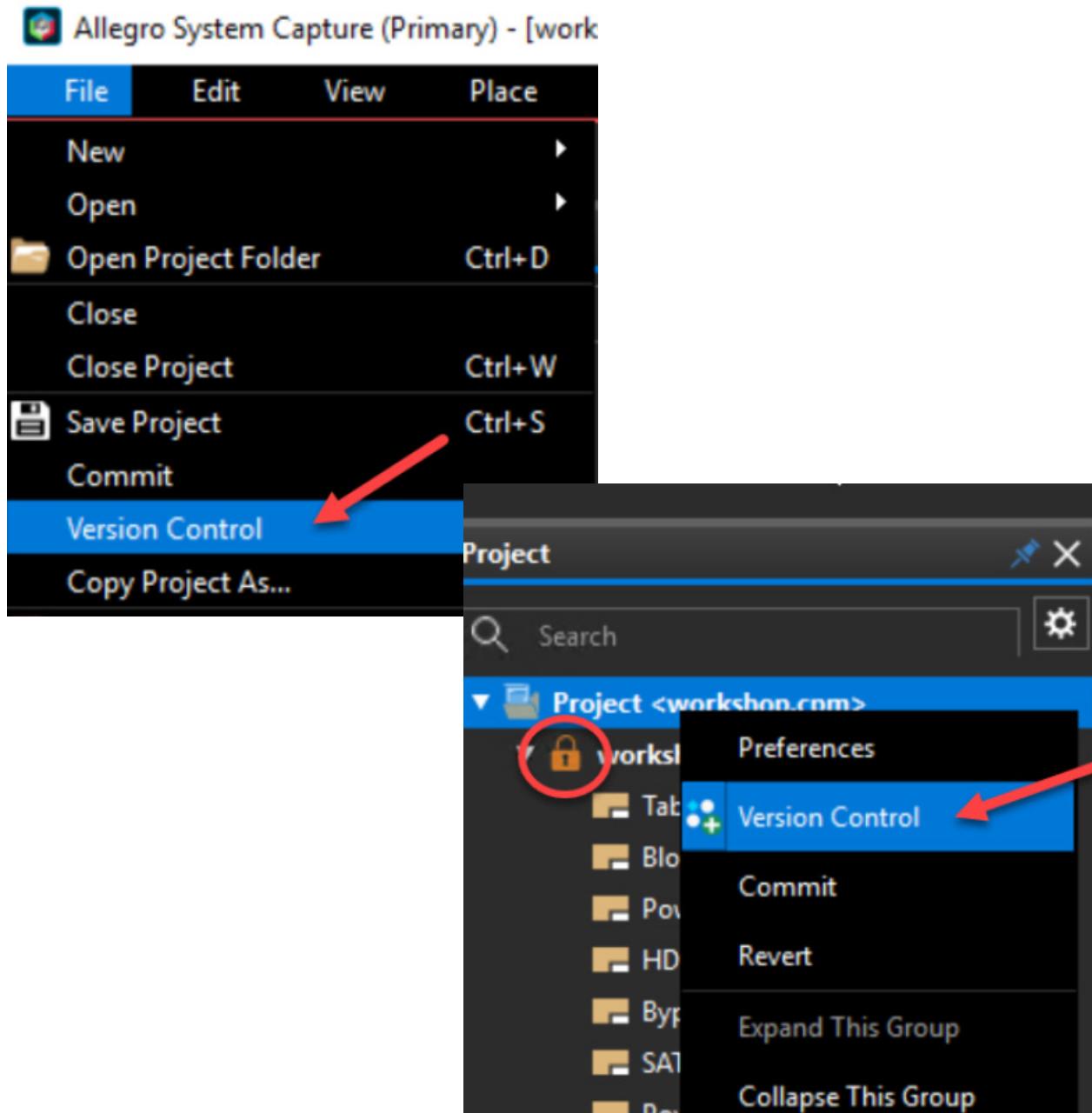
When you create a System Capture project or open an existing project for the first time in System Capture, *Version Control* shows version 1.0. This is the baseline design that was automatically committed to the Pulse platform when you created the design. Also, take note of the lock icon at the top level of the project.

This is a lock on the top-level block in the project. This icon is displayed when a project is shared with block-level sharing enabled, and:

- A change is made to a page in the top-level block
- A designer manually locks the top block.
- A designer runs a Part Manager update.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server



These versions:

- Are visible only to the user who creates them
- Are stored centrally on the Pulse server

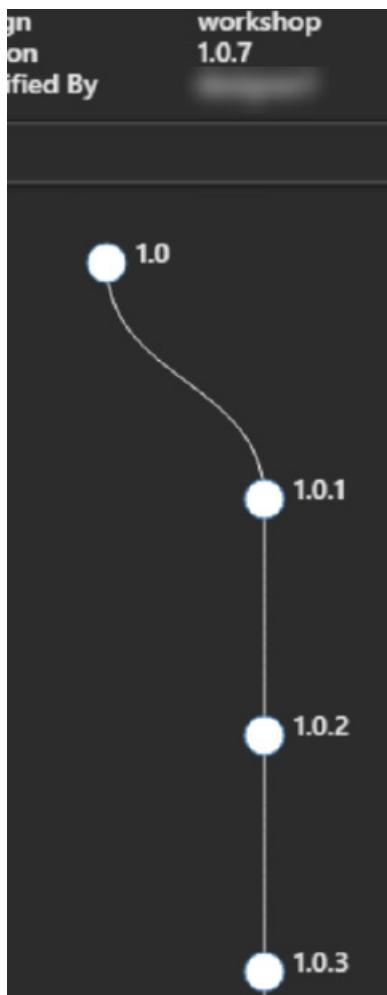
Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

- ❑ Are represented by the branches to the right or left of the vertical line in the center of the version control tree
- ❑ With every save, the third digit in the version scheme is incremented, that is, major.minor.save.

If version on save is disabled in the *Design Management Preferences* dialog box, System Capture does not create a version with every save.

As you continue to change the design and save it, nodes are added to the save branch. Because designs are saved on the platform, even if your personal machine crashes, your work can always be recovered by retrieving it from the Pulse platform.

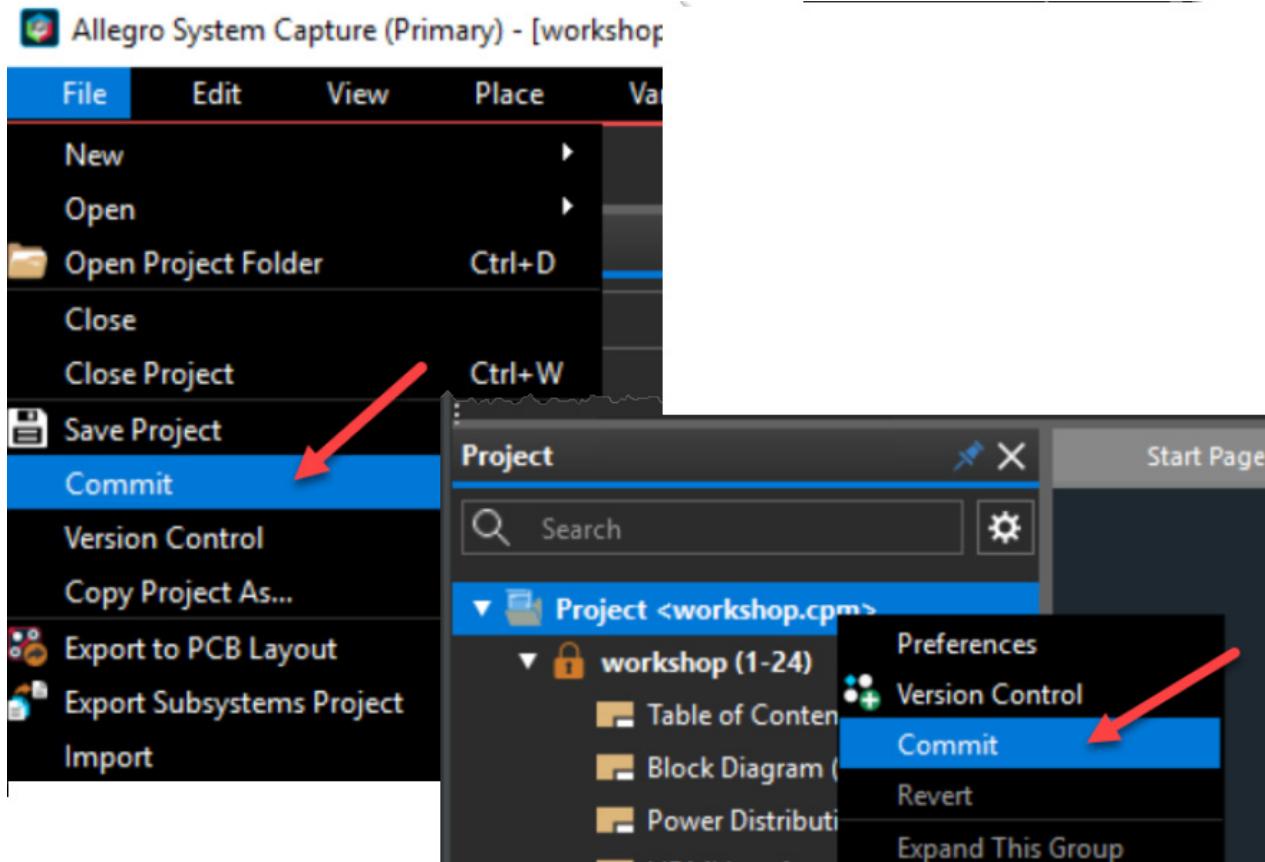


Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

Commit

To mark milestones in the design cycle or when changes have stabilized and you want to denote those as something more than just a work-in-progress save, you can commit a design. This creates another node on the main trunk of the version tree. The main trunk is displayed in blue. Commits play a key role in team design.



Important

A commit is a project-level commit. It commits changes for all the blocks you edited, not just the active block.

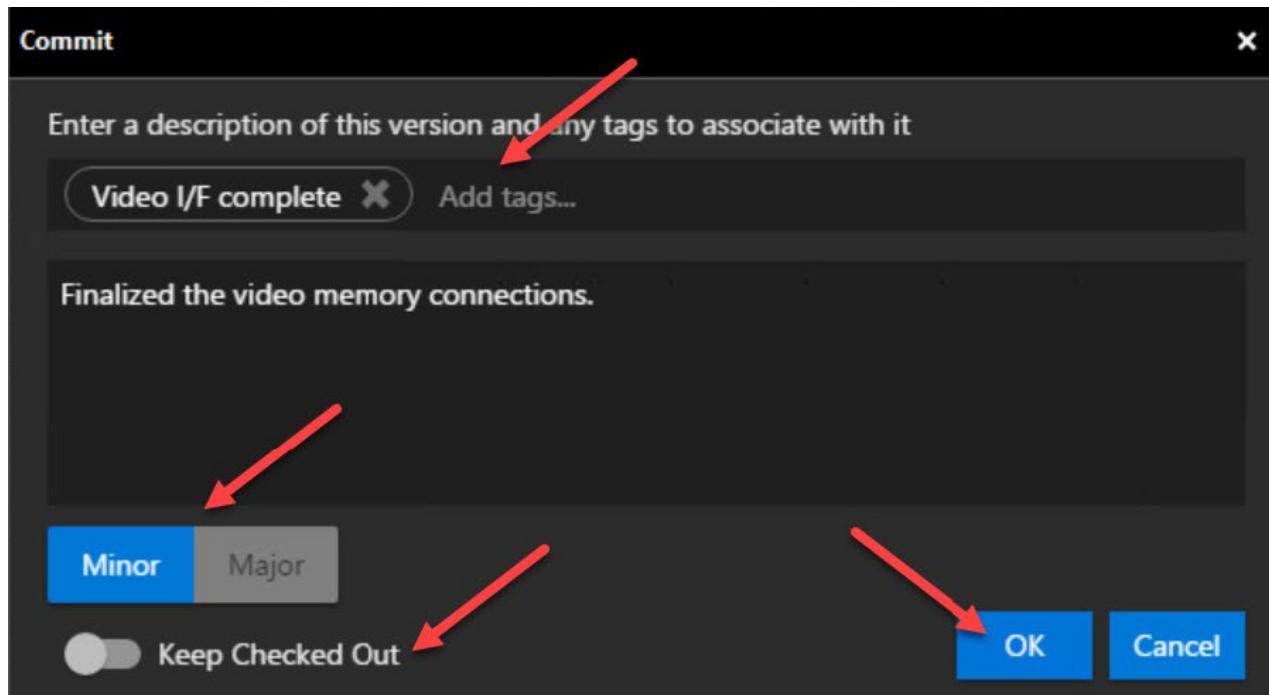
Take note of the following:

- The *Keep Checked Out* option allows you to retain your lock after committing.
- Commits can optionally be tagged to help with searching and to designate the reason for the commit. The commit must contain something in the description field for the *OK* button

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

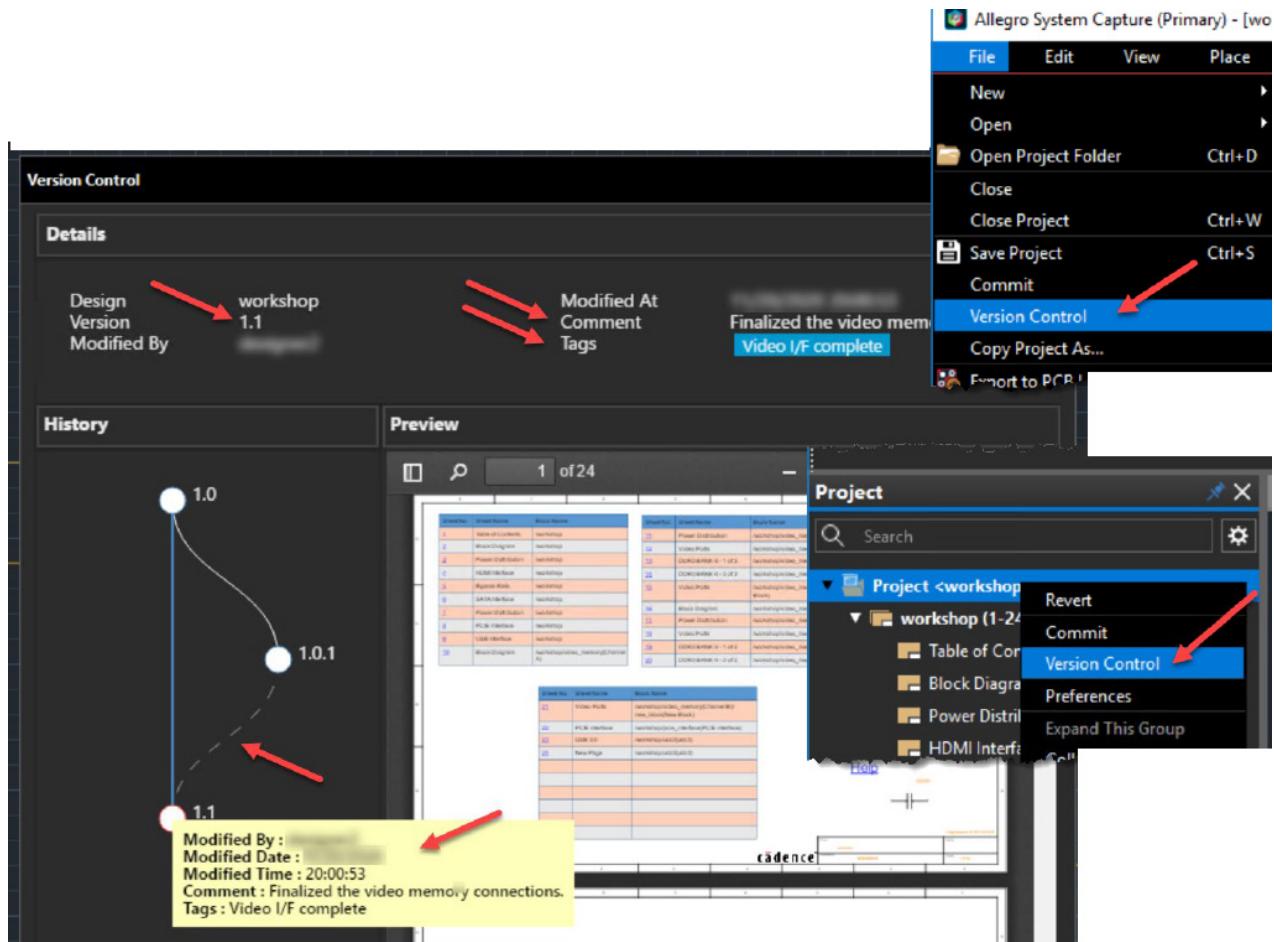
to be enabled. Commits can be major or minor. A major commit rolls the version to 3.0, 4.0, and so on, while a minor commit rolls it from, for example, 3.0 to 3.1.



Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

For example, you commit version 1.1. Further saves create a branch from 1.1. Future commits are always on the main trunk.

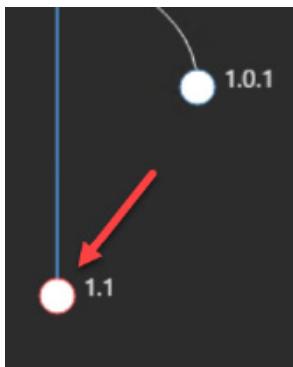


- ❑ Notice the metadata at the top of the window.
- ❑ Hovering over a node opens a tooltip with information about that version.
- ❑ The dashed lines indicate the saved version corresponding to the commit.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

- The active node, or version for which the schematic is being displayed, is outlined in red. The other nodes are outlined in blue. To view the schematic for another node, click that node.



- You can open a previous version by placing your cursor over the node. Right-click the node, and select *Open Version*.



In this case, rolling back to 1.0.1 does not change the design because 1.1 is just a commit of 1.0.1.

- Committed versions are visible to all members of a design team and trigger notifications of pending updates available on the server.
- Other designers cannot commit their changes without updating their designs.
- To share the changes you made, use the *Commit* command. The local changes are pushed to the Pulse server. When the Pulse server has the modified and most recent version, all the other team members get visual cues that inform them that updates are available.

Important

Include the word `Template` in the tags to ensure that a design is available to other designers with access to this project and who create new projects based on templates.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

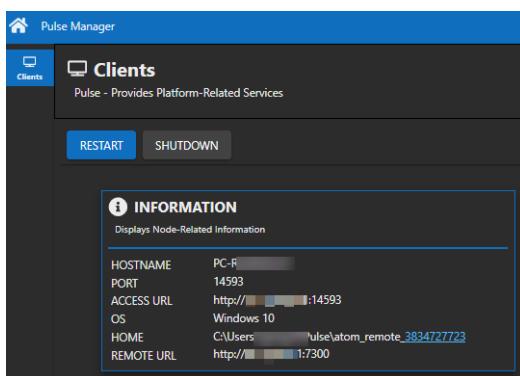
Note: If version on save is deselected in the *Design Management Preferences* dialog box, design versions are not created on the Pulse primary node when the design is saved. Only committing the design creates a version.

Sharing a Design

To share a design with others, do the following:

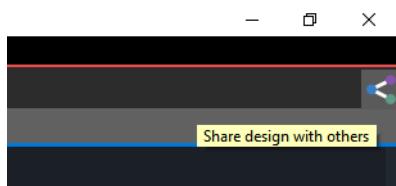
1. Ensure that you are connected to the central Pulse server.

To check that you are connected, check the *Remote URL* field in the INFORMATION section of the *Pulse Manager* web page.

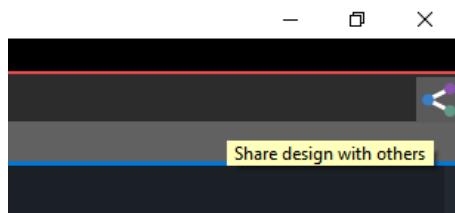


2. Open a design.

The share icon at the top right of the window is enabled.



3. Click the *Share design with others* icon.



If you cannot see the share icon, ensure that *View — Toolbar* is enabled.

Design Data Management in Allegro X System Capture

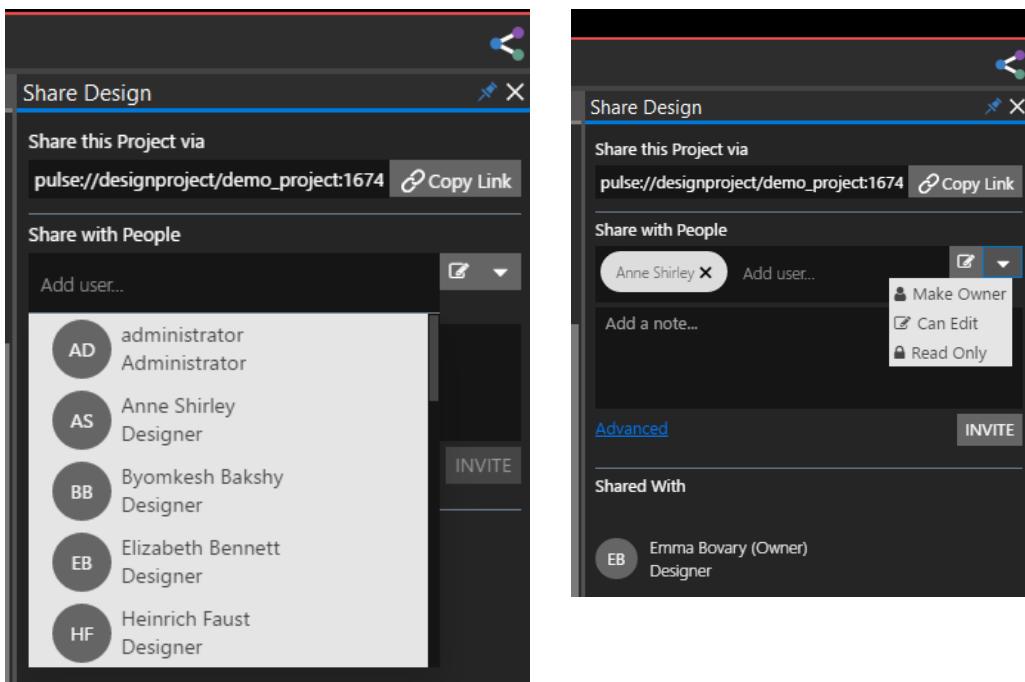
Designing When Connected to a Remote Data Server

The *Share Design* window opens. The login ID used to log into the central Pulse server is displayed under *Shared with*.

Using the *Share Design* window, only the entire design can be shared. You can also share specific objects, such as blocks or pages.

The user who creates the design is automatically the design owner. Design owners can:

- Add additional users to the design.
- Modify the list of shared users or groups.
- Modify the permission level of shared users or groups.
- Modify the design locking mode.
- Unlock other users' preferences lock.



4. Specify the users that should have access to this design.



A design can only be shared with designers that use the same central Pulse server you are connected to.

5. Specify the permissions for each user.

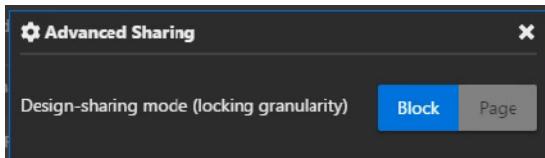
Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

6. Click *Advanced*.

The *Advanced Sharing* dialog box opens.

7. Specify the locking granularity.



 *Important*

You cannot switch from page-level to block-level locking. If you accidentally switched to page-level locking, you can create a project using this one as a template or make a copy of this project using *Copy Project*.

8. Type a message, if needed.

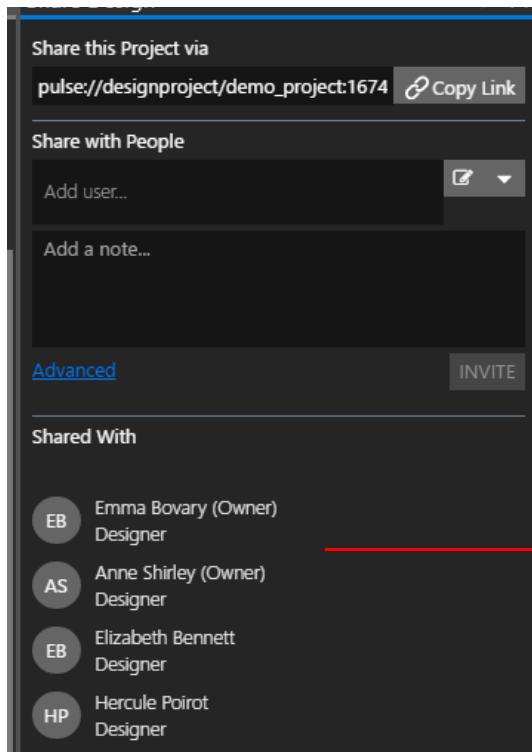
The user with whom a design is shared gets an email notification with the message when invited.

9. Click *Invite*.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

The names of the designers are added in the *Shared with* section.



Designers with read-write, read-only, or owner access to this design

Hover the cursor over the right side of the user name to view or modify the sharing permission level.



Designers with whom a design is shared get an email from Pulse, which includes a URL that designers can copy and paste in the *Start Page* of Allegro System Capture to search for the project.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

Sharing Parts of a Design

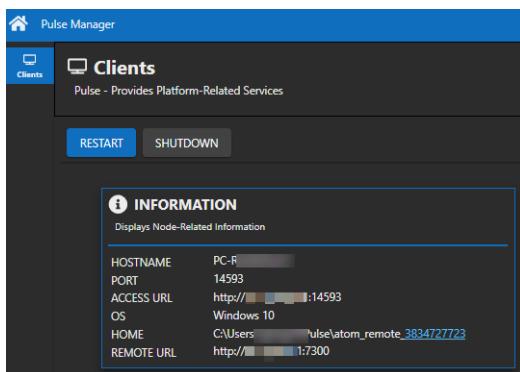
Designers with whom a design is shared have read access to the full design. Design owners can modify the access level for the entire design or for portions of the design, such as a block, view, or page. This is helpful in a collaborative design environment.

Design owners can also assign user groups or multiple users to a block or page. In such cases, whoever locks an object first in a design can start working on it. A user group is defined by the Pulse server administrator in the *Pulse User Management* module.

To share parts of a design with other designers, do the following:

1. Ensure that you are connected to a central Pulse server.

To check that you are connected, check the Remote URL entry in the INFORMATION section of the *Pulse Manager* page.



2. Open a design.

3. Do the following:

- To share a block, right-click the required block and select *Share*.
- To share specific design pages, right-click the block whose objects you want to share and select *Enable Page Locking*. This option is only available to design owners.

Note: Design owners can enable page-level locking for a block. This causes auto-locking at the page level for the block but other blocks in the design are still locked at the block level when users make changes.

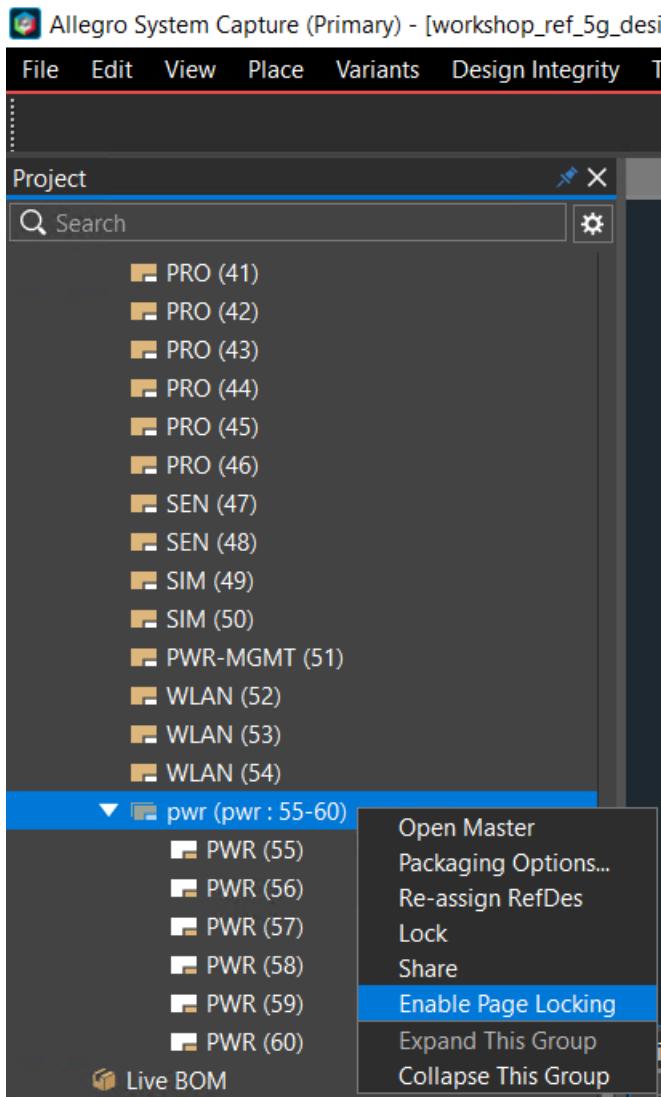
Page locking is not needed to share a block. However, to share pages, or views, or other specific objects, you must first enable page locking at the block level.

Once enabled, page-level locking cannot be reversed. If you accidentally switched to page-level locking, you can:

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

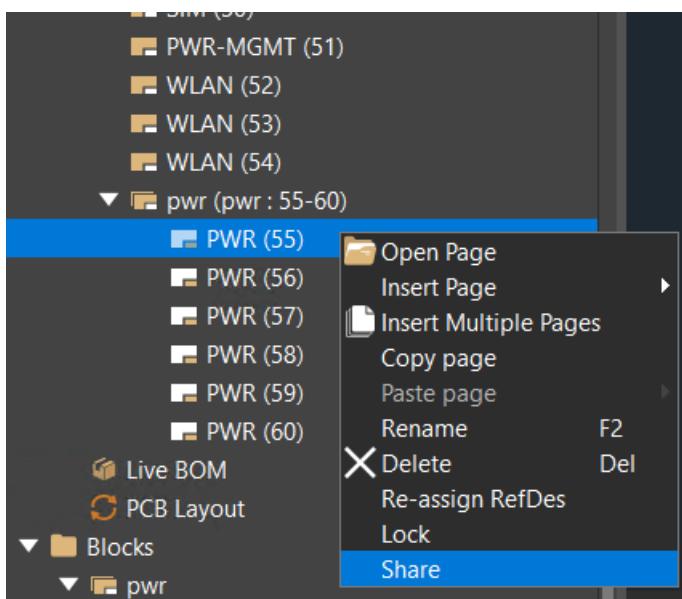
- ❑ Commit this project as a template then create a new project using this one as a template.
- ❑ Make a copy of this project and resume your work there.



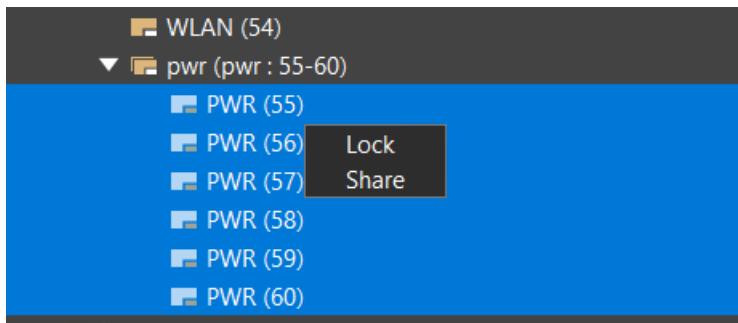
Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

- Right-click the object you want to share with other users and select *Share*.



You can also select multiple contiguous objects, right-click, and select *Share*.



The *Share* dialog box is displayed.

- Type the names of the designers with whom you want to share the object.

The login ID used to log into the central Pulse server is displayed under *Shared with*. The circle icon before the ID signifies that only this user can share this design.



You can share design objects only with users who are connected to the same Pulse server cluster.

- Type a message, if needed.

Design Data Management in Allegro X System Capture

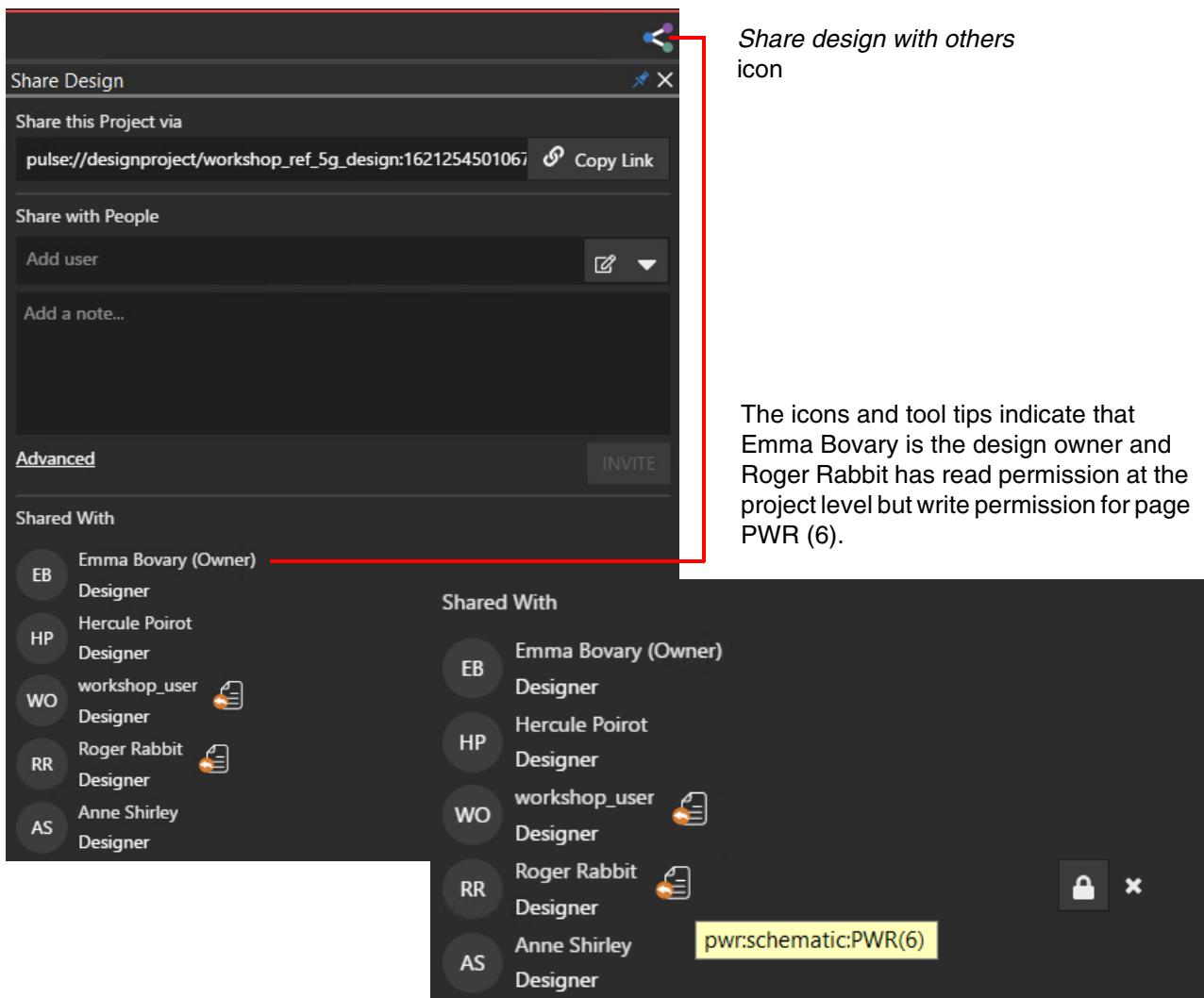
Designing When Connected to a Remote Data Server

7. Click Share.

The names of the designers are added in the *Shared with* section.

Designers with whom an object is shared can view the entire design in read-only mode but have read-write permission for the shared object. Designers without write access to other objects in a design cannot lock those objects.

Designers with access to the shared object can now start working on it. Use the tool tips in the *Share Design* dialog to understand the scope of permissions for a user or group.



Team Design Tasks

Designers and design owners can do the following with a shared design:

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

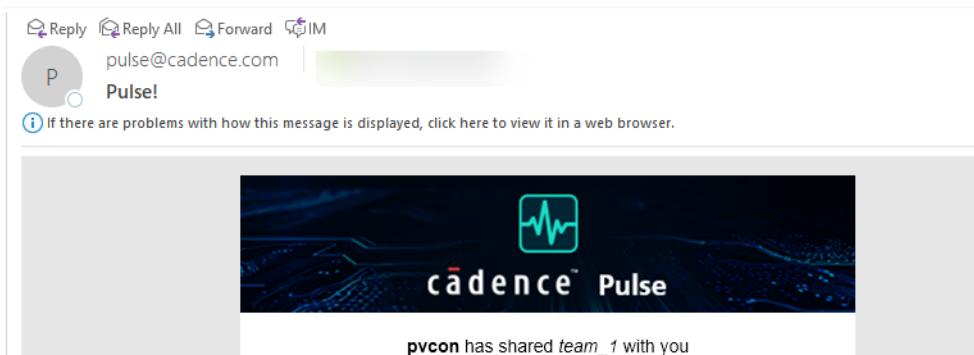
- [Joining a Project](#)
- [Locking Parts of a Design before Editing](#)
- [Modifying a Shared Design](#)
- [Locking Schematic Preferences](#)
- [Associating Schematic and Layout Versions](#)
- [Getting the Latest Version of a Shared Design](#)
- [Committing a Shared Design](#)
- [Viewing or Rolling Back to Earlier Design Versions](#)

If you are a design owner, also see [Tasks for Owners of Shared Designs](#).

Joining a Project

- When a design is shared with you, do one of the following:
 - Search for the project shared with you.

You can search by copying and pasting the project URL in the *Search* field of the Open Projects dialog box. The URL is in the email you received from Pulse when the design was shared with you.

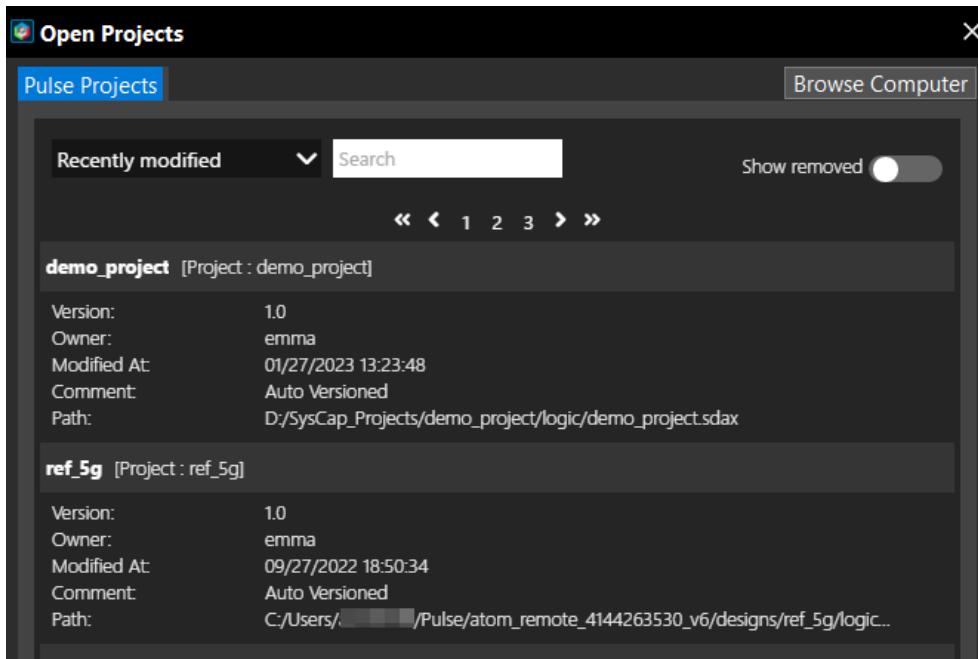


- Select *File - Open - Project* in System Capture.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

The Open Projects list is displayed.



- Click the name of the project that is shared with you in *Open Projects*.

After you click the design name, a copy of the design is downloaded by default into the Pulse directory in the user home. This is the working directory. The user-specific path to the project is also displayed in the *Open Projects* dialog box.

- If disk space in the `HOME` directory is a concern, use the *Design Management Preferences* dialog box to specify a different default download directory. Projects you join are automatically downloaded to this directory.
- If there are any duplicate design names in this folder, you are prompted to resolve the conflicts.
- To be prompted for the design download location every time you join a project, set the preference in the *Design Management Preferences* dialog box.

This is helpful when, for example, you have a different design but with the same name in a folder.

Locking Parts of a Design before Editing

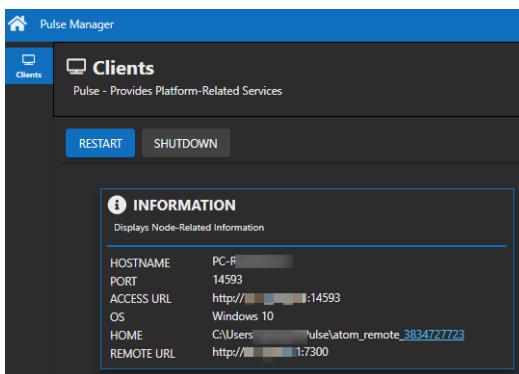
To prevent other designers from making any changes to certain blocks or pages even before you start editing the design, do the following:

Design Data Management in Allegro X System Capture

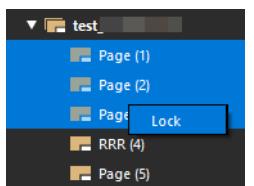
Designing When Connected to a Remote Data Server

1. Ensure that you are connected to the central Pulse server.

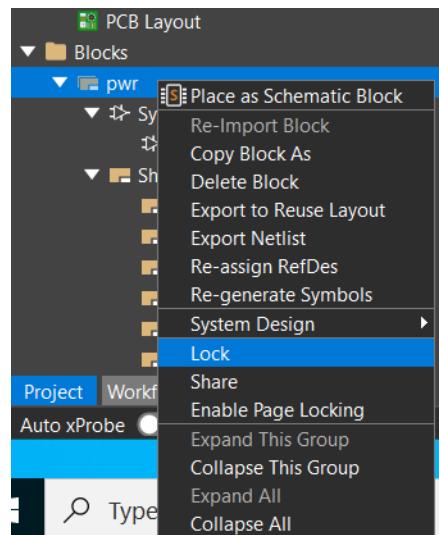
To check that you are connected, check the *Remote URL* field in the INFORMATION section of the *Pulse Manager* web page.



2. Select the required pages or blocks in the *Project* explorer.
3. Right-click and choose *Lock*.



Page-level lock

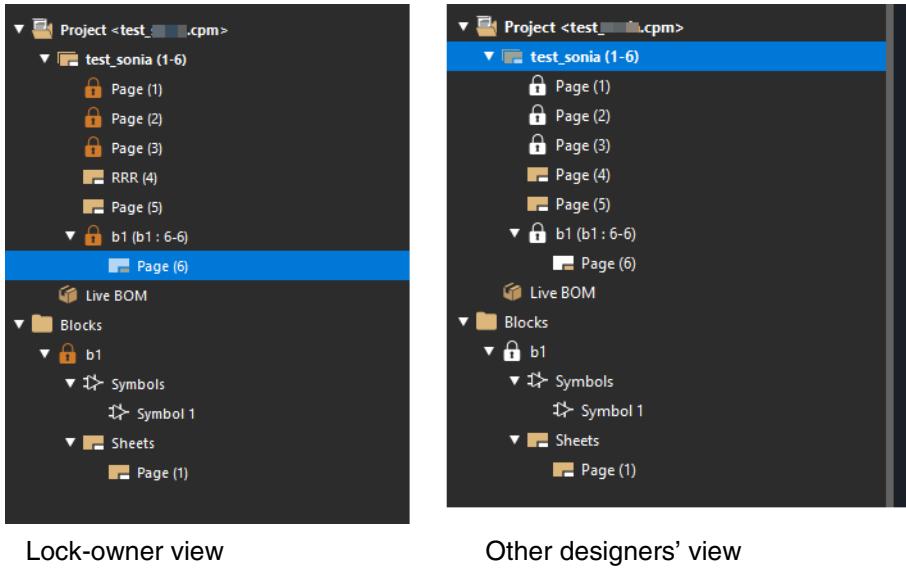


Block-level lock

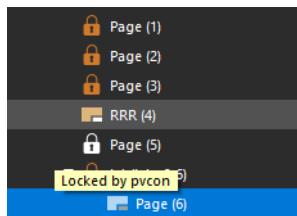
Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

Yellow lock icons are displayed for the owner of the locks and white lock icons for the other designers with whom the design is shared.



4. Hover over a white lock icon to see who has locked the page or block.



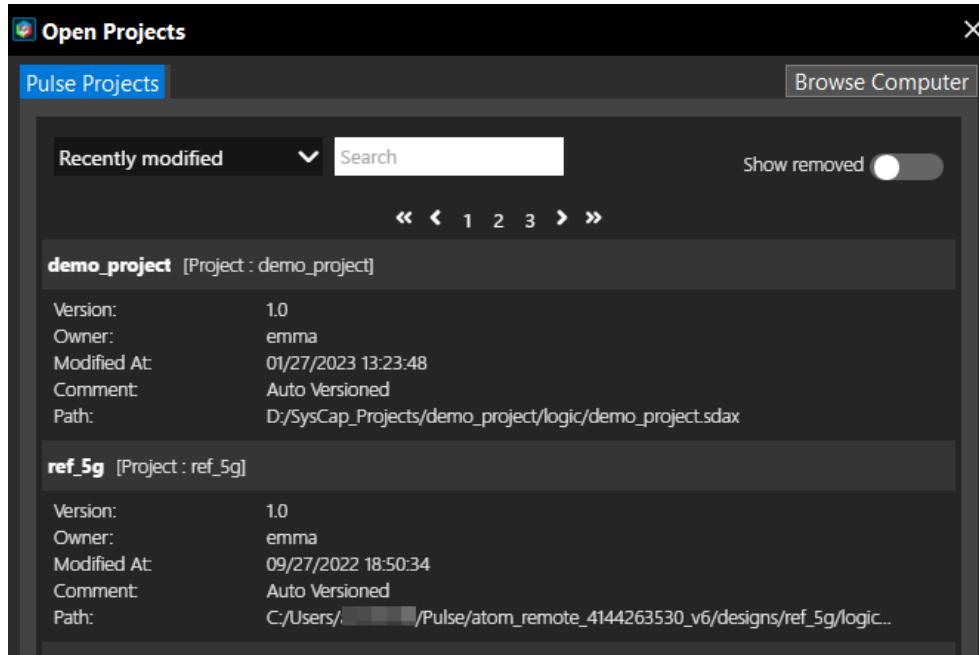
Modifying a Shared Design

A design owner and any other designer with access to a design can work on it. To modify a shared design, do the following:

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

1. In System Capture, click *File — Open — Project*.



2. Locate the design.

By default, designs that have been shared with you are sorted by the *Recently modified* field. If there are many designs, you can quickly locate a design using the *Search* feature. You can find a design based on its name or owner.

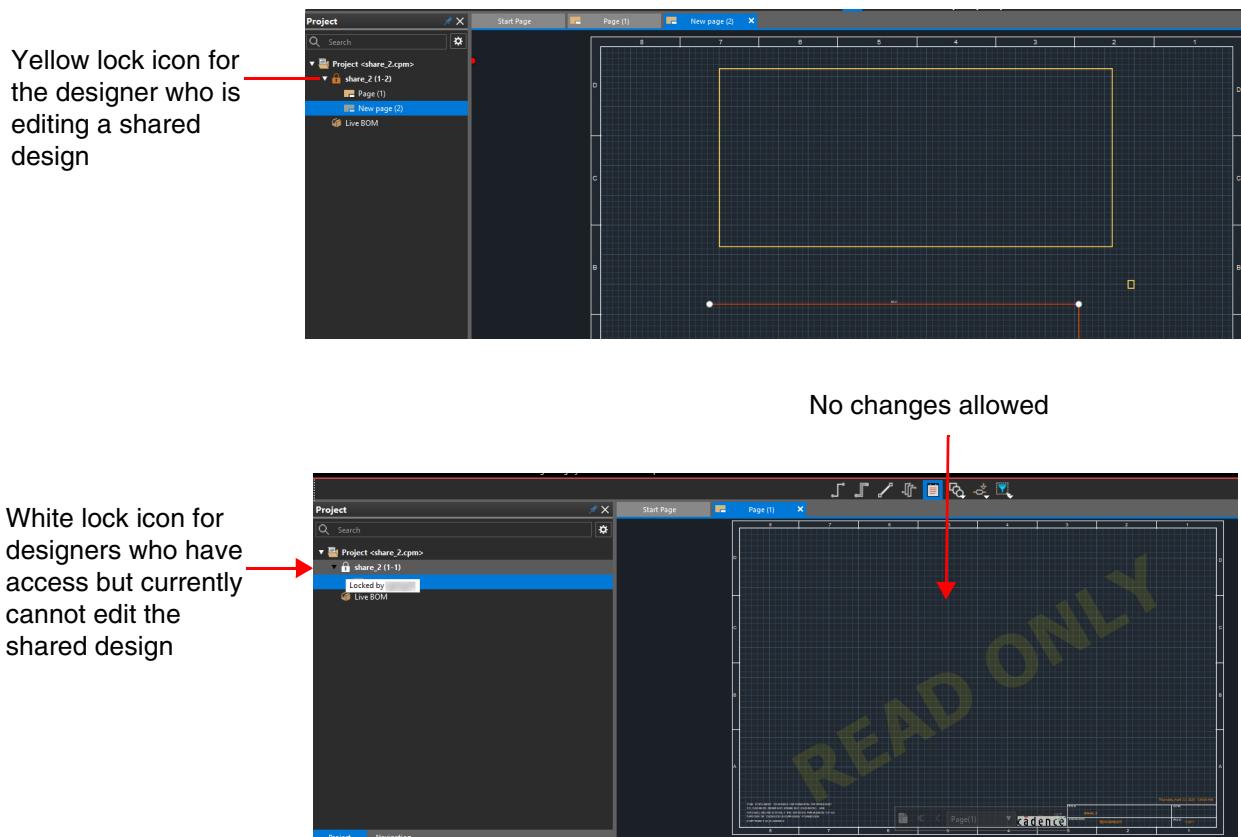
3. Open the design by clicking its name.

When a designer is working on the design page, that page becomes read-only for all other designers. A watermark is displayed on the page and a lock icon is displayed on the design or block.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

On hovering over the object name in the *Project* viewer, designers can check who is currently working on it. The following images show the locks.



4. Modify the design based on your requirements.

When you start editing the design, the page or block is locked by default. If you plan to work on other pages or blocks, right-click the required object in the *Project* explorer and choose *Lock*.

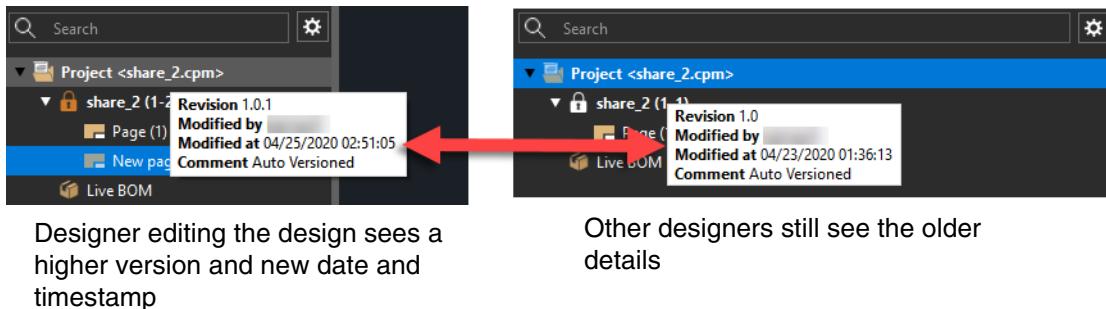
Locking specific objects is helpful when you want to ‘reserve’ an object for yourself for future editing.

5. Save the changes made to the design.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

When you save the design, the changes are pushed to the server but are not yet available to other designers who have access to the design.



Saved versions only increment the third digit in the version scheme, that is major.minor.save. Versions are represented by the branches to the right or left of the vertical line in the center of the version control tree.

6. Commit the changes.

Locking Schematic Preferences

To ensure that schematic preferences are distributed to all team members when changes are made, any edits to the preferences automatically lock them.

Only design owners can release the schematic preferences locks of other team members.

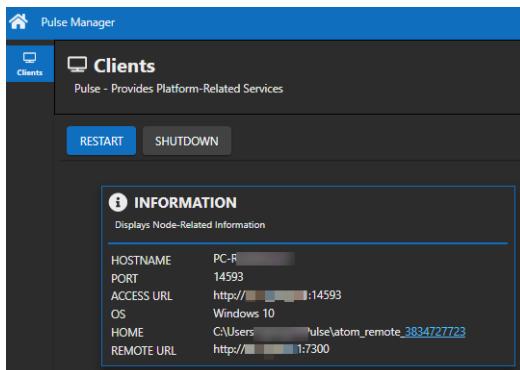
To lock schematic preferences, do the following:

1. Launch Allegro System Capture.
2. Ensure that you are connected to the central Pulse server.

Design Data Management in Allegro X System Capture

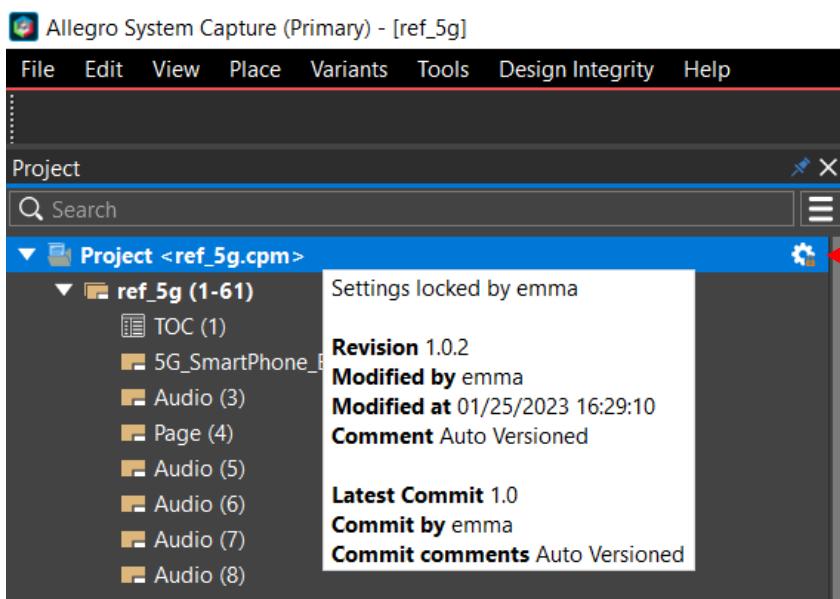
Designing When Connected to a Remote Data Server

To check that you are connected, check the *Remote URL* field in the INFORMATION section of the *Pulse Manager* web page.



3. Open a shared project.
4. Select *Edit — Preferences*.
5. Modify the required preferences in the *Schematic* tab.
6. Click *OK*.

A settings icon is displayed with a lock at the top level of the project.



Note that the tooltip content has changed.

System Capture now displays the current version and the latest commit details in Pulse.

This icon indicates to other users that the schematic preferences are locked by another user.

Design Data Management in Allegro X System Capture

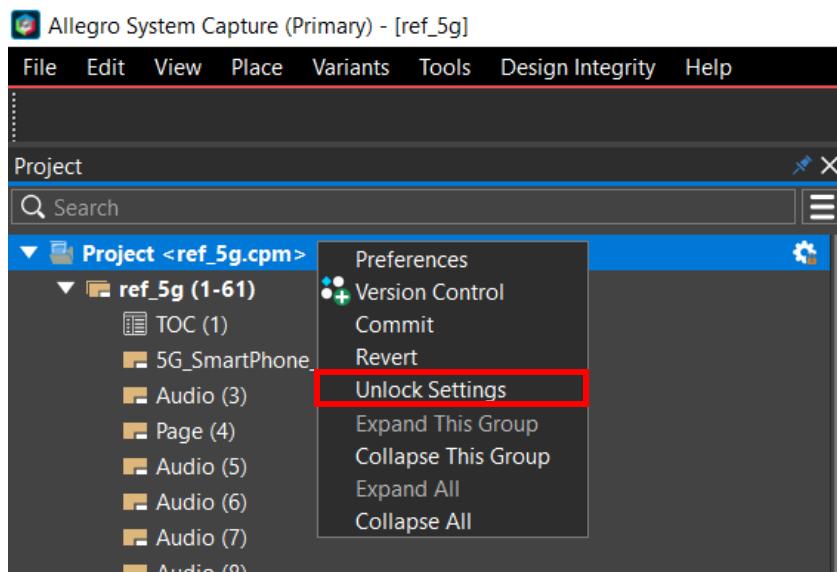
Designing When Connected to a Remote Data Server

7. To unlock the settings, right-click the top level of the project.

Committing the design creates a new version with the changed preferences. When other design team members update the design, their preferences are now updated with the changes made by the designer who locked and edited the design.

Unlocking discards the preference changes and reverts the design back to the previous preferences.

8. Select *Unlock Settings*.



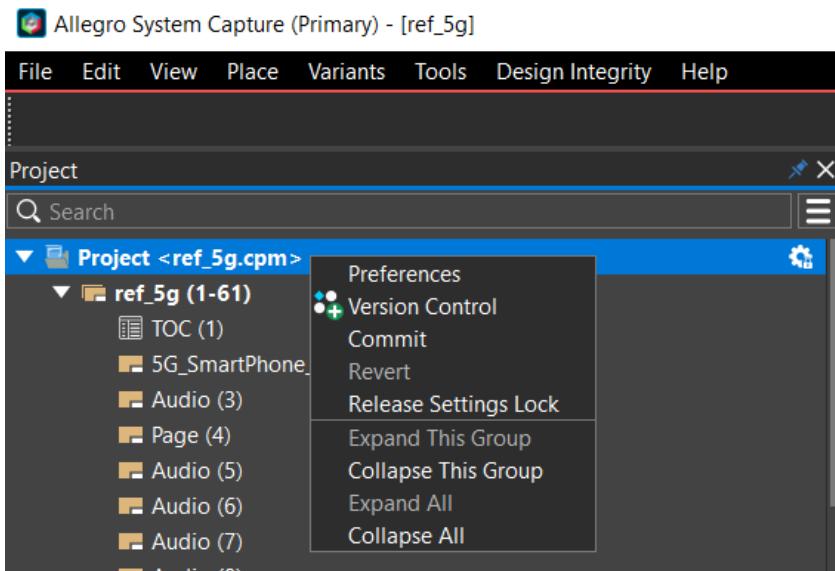
9. If a design owner wants to release the preferences lock of other team members, do the following:

- a. Right-click the top level of the project.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

b. Select *Release Lock Settings*.



Associating Schematic and Layout Versions

To keep track of logic synchronization over the course of a design project, Pulse maintains a link between the version of a schematic that drove the netlist of a PCB and the version of a PCB which was back-annotated to the schematic.

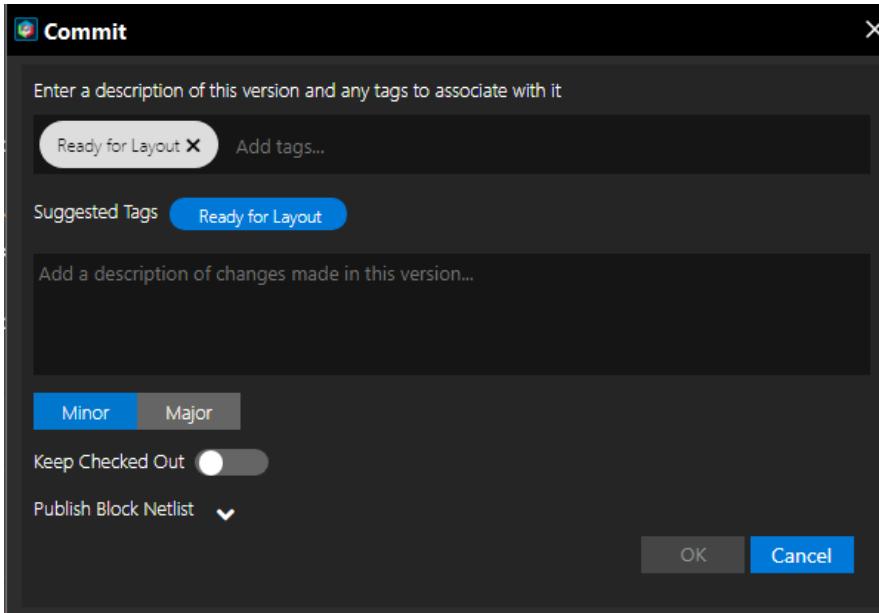
To associate a schematic and a layout, do the following:

1. Launch Allegro System Capture.
2. Ensure that you are connected to the central Pulse server.
To check that you are connected, check the *Remote URL* field in the INFORMATION section of the *Pulse Manager* web page.
3. Open your design.
4. Select the root design node in *Project* explorer.
5. Commit the root design by selecting *File — Commit*.
6. Select the Ready for Layout tag.

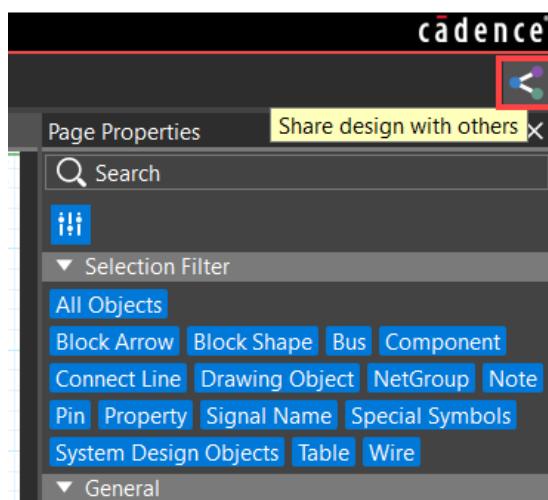
Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

This generates the top-level netlist when the design is being committed to Pulse.



7. Enter a description.
 8. Click *OK* to close the *Commit* dialog.
- System Capture commits the schematic design to Pulse.
9. Share the root design with the layout engineer by clicking the *Share with others* icon.

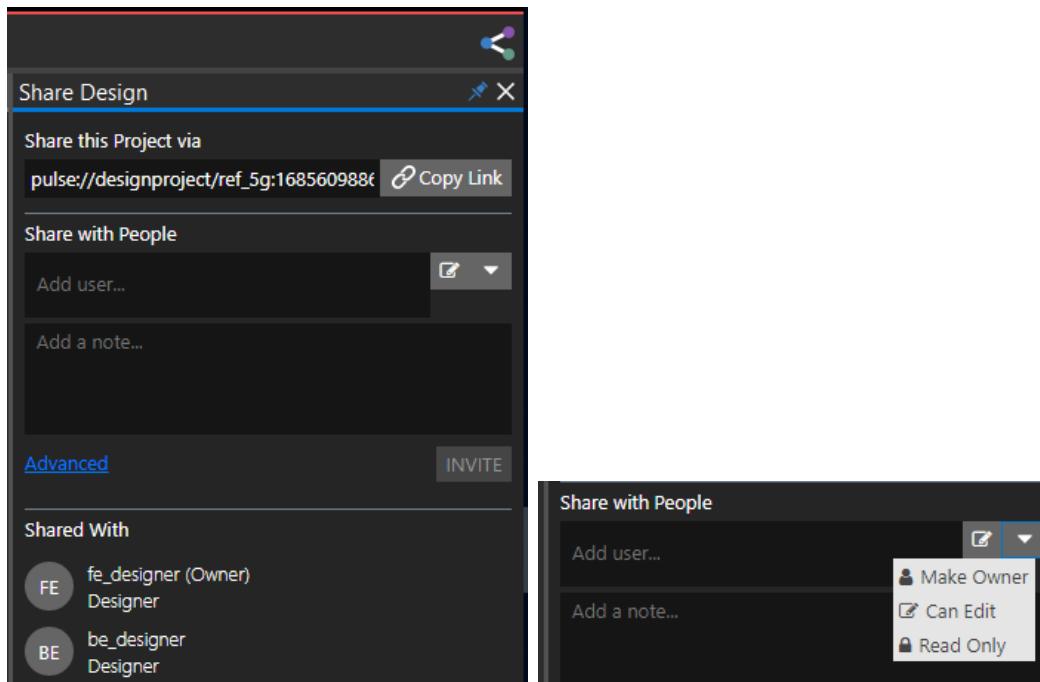


If you cannot see the share icon, ensure that *View — Toolbar* is enabled.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

10. In the *Share Design* pane, select the users with whom you want to share the full design and select the sharing level.



11. Type a message, if needed.

12. Click *INVITE*.

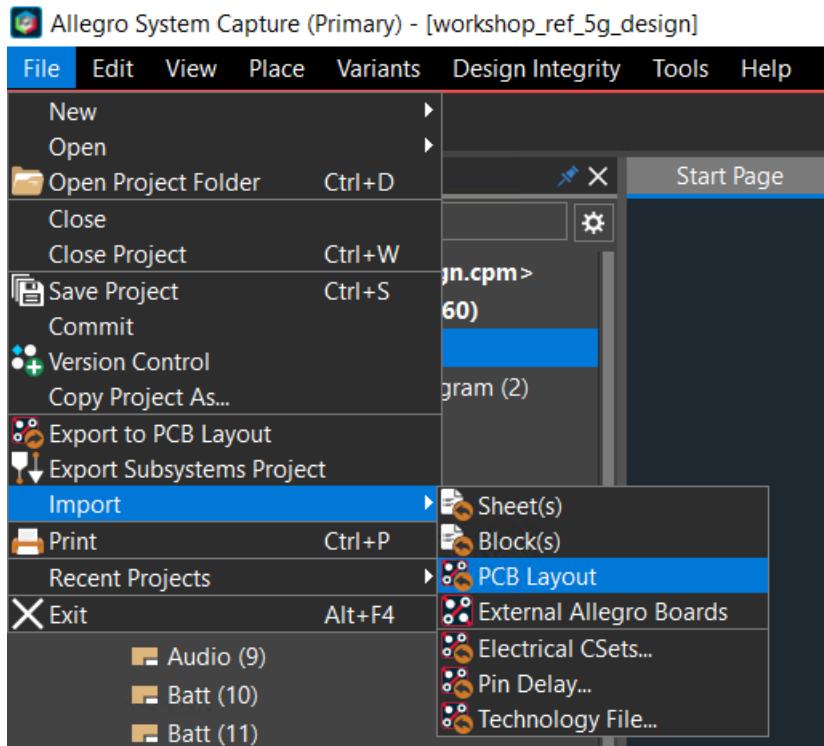
Users with whom the design is shared get an email notification with the message when invited. Layout engineers can now import the netlist to associate the schematic and layout.

After layout engineers make changes to the layout, commit it with the `Ready for Schematic` tag, and share the layout with you, associate the schematic with the layout.

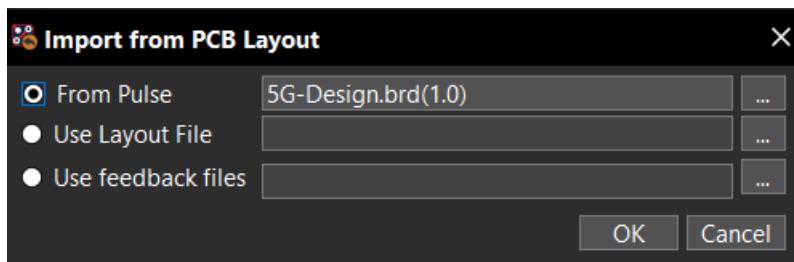
Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

13. Select *File — Import — PCB Layout*.



14. In the *Import from PCB Layout* dialog box, select *From Pulse*.



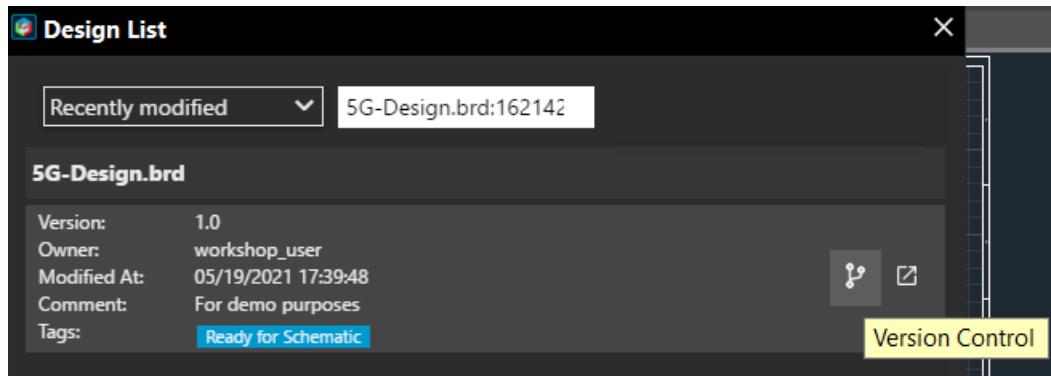
15. You can click the browse button next to *From Pulse* to open the *Design List* dialog box and:

- View the list of layouts shared with you.
- Open the design.

Design Data Management in Allegro X System Capture

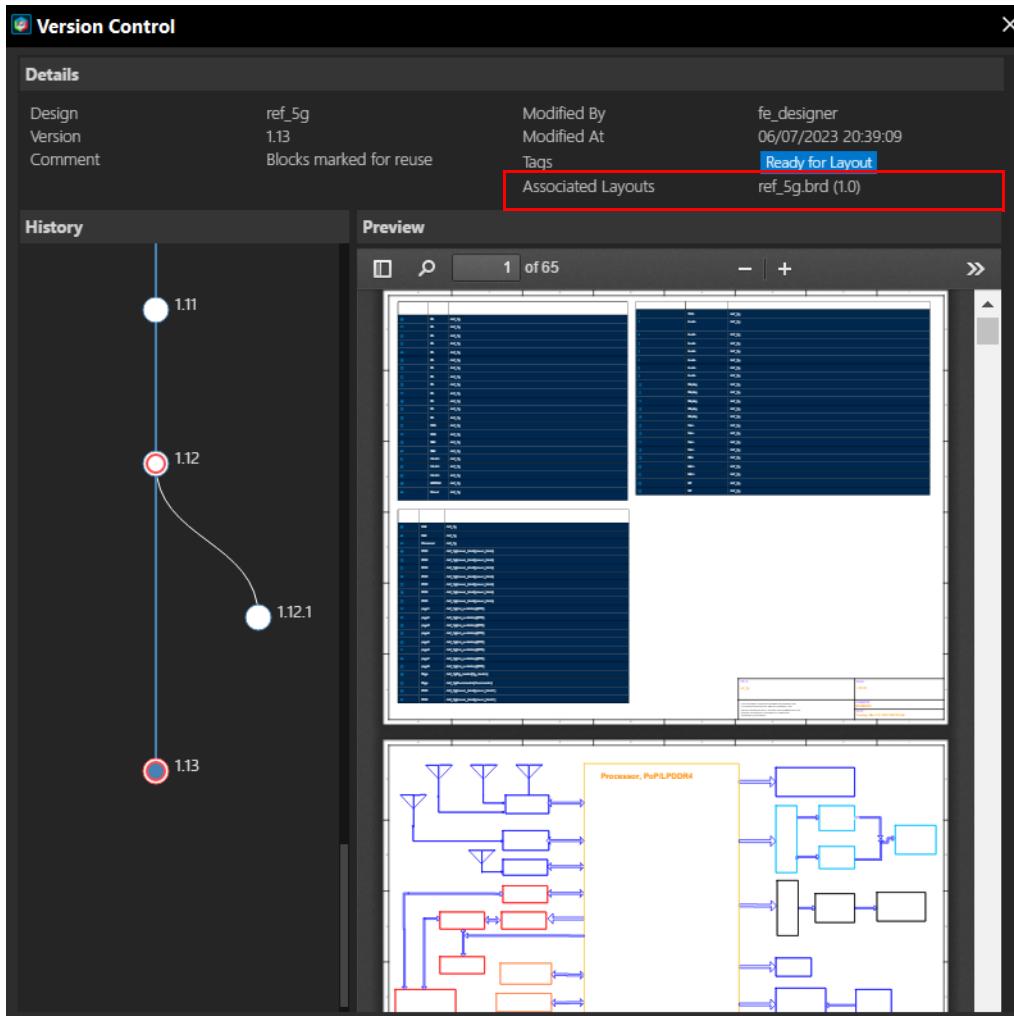
Designing When Connected to a Remote Data Server

- View *Version Control* for the list of associated design versions.



Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server



You can see the layout design preview, comments, tags, the name of the user who committed the design, and the associated layouts. Nodes are color coded for easier identification.

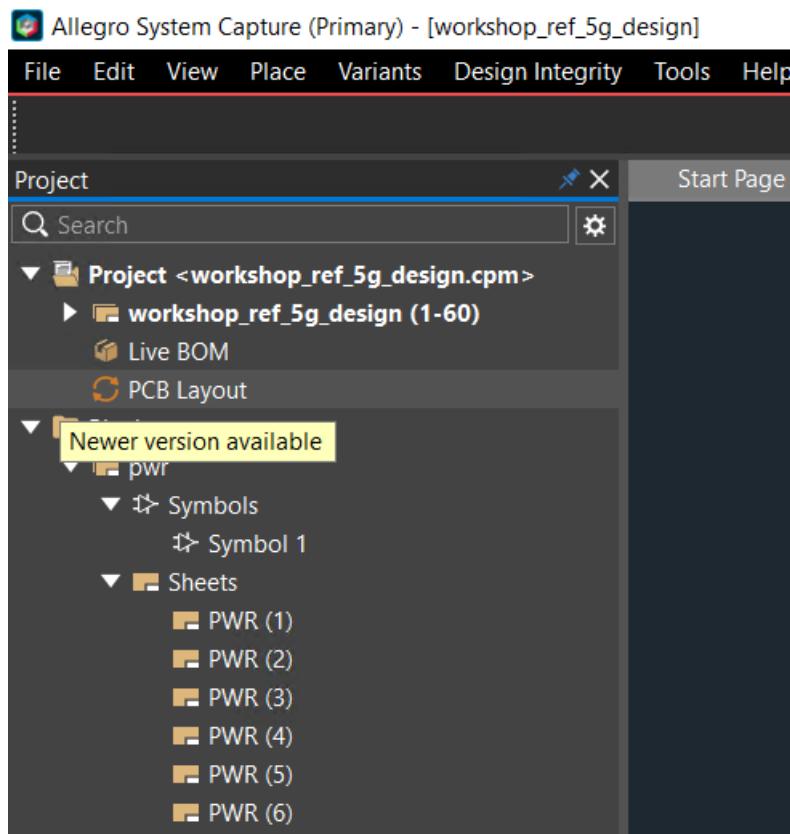
16. Right-click the required version node in the tree.
17. Click *OK* to import the layout netlist.
18. Save the design.

Pulse imports the layout netlist and associates the schematic with the selected layout.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

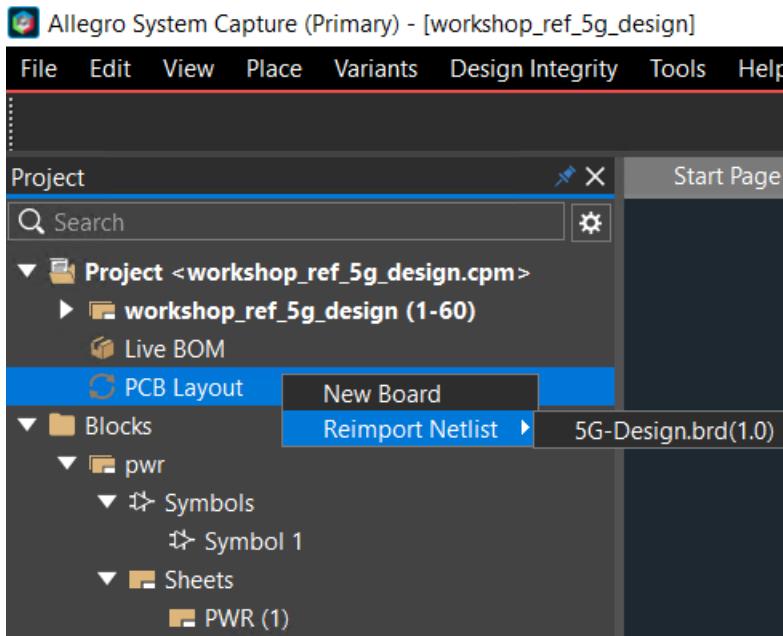
Now that the schematic and layout are linked, you are notified about any changes to the associated layout.



Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

19. To sync the schematic with the layout, right-click the layout and select *Reimport Netlist*.



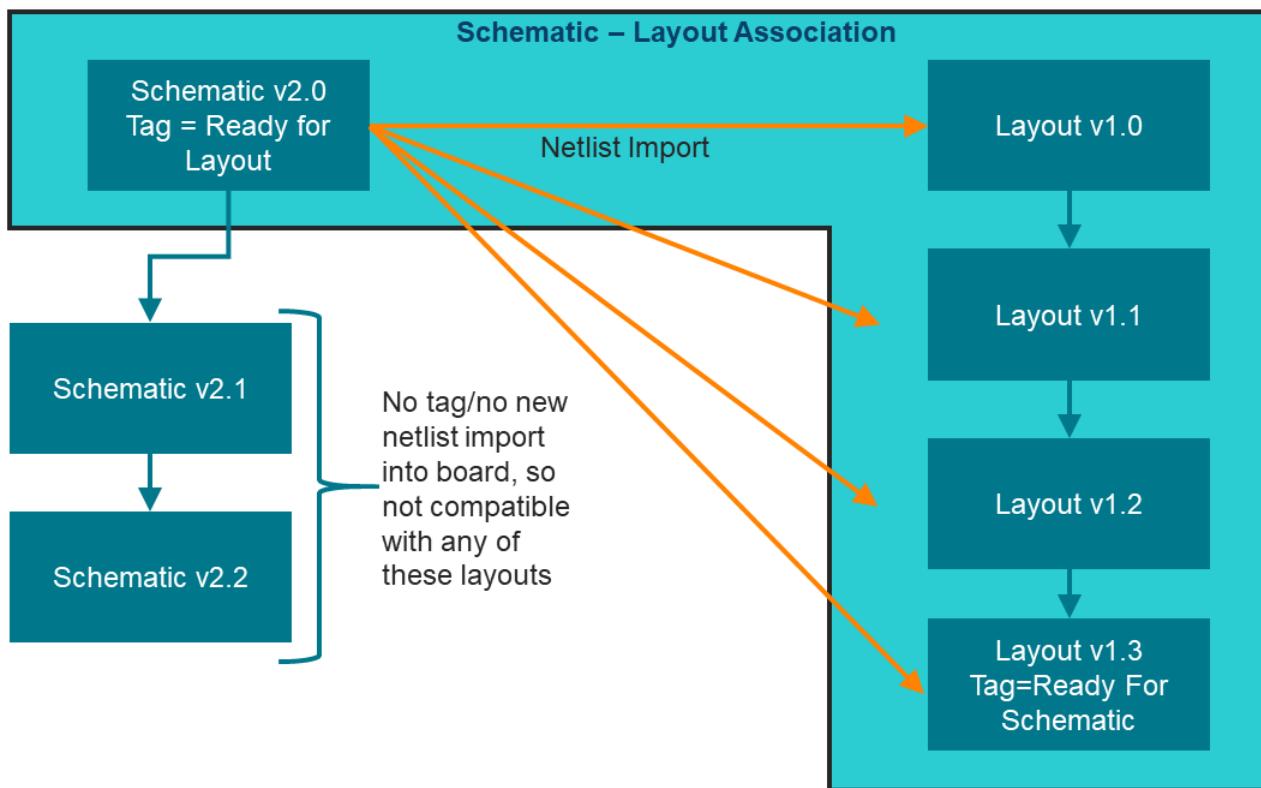
Association of Linked Designs

Each commit with the Ready for Schematic or Ready for Layout tag signifies a change in the netlist for a design that imports that netlist. For example, after a netlist is imported into a layout from a schematic committed with the Ready for Layout tag, each subsequent version of the layout that is created is considered as associated with that version of the schematic.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

This association continues until a new version of the schematic is published with the Ready for Layout tag and is imported into the PCB design.



Important
After you associate the version of a schematic that drove the netlist of a PCB and the version of a PCB that was backannotated to the schematic, the schematic and layout or vice versa cannot be delinked.

However, you can use the *Copy Project As* option to create a new design based off the existing design. The copied design does not maintain the version history of the original design.

Pulse-Managed Block Reuse for Physical Designs

To reduce design cycle time and improve efficiency, you can commit and upload block-level netlists to Allegro Pulse, enabling the import of version-managed netlists into module layouts (.mdd) files in layout editors.

Design Data Management in Allegro X System Capture

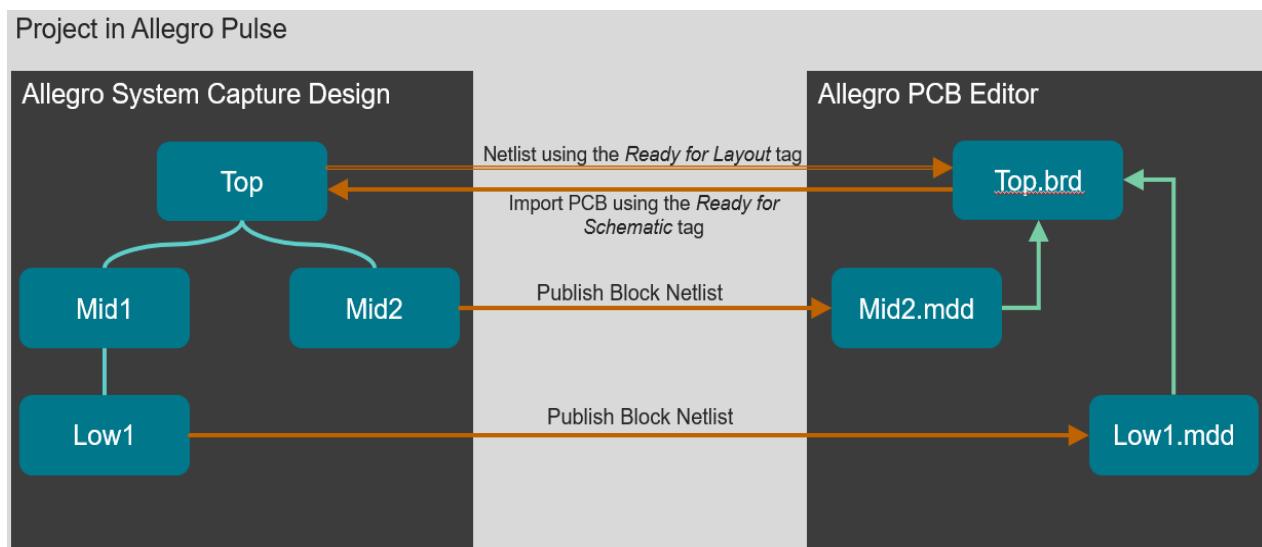
Designing When Connected to a Remote Data Server

The modules are used for physical reuse of the blocks. Layout engineers can start work on their modules without the top-level netlist being imported into the layout.

Because the entire data flow for blocks linked to physical module designs is managed by Pulse, tracking changes to blocks or layouts is simplified. Schematic designers and layout engineers are automatically updated of any changes in associated schematics, blocks, and layouts.

For a layout engineer or integrator to place the modules in a layout, the System Capture designer needs to first instantiate the blocks in the schematic, define the blocks as physical reuse blocks, commit the root design with the *Ready for Layout* tag, which generates the top-level netlist, and share the root design with the board engineers and integrators.

Here is an overview of the Pulse-managed modular design flow:



Enabling Physical Reuse of Pulse-Managed Blocks for Modules

To enable physical reuse of a block, do the following:

1. Launch Allegro System Capture.
2. Ensure that you are connected to the central Pulse server.

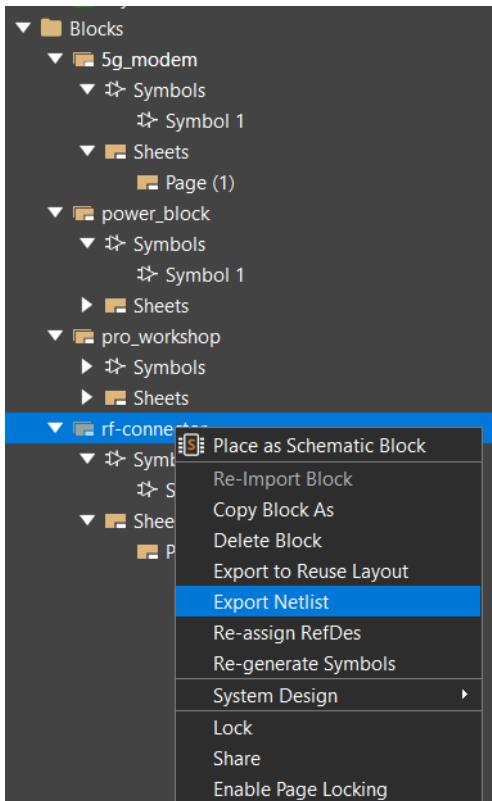
To check that you are connected, check the *Remote URL* field in the INFORMATION section of the *Pulse Manager* web page.

3. Open your design.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

4. Right-click the block whose netlist you want to upload to Pulse.
5. Select *Export Netlist*.



System Capture generates the netlist and saves the design on disk.

6. To upload the block netlist to Pulse, select *File — Commit*.

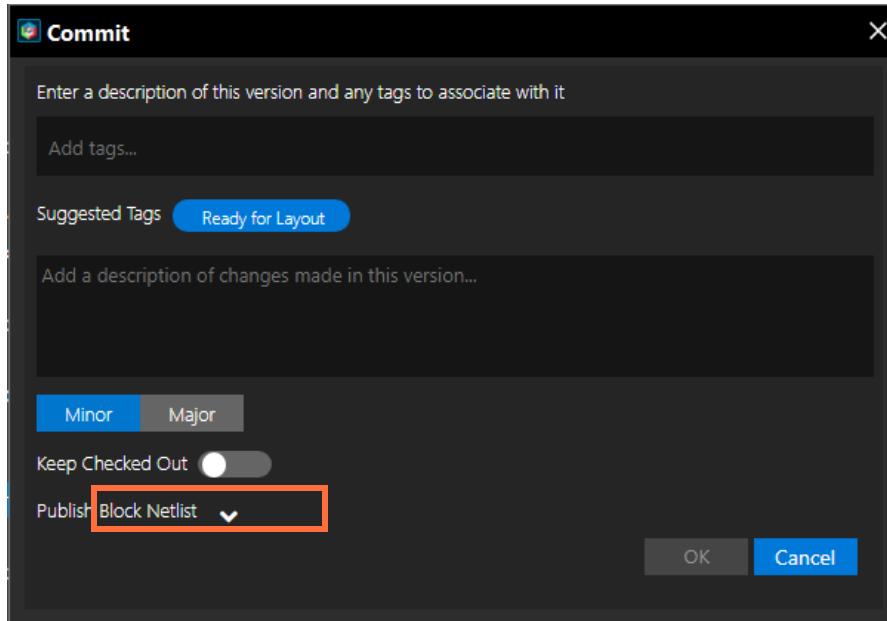
The *Commit* dialog box displays all the blocks whose netlists are exported.

Note: The *Publish Block Netlist* list is not displayed if you have not exported any block

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

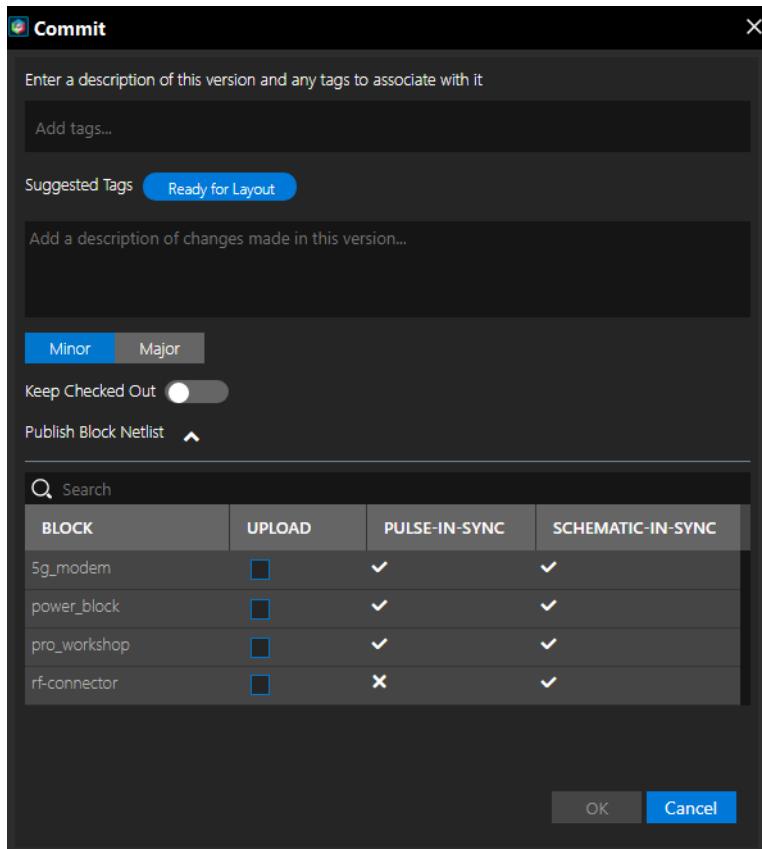
netlists.



Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

7. Expand the list to view all the blocks whose netlists are generated.



The *PULSE-IN-SYNC* and *SCHEMATIC-IN-SYNC* columns indicate the status of the block.

- ❑ *PULSE-IN-SYNC* alerts you that you have not uploaded the block netlist to Pulse.
- ❑ *SCHEMATIC-IN-SYNC* alerts you that you have not exported the block netlist since the latest changes to the block were made.

8. Select the blocks whose netlists you want to upload to Pulse.

If the block is already in sync with Pulse, the *Upload* check box is grayed out because there are no netlist updates to be published.

You can upload a block netlist to Pulse even without placing the block in the design.

9. Click *OK*.

The netlist is uploaded and stored in Pulse.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

If you open the *Commit* dialog again, note that the block is now in sync with the schematic and Pulse. As long as the block is in sync with Pulse, the *Upload* check box is grayed out because there are no netlist updates that need to be published.

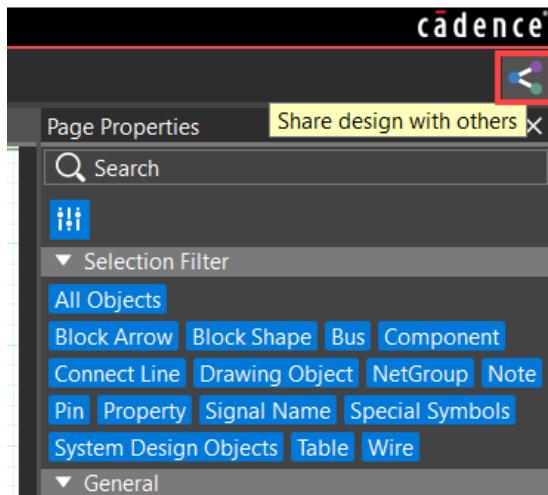
BLOCK	UPLOAD	PULSE-IN-SYNC	SCHEMATIC-IN-SYNC
5g_modem	<input type="checkbox"/>	✓	✓
power_block	<input type="checkbox"/>	✓	✓
pro_workshop	<input type="checkbox"/>	✓	✓
rf-connector	<input type="checkbox"/>	✓	✓

Now share the design with the layout engineer. The layout engineer can access the block netlist with read-only permission.

You can also right-click the block and click *Share* to provide write permission to the block with for specific layout designers if need to modify the schematic blocks.

10. To share the design, do the following:

- a. Click the *Share with others* icon.

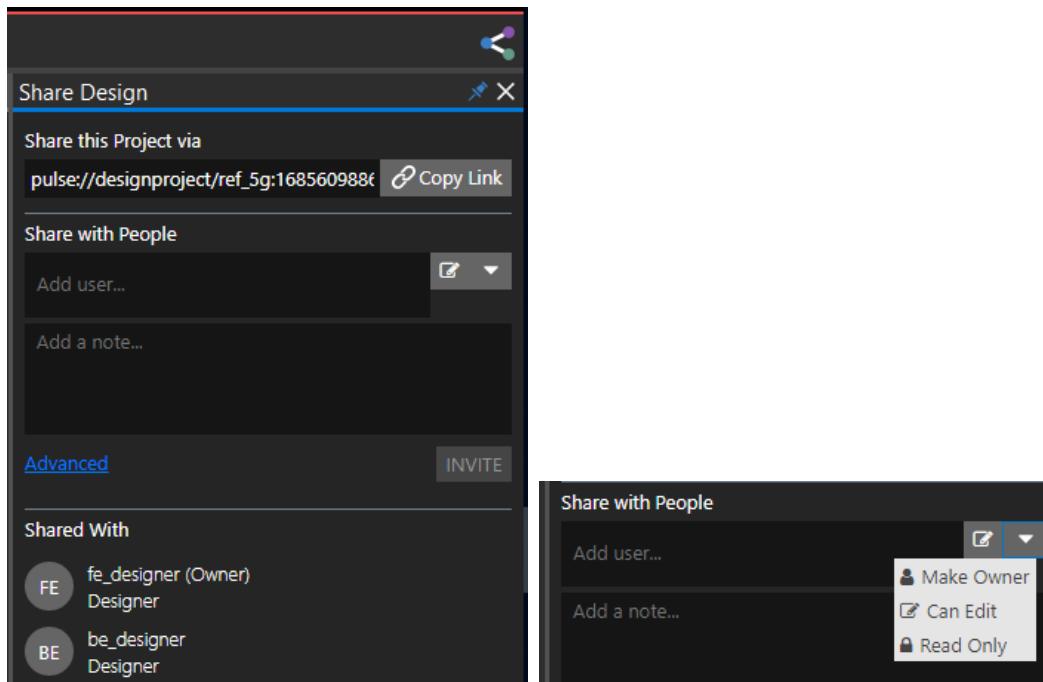


If you cannot see the share icon, ensure that *View — Toolbar* is enabled.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

- b. In the *Share Design* pane, select the required users from the drop-down list and select the sharing level.

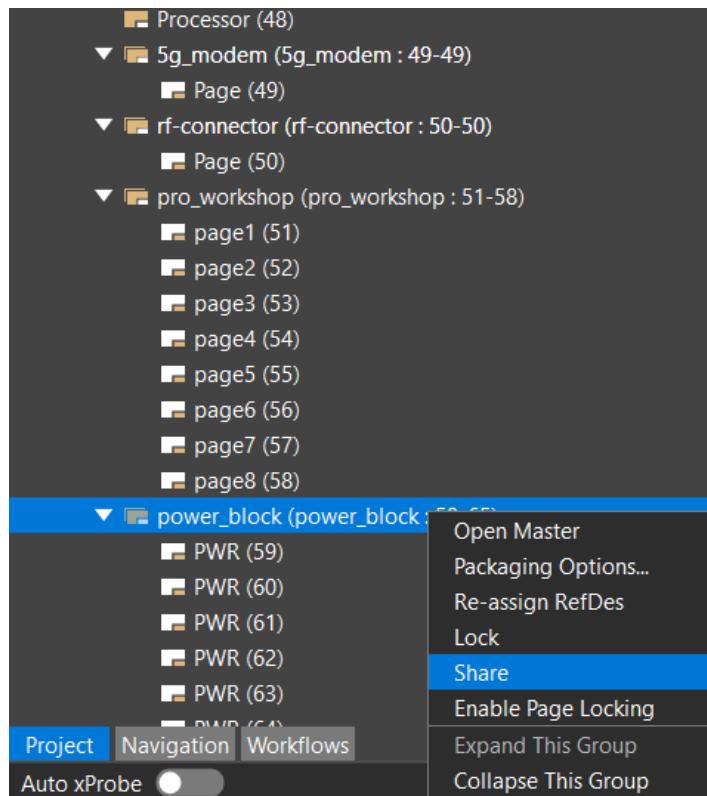


11. Type a message, if needed.
12. Click *INVITE*.
13. If you want to share a block, do the following:

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

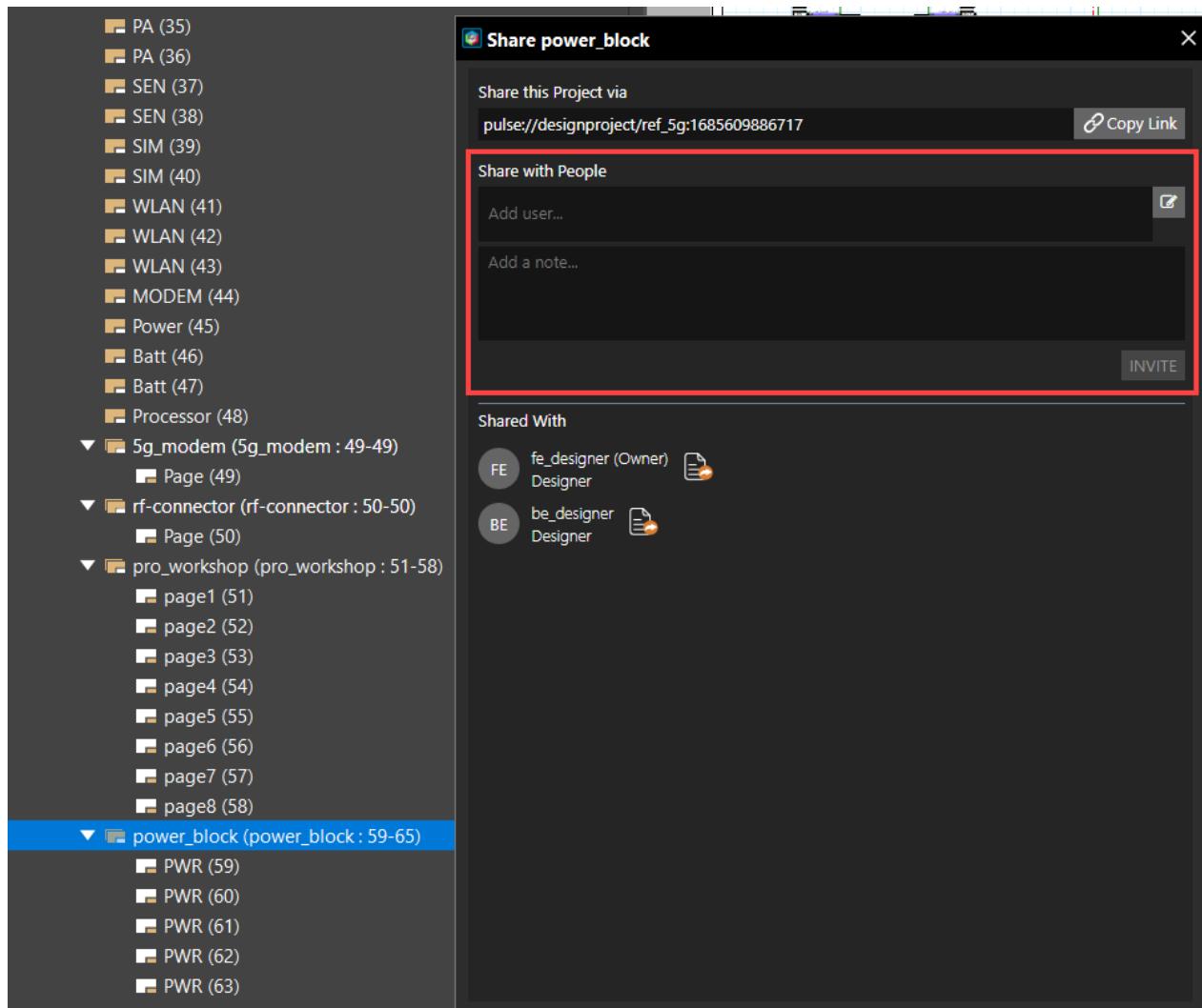
- a. Right-click the block.



Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

- b. In the *Share <block name>* dialog box, select the names of the engineers you want to share the block with.



- c. Type a message, if needed.
d. Click *INVITE*.

The users with whom a block is shared get an email notification with the message when invited. Sharing blocks automatically gives the layout designer read permission to the top-level design.

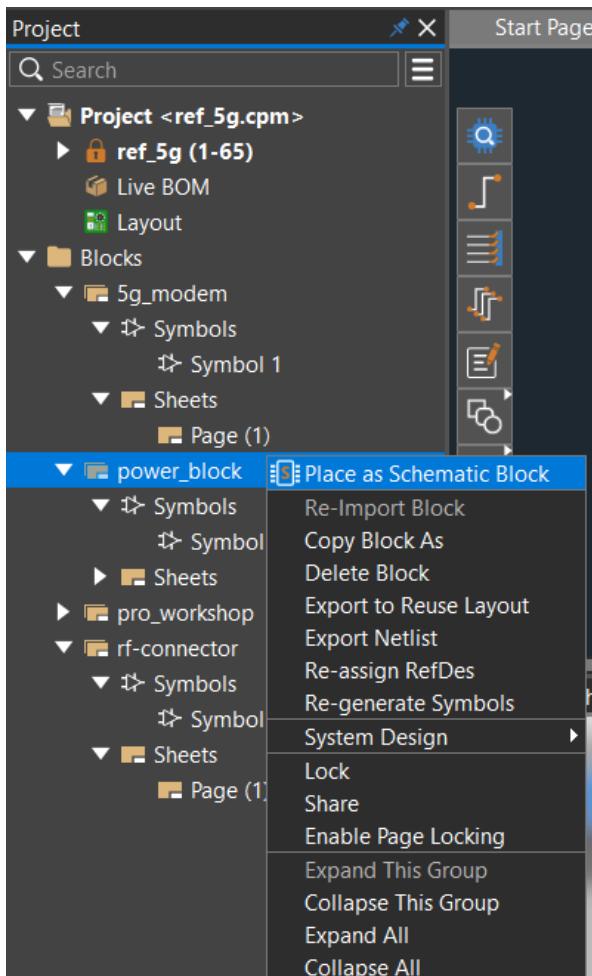
Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

Enabling Module Placement in Layout

To enable the placement of modules in a layout by the layout integrator, do the following in System Capture:

1. Select the block you want to place in the schematic.
2. Right-click and select *Place as Schematic Block*.



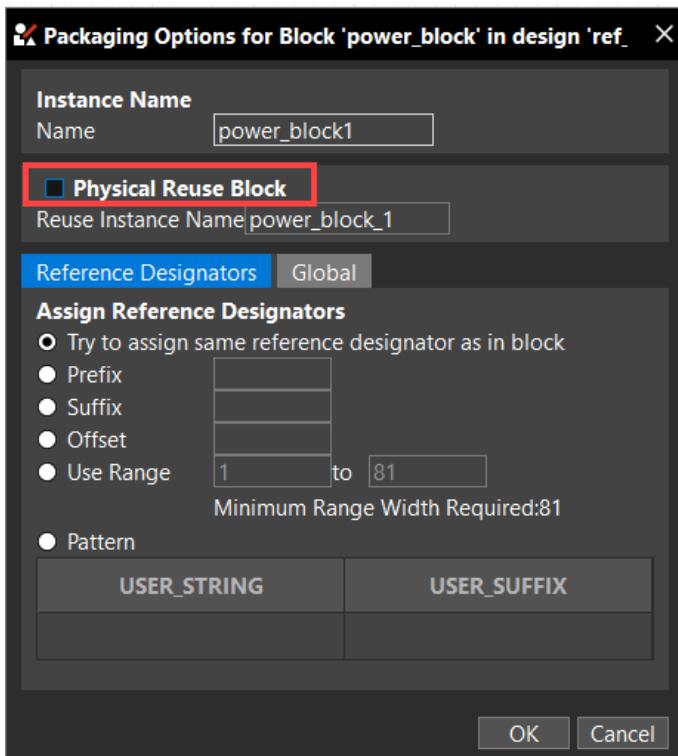
The block symbol is automatically attached to the cursor.

3. Place the block.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

The *Packaging Options <block name>* dialog box is displayed.



4. Select the *Physical Reuse Block*.

This ensures that the module instance is shown in the *Placement* dialog of the layout editor.

When a block instance is selected for physical reuse, a unique Reuse Instance Name is assigned to it. System Capture suggests a unique name that you can retain, or you can modify the name to another value.

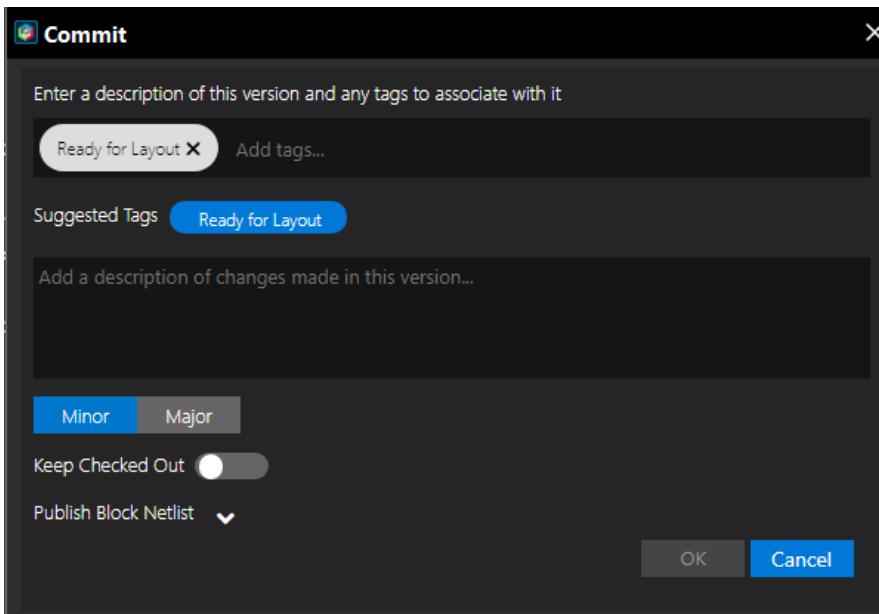
5. Click *OK* to close the packaging options dialog box.

6. Commit the root design by selecting *File — Commit*.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

7. Select the Ready for Layout tag, which generates the top-level netlist on the fly when the design is being committed to Pulse.



8. Enter a description.
9. Click *OK* to close the *Commit* dialog.

The top-level netlist is uploaded to Pulse.
10. Share the entire design with the layout engineers.

Because block-level sharing automatically gives users read permission to the top-level design, this step is only needed if different layout engineers work on the top-level layout and the design is not yet shared with them.

The layout integrator can now import the top-level netlist into the layout, which associates the schematic and layout, and integrate the modules.

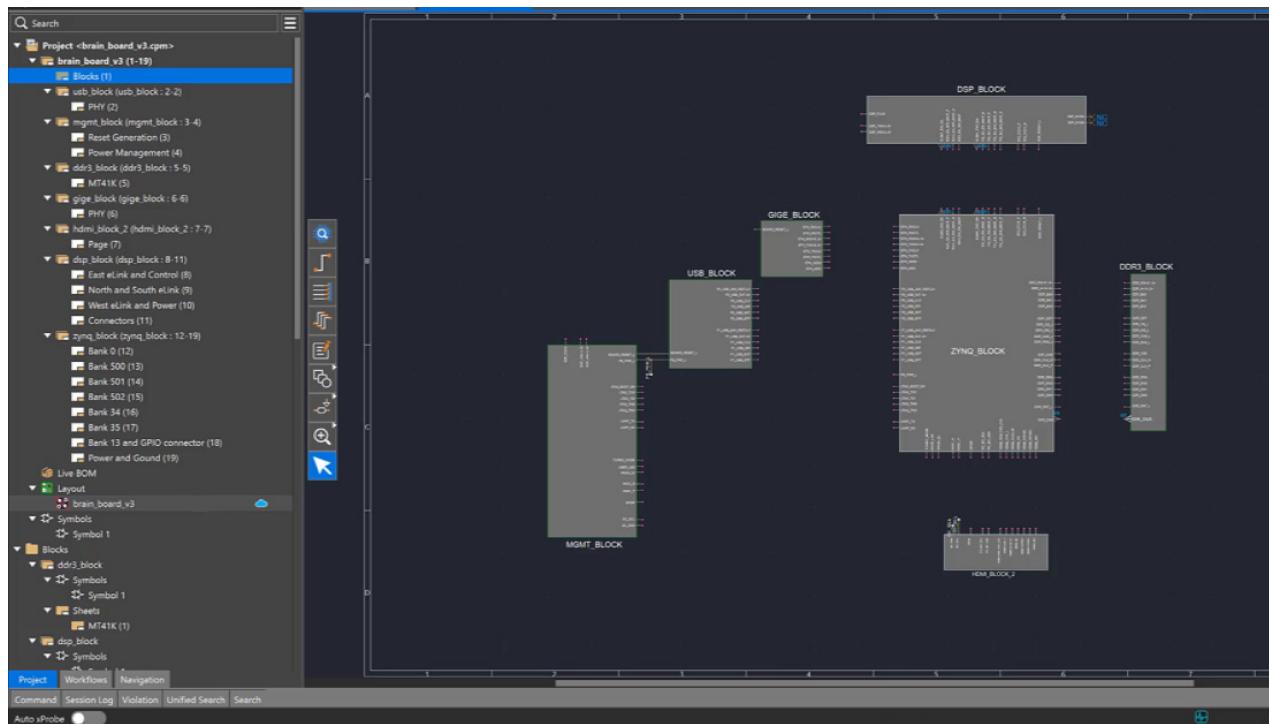
Managed Layouts in Project Explorer

To enable System Capture users in a multi-user environment to keep up-to-date with changes in layouts associated with schematics, Pulse-managed layouts are now visible in the System Capture Project explorer pane. Layouts include boards, packages, modules.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

System Capture users must have at least read-only permission for the layouts to view them in the Project explorer pane.

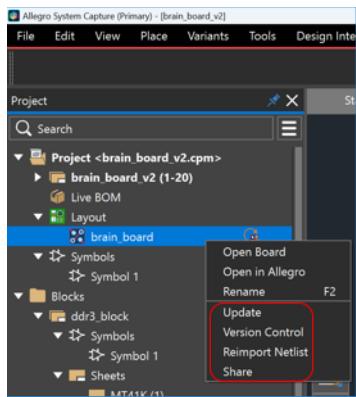


Tooltips displayed on hovering the mouse over layouts display the layout status, such as whether the layout is in sync with the associated schematic, whether a new revision is available, and downloaded layouts, which have been removed from the design or project list in the Pulse web dashboard.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

Using the context menu, you can open the associated layout, open it in PCB Editor and rename it. For Pulse-managed layouts, you can also update them, view the version control, reimport the netlist, and share the layouts.

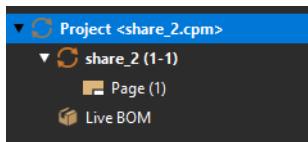


Related Topic

Leveraging Pulse-Managed Module Design for Board Creation

Getting the Latest Version of a Shared Design

When you have access to a shared design that is currently being edited by someone else, and a newer version is available, the following change is displayed in the *Project* viewer.

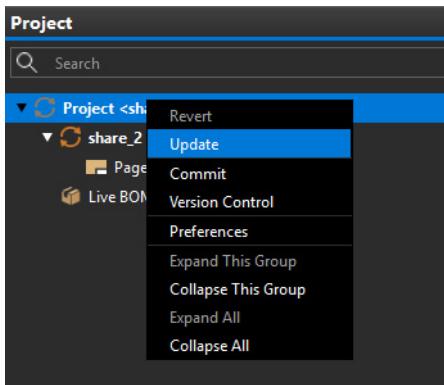


- To update the version you have, do one of the following:

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

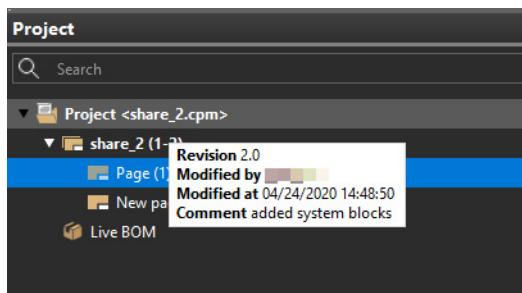
- ☐ Right-click the project name in the *Project* viewer and choose *Update* to pull in the latest changes for the entire design.



- ☐ Right-click selective pages and blocks and choose *Update* for a partial update.

This option provides control over the level of updates you want to accept. For example, you can choose to incorporate a change made in a specific block by another team member. After you are done making your changes, you can accept the remaining updates at the top level.

The design is updated and the locks are removed.



The design is now available for editing to all who have access. When anyone starts editing the design, the others no longer have access until the:

- ☐ Design team member uses the *Commit* command
- ☐ Design team member uses the *Unlock* command
- ☐ Design owner overrides the locks using the *Release Lock* command

Committing a Shared Design

To mark milestones in the design cycle or when changes have stabilized and you want to denote those as something more than just a work-in-progress save, you can commit a design.

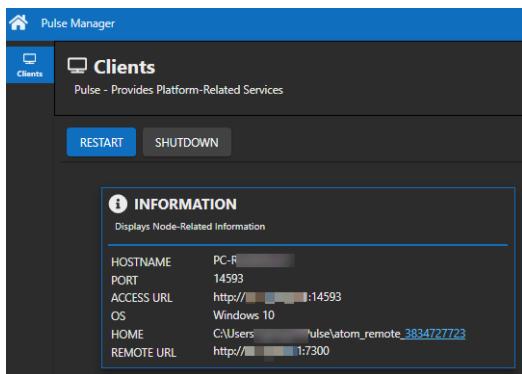
Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

To commit a design, do the following:

1. Ensure that you are connected to the central Pulse server.

To check that you are connected, check the *Remote URL* field in the INFORMATION section of the *Pulse Manager* web page.

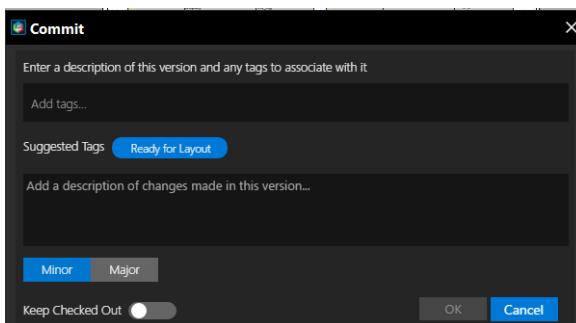


2. In System Capture, select *File – Commit*.



You cannot commit a design until all pending updates available on the server are made to your local version. This ensures that the design stays current with the changes published by team members and that any conflicts in the design are resolved as early as possible.

The *Commit* dialog box opens.



3. Add the details of the changes you made:

- a. Tags

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These appear in the *Open Projects* and *Version Control* dialog boxes for all the other designers and can be used to identify the different versions of the design along with the comments.

b. Description

Any details that you need to record for yourself or other designers

c. Type of changes

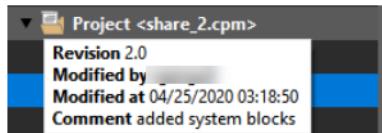
This affects the version number of the newly saved version. Minor increments the number after the decimal. For example, 1.1 become 1.2. Major increments change the number before the decimal. For example, 1.2 becomes 2.0.

d. Click *Keep Checked Out* if you want to continue working on the locked parts of the design. If not selected, all locks are removed on *Commit*.

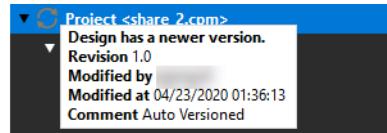
4. Click *OK*.

Each commit operation creates a new version of the design in the *Version Control* dialog box and increments either the major or minor digits in the version scheme, depending on the selection in the *Commit* form.

These committed changes are now available to all the designers who have access to this shared design.



Designer editing the design sees a higher version and details.



Other designers now know a newer version is available.

If needed, a designer can go back to an earlier design version and continue work.

Viewing or Rolling Back to Earlier Design Versions

To roll back to an earlier version of a page or a block, use the *Version Control* tree to find the design version you require. To revert to an older version, do the following:

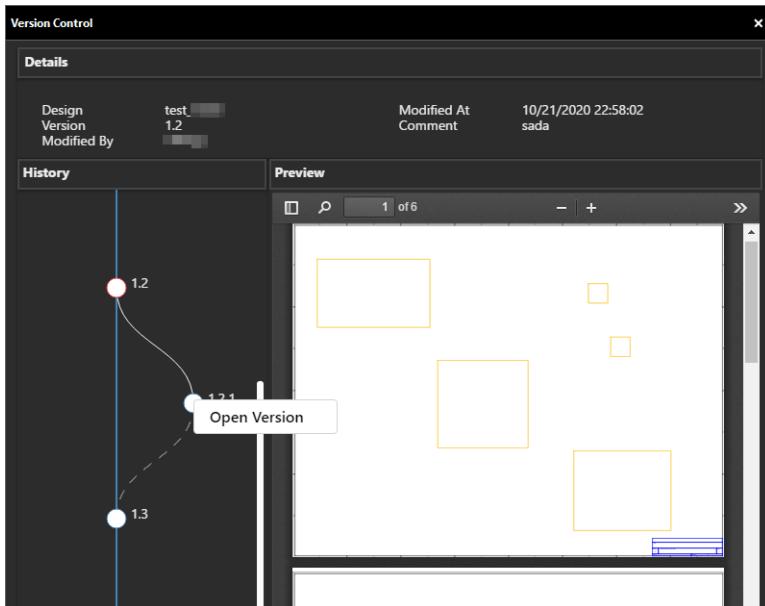
1. In System Capture, choose *File - Version Control* to view all the available design versions.

Only the committed versions are available. Changes saved locally by a designer are not available.

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2. Click a version to see the preview of the design.
3. Right-click the version that you require and choose *Open Version*.



System Capture opens the version. You can now make a copy of the design in a new location.

4. If you made a copy of the design in a new location, open both versions of the design.
5. Merge the changes as needed.

Note: If versioning is not enabled in the *Design Management Preferences* dialog box or if a design could not be created because of an internal error, Pulse creates a backup.

Related Topics

[Template-Based Project Creation vs. Copied Projects](#)

[Open Projects Dialog Box](#)

Tasks for Owners of Shared Designs

Design owners and designers perform the same tasks on a shared design. However, the following tasks can only be done by design owners:

- [Removing Design Locks](#)

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- [Removing Designers from a Shared Design](#)
- [Changing Team Permissions](#)
- [Changing the Design Locking Level](#)

Removing Design Locks

Pages or blocks with a white lock icon indicate that they are locked by someone else. Locks can be removed:

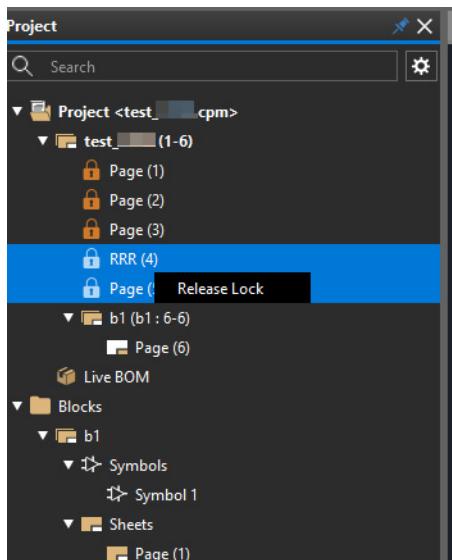
- Designers can remove their own locks.
- Design owners can revoke the locks of other designers.



Exercise caution when unlocking another designer's locks. Any changes they make to parts of the design after the locks are removed are not published to the Pulse server on commit.

To remove locks, do the following:

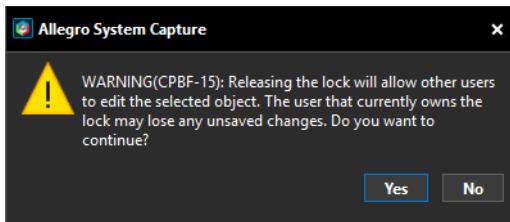
1. To release others' locks, right-click and select *Release Lock*.



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A message prompts you to confirm whether you really want to revoke the locks.



Click Yes.

The designer who had locked the page or block gets a message in the *Violation* window.

The design owner has unlocked '*<name of locked page or block>*'. The changes you made will only be saved locally and not to the Pulse platform.

The lock icons are removed from the *Project* explorer for all the designers who have the design open and now, anyone can lock the page or start editing it.

2. To release your own lock, which is auto locked on editing, right-click and select *Unlock*.

Comment: *Note to self: add a snapshot*

Removing Designers from a Shared Design

If a designer moves to another team or design, you might want to stop sharing the design with them. Only the design owner can stop sharing a design.

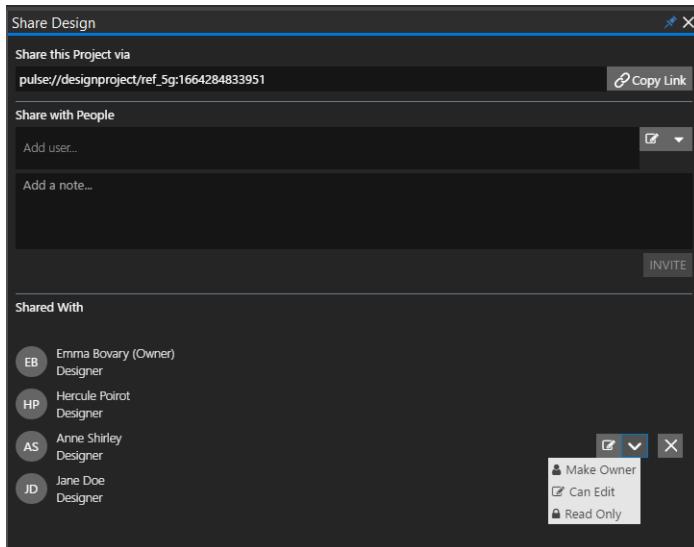
To remove designers from a shared design, do the following:

1. Open the design.

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2. Click the *Share design with others* () icon.



If you cannot see the share icon, ensure that *View — Toolbar* is enabled.

3. Click the name of the designer you want to remove.
4. Click the cross icon.
5. Close the *Share Design* dialog box.

The other designers no longer see this design in the *Pulse Platform* tab of the *Start Page*. However, they have access to the last accessed version from the *Recent Projects* tab.

Changing Team Permissions

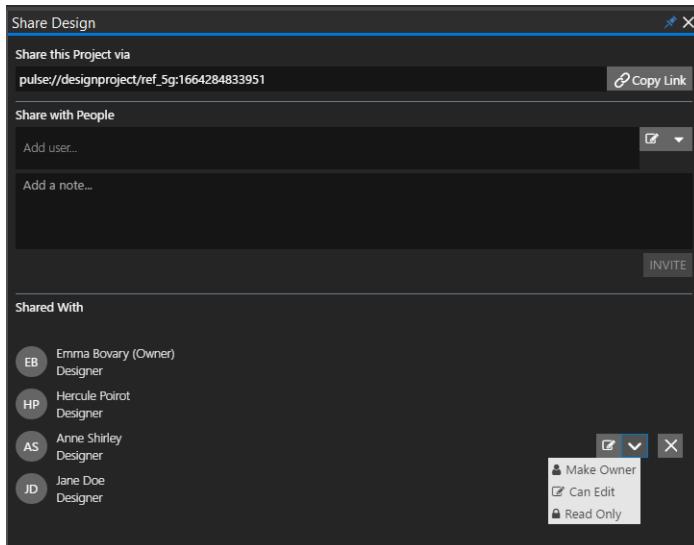
Design owners can change the permission of designers working on a shared design. To modify the permissions, do the following:

1. Open the design.

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2. Click the *Share design with others* () icon.



If you cannot see the share icon, ensure that *View — Toolbar* is enabled.

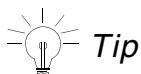
3. Click the name of the designer whose permissions you want to change.
4. Choose the new permission.
5. Close the *Share Design* dialog box.

The changes are applied immediately for the designer whose permissions are modified.

Changing the Design Locking Level

Design owners can change the locking level of a design, but with the following restrictions:

- The locking mode can be changed **only if** there are no user locks in the design.
- If the locking mode has been changed to the page level, it cannot be changed back to the block level.



If you need to switch a design back to the block level, do either of the following:

- Create a design using the source project as a template.
- Copy the design using *Copy Project*.

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In both cases, the new or copied design defaults to the block-level sharing mode. Add the team again via the *Share Design* panel because the sharing configuration is not preserved when you use either of these options.

To change the locking level of a design, do the following:

1. Ensure that all parts of the design are unlocked.

You can force unlock parts of the design if needed but the other designers lose their locks and their changes are no longer available for the *Commit* command.

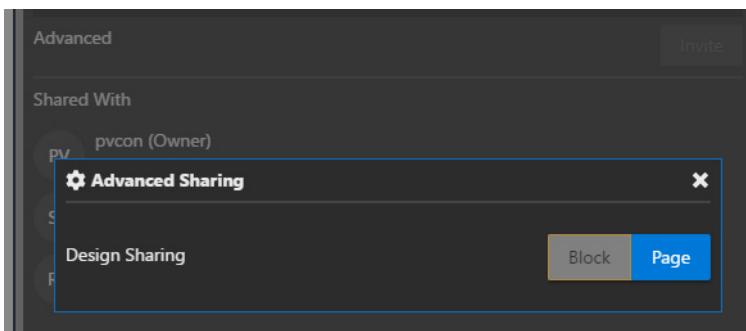
2. Click the *Share design with others* () icon.

If you cannot see the share icon, ensure that *View — Toolbar* is enabled.

3. Click *Advanced*.

4. Change the locking level.

5. Close the *Advanced Sharing* dialog box.



Related Topic

[Team Design Basics](#)

Impact of Team Design on Other Aspects of a Design

While System Capture locks blocks and pages when designers are working, there are some tasks that affect the entire design, or more pages or blocks than currently locked. This section lists some scenarios and explains how System Capture manages changes across the design versions.

- Cross-page elements

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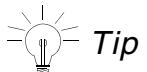
Designing When Connected to a Remote Data Server

Many design elements, such as nets, span multiple pages of the design. When working with a shared design, System Capture automatically locks the pages impacted when users edit cross-page elements.

If System Capture cannot update the element in all the pages in which it is present, you are informed about which operation failed and why. You can then acquire a lock for all the impacted elements before making the design change.

■ Design cache and reference library conflicts

Like with cross-page elements, changes to the local copy of library elements and the design cache can impact multiple pages in the design when modified. Because of this, Part Manager can only be used to update the design when the entire design is locked by a designer.



Tip

It is recommended that the design team plan a scheduled downtime in the design process which can be used to handle Part Manager updates because these changes have potentially widespread impact.

■ Page management operations

In page-level team design, page management operations, such as add, move, or delete, require a lock on all pages in a block. If pages need to be added, moved, or deleted at the root of the design, the user doing the page management operation must acquire a lock at the design-root level. The blocks at the root level need not be locked. Other users can continue working on other portions of the design while this occurs, including other blocks or other views of the same block, such as variants.



Important
If page-level locking is enabled, the *Need Update* icon is shown at the root and not on the block when a new view, such as a variant or symbol, is created.

■ Variants

When a designer starts editing a variant, the *Variant* node in the *Project* explorer is locked. After the variants are modified and the design is committed, the locks on the variants are released and the changes are published for other designers. Any team member can still view the variants on the canvas while they are locked by another user.

■ Block symbols

When a designer starts editing a block symbol, all the block symbols, including split block symbols, for a block are automatically locked together.

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■ Global operations

Global operations in System Capture are supported in page-level team design but often require a wide scope of locks to be acquired in order to successfully update all design elements by the global operation.

A few examples of tasks that affect the entire design:

- ❑ Global find and replace

System Capture attempts to update all impacted objects. Any object that cannot be modified because it is locked by another user is reported in the *Find Results* window after the operation completes.

- ❑ Reference designator reassignment

A lock is needed on the entire block of a design on which it is run. System Capture automatically locks the block to make this change.

- ❑ Export netlist

Requires a lock on the top-level design and the packaged view of the design. System Capture automatically attempts to acquire the required locks when export netlist is run.

- ❑ Project settings

Project settings can be locked independently of the design. Project settings are automatically locked when users with read and or write permission make changes to them. Commit is used to release the lock and publish the updated settings to other team members.

Related Topic

[Team Design](#)

[Team Design Basics](#)

Comparing Designs

When you work in a team design environment, or if you imported blocks, System Capture displays update and reuse notifications. For example, if a source design is committed and a change in it impacts a reused block, System Capture displays reuse update notifications for the blocks. To assess the impact and decide whether to update your design with the latest version of the reuse block, you can compare differences between the designs, blocks, or

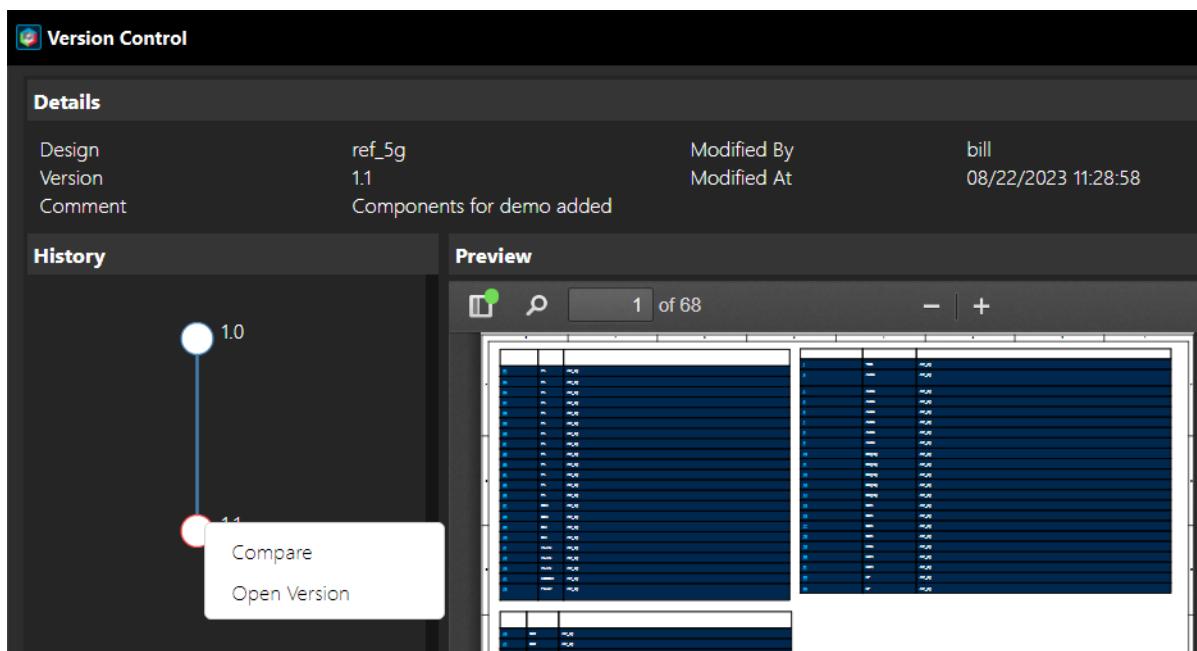
Design Data Management in Allegro X System Capture

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pages. You can view differences between two pages or blocks to decide whether to update your design.

To compare, do the following:

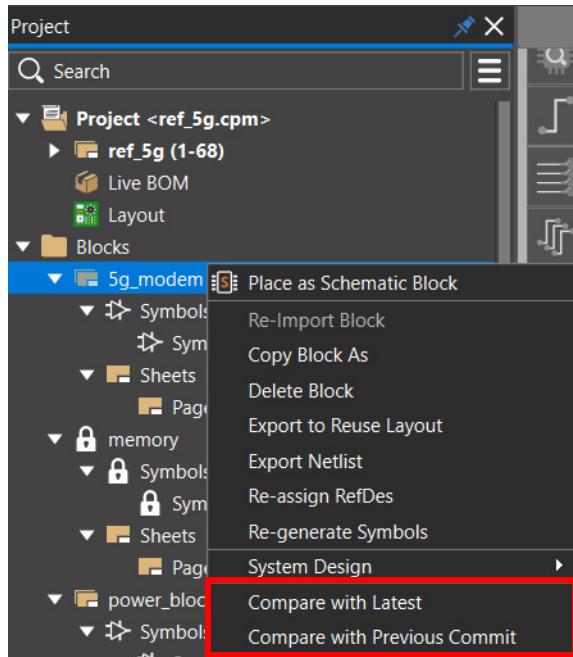
1. To compare pages, right-click the first version in *Version Control*.
2. Select *Compare*.
3. Click the second version.



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4. To compare individual blocks with the previous or latest commit versions, right-click a block.

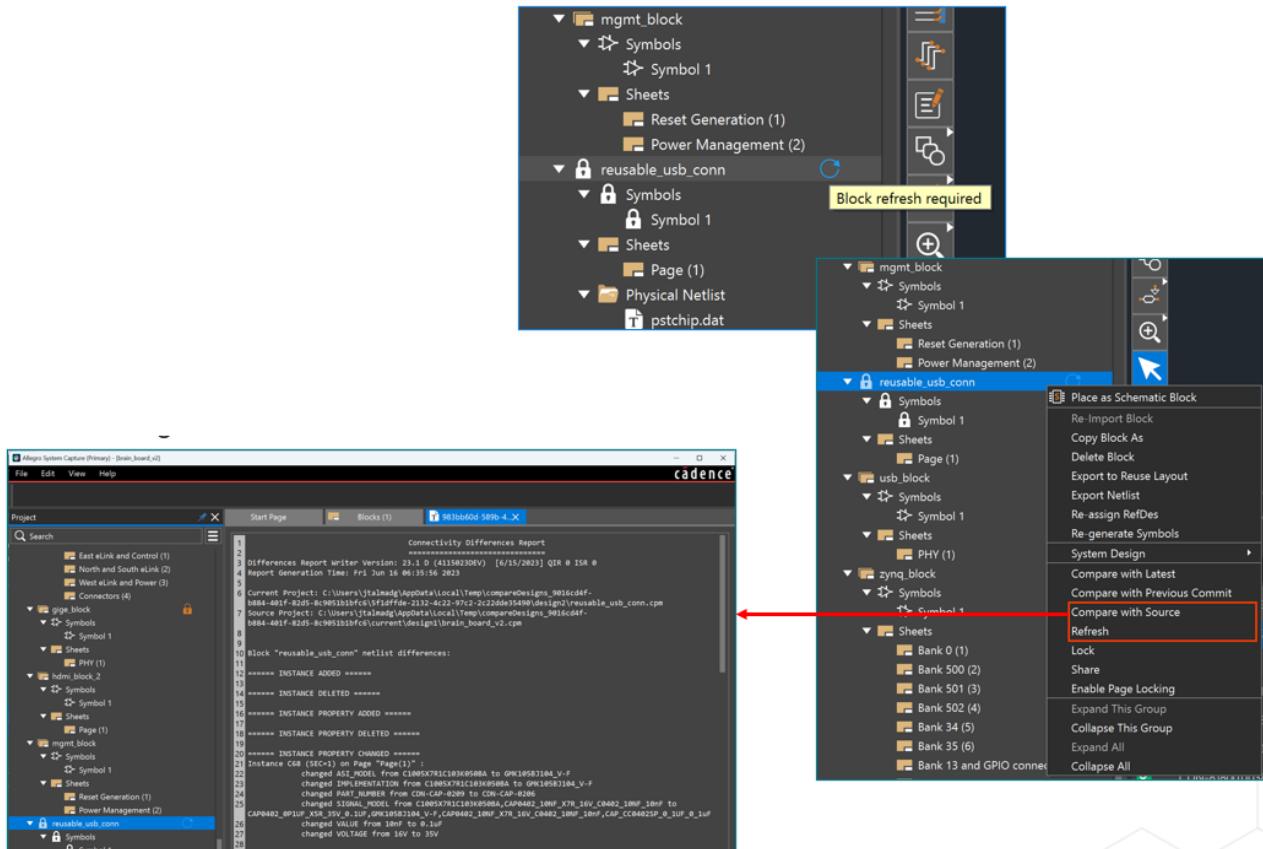


5. Select *Compare with Latest* or *Compare with Previous Commit*.

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6. To compare a reused design or block with the source, right-click and select *Compare with Source*.



The differences are displayed in a new tab.

```

Start Page TOC (1) report.txt ×

1 Report
2 =====
3 Differences Report Writer Version: 23.1 D001 (4135734) [8/16/2023]
4 QIR 0 ISR 0
5 Report Generation Time: Tue Aug 22 13:39:35 2023
6 Current Project: C:
\Users\pvcon\AppData\Local\Temp\cmp_dsns854.2\2d095e11-
a8d3-4126-8d36-80caab39ef18\design2\ref_5g.cpm
7 Source Project: C:
\Users\pvcon\AppData\Local\Temp\cmp_dsns854.2\60eff2d5-8bdb-4aec-
beed-d7d98b271863\design1\ref_5g.cpm
8
9 No differences found.

```

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

Related Topic

[Pulse-Managed Block Reuse for Physical Designs](#)

Requesting New Library Parts

In large organizations, parts are typically managed by a library department, which coordinates with manufacturers, evaluates part quality, and so on. Submitting part requests to a user defined as a librarian or to a library department ensures that new parts meet sourcing requirements and adhere to a defined sequence of authorization.

Allegro System Capture designers can submit part requests to their organization's library department. Designers can also edit or cancel requests they have raised, or subscribe to and unsubscribe from requests submitted by other designers.

You can submit parts in three ways:

- In System Capture by:
 - Using *Part Request Dashboard* in the *Workflows* tab.
 - Using the *Unified Search* pane.
- Using the Pulse web dashboard.

You can:

- Submit a part request.
- View completed part requests or requests created by other users.
- Assign a part request to a specific librarian.
- Edit or cancel a part request you submitted.

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- Subscribe to part requests raised by other users or unsubscribe from a request.

REQUEST ID	STATUS	ASSIGNED TO	NEED DATE	DATE MODIFIED	PROJECT ID	COMMENTS	DESCRIPTION
Request_14	New	library_admin	06/17/2020	05/07/2020 07:26:21	demoproject2	[user1] : An ECO part r...	WID:CHIP0805...
Request_13	New	library_admin	05/21/2020	05/07/2020 07:21:06		[user1] : A new request.	CAP
Request_10	New	library_admin	05/08/2020	05/07/2020 06:47:45	demo_project	[user1] : This is an ECO...	HEX BUFFER/DR...
Request_9	New	library_admin	05/20/2020	05/07/2020 06:46:15	demoproject	[user1] : Request for ne...	DUAL BUFFER/D...
Request_8	New	library_admin	05/22/2020	05/07/2020 06:45:00			74F08 QUAD 2L...

Submitting a Part Request

To submit a part request in System Capture:

- Do one of the following:

- Click the new request icon, () in *Part Request Dashboard*.

REQUEST ID	STATUS	ASSIGNED TO	NEED DATE	DATE MODIFIED	PROJECT ID	COMMENTS
Request_17	New	library_admin	05/06/2021	05/05/2021 21:50:00		
Request_16	In Progress	library_admin	05/06/2021	05/05/2021 18:30:37		
Request_14	New	library_admin	05/06/2021	05/05/2021 21:47:43		

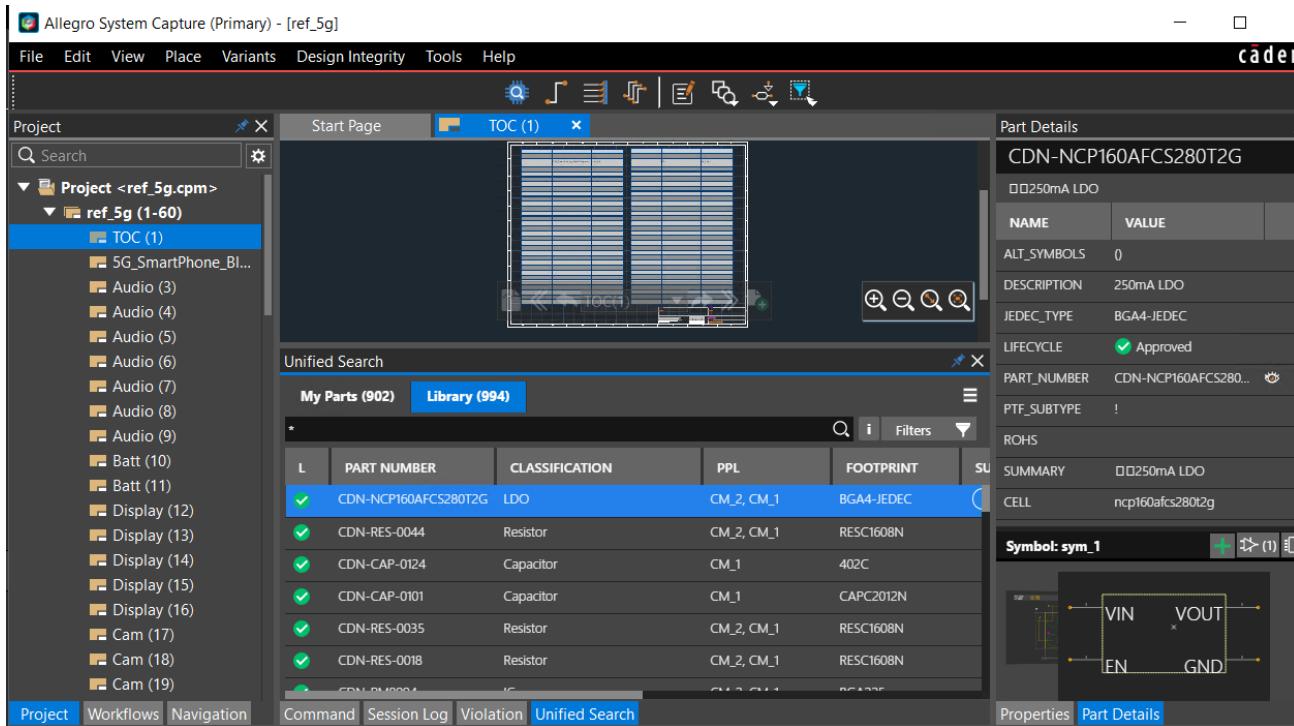
The *Part Request* dialog box opens. This is a blank form in which you need to add part information in the fields that are available.

- Click the *Unified Search* tab in System Capture.

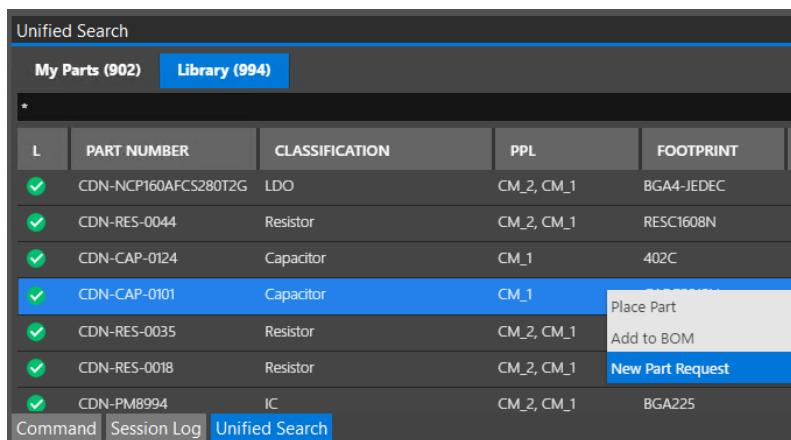
Design Data Management in Allegro X System Capture

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The *Library* pane displays parts from Pulse-managed libraries.



- Right-click any part row and select *New Part Request*.

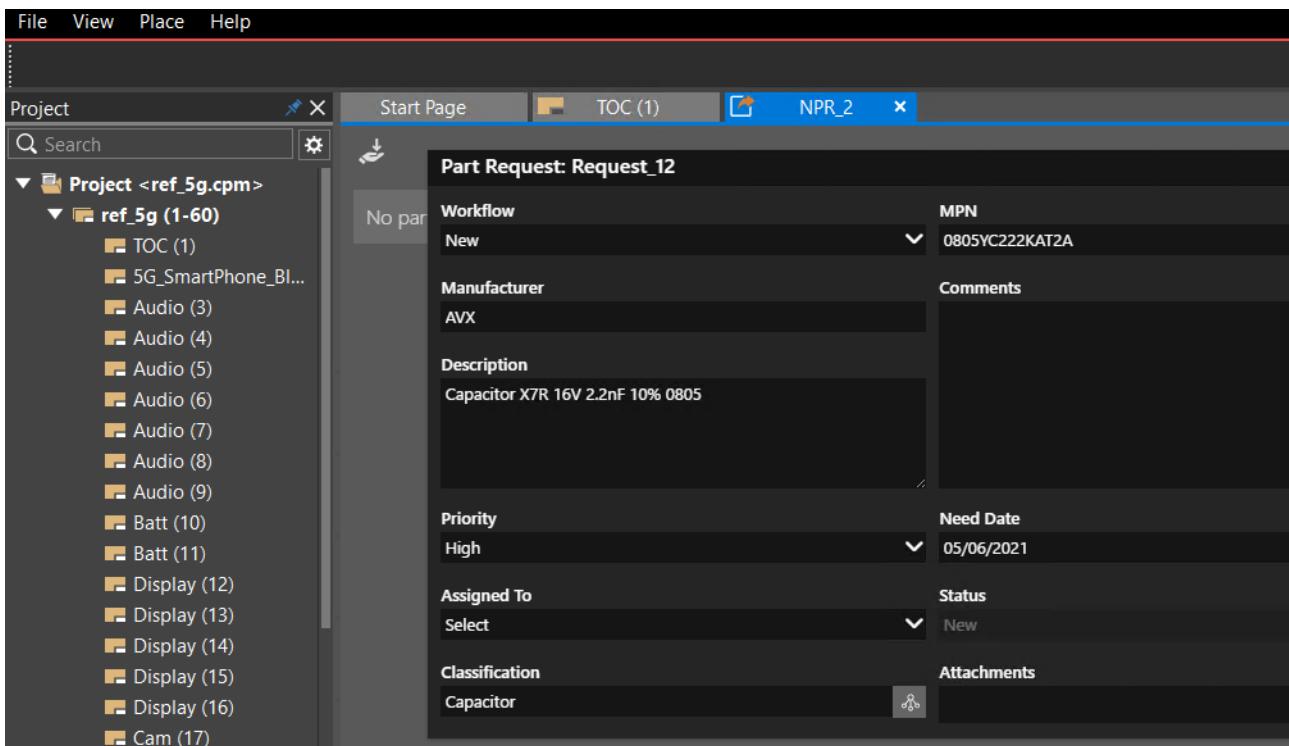


The *Part Request* dialog box opens showing the request number in the window title.

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The request number is an auto-generated, unique number.



- b. Specify the required information about the part for which you are raising the request.

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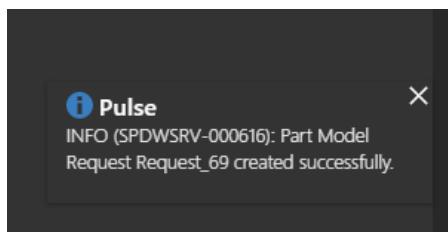
Mandatory fields have an asterisk symbol.

Part Request: Request_63

Manufacturer	MPN
Description	Comments
Priority	Need Date
Assigned To	Status
Classification	Attachments
Project ID	
Properties	
NAME	VALUE
ALT_SYMBOLS	[REDACTED]
APP_NOTE	[REDACTED]
ASSY_IPN	
CLASS	DISCRETE

c. Click *OK*.

A message is displayed that a new part request is created.

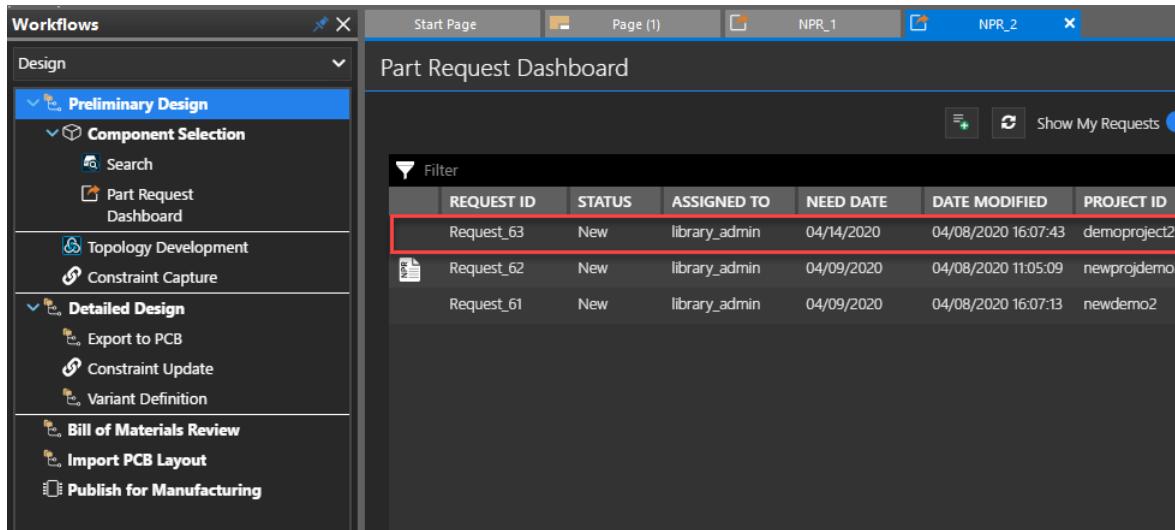


The new part request appears in *Part Request Dashboard*. When created, the status of the request is **New**. The status changes when the librarian processes the

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part request. Depending on the stage at which the request is, the values can be Need More Information, On Hold, In Progress, Canceled, or Completed.



The screenshot shows the Allegro X System Capture interface. On the left, there is a sidebar titled 'Workflows' under 'Design'. The 'Preliminary Design' section is expanded, showing 'Component Selection' (with 'Search' and 'Part Request Dashboard' options), 'Topology Development', 'Constraint Capture', and 'Detailed Design' (with 'Export to PCB', 'Constraint Update', and 'Variant Definition' options). Below these are 'Bill of Materials Review', 'Import PCB Layout', and 'Publish for Manufacturing'. The main area is titled 'Part Request Dashboard'. It features a 'Filter' button and a table with the following data:

REQUEST ID	STATUS	ASSIGNED TO	NEED DATE	DATE MODIFIED	PROJECT ID
Request_63	New	library_admin	04/14/2020	04/08/2020 16:07:43	demoproject2
Request_62	New	library_admin	04/09/2020	04/08/2020 11:05:09	newprojdemo3
Request_61	New	library_admin	04/09/2020	04/08/2020 16:07:13	newdemo2



When the requested part is created, you receive a notification e-mail and can access the part from the *Library* pane. You are also notified when the part request is assigned, canceled, edited, completed, and marked as requiring more information.

Submitting an ECO Part Request

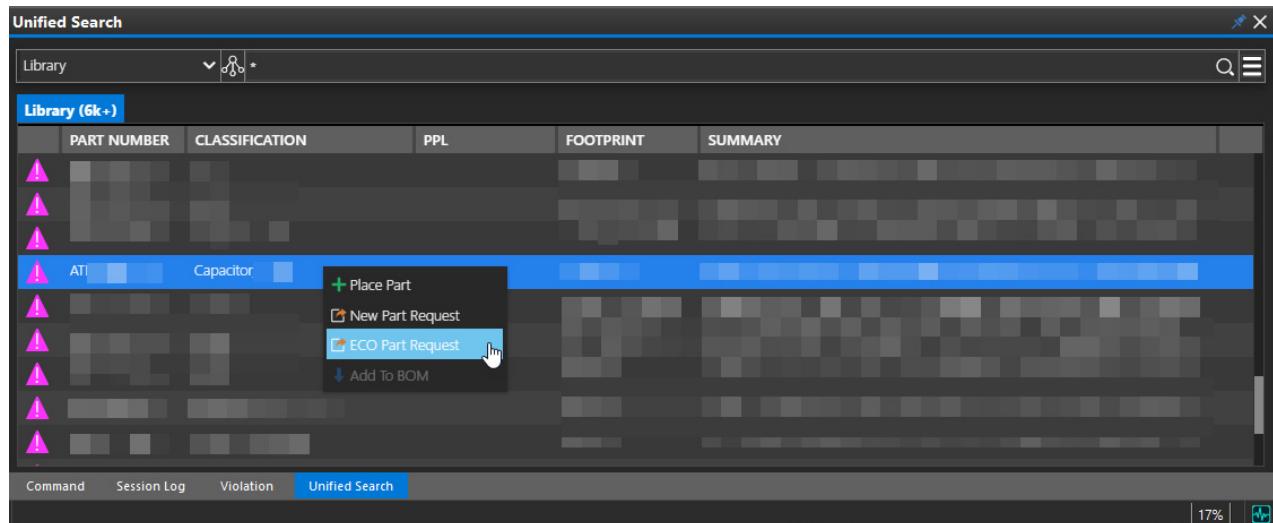
In the schematic design cycle, a part might need to be changed because of some significant change in the properties, changes in customer requirements, or if it generates errors when used in the design. In such cases, you can raise an engineering change order (ECO) for a part in System Capture by doing the following:

1. Right-click any part row in the *Unified Search* pane.

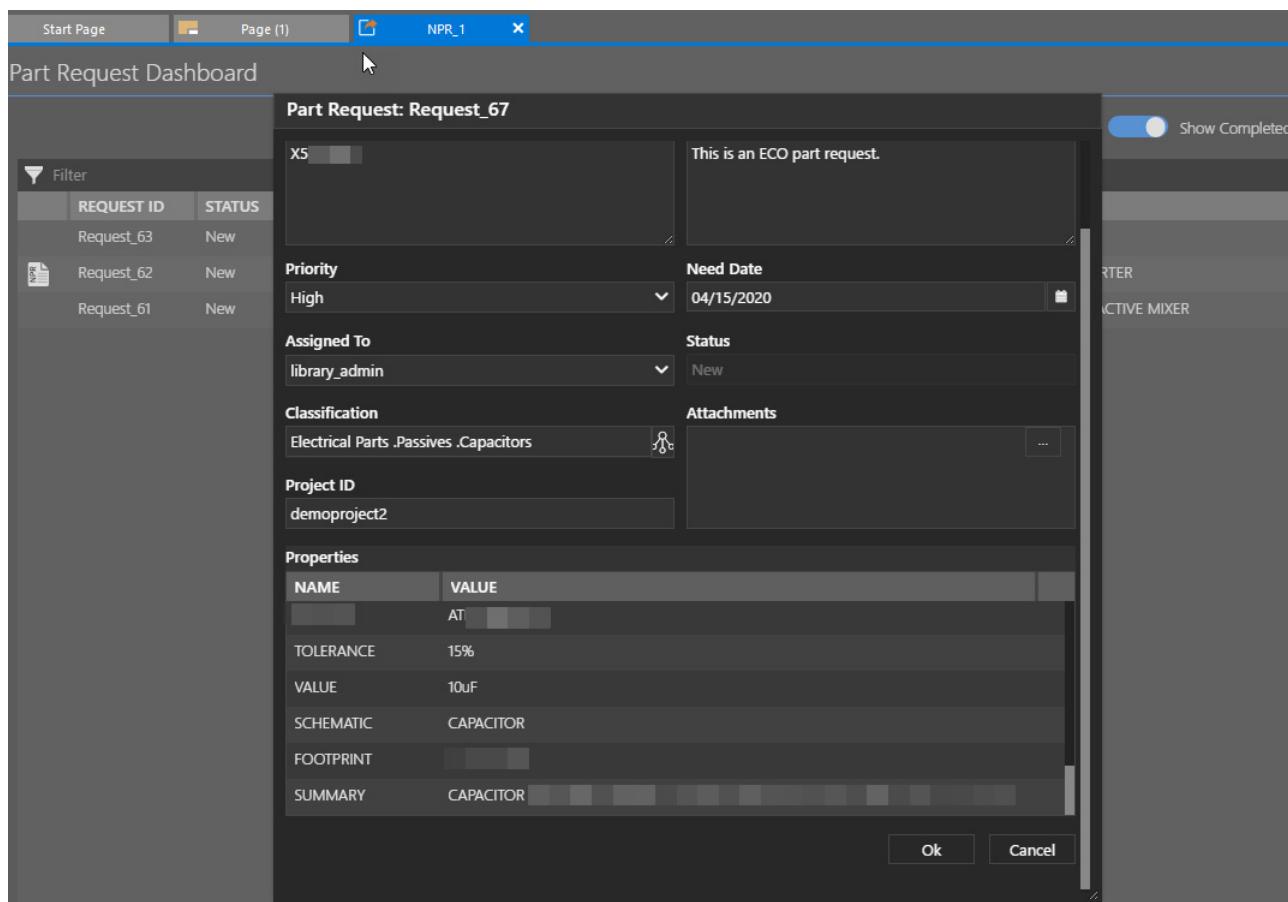
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2. Select *ECO Part Request*.



The Part Request dialog box opens.



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3. Specify the changes needed in the selected part.

4. Click *OK*.

A message is displayed that an ECO part request is created.

The ECO part request appears in *Part Request Dashboard*. After the librarian processes the request, the dashboard reflects the status of the request.

The screenshot shows two instances of the 'Part Request Dashboard' window. The top window is titled 'NPR_1' and displays a table of requests with one row highlighted in red. The bottom window is also titled 'Part Request Dashboard' and shows a table with one row highlighted in blue. Both windows have a 'Show My Requests' toggle switch.

REQUEST ID	STATUS	ASSIGNED TO	NEED DATE	DATE MODIFIED	PROJECT ID
Request_67	New	library_admin	04/15/2020	04/08/2020 16:21:40	demoproject2
Request_63	New	library_admin	04/14/2020	04/08/2020 16:07:43	demoproject2
Request_62	New	library_admin	04/09/2020	04/08/2020 11:05:09	newprojdemo3
Request_61	New	library_admin	04/09/2020	04/08/2020 16:07:13	newdemo2

REQUEST ID	STATUS	ASSIGNED TO	NEED DATE	DATE MODIFIED	PROJECT ID
Request_67	New	library_admin	04/15/2020	04/08/2020 16:21:40	demoproject2
ECO Part Request	New	library_admin	04/14/2020	04/08/2020 16:07:43	demoproject2
Request_62	New	library_admin	04/09/2020	04/08/2020 11:05:09	newprojdemo3
Request_61	New	library_admin	04/09/2020	04/08/2020 16:07:13	newdemo2

Note: When the requested part is released, or the part request is canceled, you receive a notification e-mail.

Submitting Part Requests with PLM Part Numbers

Because part numbers and their naming patterns are typically authored and decided in enterprise PLM systems, you can submit a part request for a PLM-generated part number. This ensures that multiple systems, such as a PLM and the ECAD library database, are in sync with the new parts being requested.

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To use parts from external providers, such as SamacSys or Ultra Librarian, in a design project, you can submit a new part request for the same parts to be created in the PLM system and in your company's central repository of parts. This ensures that the central parts repository and the PLM system are in sync by linking a PLM part number to any new part request.



This option is available to you only if your library administrator has enabled the PLM option in the *New Part Request* dialog box after configuring the required PLM system details.

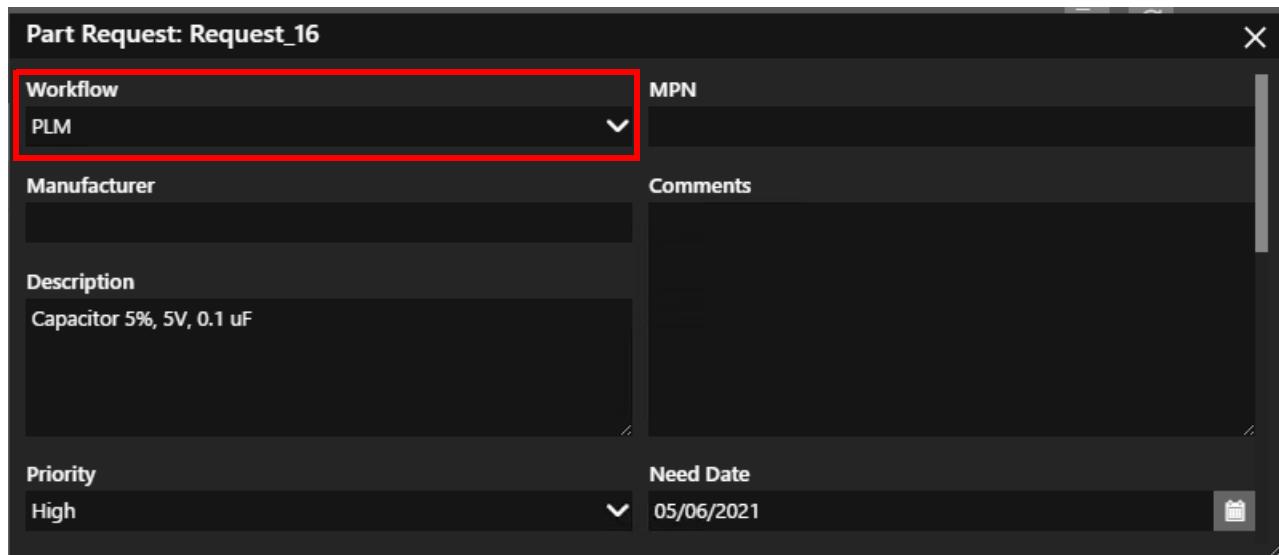
To submit a part request with a PLM part number, do the following:

1. Select one of the following options:

- Click the new request icon, () in *Part Request Dashboard*.
- Right-click any part row in the Unified Search pane and select *New Part Request*.

The *Part Request* dialog box opens.

2. Click the *Workflow* drop-down and select PLM.



3. Specify the required information about the part for which you are raising the request.

Note: It is recommended that you fill in the *Description* field. After librarians add the request to the PLM system, the description makes it easier for them to identify the newly created part in the PLM.

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- Click *OK* in the new part request dialog.

A message with the request number is displayed.

The new part request appears in *Part Request Dashboard*.

Assigning a Part Request to a Librarian

If a librarian is not available or you have assigned the part request to an incorrect user, you must reassign the part request to another user with a librarian role.



Because New Part Requests are a Pulse feature, you must have an account in Allegro Pulse to receive Pulse-related notifications. An account in Pulse is required even if you have an account in Allegro EDM Database Administration.

To assign a part request, do the following:

- Right-click a part request in *Part Request Dashboard*.
- Select *Assign*.

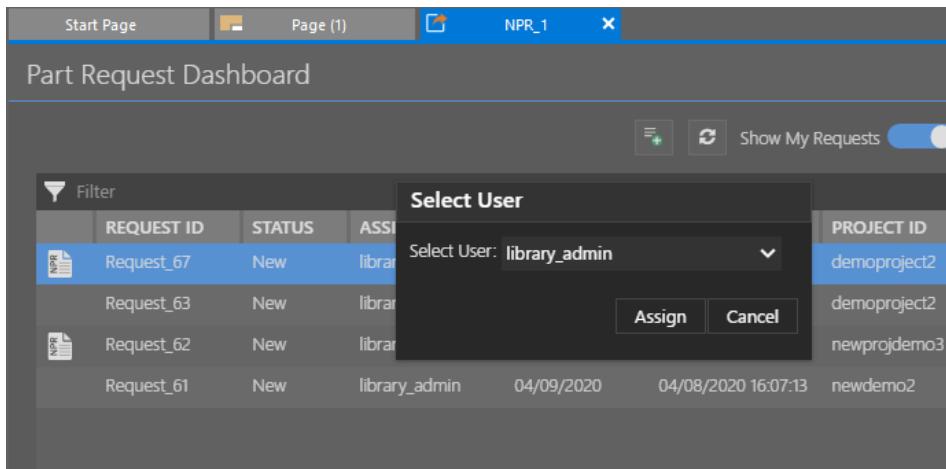
The screenshot shows the 'Part Request Dashboard' window. At the top, there are tabs for 'Start Page', 'Page (1)', and 'NPR_1'. Below the tabs, the title 'Part Request Dashboard' is displayed. On the right side of the header, there are icons for filtering, sorting, and a toggle switch labeled 'Show My Requests'. The main area contains a table with columns: REQUEST ID, STATUS, ASSIGNED TO, NEED DATE, DATE MODIFIED, and PROJECT ID. The table has five rows. The first row (Request_67) is highlighted in blue and has a context menu open over it. The menu items are: Assign, Cancel, Checkout Part, Edit, Put on Hold, Ask for More Information, Subscribe, and Unsubscribe. The other four rows (Request_63, Request_62, Request_61) also have context menus with the same set of options. The data in the table is as follows:

	REQUEST ID	STATUS	ASSIGNED TO	NEED DATE	DATE MODIFIED	PROJECT ID
Request_67	New	library_admin	04/15/2020	04/08/2020 16:21:40	demoproject2	
Request_63	Assign		min	04/14/2020	04/08/2020 16:07:43	demoproject2
Request_62	Cancel		min	04/09/2020	04/08/2020 11:05:09	newprojdemo3
Request_61	Checkout Part		min	04/09/2020	04/08/2020 16:07:13	newdemo2

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

The *Select User* dialog box opens. Only users with the librarian role are displayed in this drop-down menu.



3. Select the user to whom you want to assign or reassign the part request.
4. Click *Assign*.

In *Part Request Dashboard*, the user name in the *Assigned To* column changes.

Canceling a Submitted Part Request

You can cancel a part request that you submitted. You cannot cancel a completed part request.

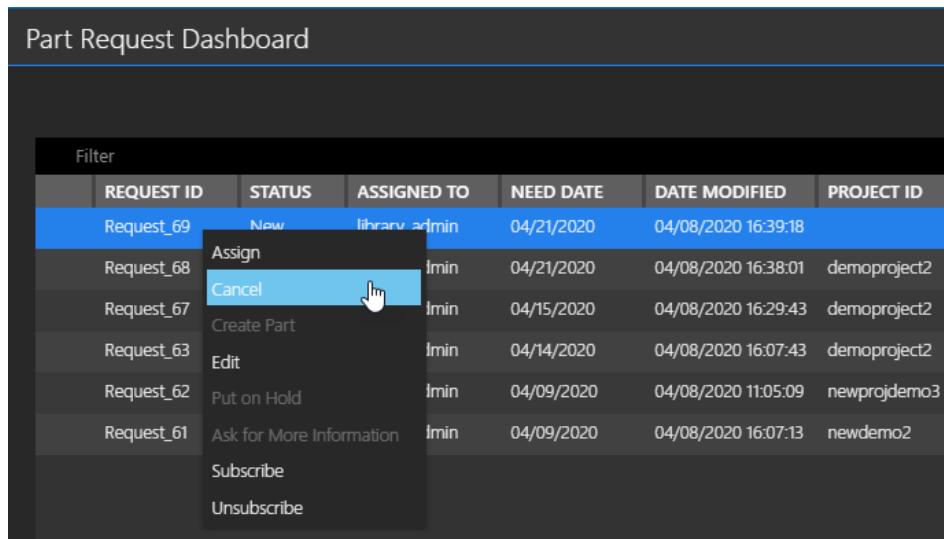
To cancel a part request, do the following:

1. Select a part request from *Part Request Dashboard*.

Design Data Management in Allegro X System Capture

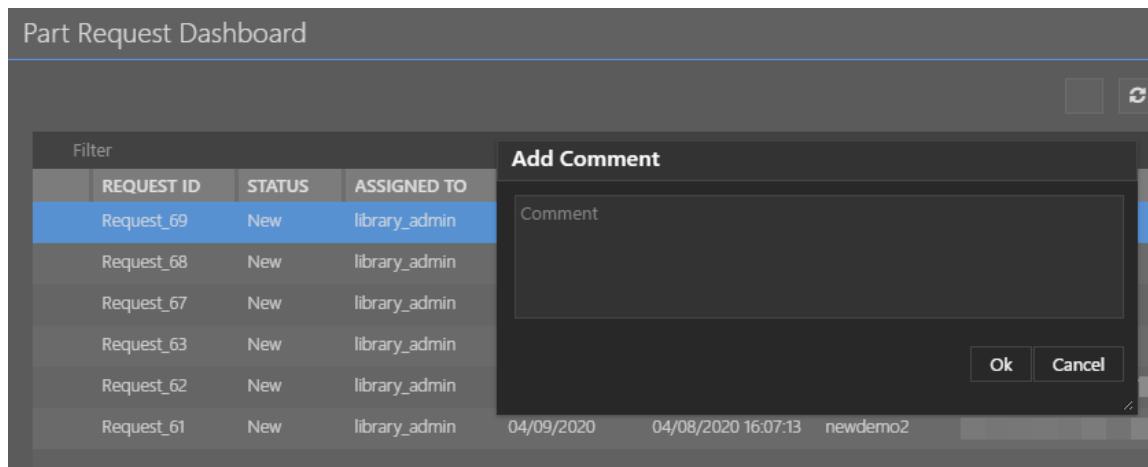
Designing When Connected to a Remote Data Server

- Right-click it and select *Cancel*.



The *Add Comment* dialog box opens.

- Specify the reason for canceling the part request or any other related comment.



- Click *OK*.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

The canceled request is removed from *Part Request Dashboard*.

Part Request Dashboard						
Filter						
	REQUEST ID	STATUS	ASSIGNED TO	NEED DATE	DATE MODIFIED	PROJECT ID
	Request_68	New	library_admin	04/21/2020	04/08/2020 16:38:01	demoproject2
	Request_67	New	library_admin	04/15/2020	04/08/2020 16:29:43	demoproject2
	Request_63	New	library_admin	04/14/2020	04/08/2020 16:07:43	demoproject2
	Request_62	New	library_admin	04/09/2020	04/08/2020 11:05:09	newprojdemo3
	Request_61	New	library_admin	04/09/2020	04/08/2020 16:07:13	newdemo2

Editing a Part Request

You can modify a part request after you have created it. To do so:

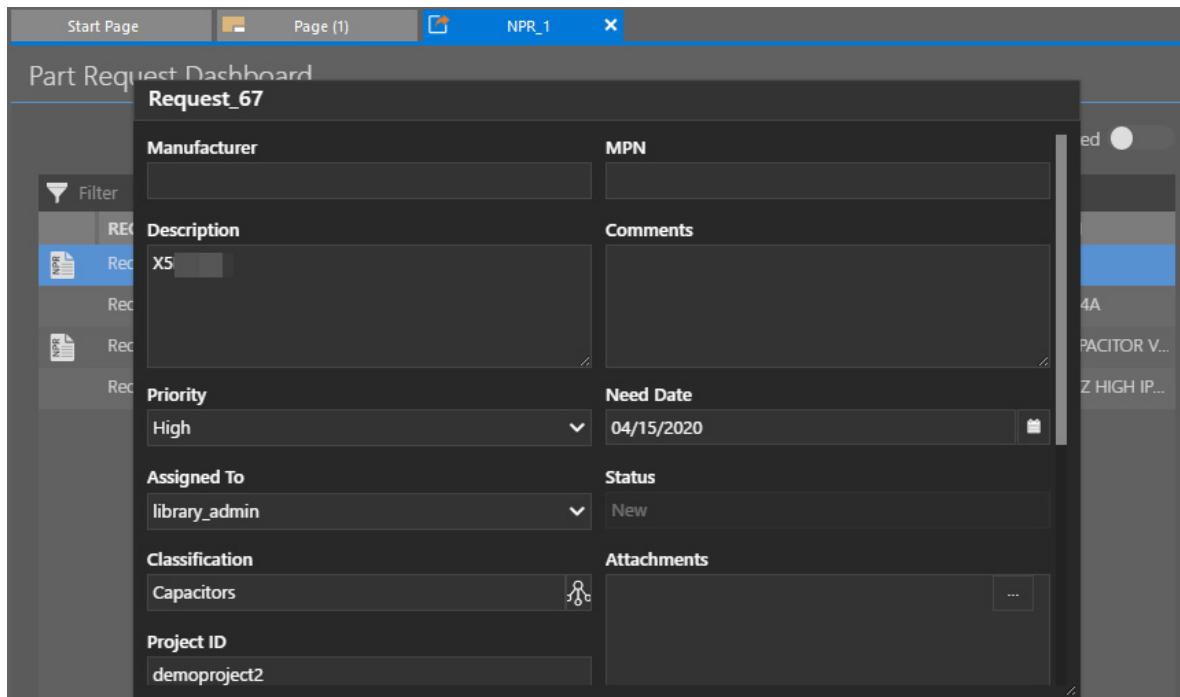
1. Right-click a part request row in *Part Request Dashboard*.
2. Select *Edit*.

Part Request Dashboard						
Filter						
	REQUEST ID	STATUS	ASSIGNED TO	NEED DATE	DATE MODIFIED	PROJECT ID
	Request_67	New	library_admin	04/15/2020	04/08/2020 16:21:40	demoproject2
	Request_63	Assign	library_admin	04/14/2020	04/08/2020 16:07:43	demoproject2
	Request_62	Cancel	library_admin	04/09/2020	04/08/2020 11:05:09	newprojdemo3
	Request_61	Checkout Part	library_admin	04/09/2020	04/08/2020 16:07:13	newdemo2
		Edit	library_admin	04/09/2020	04/08/2020 16:07:13	newdemo2
		Put on Hold	library_admin	04/09/2020	04/08/2020 16:07:13	newdemo2
		Ask for More Information	library_admin	04/09/2020	04/08/2020 16:07:13	newdemo2
		Subscribe	library_admin	04/09/2020	04/08/2020 16:07:13	newdemo2
		Unsubscribe	library_admin	04/09/2020	04/08/2020 16:07:13	newdemo2

The *Request_<request_number>* dialog box opens.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server



3. Modify the part request information.
4. Click *OK*.

Subscribing to a Part Request Raised by Other Designers

To be notified of a part request created by another user, follow the request using the *Subscribe* option.

To subscribe to a part request, do the following:

1. To view requests created by you and other users, deselect the *Show My Requests* option in *Part Request Dashboard*.
2. Select the part request you want to subscribe to.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

3. Right-click it and choose *Subscribe*.

The screenshot shows a table of part requests. A context menu is open over the row for Request_37. The menu items are: Assign, Cancel, Edit, Put on Hold, Subscribe (which is highlighted with a blue background), and Unsubscribe.

REQUEST ID	STATUS	ASSIGNED TO	NEED DATE	DATE MODIFIED	PROJECT ID
Request_51	In Progress	library_admin	04/03/2020	04/02/2020 05:34:01	
Request_50	In Progress	library_admin	04/03/2020	04/02/2020 05:19:06	
Request_45	New		04/03/2020	04/02/2020 04:12:06	
Request_44	New		04/03/2020	04/02/2020 04:10:06	
Request_43	New		04/03/2020	04/02/2020 04:09:0...	
Request_37	New			04/08/2020 16:31:21	
Request_36	New			03/30/2020 10:08:27	
Request_35	New			03/30/2020 09:12:16	
Request_34	New			03/30/2020 08:09:42	
Request_33	New			04/08/2020 16:30:37	
Request_32	New			03/30/2020 08:06:15	
Request_29	New		03/31/2020	03/30/2020 08:00:38	

A message is displayed that you have successfully subscribed to the selected part request.

The screenshot shows the same part request table. The row for Request_37 is now highlighted with a red border. A message box titled 'Pulse' appears in the bottom right corner, stating: 'INFO (SPDWSRV-000614): You have successfully subscribed to Part Model Request Request_37 and will now receive notifications for Part Model Request.'

REQUEST ID	STATUS	ASSIGNED TO	NEED DATE	DATE MODIFIED	PROJECT ID
Request_51	In Progress	library_admin	04/03/2020	04/02/2020 05:34:01	
Request_50	In Progress	library_admin	04/03/2020	04/02/2020 05:19:06	
Request_45	New		04/03/2020	04/02/2020 04:12:06	
Request_44	New		04/03/2020	04/02/2020 04:10:06	
Request_43	New		04/03/2020	04/02/2020 04:09:0...	
Request_37	New		03/31/2020	04/08/2020 16:31:21	
Request_36	New		03/31/2020	03/30/2020 10:08:27	
Request_35	New		03/31/2020	03/30/2020 09:12:16	
Request_34	New		03/31/2020	03/30/2020 08:09:42	

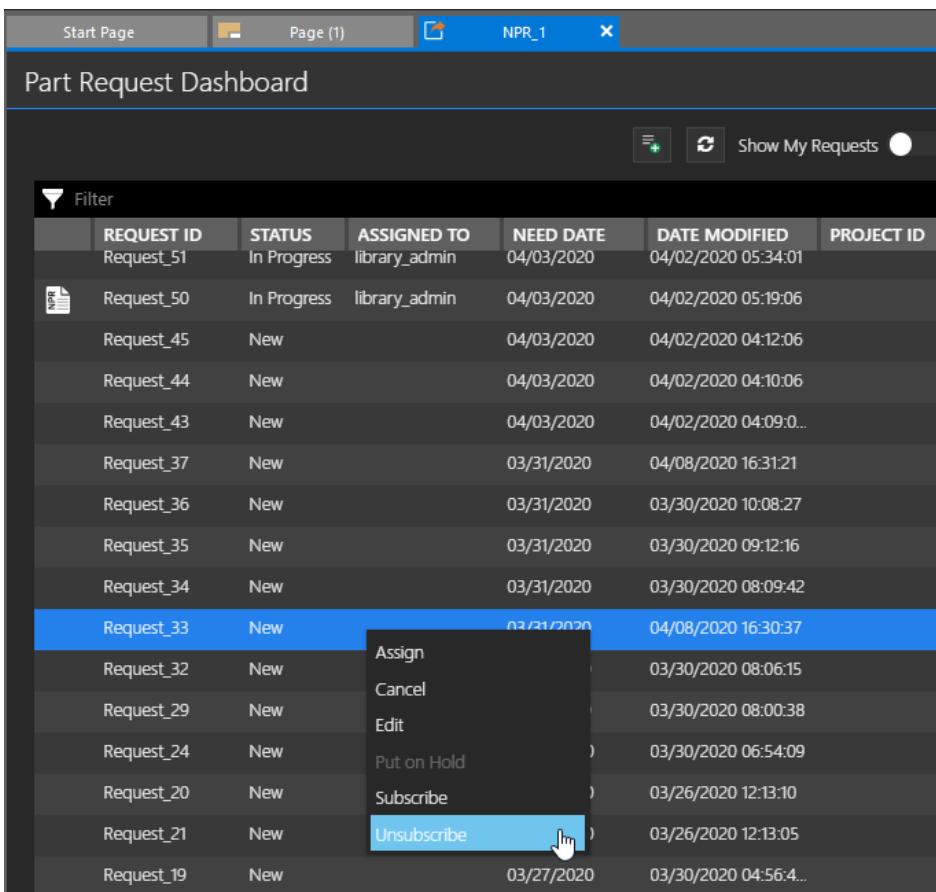
Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

Unsubscribing from a Part Request

If you subscribed to a part request created by another user and do not want to be notified about it any more, do the following:

1. Deselect the *Show My Requests* option in *Part Request Dashboard*.
The dashboard now shows all part requests.
2. Select the part request from which you want to unsubscribe.
3. Right-click it and select *Unsubscribe*.



REQUEST ID	STATUS	ASSIGNED TO	NEED DATE	DATE MODIFIED	PROJECT ID
Request_51	In Progress	library_admin	04/03/2020	04/02/2020 05:34:01	
Request_50	In Progress	library_admin	04/03/2020	04/02/2020 05:19:06	
Request_45	New		04/03/2020	04/02/2020 04:12:06	
Request_44	New		04/03/2020	04/02/2020 04:10:06	
Request_43	New		04/03/2020	04/02/2020 04:09:0...	
Request_37	New		03/31/2020	04/08/2020 16:31:21	
Request_36	New		03/31/2020	03/30/2020 10:08:27	
Request_35	New		03/31/2020	03/30/2020 09:12:16	
Request_34	New		03/31/2020	03/30/2020 08:09:42	
Request_33	New		03/31/2020	04/08/2020 16:30:37	
Request_32	New			03/30/2020 08:06:15	
Request_29	New			03/30/2020 08:00:38	
Request_24	New			03/30/2020 06:54:09	
Request_20	New			03/26/2020 12:13:10	
Request_21	New		Unsubscribe	03/26/2020 12:13:05	
Request_19	New			03/27/2020	03/30/2020 04:56:4...

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

A message is displayed that you have successfully unsubscribed from the selected part request.

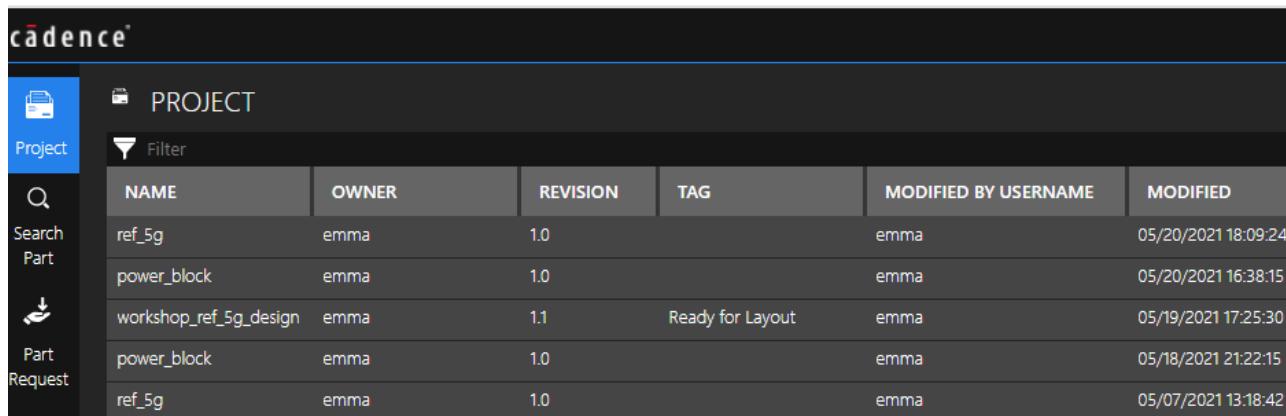
The screenshot shows the Part Request Dashboard interface. At the top, there are tabs for 'Start Page', 'Page (1)', and 'NPR_1'. Below the tabs, the title 'Part Request Dashboard' is displayed. On the right side of the header, there are icons for filtering, sorting, and a button labeled 'Show My Requests'. A 'Filter' dropdown menu is open. The main area is a table with columns: REQUEST ID, STATUS, ASSIGNED TO, NEED DATE, DATE MODIFIED, and PROJECT ID. The table lists ten requests. The row for 'Request_33' is highlighted with a red border. A modal window titled 'Pulse' appears in the bottom right corner, containing the message: 'INFO (SPDWSRV-000615): You have successfully unsubscribed from Part Model Request Request_33 and will stop receiving notifications for Part Model Request.' The modal has a close button in the top right corner.

	REQUEST ID	STATUS	ASSIGNED TO	NEED DATE	DATE MODIFIED	PROJECT ID
NPR	Request_51	In Progress	library_admin	04/03/2020	04/02/2020 05:34:01	
NPR	Request_50	In Progress	library_admin	04/03/2020	04/02/2020 05:19:06	
	Request_45	New		04/03/2020	04/02/2020 04:12:06	
	Request_44	New		04/03/2020	04/02/2020 04:10:06	
	Request_43	New		04/03/2020	04/02/2020 04:09:0...	
	Request_37	New		03/31/2020	04/08/2020 16:31:21	
	Request_36	New		03/31/2020	03/30/2020 10:08:27	
	Request_35	New		03/31/2020	03/30/2020 09:12:16	
	Request_34	New		03/31/2020	03/30/2020 08:09:42	
	Request_33	New		03/31/2020	04/08/2020 16:32:47	
	Request_32	New		03/31/2020	03/30/2020 08:06:15	

Working with Pulse Web Dashboard

The Pulse web dashboard is useful for administrators or other users in an organization who need access to ECAD data without having access to ECAD tools, or for those unfamiliar with ECAD tools. This enables non-ECAD users, such as component engineers, program managers, and team managers, to contribute to the ECAD flow.

You can details of a shared project using the Pulse web dashboard and System Capture. The URL to access the Pulse web dashboard is `http://<Pulse access URL>/projects`.



The screenshot shows the Cadence Pulse Web Dashboard interface. On the left, there is a sidebar with icons for Project (selected), Search, Part, and Part Request. The main area has a header 'PROJECT' with a 'Filter' button. Below is a table with columns: NAME, OWNER, REVISION, TAG, MODIFIED BY USERNAME, and MODIFIED. The data in the table is as follows:

NAME	OWNER	REVISION	TAG	MODIFIED BY USERNAME	MODIFIED
ref_5g	emma	1.0		emma	05/20/2021 18:09:24
power_block	emma	1.0		emma	05/20/2021 16:38:15
workshop_ref_5g_design	emma	1.1	Ready for Layout	emma	05/19/2021 17:25:30
power_block	emma	1.0		emma	05/18/2021 21:22:15
ref_5g	emma	1.0		emma	05/07/2021 13:18:42

You can manage various tasks using the Pulse web dashboard.

- [Viewing Project Details in Pulse Web Dashboard](#)
- [Global Part Search Using Pulse Web Dashboard](#)
- [Requesting New Parts Using Pulse Web Dashboard](#)
- [Downloading Diagnostic Test Case for Debugging](#)
- [Viewing Notifications by Administrators](#)
- [Resetting Pulse Dashboard User Changes to Default](#)

Viewing Project Details in Pulse Web Dashboard

You can view project details, such as the project-specific BOM, by doing the following:

1. Click a project name in the project list.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

The project details are displayed.

The screenshot shows the Allegro X System Capture interface. On the left, there's a sidebar with icons for Project, Search Part, and Part Request. The main area has tabs for PROJECT, WORKSHOP_REF_5G DESIGN, DETAIL (which is selected), BOM, SEARCH, and SCHEMATIC. The DETAIL tab displays various project details:

Field	Value
Project Name *	workshop_ref_5g_design
Project Status	Select
Program Name	
Target Release Date	
PCB Assembly Part Number	
Schematic Number	
Title	
Description	
Designed By	
Spec Name	

2. Do the following depending on the task you want to complete:

- Click the *Detail* tab to view the project details.

Administrators own the content of the form user interface. Design owners can modify the values of these fields. Other designers can only view these details, even if they have *Can Edit* permission for a shared design.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

- Click the *BOM* tab to view the BOM details for the selected project.

The screenshot shows the Allegro X System Capture software interface. The top navigation bar displays 'PROJECT > WORKSHOP_REF_5G DESIGN'. Below the navigation bar, there are four tabs: 'DETAIL' (selected), 'BOM' (highlighted in blue), 'SEARCH', and 'SCHEMATIC'. On the left side, there is a vertical toolbar with icons for 'Project', 'Search Part', and 'Part Request'. The main content area is titled 'Live BOM' and displays the following statistics:

- 153 UNIQUE PARTS
- 0 MPNs
- 889 PARTS
- 0 MANUFACTU...

A 'LIFECYCLES STATUS' section shows a large grey circle with a smaller white circle inside, indicating 'No value'. A 'PART TYPE' section shows a large teal circle with a smaller white circle inside, labeled 'Electrical Part'. Below this, a search bar is labeled 'Search' with a magnifying glass icon. A table below the search bar lists parts with columns: T, S, L, PART NUMBER, QTY, UNUSED, REFDES, and UN. The first row is highlighted in blue and contains the part number 'CDN-105L186822_T'.

T	S	L	PART NUMBER	QTY	UNUSED	REFDES	UN
?	?	?	CDN-105L186822_T	1	0	I1	
?	?	?	CDN-151320001	2	0	J19,J20	
?	?	?	CDN-20449_001E	1	0	J11	
?	?	?	CDN-818000500	1	0	J14	

- Click the *Search* tab to search for project-specific parts from the local, SamacSys, and Ultra Librarian libraries.

Research and find parts that you want to add to this design. Add parts directly to live BOM or submit new part requests to librarians for addition to the central parts database.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

Design owners can set project-specific filters, if needed.

The screenshot shows the Allegro X System Capture interface with the 'SEARCH' tab selected. A context menu is open over a row in the search results table, specifically for the part 'CDN-81800110381'. The menu options are: 'Set as Project Default Search Filter' and 'Sign out from Providers'. The search results table lists various components, including several test points. The right side of the screen shows the detailed properties for the selected part, 'CDN-81800110381', including fields like NAME, VALUE, ALT_SYMBOLS, DESCRIPTION, JEDEC_TYPE, LIFECYCLE, PART_NUMBER, PTF_SUBTYPE, ROHS, CELL, and CLASSIFICATION.

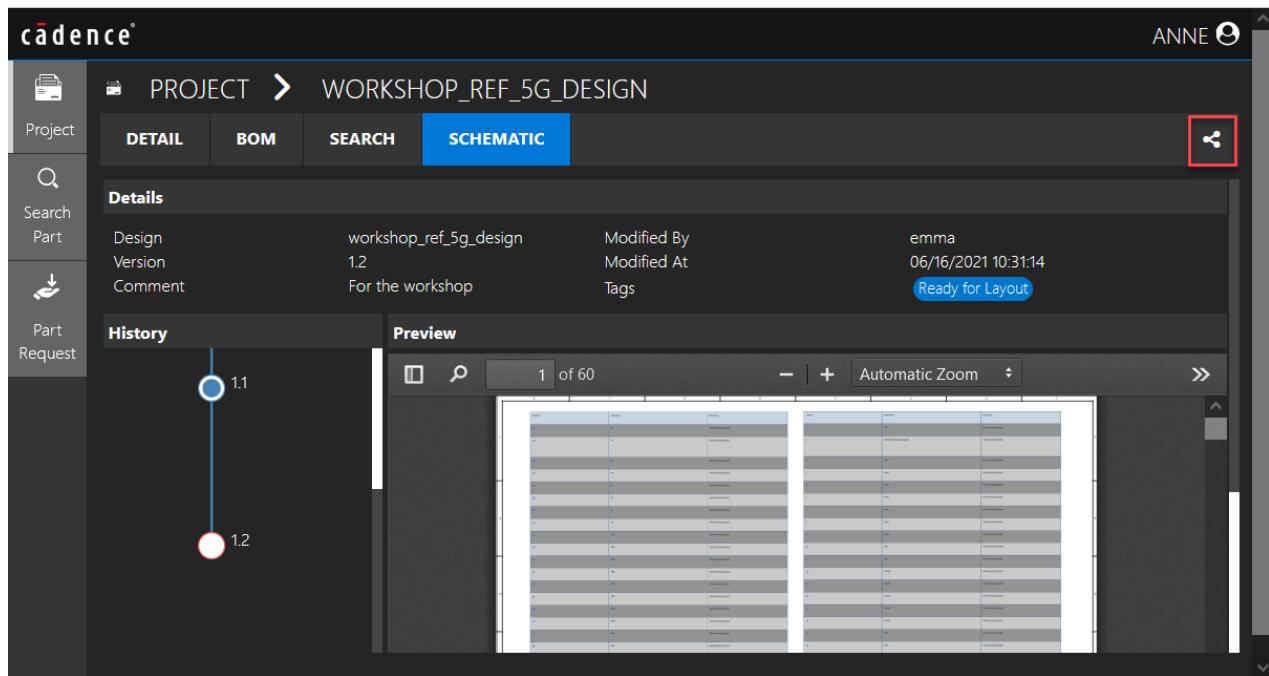
This screenshot shows the Allegro X System Capture interface with the 'SEARCH' tab selected, displaying results for 'WORKSHOP_REF_5G_DESIGN'. A context menu is open over a row in the search results table, specifically for the part 'CDN-105L186822_T'. The menu options are identical to the first screenshot: 'Set as Project Default Search Filter' and 'Sign out from Providers'. The search results table lists various components, including several test points. The right side of the screen shows the detailed properties for the selected part, 'CDN-105L186822_T', including fields like NAME, VALUE, ALT_SYMBOLS, DESCRIPTION, JEDEC_TYPE, LIFECYCLE, PART_NUMBER, PTF_SUBTYPE, ROHS, CELL, and CLASSIFICATION.

- Click the *Schematic* tab to view a schematic version tree with a viewable PDF for each version.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

You can open each function in a separate web browser tab if both are required during component research.

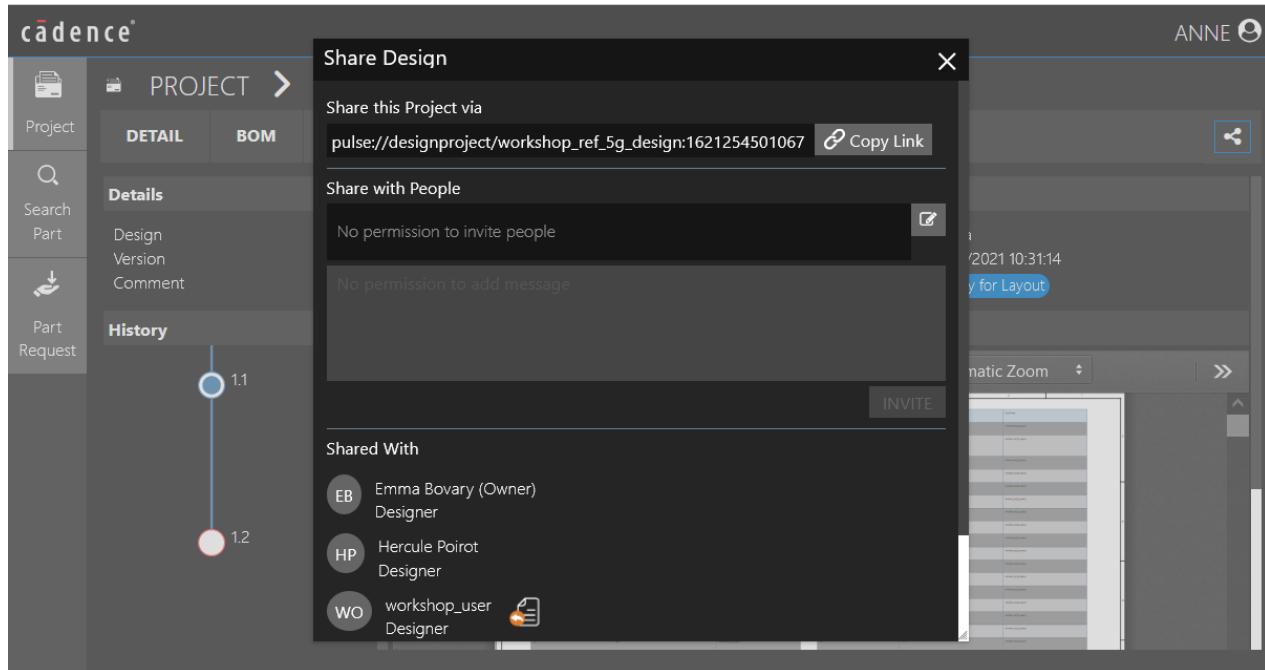


- ❑ Share a design with other users by clicking the share icon, which is highlighted in the image above.
 - Only the schematic can be shared using the web dashboard. Using the web dashboard, you cannot share other design elements, such as pages.
 - Only design owners and or administrators can edit design permissions.
 - Only users with read-write and read-only permission can view a design.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

The *Share Design* dialog is displayed.



- Remove projects from the project list if you do not need to view their details any longer. This can only be done by project owners.

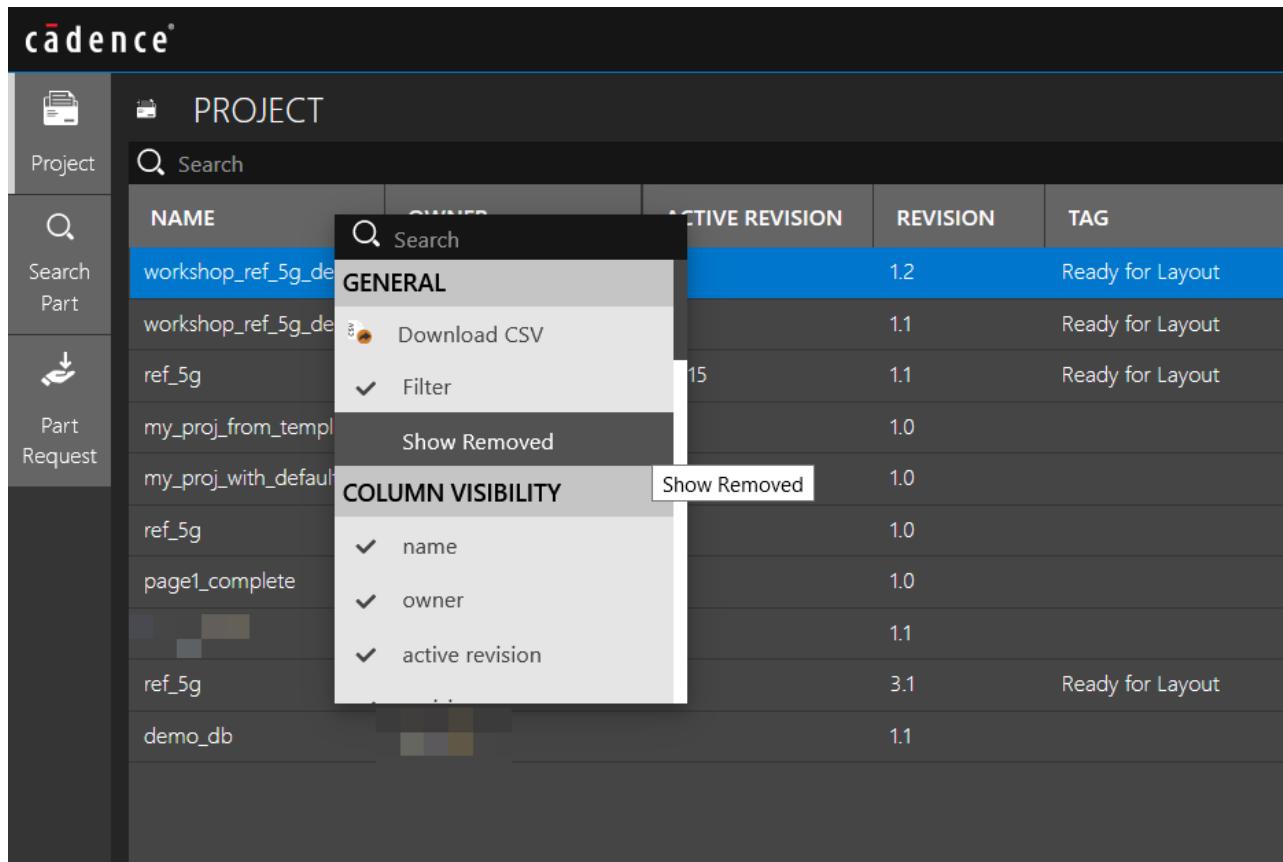
To remove a project from the project list, right-click the required project name, and select *Remove*. You can select multiple items and remove them in one go.

PROJECT						+ New Project
Search						
	NAME	OWNER	ACTIVE REVISION	REVISION	TAG	MODIFIED BY USERNAME
	ref_5g	anne	1.0.25	1.0		anne
	workshop_ref_5g_design	emma		1.2	Ready for Layout	emma
	workshop_ref_5g_design	administrator, anne	1.1	1.1	Ready for Layout	administrator
	ref_5g	anne	1.0.15	1.1	Ready for Layout	administrator

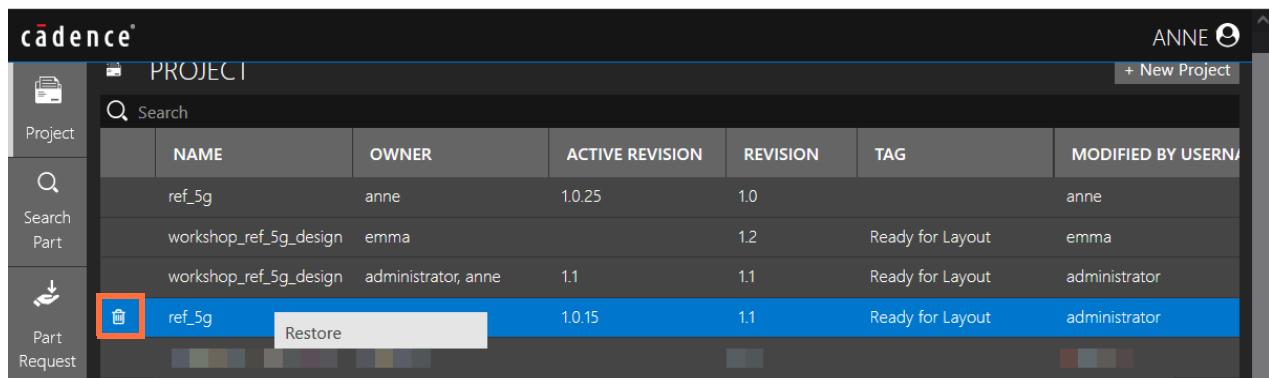
Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

To view all the projects removed from the project list, right-click the project list table header, and select *Show Removed*.



If you select the *Show Removed* option, Pulse displays removed projects with a trash can icon to the left of the project name. You can restore a removed project by right-clicking the project row, and selecting *Restore*.



Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

Global Part Search Using Pulse Web Dashboard

You can search for components globally, outside the context of any project, in the *Search Part* tab. This might be useful for general component research queries or for submitting library requests to have parts added or modified in the library.

The screenshot shows the Cadence Pulse Web Dashboard interface. On the left, there is a vertical navigation bar with icons for Project, Search Part (which is selected and highlighted in blue), and Part Request. The main area is titled "SEARCH PART" and has a sub-section titled "Library (708)". A search bar at the top of this section contains the text "ic". Below the search bar is a table with the following columns: L, T, PART NUMBER, CLASSIFICATION, PPL, and FOOTPI. There are 10 rows of data in the table, each with a green checkmark icon in the L column and an orange warning icon in the T column. The PART NUMBER column lists part numbers such as CDN-RES-0044, CDN-RES-0035, etc. The CLASSIFICATION column includes entries like Resistor, IC, Memory, Connector, etc. The PPL and FOOTPI columns provide additional technical details for each part.

L	T	PART NUMBER	CLASSIFICATION	PPL	FOOTPI
✓	⚠	CDN-RES-0044	Resistor	CM_2, CM_1	RESC1608
✓	⚠	CDN-RES-0035	Resistor	CM_2, CM_1	RESC1608
✓	⚠	CDN-RES-0018	Resistor	CM_2, CM_1	RESC1608
✓		CDN-PM8994	IC	CM_2, CM_1	BGA225
✓		CDN-MEM-0032	Memory	CM_1	FBGA96
✓		CDN-MPU-000009	IC	CM_1	LGA1366_1
✓		CDN-CON-0015	Connector	CM_1	DSUB15
✓	⚠	CDN-RES-0025	Resistor	CM_2, CM_1	201R
✓	⚠	CDN-RES-0042	Resistor	CM_2, CM_1	RESC1608

Requesting New Parts Using Pulse Web Dashboard

You can request new parts using the web dashboard. In addition to submitting part requests from the *Search Part* pane, you can also fill out a blank part request form from the *Part Request* tab.

Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

1. Click the *Create New Request* icon in the *Part Request* tab.

The screenshot shows the Allegro X System Capture interface with the 'PART REQUEST' tab selected. At the top right, there are two toggle buttons: 'Show My Requests' (which is turned on) and 'Show Completed' (which is turned off). Below the header is a search bar labeled 'Search'. A table lists two requests:

	REQUEST ID	STATUS	ASSIGNED TO	NEED DATE	DATE MODIFIED	PROJECT ID	COMMENTS
	Request_17	In Progress	library_admin	05/06/2021	05/05/2021 22:32:47		
	Request_14	New	library_admin	05/06/2021	06/24/2021 16:42:41		

2. Specify the required details in the *Part Request* form that is displayed.

Downloading Diagnostic Test Case for Debugging

You can provide the necessary data to Cadence for root cause analysis in case of a problem by generating a medic test case. When you generate the test case, it is downloaded as a zip file by default to the hard disk of the system functioning as a Pulse primary node.

You can generate and download a diagnostic test case for Cadence using the Pulse web dashboard and Allegro System Capture.

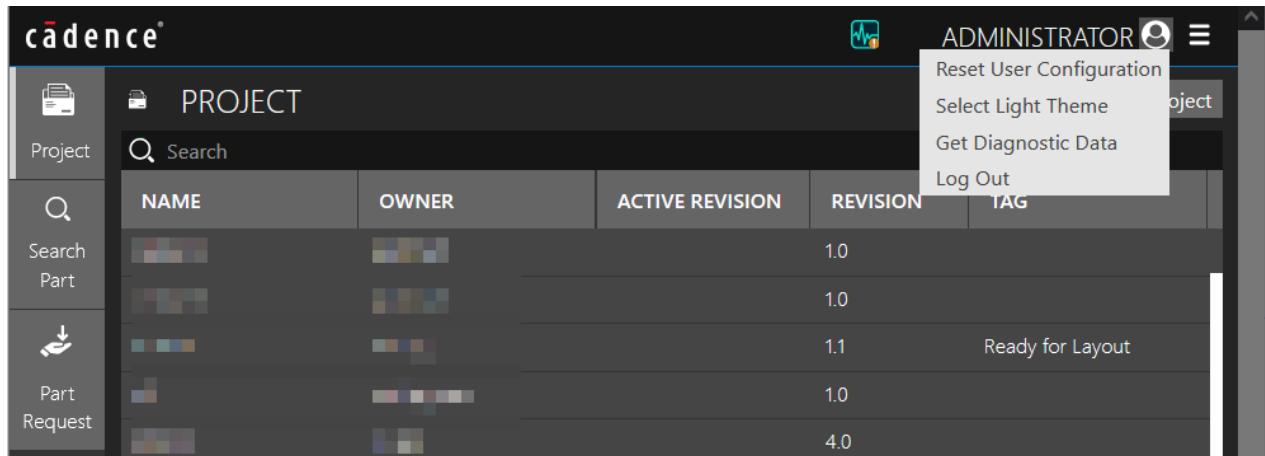
To generate and download a diagnostic test case for Cadence, do the following:

1. Access the Pulse web dashboard using `http://<Pulse access URL>/projects`.

Design Data Management in Allegro X System Capture

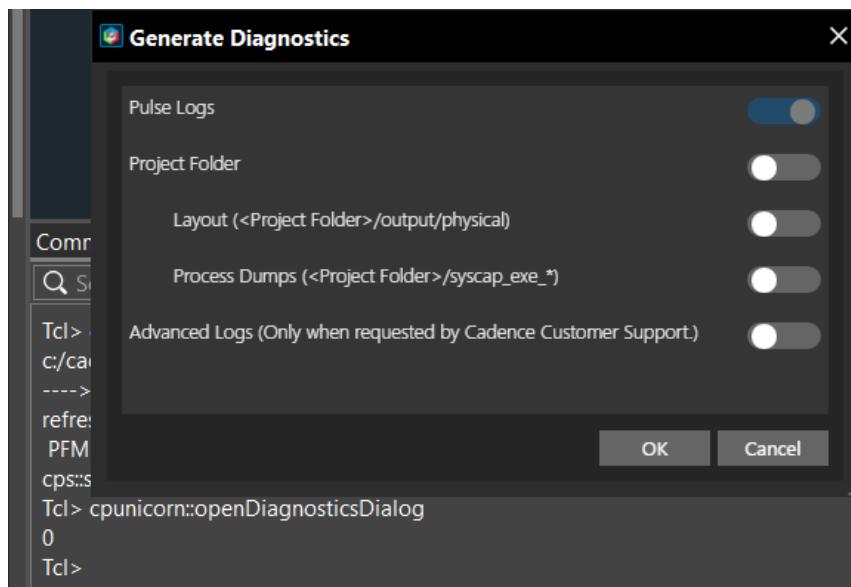
Designing When Connected to a Remote Data Server

- Click the profile icon on the top right of the window.



- Select *Get Diagnostic Data*.

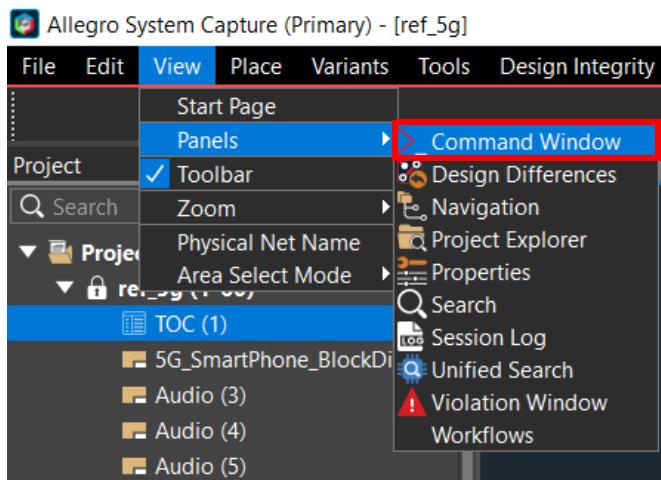
The *Generate Diagnostics* dialog box is displayed.



Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

If the Command Window is not visible, display it using *View — Panels — Command Window*.



4. Select the required check boxes.

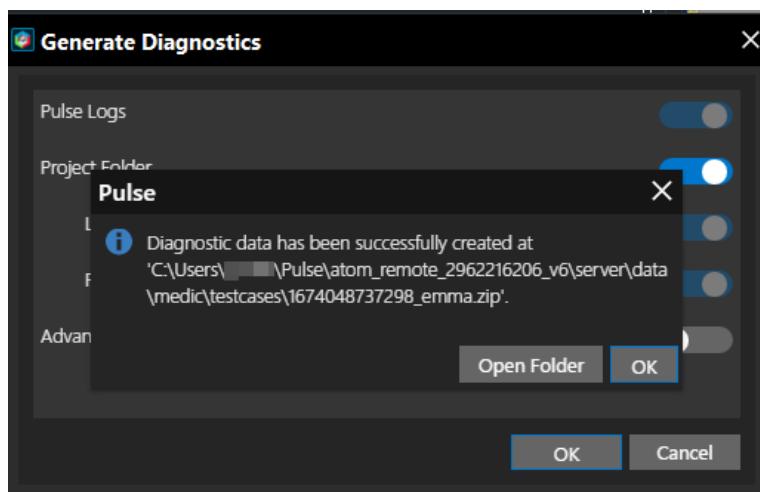
At a minimum, Cadence requires the Pulse logs, which is why *Pulse Logs* is selected by default. It cannot be deselected.

5. Click *OK*.

The test case is generated as a zip file in the following directory:

<_pulse home>/server/data/medic/testcases

If the Pulse administrator enables diagnostic test case download for non-administrator users, the test case is downloaded to your hard disk.



Design Data Management in Allegro X System Capture

Designing When Connected to a Remote Data Server

6. Retrieve the test case from this location and provide it to Cadence.

You need to contact the administrator to retrieve the test case if downloading on designers' systems is not configured by the administrator.

You can also use a Tcl command—`cpunicorn::openDiagnosticsDialog`—in the Allegro System Capture Command Window to generate and download a diagnostic test case.

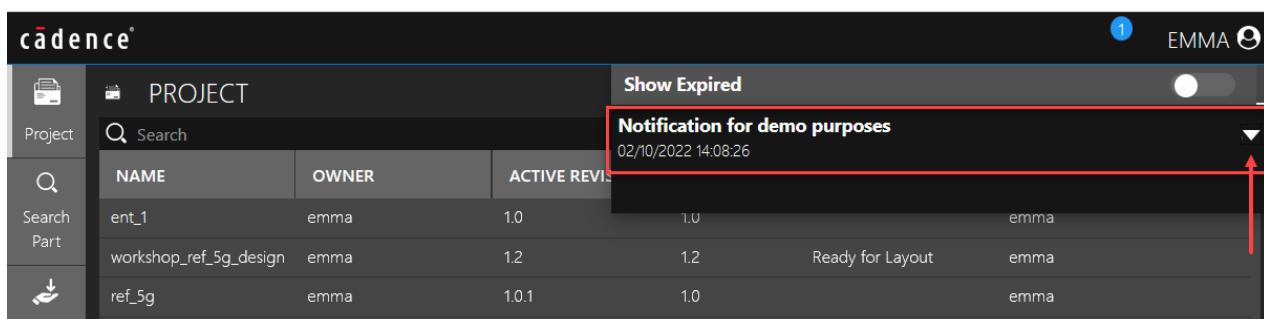
Viewing Notifications by Administrators

Administrators might sometimes notify you about important changes, such as the installation of the latest HotFix. They might also, for example, request you to let them know of issues you face with as a result of the upgrade. As a designer, you can view notifications but you cannot dismiss or delete them.

To view notifications, do the following:

1. Access the Pulse web dashboard using `http://<Pulse access URL>/projects`.
2. Log in with your credentials.
3. Click the bell icon to view notifications.

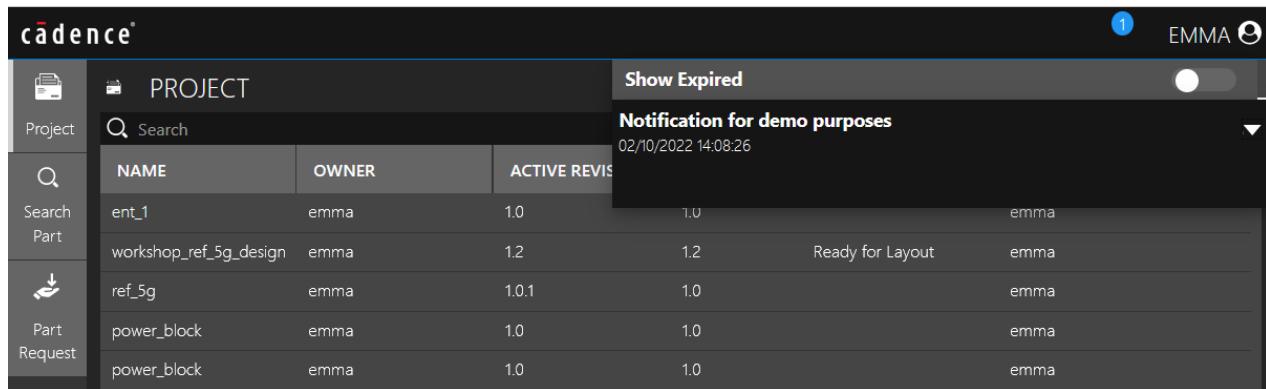
To view details about a notification, click the arrow to the right of the notification.



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Notifications have an expiry date. To view all the notifications, including expired ones, click the bell icon then toggle on the *Show Expired* button.



Resetting Pulse Dashboard User Changes to Default

If you made any user-specific changes in Pulse dashboard features such as Live BOM, the projects list, or *Unified Search*, you can reset them back to the default. For example, if you modified column widths, added filters, saved search queries, or set some search criteria as a project default, you can reset all the changes.

Note: If you are logged in as with administrator permission and reset the changes back to the default, only user configurations specific to you are reset. Settings modified for other users when logged in with administrator permission are not reset back to the default.

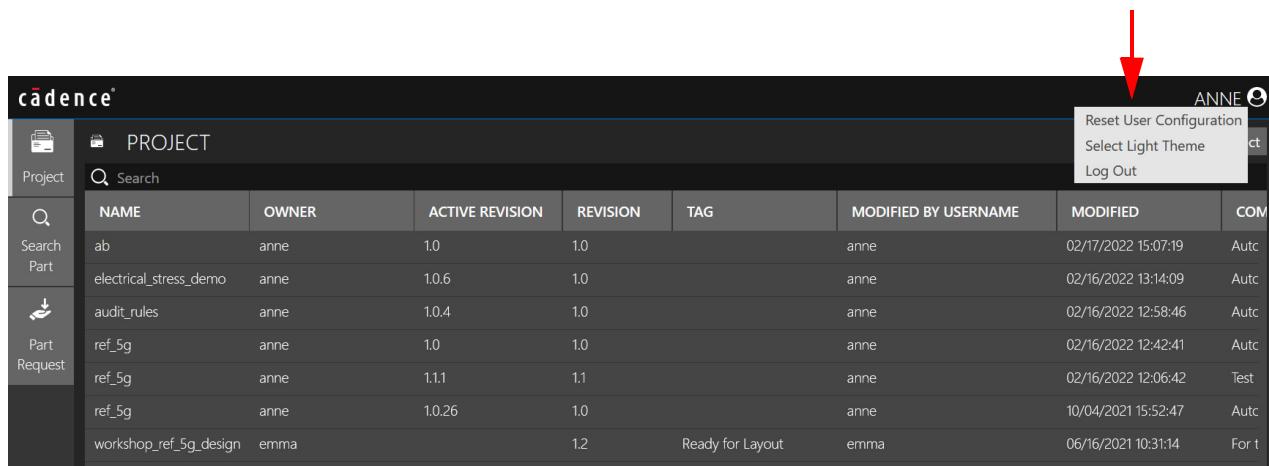
To reset to the default, do the following:

1. Access the Pulse web dashboard using `http://<Pulse access URL>/projects`.
2. Log in with your credentials.
3. Click the profile button next to the user name on the top right of the page.

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4. Click *Reset User Configuration*.



Click **Yes** in the warning message that appears to reset all the settings back to their defaults.

Related Topic

[Viewing Operations Status and Pulse Health](#)

Working Offline

If network connectivity is slow or the Pulse server is temporarily unavailable, you can disconnect from Allegro Pulse server services and work in the offline mode. You can connect to the server again, when needed.

The offline mode is only supported for Allegro System Capture projects with Design Entry HDL or OrCAD Capture libraries.

When working in the offline mode, some of the information you see might be different because you are disconnected from the Pulse server. The following points summarize some of the differences:

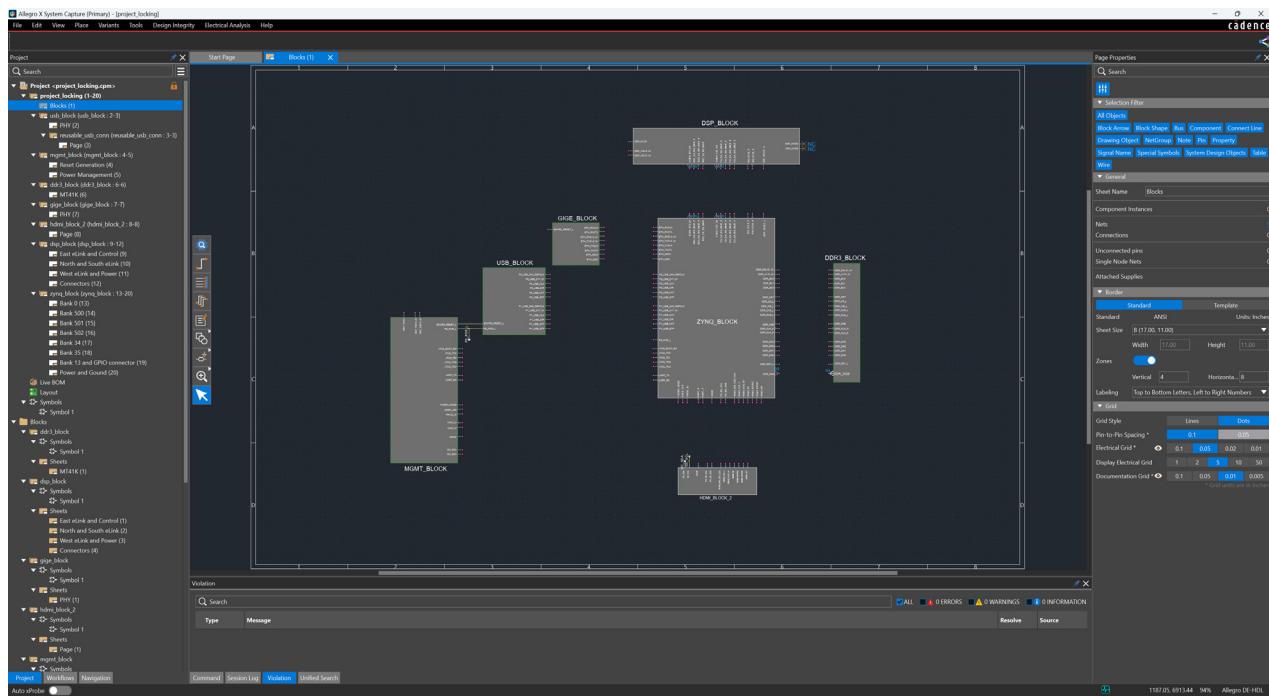
- Configurations managed by the Pulse server, including part rules, Live BOM configurations, and workflow definitions are not available in the offline mode.
- When offline, part classifications are different from the online mode. A simplified structure is created for classifications based on the library components used in the design.
- To import sheets or blocks when offline, ensure:
 - That the parent block is locked.
 - That you have project-level locking on and that the project is locked.

Note: In the block-locking mode, you cannot import blocks because you cannot

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acquire a block lock when offline.



- Footprint names are visible in the design cache but footprint graphics are unavailable when offline.

When you reconnect with the Pulse server, Part Manager prompts you about the change and the design is updated to sync with the parts in the Pulse server.

- Live BOM data cannot be accessed when offline. Reconnect to the Pulse server for the Live BOM.
- The Manufacturer Parts Number (MPN) *Details* pane is visible in the offline mode because it is not part of the design cache.

The MPN name-value pair is displayed in the design cache property pane only if there are ECAD type properties in the Allegro EDM DE-HDL or Capture-CIS databases.

- In System Capture projects with DE-HDL libraries:
 - If a cell is in multiple libraries in the design cache, the cell is only shown from one library in the *Design Cache* tab.
 - Parts in the design cache only honor key properties to be annotated. As a result, properties are retained as injected properties and are not annotated when offline.

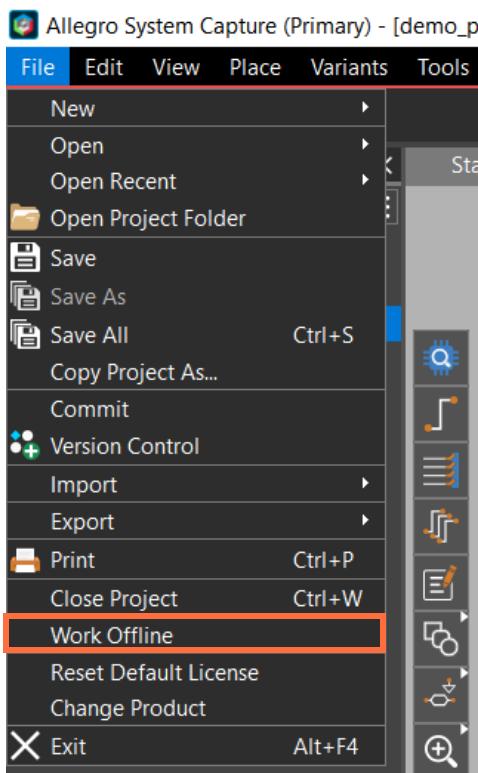
Design Data Management in Allegro X System Capture

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- You can generate or package a BOM with auto-synced parts even when offline. However, if you have parts that require a manual sync, Part Manager prompts you that some parts are out of sync when you reconnect to the Pulse server.

To disconnect from the Pulse server, do the following:

1. Select *File — Work Offline*.

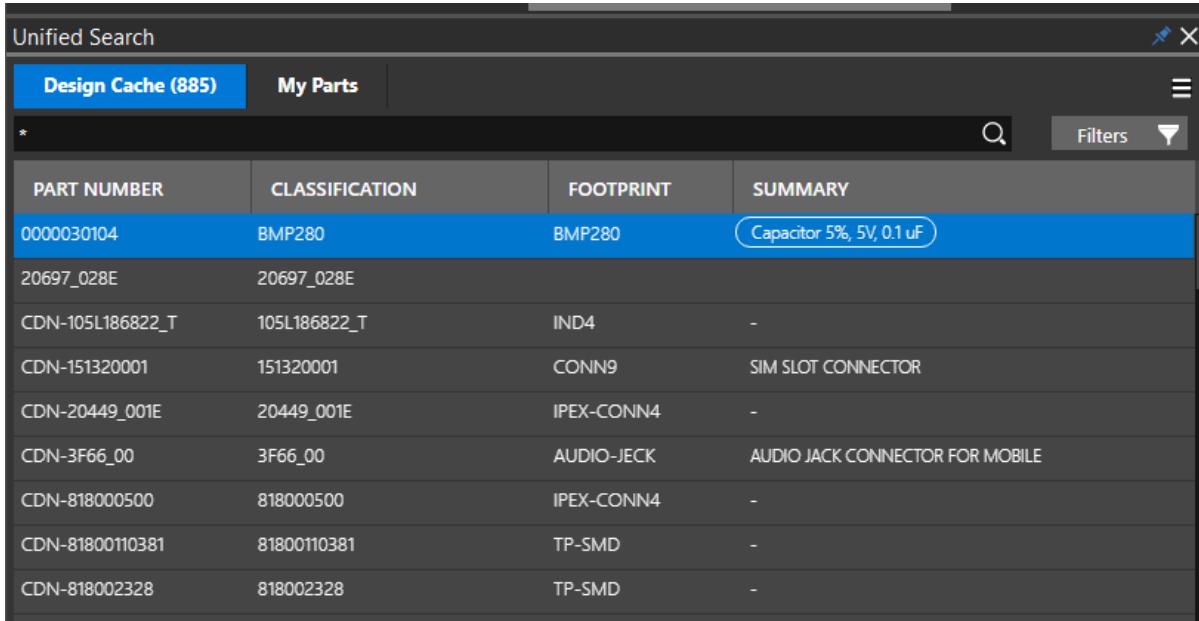


In the offline mode, you can only work on pages and blocks that you have explicitly locked before disconnecting from the Pulse server. Only parts cached in your local libraries are available in the offline mode.

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Designing When Connected to a Remote Data Server

When you switch to the offline mode, all the part rows of components placed in the design are available in the *Design Cache* tab. The *Library* tab is unavailable in the offline mode.



The screenshot shows the 'Unified Search' interface in Allegro X. The 'Design Cache (885)' tab is selected, while 'My Parts' is unselected. The search bar contains an asterisk (*). A 'Filters' button is visible. The main area displays a table with columns: PART NUMBER, CLASSIFICATION, FOOTPRINT, and SUMMARY. One row is highlighted in blue, showing the part number 0000030104, classification BMP280, footprint BMP280, and summary 'Capacitor 5%, 5V, 0.1 uF'. Other rows include 20697_028E, 105L186822_T, 151320001, 20449_001E, 3F66_00, 818000500, 81800110381, and 818002328.

PART NUMBER	CLASSIFICATION	FOOTPRINT	SUMMARY
0000030104	BMP280	BMP280	Capacitor 5%, 5V, 0.1 uF
20697_028E	20697_028E		
105L186822_T	105L186822_T	IND4	-
151320001	151320001	CONN9	SIM SLOT CONNECTOR
20449_001E	20449_001E	IPEX-CONN4	-
3F66_00	3F66_00	AUDIO-JECK	AUDIO JACK CONNECTOR FOR MOBILE
818000500	818000500	IPEX-CONN4	-
81800110381	81800110381	TP-SMD	-
818002328	818002328	TP-SMD	-

Data from Pulse services, such as Live BOM or workflows is unavailable in the offline mode.

2. Switch to the online mode for access to workflows and version control, to commit designs to Pulse, and to resume Part Manager synchronization, design sharing, Live BOM updates.

Running Part Manager after reconnecting to the Pulse server is not mandatory, but is recommended.

Appendix

This section has information that is not essential to working with System Capture but that you might need to know.

Troubleshooting Designs with Special Symbols

If you are connected to a remote Pulse server and use CDS_SITE libraries, reopening a design with a Standard library that has special symbols might result in the CPSCH-129 violation message about missing symbols. Special symbols can be such as offpage connectors, ground and power symbols, page borders, aliases, no connection (NC) symbols, ports.

This happens because the libraries in the CDS_SITE are not indexed. To correct this violation, the Standard library needs to be redefined with a different name in the project `cds.lib`. And, the parts reported in the violation message need to be updated using *Part Manager*. Edit the project `cds.lib` as follows:

1. Open the project `cds.lib` in a text editor and make the following changes:

- a. UNDEFINE standard
- b. DEFINE standard1 \$CDS_SITE/library/standard

2. Save the changes and close the editor.

3. Launch System Capture.

The special symbols widget is not auto configured because the library name is `standard1`.

4. Configure the special symbols by doing the following:

- a. Copy the special symbols to a folder.
- b. Reference this folder in the CDS_SITE environment variable.

5. Update the parts using Part Manager by doing the following:

- c. Select *Tools — Part Manager*.
- d. Update the required parts.
- e. Click *OK*.

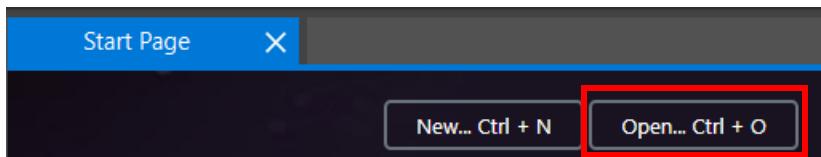
Reopen the design. No violations are reported.

Open Projects Dialog Box

Use this dialog box to open a project from a local directory or Pulse.

Access Using

- Menu path: *File — Open — Project*
- Toolbar icon:

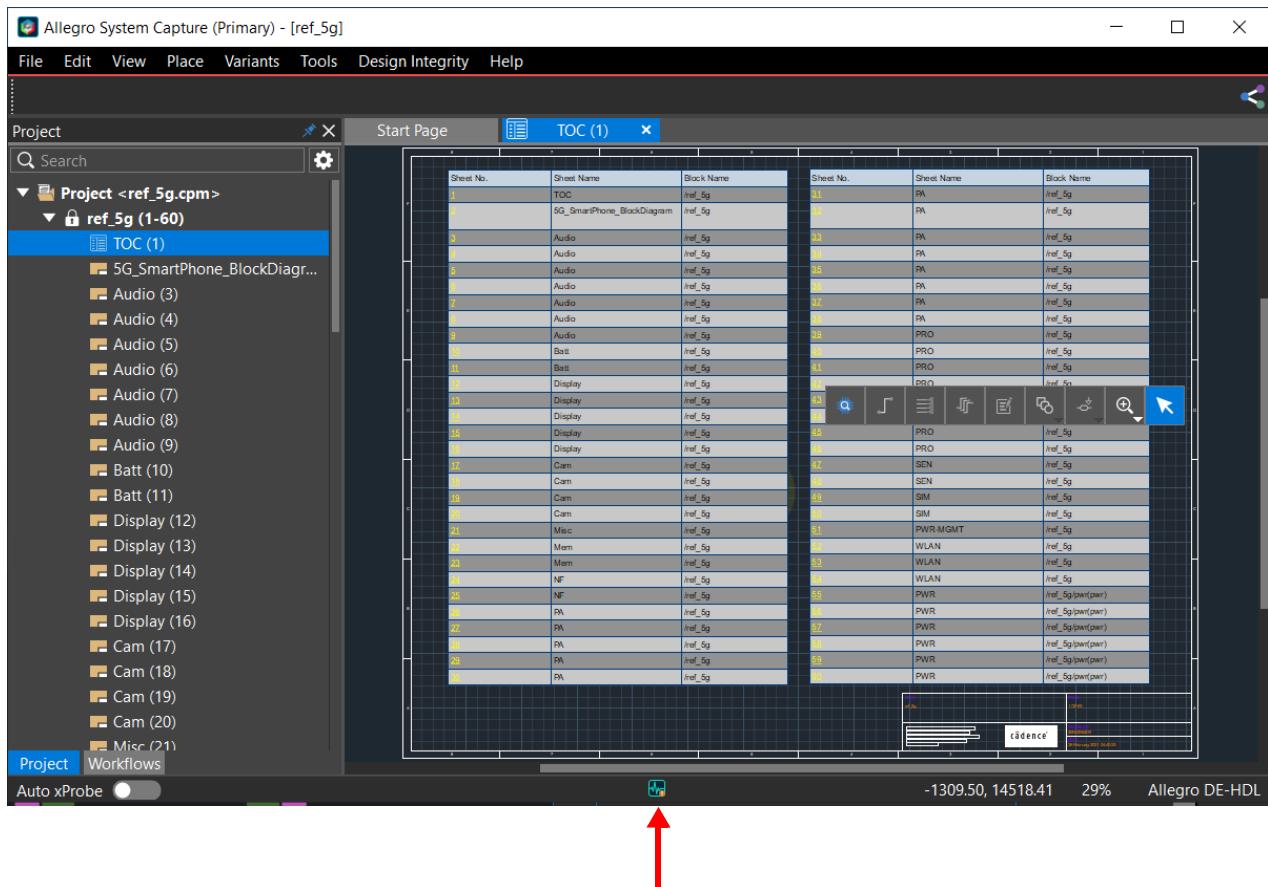


Field	Description
<i>Pulse Projects</i>	By default, the dialog box displays projects from Pulse.
<i>Browse Computer</i>	Click to select and open a project from the hard disk.
<i>Recently modified</i>	The default sort is recently modified projects. You can also sort by the design or project owner.
<i>Show removed</i>	To view projects removed from the project list, toggle this button on.
<i>Version Control</i>	View the version control details of a design. In <i>Version Control</i> , click a node to open that version of the design project.

Configuring Design Management Preferences

You can set user-specific preferences for management of design data. Do the following to set preferences:

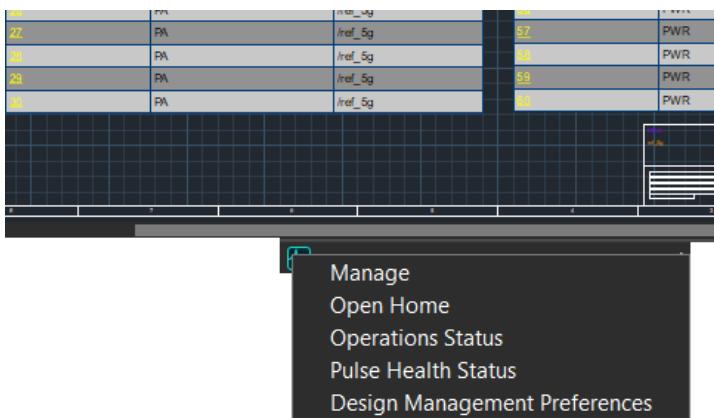
1. Launch Allegro System Capture.
2. Log in with your user credentials.
System Capture is displayed.
3. Right-click the Pulse icon in the status bar.



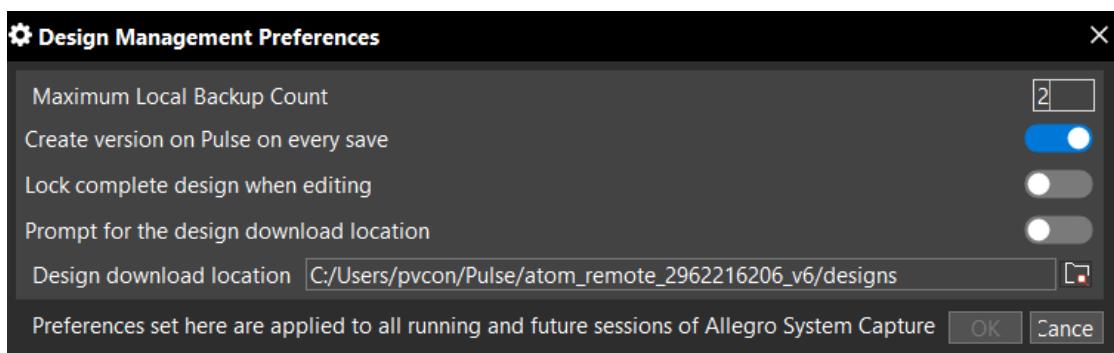
Design Data Management in Allegro X System Capture

Appendix

4. Select *Design Management Preferences*.



The Design Management Preferences dialog box is displayed.



5. You can do the following:

- Modify the number of local backups you want Pulse to create.

Pulse creates local backups of the .sdax file if versioning is not enabled or if a design could not be created because of an internal error. The backups can be used to roll back to a particular design version. The number of backups is only limited by the hard disk space on your machine.

- Disable the creation of a design version on Pulse every time you save the design to reduce data transfer over a network.

When disabled, design versions on Pulse are only created with every design commit. Saving a design does not create a version.

- Lock the complete design for editing.

Design Data Management in Allegro X System Capture

Appendix

When the *Lock complete design for editing* button is toggled on, opening a design locks it automatically. When System Capture is closed, the design is auto committed to Pulse. This allows another designer to work on the design.

This option is specifically for users who wish to store the design on a shared drive and do single-user at a time editing.

- d. If you want Pulse to prompt you for a design download location whenever you join a project that has been shared with you, toggle on the *Prompt for the design download location* toggle button.

When you join an Allegro System Capture project, a copy of the design is downloaded to the Pulse home on the hard disk by default.

To access the Pulse home, right-click the Pulse icon and select *Open Home*.

However, if you want to select a different download location, select this option.

- e. Specify a custom working directory, if needed.

When connected to a central Pulse server, local copies of projects are by default stored in the Pulse home on the hard disk.

If you work in a team design environment, joining an Allegro System Capture project also downloads a copy of the design to the same location.

A custom working directory is useful if you have:

- Limited space in the Pulse home
- A designated project area on your disk that is preferred for ECAD design data

If you toggle on the *Prompt for the design download location* button and specify a default download directory, the browse dialog is displayed with the default location set in *Design download location*. You can browse to a different location.

6. Click *OK*.

Related Topics

[Viewing or Rolling Back to Earlier Design Versions](#)

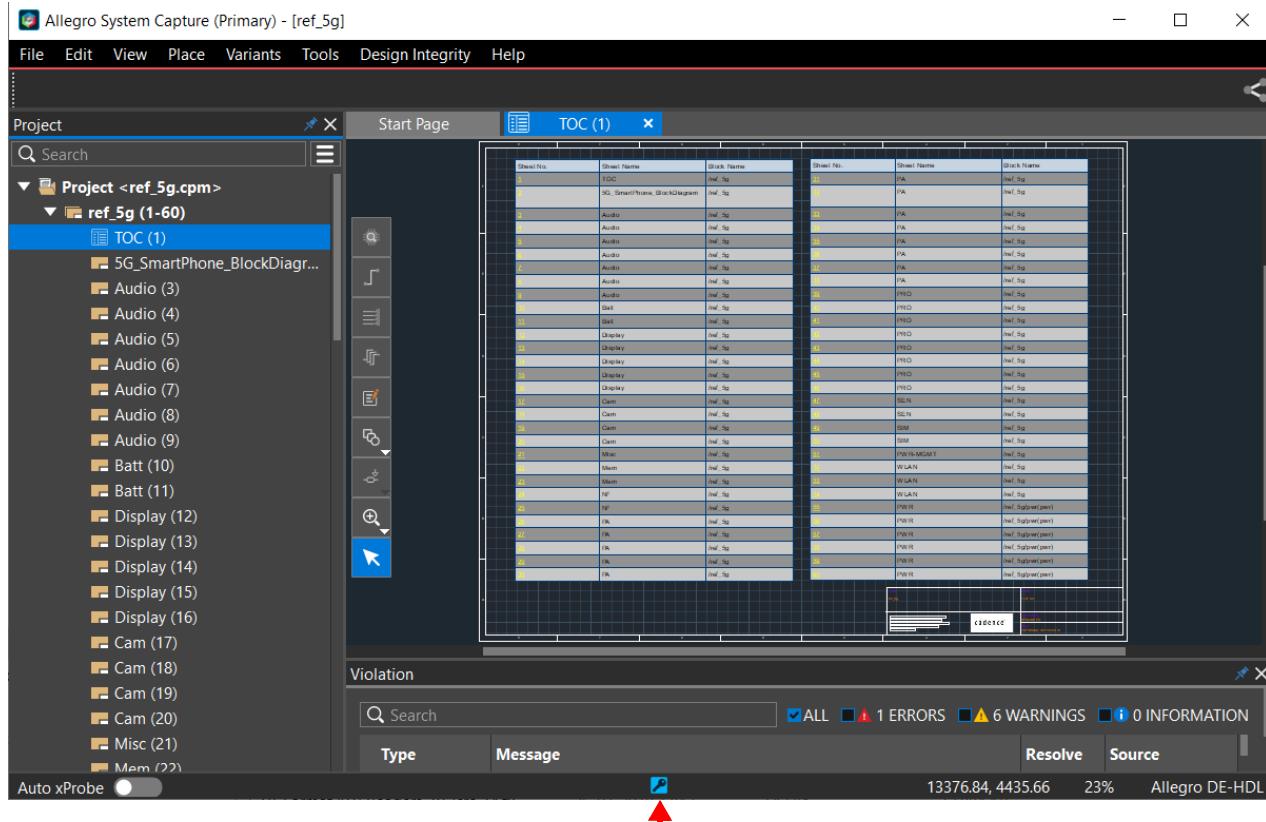
Viewing Operations Status and Pulse Health

You can view details about the operations you perform in System Capture and Pulse-related services. For example, view errors about available disk space, or that the server is running on a virtual machine, and so on.

To view these details, do the following:

1. Launch Allegro System Capture.

Allegro System Capture is displayed.

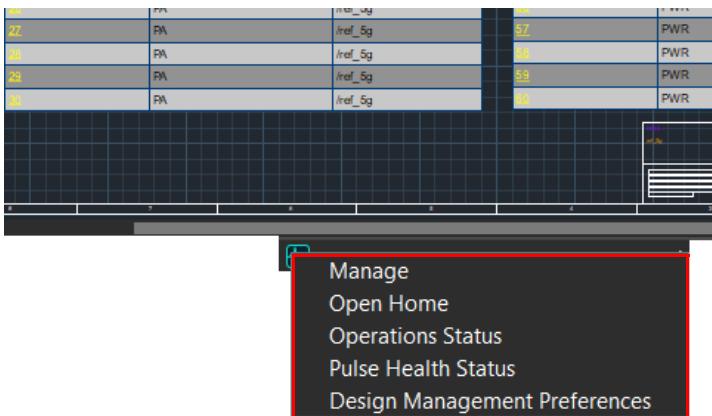


The key icon indicates a prompt for you to log in to System Capture.

Design Data Management in Allegro X System Capture

Appendix

2. Right-click the Pulse icon in the status bar.



3. Click *Operations Status* to view the status of operations you perform.

The *Operation Status* dialog box is displayed.

Operation Status					
<input type="checkbox"/> SUCCESS	<input type="checkbox"/> FAILED	<input type="checkbox"/> IN-PROGRESS	<input checked="" type="checkbox"/> ALL		
OPERATION	DESIGN	STATUS	START TIME	ESTIMATED/END TIME	DURAT
Commit	pfc200	Success	Feb 20, 12:00:31	Feb 20, 12:00:35	00:00:04
Commit	pfc200	Success	Feb 20, 11:55:49	Feb 20, 11:55:53	00:00:03
Save	pfc200	Success	Feb 20, 11:53:32	Feb 20, 11:53:36	00:00:03

4. Click *Pulse Health Status*.

Design Data Management in Allegro X System Capture

Appendix

The *Pulse Health Report* dialog box is displayed.



5. View the errors and warnings displayed and take the required action or contact the Pulse administrator for guidance.