This document describes new features, improvements and fixes included in this release of SystemWeaver. An upgrade from an earlier version requires that all client and server applications be upgraded.

* [SystemWeaver Server - Software and Hardware Requirements](https://support.systemweaver.se/support/solutions/articles/31000133431-systemweaver-server-software-and-hardware-requirements)
* [SystemWeaver Client - System Requirements](https://support.systemweaver.se/support/solutions/articles/31000140560-systemweaver-client-system-requirements)

**Note:**Special attention should be given to the items highlighted in yellow as they will require additional planning/steps for your organization pre and/or post-upgrade if the view/tool affected is being used in your installation.

| **Name** | **Description** | **Type** | **User Group** | **Issue ID** |
| --- | --- | --- | --- | --- |
| Statistics Log: Various enhancements | The Statistics log now includes the following additional information.   * User account operations   + Create user   + Activate user   + Deactivate user   + Delete user * Server start and version #. * Delete operations   + Item: Name and SID   + Part: Name, SID and Owner   + Issue: Project, Issue Type and Name * Loaded view statistics for the following views:   + Configure the explorer views, i.e., Coverage, Part list editor   + Configurable views - config item, i.e., Chart, Graph, Grid, Report   + Extensions, e.g., HARA   + Project view- issues, i.e., public views   **Examples**  { "time": "2020-02-03 15:43:03.2179", "seqId": "0", "sessionId": "1", "ip": "127.0.0.1", "userId": "x0E00000000000008", "username": "system", "appName": "swExplorer.exe", "action": { "type": "ItemViewLoaded", "view": "Issues", "loadTime": "00:00:00.188", "item": "x0400000000000D90", "previousView": "Grid" } }  { "time": "2020-02-03 15:48:09.2060", "seqId": "0", "sessionId": "4", "ip": "127.0.0.1", "userId": "x0E00000000000009", "username": "admin", "appName": "swExplorer.exe", "action": { "type": "ItemViewLoaded", "view": "SWExtension.CompletePartTypes.ItemView1Content", "loadTime": "00:00:00.176", "item": "x04000000000002A8", "previousView": "Overview" } }  { "time": "2020-02-03 15:49:02.7921", "seqId": "0", "sessionId": "4", "ip": "127.0.0.1", "userId": "x0E00000000000009", "username": "admin", "appName": "swExplorer.exe", "action": { "type": "ItemViewLoaded", "view": "XXXGraph", "loadTime": "00:00:00.232", "item": "x04000000000002A8", "previousView": "SWExtension.CompletePartTypes.ItemView1Content" } } | Improvement | Administrator | 13683, 13687, 13675, 13665, 13669, 13853 |
| swAdmin2: Improve Name and Real Name labels | The labeling of the username and the name displayed throughout the server have been clarified in the swAdmin2 utility. The Name value is displayed throughout the server for system users to view. | Improvement | Administrator | 12880 |
| API: Fix for SWImages.FindImageSource(0) problem | This fixes an issue where the SWImages.FindImageSource method did not work properly for index (0). | Bug | API user | 13587 |
| REST API: Create new Item | It is now possible to create new Items using the REST API. | Improvement | API user | 13792 |
| REST API: Empty lists instead of null when empty | All lists are now returned as empty lists instead of null when empty. | Improvement | API user | 13900 |
| REST API: Get Description as RTF or plaintext | It is now possible to get Description data as RTF or plaintext. | Improvement | API user | 13446 |
| REST API: Get RVF Attributes | It is now possible to get values for RVF attribute using the REST API. | Improvement | API user | 13385 |
| REST API: Get user based on login name | It is now possible to get a user based on his or her login name. | Improvement | API user | 13795 |
| REST API: Internal server error for Items end point when using filter | If the Items endpoint was used together with filters, an internal server error was returned if itemattributecomparemin or itemattributecomparemax weren't defined. This has been fixed. | Improvement | API user | 13798 |
| REST API: Logging | The REST API now has a response log. | Improvement | API user | 13834 |
| REST API: Modify Issues | It is now possible to modify issues using the REST API. | Improvement | API user | 13862 |
| REST API: Modify Items and Parts | It is now possible to modify Items and Parts using the REST API. | Improvement | API user | 13710 |
| REST API: New version and Replace | It is now possible to perform the operation New version and replace using the REST API. | Improvement | API user | 13916 |
| REST API: New version for item | It is now possible to create a new version of an Item using the REST API. | Improvement | API user | 13791 |
| REST API: Now handles asynchronous requests | The REST API now handles asynchronous requests. | Improvement | API user | 13674 |
| REST API: Ping | A Ping endpoint has been added to the REST API that does not require authentication so that the status of the REST API can be checked in an easy manner. | Improvement | API user | 13944 |
| REST API: Project endpoint now returns all issue statuses | The Project endpoint now returns all issue statuses for the given project. | Improvement | API user | 13777 |
| REST API: Project information | Iterations, Project user groups and group and user access can now be retrieved for projects using the REST API. | Improvement | API user | 13893 |
| REST API: Set status of Items | It is now possible to set the status of an Item using the REST API. | Improvement | API user | 14012 |
| REST API: Write to descriptions | It is now possible to write to descriptions using the REST API. | Improvement | API user | 13921 |
| API: Minor version update from 1.51.0 to 1.51.1 | The SystemWeaver API has been upgraded from version 1.51.0 to version 1.51.1. Although this minor upgrade does not require that all users receive and utilize the R33 version of the client applications (swExplorer, swAdmin2, swArchitect), we do recommend it and it would be required to access all of the client enhancements and bug fixes listed in the release notes. In addition, we recommend that any API applications developed in-house be recompiled with the newer version of the SystemWeaverClientAPI.dll. | Improvement | API user, Administrator |  |
| API: Log out and release memory | The current API executes updates of the cache on the dispatcher. If you are running in a context where you don't have an active dispatcher, like in a console program, you will not automatically get events and updates to the client side cache.  To make this clearer, we have changed the Login call so that you have to explicitly specify if you want to run with a dispatcher or not.  The old Login call still exists and has the same behavior as before, i.e., it always connects to the dispatcher, even if it is never activated.  Please note that in the future, this new functionality will not be backwards compatible. Therefore, we advise that applications be recompiled with this newer version.  This update also fixes a memory leak, where if the dispatcher was not activated, it also never executed some releases of memory when you did logout. This was causing a noticeble memory leak when you did repeated logins and logouts in one process. | Bug | API users | 13685 |
| Configurable Chart: Fix error message | This fixes a textual error in an error message displayed during chart configuration. | Bug | Architect | 13698 |
| Configure the explorer: Deprecated views removed | Two deprecated, client-specific views have been removed from Configure the explorer:   * Step 4: Component port comparison * Step 5: Copy component allocation | Improvement | Architect | 13103 |
| Coverage (mapping item): New coverage view with no context | A new version of the **Coverage (mapping item)** configurable view is introduced in R33. It can be used to relate items in a structure, but not connect them using a reference link. This new version supports ContextTree, StructureTree and Grid for both the left and right sides of the view, whereas the older version supports StructureTree only. The pre-R33 version of the Coverage (mapping view) will be deprecated in a future release. Until then, both views will continue to be available.  **Note:** If you wish to replace the existing, soon-to-be deprecated Coverage (mapping item) view with this new one, the meta model must be changed. The LeftMapping *partType* must have Multiplicity set to "Single". More details can be found in [Configuring the Coverage (mapping item) View](https://support.systemweaver.se/support/solutions/articles/31000154564-configuring-the-coverage-mapping-item-view). | Improvement | Architect | 13856, 14050, 13965, 13994, 13855 |
| DatabaseManager: Fix resequence script | This fixes an issue with the Resequencing tool in the swDatabaseManager which resulted in users not being able to take out a new version after resequencing branches using **New version and replace** within the context of a structure. As always, when running any tool in the Database Manager, it is recommended to run the operation on a backup copy first to confirm expected results. | Bug | Architect | 13360, 13929 |
| Merge Button: Handling misspelling in config | This fixes an issue where misspelling "configitem" in a merge button configuration resulted in the button being activated on all item types, not just on the one for which it was configured. Note that if the Item ribbon tab configuration contains a misspelled "configitem", the configuration will not apply properly until the misspelling is corrected. | Bug | Architect | 13054 |
| swArchitect: New Type icons | The following new Type icons, i.e., image icons for item and part types, are available: | Improvement | Architect | 13964 |
| xHMTL: Fix for custom unordered lists | This fixes a problem with < and > in bullet lists which resulted in faulty HTML. | Bug | Architect | 13760 |
| Create Test Plan: Introduction of new extension | There is now a new extension view called SWExtension.CreateTestPlan. It is designed to support the scenario where Test Specifications contain Test Cases or Test Scripts that can have parameters that need to have their values specified before the actual tests are performed. | New | Architect, User | 13535, 13538, 13304, 13545, 13536, 13537, 13541, 13678, 13293, 13399, 13542, 13400, 13543 |
| Extensions: Hydra upgrade to 6.2.101.1237 | The RemObjects Hydra application framework version used by the extensions that Systemite delivers with SystemWeaver has been upgraded from 4.0.83.1127 to 6.2.101.1237. This upgrade requires that all in-house developed extension views be recompiled using the newer version. Customers wanting to develop their own extensions using Hydra must purchase a Hydra license from RemObject. | Improvement | Breaking change,API user | 13903, 13566 |
| swServer: Attribute update attempt crashes server | This fixes an issue where an attempt to add an Attribute value that exceeded the allowed size limit caused the server to go down. | Bug | IT Administrator | 13923 |
| Description Editor update requires new client | The description editor version has been upgraded to maintain and improve the quality of our product. If upgrading to R33 from an earlier version, this editor update requires that you ensure that ALL users in all environments receive the new R33 client. We also advise that organizations with which you exchange data also upgrade to R33. | Improvement | IT Administrator | 13640 |
| Add part: Improved selection of sub-types | During an **Add part** operation, sometimes the referenced part type is an Abstract type (indicated with italic font style in the **Select Type** dialog). Abstract types cannot be used. Instead, a sub-type must be selected.  Now, when an abstract part is selected, an extra dialog is launched to assist users with selecting a non-abstract sub-type to add. | Improvement | User | 13625, 13735 |
| Attributes: Enum color application | This fixes an issue where a selected enumeration value's color was appearing as the background color for all values in the validated list. | Bug | User | 13032 |
| Clone view: Fix for scaling problems | This fixes an issue with scaling problems in the view when using a 125% or higher display setting in Windows. | Bug | User | 13636 |
| Coverage item>item: Ability to edit attributes in right-side grid | We have reintroduced the ability to edit attributes in the right-hand side grid of the Coverage item>item view. | Bug | User | 13780 |
| Description Editor: Fix for page width indicator | This fixes an issue where the page width indicator line sometimes disappeared from view when horizontally scrolling in the pop-up Description Editor. It now remains in the same position on the ruler, e.g., 17.7 cm. | Bug | User | 13686 |
| Description Editor: Various enhancements | The Description editor has been upgraded with new toolbars and a number of new features, such as:   * Ability to add figure and table captions * Zoom * Additional option for pasting text-only * Image editor   See [Various Improvements to the Description Editor (R33)](https://support.systemweaver.se/support/solutions/articles/31000154429-various-improvements-to-the-description-editor-r33-/) for more details. | Improvement | User | 13185, 13640, 13945, 13661, 13631, 13891, 13179, 13629, 13707, 13926, 13943, 13949 |
| Description References: Problem with broken references in PDF output | This fixes an issue where a broken reference displayed incorrectly for item references in PDF output in some use cases. | Bug | User | 13779 |
| Dialogs: Should appear in same window as swExplorer | This fixes an issue that occurred when using multiple monitors/screens where some dialogs in swExplorer would open on a different screen than the screen where swExplorer was open. | Bug | User | 13973 |
| Help: Clear button does not work | This fixes an issue where the Clear button did not clear the value from the search box. | Bug | User | 14008 |
| Structure tree: Attachment finder | It is now possible to view a list of all attachments linked to all items in a selected structure. From there, you can quickly redirect to the Attachments view for a selected item.  This functionality can be useful when trying to locate specific attached documents or images. The tool is available as an extension view. See [Attachment Finder: View all Attachments in a Structure](https://support.systemweaver.se/support/solutions/articles/31000154516-attachment-finder-view-all-attachments-in-a-structure/) for more details. | New | User | 14001, 13676 |
| Structure Tree: Fix for Ctrl+V paste operation | This fixes an issue where the Ctrl+V paste shortcut did not work when a configurable view was loaded. | Bug | User | 13701 |
| Versions View: Addition of properties columns | The Versions view now includes Creation Date, Last Changed and Last Changed By columns by default to help with version comparison. | Improvement | User | 12550 |
| Versions: Problem with repainting frames | This fixes an issue where the various frames in the view were sometimes not displaying clearly after resizing or scrolling in the window. | Bug | User | 13204 |