

# Release 9

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## Lattix Release 9.8 (March 4, 2015)

### Improvements

- Lattix now supports analysis of Java 1.8 classes.
- The MAC install binary uses a certificate. It is no longer necessary to run the shell script to start Lattix.
- Tag filtering implementation was changed so that subsystems are not filtered out when members are expanded or collapsed.
- It is possible to create a new Search even if there an existing Search tag already present.
- Memory utilization for large projects improved by memory mapping files.

### Bug Fixes

- Member level expansion could be slow for projects when there are multiple data sources and multiple atoms within a leaf partition.
- Member level expansion and collapse could remove dependencies in display when ordering of data sources did not match an internal ordering.
- Dependencies disappear if members are moved from one subsystem to another and then the subsystems are collapsed.
- The Logging option in the .NET module did not work.
- Certain Visual Studio Solution files could not be loaded because the configuration option could not be specified.

## Lattix Release 9.7.2 (January 23, 2015)

### Bug Fixes

- When members are expanded, some members moved, and the project is saved and reloaded, dependencies disappeared.
- Java plugin didn't pick up the dependency to the ".class" construct.

## Lattix Release 9.7.1 (January 15, 2015)

### Bug Fixes

- Visual Studio projects with invalid or missing projects could not be loaded because the configuration could not be selected.
- Certain Visual Studio projects with relative paths were not correctly handled by the Clang module.
- The Clang module could spawn excessive threads on a machine with a large number of cores.

## Lattix Release 9.7 (December 16, 2014)

## Improvements

- Detailed difference reports can be generated from lddiff using the option "generatedetailedreport".
- Lattix Web diff report also shows the detailed difference report.
- Lattix Web has several performance improvements for large projects.
- Lattix Web charts have been improved with animation.
- Options have been simplified to remove unwanted selections related to member level.
- Some clang reports have been simplified with shorter files names.
- Shell scripts for running on Linux and Mac have been improved. You can now set environment variables to control configuration directory, user directory, memory and 32/64 bit architecture.
- A new option has been added to specify the root directory on the build spec for Clang.
- The Clang Project Configurer works well with large directories also.
- Significant performance improvements were made for project creation using Clang.
- Significant disk usage improvements were made for project creation using Clang.
- A new script for understanding and removing unwanted include dependencies has been added. It should be treated as available in a beta form. Please contact Lattix if you would like to try it out.

## Bug Fixes

- Fixes to tag tree in the Navigator: Operations such as tag a branch, copy a branch, not of a branch did not work.
- An element could go missing after member expansion and collapse operations in certain cases.
- Fix for when an exception UTFDataFormatException is thrown when a snapshot is added to LattixWeb.
- Creating an element at the top level using the menu item "Create In..." throws an exception.
- Expanding member level in a compound project can throw an exception.

## Lattix Release 9.6 (October 8, 2014)

### Improvements

- LattixWeb now uses HTML5 charting. The use of Flash has been discontinued.
- LattixWeb pre-computes reports when a new snapshot is added to track. This results in significant performance improvements when the user examines a new snapshot.
- A refresh option was added to reports and charts on LattixWeb.
- LattixWeb layout was updated and improved.
- The computation of metrics in LattixWeb can be controlled by a properties file. This defaults file is created in a *.defaults* directory in the LattixWeb data directory.
- The underscore character is ignored when sorting snapshots in LattixWeb.
- The Clang project configurer has been made more efficient in how it populates the file directory hierarchy. These improvements were made to improve performance over networked file systems.
- By default, the option to auto detect header file is now turned off.

### Bug Fixes

- Member level expansion was not remembered across updates.
- The Clang module marked inline functions with the same name as a multi-defined symbol.
- Report menu was sometimes not available when a report is being displayed.
- Re-run report option was sometimes greyed out.

- When a project is created with all members loaded and there are duplicate atoms, member atoms are not merged.
- Certain dependencies generated by Understand to Unknown Entities were displayed in Lattix 9.5. These were removed from the model.
- The last directory that was used for download wasn't being remembered in Create Project Dialog for many modules.
- Visual Studio solution file was not handled correctly by the Clang module if the solution contains projects for both .NET and C/C++. Now the .NET projects will be skipped.
- The Clang module did not display the dependency of declaration on type.

## Lattix Release 9.5 (August 23, 2014)

### Improvements

- Compound projects can be created from sub-projects in order to:
  - Split up large projects into sub-projects
  - Create projects that span technology boundaries such as Java and C/C++
  - Create projects that have multiple versions of a project
- The Make Log Parser can produce build specification file for the Clang module from the json output of cmake.
- The Understand modules now support the ability to show cross module dependencies in the UDB files
- Clang module options were simplified.
- Clang module has two new dependency kinds: "Address of Global" and "Address of Field". Earlier these were identified as "Read Global" and "Read Field" earlier.
- API was expanded to support user specified partitioning and to invoke the built in partitioning algorithm.

### Bug Fixes

- .NET module could fail when using the log option in project creation.
- The Clang module marked inline functions with the same name as a multi-defined symbol.
- ldcupdate returns -1 when there is an error. This is different from the case where update succeeded but there are violations.
- Cannot type in the file path in the Create New Project Dialog.
- The dependency kind for call to static function was incorrect.
- Combine source and header file script did not work correctly if the name of the directory was "c".

## Lattix Release 9.4.1 (June 26, 2014)

### Improvements

- Japanese language localization.
- Reduced temporary disk space usage during Clang based project creation.
- Updated Clang parser with significant performance improvements.
- Eclipse plugin updated for the new Lattix 9.\* project format.
- Improved display of dependencies in the Information Pane.
- Updated initial rules for .NET projects.
- Improved project home page.

- Reduced memory footprint for ldcupdate and ldcreport
- Installer Improvements
  - Lattix executables ship with Java 7.
  - New splash screen and image.
  - More informative license error messages.

## Bug Fixes

- Project Update throws exception with File filtering option
- Large Clang reports could fail to display some errors
- Project Configurer throws an exception when specifying a header file without a '.'
- Average Impact/System Stability Metric was incorrect (regression in 9.2/9.3)
- CAD lines did not display in LattixWeb (regression in 9.\*).
- Charts are not displayed on LattixWeb (regression in 9.\*).

## Lattix Release 9.3 (May 11, 2014)

### Improvements

- Improved user interface for reports
  - Reports can be displayed in a separate popup window.
  - Reports can be rerun with same or different options.
  - Formatting of the report title page was improved.
  - Readability of Clang reports was improved.
- Improved Linux user interface.
  - Fonts made more readable.
  - Module type pull down did not resize when the dialog box is resized.
  - Tabs on the new project dialog took up two rows when only one row would have sufficed.
- User interface controls to toggle which CAD lines are displayed.
  - Show or hide all dependency lines.
  - Show or hide violations.
  - Show or hide upwards, downwards, leftwards, rightwards dependencies.
- The user interface highlights the pane with the current focus.
- The graphic on splash and install screens was updated.
- Ldcdiff has options for detailed report.
- Ldcupdate report has options to allow the user to select the update report.
- Exported images show cell indicators.
- Size display in CAD can be turned off from Project Properties.
- Improved error message when an Architect license is used with Analyst.
- Project configurer allows options to be set on any node in the source tree.
- Partitioning button and pull down are greyed out when no partition is selected.
- Tooltip was added to the search icon.

### Bug Fixes

- Report Menu is not displayed when a report is opened.
- Report dialog does not appear when checkers or violation panes are open.
- Architect fails to run when no floating licenses are available.
- Clang module could fail to read Visual Studio project files if they contained certain international characters.

- Clang module could fail to compile files when dealing with forward declarations.
- Clang reports did not work when a view wasn't open.
- Removing a directory could remove multiple directories in Project configurer.
- Metric calculation could create excessive threads.
- Null pointer exception when expanding/collapsing merged member atoms.
- Exception running open project script on projects without a view.
- Stack overflow exception could result while undoing actions.
- Undoing member expansion did not work after multiple expand actions.
- Ctrl select on multiple selected DSM cells did not toggle selection.
- Tag cycles is slow for member expanded projects.
- Filtering dependencies was slow.
- Update project without reading input loses all dependencies.
- CAD elements had duplicate menu items on the right click pop-up menu.
- With multiple projects loaded in, the Navigator could show incorrect selection of home page.
- Some of the buttons in the options dialog were cut off.

## Lattix Release 9.2.1 (April 11, 2014)

### Improvements

- Extensive improvements to support multiple data sources with the Clang module. Further improvements are planned.
- Navigator Improvements: Tag items from Model tree.
- Navigator Improvements: Multi-select to delete subsystems, views, reports and worklist items.
- Correctly identify certain dependencies in Klocwork module.
- Create a Clang based projects using a 'Make' log.
- Support 64-bit version of Rhapsody.
- Disable partitioning icon and drop down when no subsystem is selected.
- Do not generate atoms for declarations in the Clang module. A new option has been added to force these atoms to be generated.
- Module for Understand supports Addr dependencies.
- Conceptual Architecture shows tag id on subsystems.

### Bug Fixes

- View Source remained greyed out in .NET projects created with Visual Studio 2012.
- Projects with certain characters in custom work list item would fail to load.
- Member level expansion is slow for large models.
- Errors could occur when a java project is created by treating each class as a separate data source.
- Clang report could sometimes fail with exception.
- Sometimes dependencies did not display in DSM/CAD in member level projects.
- Impact analysis can be done from tags directly (without using a report). This functionality was present in Lattix 8.\* but had been left out in Lattix 9.\*.
- Certain Rhapsody projects could not be parsed.
- Fix sorting of columns by date in LattixWeb.
- Tag colors did not work correctly.
- Deleting a subsystem in a Conceptual Architecture Diagram could cause strange behavior.
- Number of violations did not appear on the Project Track page in LattixWeb.
- Cut/Hide Branch did not work correctly in Navigator and Usage pane.
- Install: The bin directory had extra executables.

- Exception when you hide a project that has only one element.
- Update did not work correctly for Clang if detailed report was selected.
- Metrics selection could cause excessive computation threads to be launched.
- Multiple member level expansions could produce an exception.
- Collapse members did not remove all member in Clang projects.

## Lattix Release 9.0.2 (March 10, 2014)

### Improvements

- Toolbar has been integrated with Navigator selection.
- Menu items on the tag elements in the Navigator were reorganized.
- Keyboard arrow keys can be used to move subsystems in CAD.
- CAD has increased white space for improved readability.
- The initial layout for the CAD has been improved.
- Improvements to the File Widget in New Project Dialog so that it performs much better even when there are large number of networked file systems.
- Control key can be used in the New Project Dialog file selection panels.
- Improved status report in the Klocwork module.

### Bug Fixes

- Fixes were made to the Atom database when updates are made on large projects with members.
- Project Configurer in the Create Dialog for Clang generated an exception when the entire file system was given as input.
- Memory Usage on home page is refreshed when the page is brought up.
- CAD was missing menu items for creating layered rules.
- Sometimes the toolbar icons weren't enabled when \$root was selected for the first time.
- The batch file for Architect (lattixarchitect.bat) did not work correctly.
- The Violations Report on the Web Repository did not generate if there were rules to non-existent target subsystems.

## Lattix Release 9.0.1 (February 3, 2014)

### Improvements

- Menu items on the nodes in the Navigator tree were significantly expanded.
- Unnecessary menu items were removed from nodes in the Navigator tree.
- Knowledge Base manuals and other documentation was updated to reflect Lattix 9.0.
- Manual dependencies can now be create in a CAD.
- Improved error reporting when the Oracle module connects to the database using an OCI connection.
- You can show/select any element in a view from the Usage pane or from the Navigator.

### Bug Fixes

- C/C++ analysis using the Clang module could run out of file handles for large projects under Linux.
- In some circumstances, update did not cleanup files from temp directory.
- Moving boxes in a CAD would sometimes become slow.

- Renaming a View did not work correctly.
- Update with detailed reporting would cause member level atoms to be loaded into the project.
- Closing multiple projects loaded into Architect did not work correctly.
- Tags generated by Tag Cycle did not appear immediately in the Navigator.
- CAD could display incorrect dependency strength on the dependency line between Ref partitions.
- Cycles checker could get an exception.
- Expanding members from the Home page did not work correctly.

## Lattix Release 9.0 (January 21, 2014)

### Improvements

- Improved User Interface:
  - There is a new home page for every project.
  - There is a New Navigator panel on the left.
  - There is a New Repository Panel on the left.
  - The Search tab is now part of the Navigator.
  - Tool bar icons have been refreshed. New icons have been added for the home page and for Search.
  - The tabbed panels on the right have been moved to the right edge, thereby improving the aesthetics and screen real estate.
  - The Reports now display in the middle pane which provides for better screen space management and makes them easier to read.
- Revamped Conceptual Architecture Diagram:
  - The placement of subsystem boxes has been improved. There can be multiple rows within a layer thereby making it easier to improve the placement of boxes in a disorganized large scale system.
  - Subsystems can be resized and moved around easily.
  - It is possible to create and remove layers easily.
  - White space management can be done through point and click, enabling rapid creation of architecture diagrams.
  - The placement of lines has been improved. Problematic dependencies are easy to identify through the user of colors.
  - It is easy to put all subsystems in a single layer for those users who want to organize the project according to their own intent.
- Lattix now supports Klocwork 10.0 (in addition to Klocwork 9.\* and earlier versions).
- Improved support for C++ (for Clang/Klocwork/Understand modules) includes:
  - It is possible to create a project that is entirely class based.
  - It is possible to generate meaningful object oriented metrics (Robert Martin metrics) for class based projects.
- Additional User Preferences
  - You can control the color of the grid lines and the fonts used in the grids and headers.
  - You can control the color of the relationship lines in the CAD
  - You can set up source directory mapping to make it easier to navigate to source even when the directory structure does not match the structure used when the project was created.
  - You can explicitly specify source root for external editors to use.

### Bug Fixes

- The Uses Report was fixed for multi-module projects with multiple atoms in a single partition.

- View Source works even if the project was created in Linux and viewed in Windows or vice versa.
- Oracle parser fix for materialized view.