SIEMENS EDA

ODB++ Inside for Cadence® Allegro® Release Notes

Software Version 2604
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Table of Contents

ODB++ Inside Release Notes

This document provides a high-level summary of the corrected defects and enhancements in the ODB++ Inside 2604 release.

Release documents are located on the Downloads page of the ODB++Design website—refer to this page for the most up-to-date information, including the changes added after the release:

https://odbplusplus.com/design/downloads/odb-d-inside

Before you install the software, be aware of the following:

- ODB++ Inside migrated to the Qt6 framework in version 2504. On Linux systems, the following additional libraries are required for the software to run correctly:
  - libnsl.so.2 (provided via a symbolic link to libnsl.so)

    ```
    sudo ln -s /usr/lib64/libnsl.so /usr/lib64/libnsl.so.2
    ```
  - libxcb-cursor0 (version 0.1.3-150400.3.2.3)

    ```
    sudo rpm -i libxcb-cursor0-0.1.3-150400.3.2.3.x86_64.rpm
    ```

  For a complete list of dependencies for each supported platform, refer to **Supported Operating Systems for ODB++ Inside** the *ODB++ Inside System Requirements* document.
- Starting with the 2504 release, the default path for new installations is *C:\SiemensEDA*. When upgrading from ODB++ Inside version 2409, the software retains the existing directory, typically *C:\MentorGraphics*. However, if you upgrade from a version earlier than 2409 and select the default path for the VALOR_DIR directory, you must copy the contents of your previous VALOR_DIR directory to the new location to retain access to your system data. See **Migrating VALOR_DIR Data During a Software Upgrade** in *ODB++ Inside Installation Guide*.
- The ODB++ Inside Documentation InfoHub has been deprecated. Product documentation remains included with the installation, and you can access it by pressing F1 from the active window. The HTML toolbar contains controls with tooltips displaying the titles of relevant topics or books:
  - The Table of Contents button provides a link to the parent section, up to the *docs* directory that lists all the installed books.
  - The navigation arrows enable moving to the next or previous topic within the current book.

Enhancements in ODB++ Inside 2604

This version adds improved functionality.

- ENG-289353 — Enable suppression of pins with no name in output data.

A new translation parameter “Suppress Unnamed Pins” is added to control whether to suppress the translation of pins that have no value in the PIN_NUMBER field of the pins_pm.out file. Default = no.

- ENG-296252 — Improve the description of the configuration parameter eda_cadence_support_exceptional_pins.

  Parameter description has been clarified to state that a placeholder component is only created for pins without a name and a RefDes in the pins file when the value is “Yes”.

Enhancements in Earlier Versions

This section lists new features and improvements introduced ODB++ Inside since version 2211.

Enhancements in ODB++ Inside 2510

- EBS-164674 — Add support for export of “Advanced Degassing” patterns.

  Implemented. The following degassing shapes are now handled correctly: CIRCLE, HEXAGON_X, HEXAGON_Y, OBLONG_X, OBLONG_Y, OCTAGON, RECTANGLE, SQUARE.

- EBS-167795 — Make the Select action the default in the graphic area.

  Implemented. The default action on window opening has been changed from Zoom Area to Select.

- EBS-167796 — Replicate the behavior of the middle mouse button to Esc (keyboard).

  Implemented. The Esc key now cancels or reverses actions in the graphic area.

Enhancements in ODB++ Inside 2504

- EBS-157341 — Improve the representation of Electrical Type and Mount Type information across the User Interface.

  The display has been unified in the entire application to present the Electrical Type as B, E, M, or U, and the Mount Type as SMT (or S), SMT PR (or D), TH (or T), TH_RH (or R), PRESS_FIT (or P), NON_BOARD (or N), HOLE (or H), or Unknown (or U).

- EBS-157489 — Translate the solder mask thickness from Cadence and place it in the Dielectric Thickness attribute.

  Layers of type soldermask are assigned the Dielectric Thickness attribute with the value specified in the layers file.

- EBS-158606 — Improve the Cadence translation to set .is_buried component attribute correctly.

  The .is_burried attribute is now assigned to components only if they are located on an inner layer inside a rigid area of the board.

Enhancements in ODB++ Inside 2409

- EBS-157488 — Store Cadence “class:subclass” in the new attribute .class_source.

The method for storing the EDA origin of graphic elements has been improved, with class and subclass information contained in a new feature attribute .class_source.

Enhancements in ODB++ Inside 2403

- EBS-150417 — Assign Backdrill attributes during Allegro translation.

  Valor NPI now reads the maximum backdrill depth, maximum PTH stub length, and Must Not Cut layer information from Allegro-generated .out files and adds the associated attributes in the design.

Enhancements in ODB++ Inside 2305

- EBS-142972 — Arc is inconsistent between Profile and Outline layer.

  Differences between the rout layer and the documentation layer containing the rout data were caused by too much tolerance used to create the step profile. This is now fixed.

- EBS-142003 — Zone data is solid fill and does not include names of zones.

  In addition to the mask layers flex_area and rigid_area, which contain solid fill shapes representing the zones, the translation creates a document layer called zone_outline to store the zone data in the form of lines, arcs, and text.

- EBS-143527 — "Rout" layer conflicts with "Profile" for Allegro based on geometry file.

  A rout layer named "profile" is created from the "OUTLINE" or "DESIGN_OUTLINE" field in the .geoms file if the "Create Rout From Artwork Layer" parameter is not set or contains the name of a non-existing layer.

- EBS-143294 — Environment variable BRD2ODB_TMP has been made obsolete and replaced by VALOR_TMP.

- EBS-138952 — Switch -kal has been added for setting the configuration parameter "Keep auxiliary layers name as in artwork" to Yes.

- EBS-142002 — Translation algorithm has been improved to correctly determine the placement of test points based on SYM_MIRROR data..

- EBS-142254 — The rout layer type creation logic has been fixed to use BOARD GEOMETRY:DESIGN_OUTLINE instead of BOARD GEOMETRY:OUTLINE when data exists in both of these subclasses and "Create Route From Artwork Layer" is not set with the name of a valid layer..

Enhancements in ODB++ Inside 2211

- EBS-135095 — The ODB++Design Inside installer creates a file named *env_file*, containing variable settings that reflect values specified during installation. The environment variable VALOR_DIR, located in this file, points to the system directory VALOR_DIR in which configuration and work files requiring writing permissions are stored.

Problems Fixed in ODB++ Inside 2604

This version addresses several issues reported by customers or identified internally.

- EBS-178229 — Translation creates a redundant circle.

  Resolution: Arcs whose startpoint and endpoint are less than one pixel apart were translated as full circles. After the fix, such arcs are translated as lines if their points are close but not identical.

- EBS-178618 — Translation fails for designs on mapped drives with long path names.

  Resolution: Fixed.

- EBS-179379 — When using ODB++ Inside V2504 or V2510, the export fails when the Component boundary is set to Assembly.

  Resolution: Fixed.

Problems Fixed in Earlier Versions

This section lists defects fixed in ODB++ Inside since version 2211.

Problems Fixed in ODB++ Inside 2510

- EBS-162346 — Rout is not created from the specified artwork layer when “Component Outline” is set to “DFA”.

  Resolution: When the “Component Outline” parameter was set to “DFA”, the “Create Rout From Artwork Layer” parameter was incorrectly overridden to “DFA_BOUND_ROUT”. This is now fixed.

- EBS-163335 — Incorrect splash screen displays when invoking ODB++ Viewer from Cadence Allegro.

  Resolution: Fixed.

- EBS-164137 — Translation results in incorrect rotation of non-circular holes (slots).

  Resolution: Fixed.

- EBS-164544 — Outer pads for specific drill spans are removed even if the additional parameter “Don't suppress pads on top/bottom” is set to “yes”.

  Resolution: The “Don't suppress pads on top/bottom” parameter is no longer available for editing. The top and bottom pads on drill holes are always preserved, even if the “Suppress Unconnected Pads” option is selected.

- EBS-164775 — Zone data is incorrectly mapped to Rigid and Flex areas.

  Resolution: Rigid areas are now created for board sections with no zone data defined. If no flex regions are defined in the zones file, zones in which all layers have the “_flex” subtype are used to define Flex areas.

- EBS-167083 — Failure to read data stored on a UNC path.

  Resolution: Fixed. Double slashes and other special characters in file paths are now processed correctly.

- EBS-167156 — The .is_buried (Embedded Passive) component attribute is not imported from Cadence Allegro or OrCAD Layout in version 2504.

Resolution: The attribute was not set for components in incorrectly mapped flex regions. Zone data is now processed correctly, and the issue no longer occurs.

- EBS-168695 — ODB++ partial assembly export fails for designs that include intentional shorts data.

  Resolution: Fixed.

- EBS-169764 — Deprecated additional parameter fields are visible during upgrade installation.

  Resolution: The wizard file valornpi_ca.xmlz has been updated to reflect the latest content. A backup of the previous file is saved on disk.

Problems Fixed in ODB++ Inside 2504

- EBS-153532 — Translation results in toeprints missing net connections in VAL/CAD format.

  Resolution: Fixed.

- EBS-155468 — Incorrect shape-to-shape spacing in translation Cadence out files into ODB++ product model.

  Resolution: The discrepancy was caused by endpoint shifts during the SIP removal process. The continuity of segments and curves has been restored.

- EBS-155930 — Pad not connected to the net after translation of CAD format file.

  Resolution: Fixed.

- EBS-155931 — Component height attribute is not set during translation.

  Resolution: The “COMP_HEIGHT” field has been added to the comps_<pm>.out file. If the value in this field includes units, it is used to set the ODB++ attribute .comp_height.

- EBS-156809 — Translation results in incorrectly rotated component pins.

  Resolution: Fixed.

- EBS-158112 — Failure to create layers according to a Matrix File.

  Resolution: Fixed. The translation algorithm has been updated not to create dielectric layers when a Matrix File path is specified.

- EBS-158491 — Rout layer is always converted into 10 mil.

  Resolution: Fixed. The width of rout features is now taken from the Cadence data unless the value is zero, in which case the value of configuration parameter edt_rout_display_width is used.

- EBS-158994 — Failure to translate net short data involving a net name “NONE” and non-numbering pin names.

  Resolution: Fixed.

- EBS-159491 — False alarms for drill-to-copper shorts in Pin Point mode.

  Resolution: Fixed by adding a logic to prevent hole duplication.

- EBS-159995 — The component outline for some mounting holes on the bottom layer is lost in Valor NPI.

Resolution: Fixed. For components with geometry on both sides of the board, one side is chosen based on the established logic. The shape of this side, determined by the SYM_MIRROR, PLACEMENT_LAYER, and EMBEDDED_STATUS data, is used to create the outline.

- EBS-160049 — Large arc rendered into segments.

  Resolution: The documentation has been updated to state that features extending beyond the coordinate ranges of (-100, -100) to (100, 100) inches or (-2540, -2540) to (2540, 2540) millimeters may be fragmented during translation.

- EBS-161328 — The “eda_flex_material” parameter value is overridden by an empty value when translating directly from Cadence with the “Define Flex material list” parameter left empty.

  Resolution: Fixed. If “Define Flex material list” is empty, the translator uses the value already set in the configuration parameter “eda_flex_material”.

- EBS-161528 — Pad suppression produces inconsistent results.

  Resolution: The translation algorithm has been fixed to prevent the suppression of pads that are crossed by traces reaching the center of the associated drill.

- EBS-162329 — Netlist check report showing inconsistent results.

  Resolution: The issue was caused by incorrect translation of zones defined as NONCONNECTED geometry in the geoms file. This is now fixed.

- EBS-162390 — Profile is not translated in Valor NPI versions 2305 and 2409.

  Resolution: Fixed.

- EBS-162491 — Copper Thickness field displays extra decimal places for values in metric units.

  Resolution: Fixed.

- EBS-162595 — Intentional short traces are missing in a specific design after translation.

  Resolution: Fixed.

- EBS-162626 — The color of layers with type “power_ground” and subtype “pg_flex” is incorrect in the Matrix.

  Resolution: Fixed.

- EBS-162678 — Wrong component shape is generated for components placed on inner layers when translating with PLACE_BOUND outline.

  Resolution: Fixed.

- EBS-164114 — Translation fails for designs with more than 200 layers when the pad suppression option is selected.

  Resolution: Fixed by increasing the layer limit from 200 to 1024.

Problems Fixed in ODB++ Inside 2409

- EBS-145444 — Incorrect application name and version number in the SAVE_APP field of the <product_model_name>/misc/info file.

Resolution: Fixed.

- EBS-147209 — Exported ODB++ file name inconsistent with the BRD file name.

  Resolution: Fixed by adding support for importing BRD files with capital letters in the name.

- EBS-154412 — Rout layer does not match the Profile from Allegro translation.

  Resolution: The issue occurred due to mishandling of BOARD GEOMETRY:CUTOUT data when creating an ODB++ rout layer. This is now fixed.

- EBS-157677 — Component spacing ranges are not imported correctly from DFA files generated by Cadence Allegro versions later than 17.4..

  Resolution: Fixed.

Problems Fixed in ODB++ Inside 2403

- EBS-150573 — Unconnected pads not suppressed in Cadence translation.

  Resolution: The Cadence method for isolated pad recognition has been updated to ignore pads that are crossed off-center by a trace intersecting the centers of the corresponding drill and pin.

- EBS-150671 — ODB++ Inside does not create top/bottom layers when layer names are L1_SURFACE and L8_BASE.

  Resolution: Configuration parameters eda_cadence_apd_bot_name and eda_cadence_apd_top_name now support wildcard characters (*) in the names of the bottom and top layers in APD out files, for example, “*SURFACE” and “*BASE”.

Problems Fixed in ODB++ Inside 2311

- EBS-143429 — brd2odb.exe errors with large design.

  Resolution: Translator crashed when the input path contained a BRD file larger than 2 GB, due to a limitation in the system function checking the file size. This is now fixed.

- EBS-146525 — Cadence FAB file not detected.

  Resolution: Support for import of Cadence FAB files has been added.

- EBS-146788 — ODB++ Inside installer incorrectly edits env_file.

  Resolution: Updating an existing ODB++ Inside installation caused some environment variables commented out in the env_file file to become active. This is now fixed.

- EBS-148632 — PDF of an earlier version's user guide found in the ODB++ Inside installation directory.

  Resolution: Fixed. Redundant documentation has been removed.

- EBS-148777 — Cadence translation fails on specific data.

  Resolution: Fixed by adding PANEL_OUTLINE as an option for the additional parameter Panel Outline as Profile = no.

- EBS-149079 — The body shown as large however it should be small.

Resolution: The display of double-sided components has been fixed to show only the geometry associated with the PLACEMENT_LAYER.

Problems Fixed in ODB++ Inside 2305

- EBS-142972 — Arc is inconsistent between Profile and Outline layer.

  Resolution: Differences between the rout layer and the documentation layer containing the rout data were caused by too much tolerance used to create the step profile. This is now fixed.

- EBS-142003 — Zone data is solid fill and does not include names of zones.

  Resolution: In addition to the mask layers flex_area and rigid_area, which contain solid fill shapes representing the zones, the translation creates a document layer called zone_outline to store the zone data in the form of lines, arcs, and text.

- EBS-143527 — "Rout" layer conflicts with "Profile" for Allegro based on geometry file.

  Resolution: A rout layer named "profile" is created from the "OUTLINE" or "DESIGN_OUTLINE" field in the .geoms file if the "Create Rout From Artwork Layer" parameter is not set or contains the name of a non-existing layer.

- EBS-144183 — Fix urgently some issues with the ODB++ Inside for Cadence installer.

  Resolution: Installer sets VALOR_HOME & VALOR_TMP with the paths *$VALOR_DIR and $VALOR_DIR/tmp*, respectively. Additional content from previous *env_file* is copied to the new *env_file* during installation. config file is now installed under *$VALOR_DIR/sys*.

- EBS-144187 — Installer of ODB++ Inside Cadence Allegro should be consistent between Windows and Linux.

  Resolution: The location of the documentation tree on Linux has been changed from *../brd2odb_<ver>/all/docs* to *../brd2odb_<ver>/all/manuals/docs*.

- EBS-138884 — Special symbol from Allegro to ODB++ are in different size.
- EBS-142072 — Short caused by Top Side Comp J5500.

Problems Fixed in ODB++ Inside 2211

- EBS-110665 — Incorrect netpoint location for feature translated from Cadence.
- EBS-135095 — BRD2ODB Fails when installed on a server.
- EBS-136524 — ODB++ inside export negative feature incorrectly.
- EBS-137857 — Incorrect profile created from a single circle feature.
- EBS-138806 — ODB2BRD Returns Undefined Symbol error on Linux.
- EBS-139605 — Problem with Silkscreen figure appearing on wrong layer.
- EBS-139611 — Step does not get created by EDA Translation (not saved after translation).
- EBS-140859 — Use Panel Outline as Profile in Allegro Interface.

Known Problems and Workarounds

Product limitations, defects, and unexpected behaviors may affect normal operation. Workarounds provide practical ways to minimize disruption and maintain reliable performance.

- Support of TrueType fonts versus Text Blocks in ODB++ Inside output

  Description: Cadence introduced the use of TrueType fonts in Allegro version 25.1. By default, the setting to use Text blocks or TrueType fonts is blank, which results in using only TrueType fonts.

  As of ODB++ Inside 2604, there is no support for the use of TrueType fonts. If a design contains TrueType fonts, the following error message displays when running the translator:

  "Translations Failed! Error translating input record (eif_cadence-583003)"

  No ODB++ product model data is created.

  Workaround: Set “text_controls_option_tab” to “Text Blocks” in the User Preference Editor to avoid this issue. This setting applies the original Text Blocks fonts to all text.

- Cursor distortion in Extend mode on Windows.

  Description: Different scale settings between screens may cause the mouse cursor to change shape unexpectedly. This occurs because each screen generates a cursor based on its own scale. For example, clicking a measuring tool and then moving the window to another screen, may change the cursor into a right arrow.

  Workaround: Repeat the action associated with the cursor to refresh the cursor appearance on the new screen.

Support Information

You can use a streamlined process to report a problem, receive guidance on the ODB++ Inside installation, or receive help with a task you are trying to accomplish while using the tool.

To submit a support case, complete the form on the Contact page of the ODB++Design website:

https://odbplusplus.com/design/contact