cadence®

Setup Library Task Assistant

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Quick Help for Setup Library Assistant

The **Setup Library** assistant provides a one-stop solution for:

- **Project Managers**, who work on ADE Verifier for top-level verification, to define the project setup requirements and ensure full coverage of the specified requirements

- **Block Designers**, who work on ADE Assembler for analog designing, to reuse the defined setup

Help Topics

Setup Library Assistant Quick Help

The **Setup Library** assistant provides a one-stop solution for:

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- **Block Designers**, who work on ADE Assembler for analog designing, to reuse the defined setup

Help Topics

Getting Started

Related Topics

Getting Started with the Setup Library Assistant

What is Setup Library assistant?

The **Setup Library** assistant helps you define the project-specific master setup and ensure that all design blocks adhere to the specified setup. It is available in ADE Assembler and ADE Verifier and performs the following tasks:

- Specifies a master project-specific setup, which includes multiple sweep variables, corners, model files, config sweeps, and so on
- Saves the specified setup in a separate view independent of *maestro*
- Creates verification spaces and calculates the coverage percentage in ADE Verifier
- Verifies designs without the need to go back to ADE Assembler sessions for each block and check for deviations

Related Topics

Getting Started with the Setup Library Assistant

How do I open a new or existing Setup Library cellview?

To open a cellview:

1. Click  on the Setup Library assistant toolbar. The **Select Setup Library CellView** form appears.
2. Specify the library, cell, and view that you want to open.
   Note: The **View** drop-down displays all the existing cellviews of type *setupLib*.
3. Specify a new cellview name or select an existing name.

The Setup Library assistant loads the specified Setup Library cellview. Also, the **View** section of the Library Manager displays the new Setup Library cellview.

Related Topics

Getting Started with the Setup Library Assistant

Working with the Setup Library Elements

Related Topics

- How do I edit the existing setup?
- How do I add new sweeps?
- How do I add new corners?
- How do I save the updated setup in Setup Library?
- How do I create my setup in Data View using Setup Library?
- How do I synchronize Data View with Setup Library?
- How do I update a maestro view to remove references to the setup?

How do I edit the existing setup?

To modify the specified setup (sweeps, corners, and verification spaces), ensure that the setup library cellview is enabled for editing.

If a lock symbol appears on **Toggle Edit Mode**, it indicates that the cellview is in read-only mode.

Note: When the cellview is locked by some other user, you will need to wait until the lock is released.

Related Topics

- How do I add new sweeps?
- How do I add new corners?

How do I add new sweeps?

You can add sweeps in the Setup Library Assistant by creating new sweeps or importing existing sweeps from a CSV or SDB file.

- To create a new sweep, right-click **Sweep Setups** and choose **Create Sweep Setup**, or click ***Click to add SweepSetup***.

  The sweep setup is added with a default name. To add a sweep variable, right-click the sweep setup and choose **Add New Sweep Variable**. The Add Variable form appears in which you specify a variable name and its values.

  Alternatively, drag variables from the Data View assistant and drop them to a sweep setup in the Setup Library assistant.

- To import sweeps, right-click a sweep setup name and choose **Import Sweeps.**

  The Open File window appears in which you specify the name of a CSV or SDB file containing the setup.

Note: By default, the Setup Library assistant considers all variables as enabled. This includes the disabled set of variables that you drag in or import.

Related Topics

Adding New Sweep Setups

How do I add new corners?

You can add sweeps in the Setup Library Assistant by creating new corners or importing existing corners from a CSV or SDB file.

- To create a new corner, right-click **Corner Setups** and choose **Create Corner Setup**, or click **Click to add CornerSetup**.

  The corner setup is added with default corner setup name, Corner*Setup1.*

  Alternatively, drag corners from the Data View assistant and drop them to a corner setup in

Setup Library assistant.

- To import corners, right-click a corner setup name and choose **Import Corners**.

  The Open File window appears in which you specify the name of the CSV or SDB file containing the setup.

Note: By default, the Setup Library assistant considers all variables as enabled. This includes the disabled set of variables that you drag in or import.

Related Topics

Adding New Corner Setups

How do I save the updated setup in Setup Library?

To save the changes made to the setup elements in the same cellview:

- Click **Save** on the toolbar.

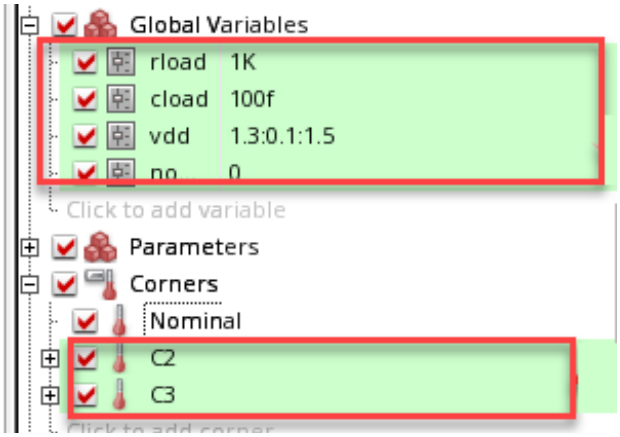
To save the changes made to the setup elements in a different Setup Library cellview:

- Click **Save A Copy** on the toolbar.

The Save As Setup Library CellView form appears in which you can specify the library, cell, and view name to save the setup.

How do I create my setup in Data View using Setup Library?

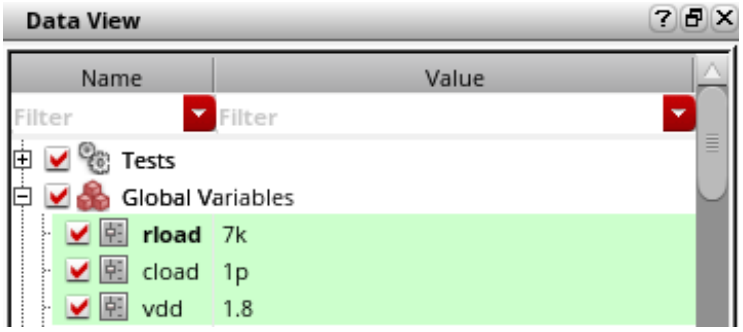
Drag a specific sweeps or corners setup from the Setup Library assistant into the Data View assistant. The setup elements that you drag from the Setup Library assistant appear with a green background in the Data View assistant.



Note: When you hover the pointer on sweeps and corners in the Data View assistant, a tooltip appears to display the name of the referenced setup from Setup Library.

How do I synchronize Data View with Setup Library?

If you change the value of referenced sweeps or corners in Data View or Setup Library, they appear in bold in the Data View.



To synchronize the ADE Assembler setup to reflect the latest updates:

- Right-click the **Global Variables** or **Corners** section in Data View assistant and choose **Sync with Reference Setup**.

How do I update a maestro view to remove references to the setup?

There can be scenarios when you want to remove any references to the setup to meet the following requirements:

- You want to modify the values in the Data View assistant independent of values in Setup Library
- Any changes in setup library do not overwrite the values in Data View assistant

In such cases, you can clear all references to the sweep or corner setups.

To clear references to all referenced setups:

- In the Data View assistant, right-click **Global Variables** or **Corners** and choose **Clear References**.

Verifying the Design Against the Specified Setup

Related Topics

- How do I create verification spaces?
- How do I assign a verification space for blocks in ADE Verifier?
- How do I calculate and interpret the coverage?
- How do I read the coverage summary?
- How do I export the coverage report?
- How do I run simulations with a verification space?
- How do I update implementation cellviews for verification spaces?

How do I create verification spaces?

In the Setup Library assistant, do one of the following:

- Right-click **Verification Spaces** and choose **Create Verification Space**.
- Click **Click to add Verification Space** under **Verification Spaces**.

Now, in the displayed Verification Space Builder form:

1. Click **Create New Space** to add a new verification space with the default name, *Space1*. Double-click to change the name.
2. Select a corner setup from the **Corners** drop-down list and a sweep setup from the **Sweeps** drop-down list.

The **Verification Spaces** node displays the specified space with the selected corner and sweep combinations.

How do I assign a verification space for blocks in ADE Verifier?

To assign a verification space for different blocks in ADE Verifier, first open the Setup Library Assistant in ADE Verifier by doing one of the following:

- Click  on the toolbar.

- Right-click anywhere on the menu bar or toolbar area and choose **Assistants** –**Setup Library**.
- Choose **Window** – **Assistants** – **Setup Library**.

Now, to assign verification space for requirements:

1. Ensure that the verification spaces are available in the Setup Library assistant.
2. Right-click a requirement row in the **Requirements** pane and choose **Assign Space to Requirements** – ***VerificationSpace***.
3. In the **Verification Space** column, select a verification space from the drop-down list against each value where specifications are applied.

Note: To remove the verification space from a requirement, select the requirement, right-click and choose **Remove Space from Requirements**.

How do I calculate and interpret the coverage?

To generate the coverage report in the **Results** tab, click **Calculate Coverage** on the ADE Verifier toolbar.

The **Coverage** column displays a coverage report for the requirement with colored bars.

To indicate changes in the coverage and a need for recalculation, an exclamation mark symbol appears on **Calculate Coverage** in the following cases:

- If you change the value of the project-specific setup requirements that exist in the Setup Library.
- If you modify a corner or variable that is a part of an existing verification space in ADE Verifier.

An example of this is: Suppose you rename a verification space in the Setup Library Assistant, and this space is currently in use in ADE Verifier. ADE Verifier synchronizes with the changes in the Setup Library by displaying the previous space name with a strike through. For example, you assign a requirement to Space1 in ADE Verifier and you rename Space1 to Space2 in the Setup Library Assistant. Space1 appears with a strike through, ~~Space1~~, in the open ADE Verifier cellview.

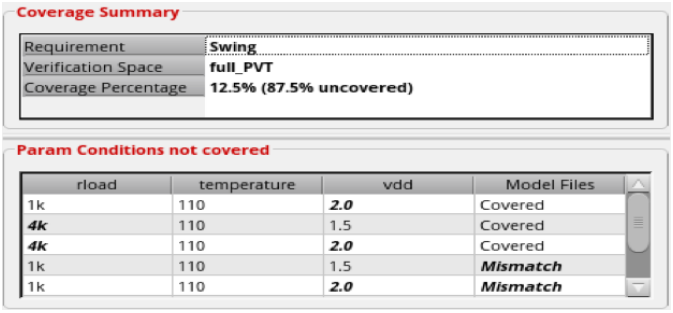
Related Topics

Calculating the Coverage Percentage

How do I read the coverage summary?

To open the coverage summary report to check which of the specified setup values have not been run for a particular block, right-click the requirement in the **Results** tab and choose **View Coverage Summary**. For example, consider the coverage summary report for the requirement *Swing*; the values in bold indicates that they have not been run in the setups at the block level. The mismatch in model files are also displayed in the coverage summary report.

In the *Model Files* column, *mismatch* indicates that the model file defined in the corner setup of Setup Library is not found in the specified history. You can click *Mismatch* to view the details.



How do I export the coverage report?

To export the coverage report in an Excel sheet or a CSV file,

- Choose **File** – **Export** – **CSV** or **Excel**.

The Export Requirements to CSV File or Export Requirements to Excel File form appears in which you specify the filename. Ensure that you enable the **Coverage** check box in the **What to Save** section.

To publish the HTML report, choose **Tools – Publish HTML Report**.

Once the report is exported, do the following to add it in the **Documents** section of the Setup Library assistant:

- Expand the **Documents** tree and click *Click to add document*.

How do I run simulations with a verification space?

To run the simulation in ADE Verifier while considering the sweeps and corners defined in the verification space, which is time-saving and ensures 100% coverage of the analog design:

- On the Simulation toolbar, in the **Run Mode** drop-down list, choose **Local with SPACE**. If you want to run multiple simulations in batch mode, choose **Batch with SPACE**.
- Click  .

The simulation for the selected implementation is run using the verification space defined in the Setup Library assistant and the **Results** tab in ADE Verifier displays the updated results.

How do I update implementation cellviews for verification spaces?

To update implementation cellviews for verification spaces, push the spaces in the current implementation cellview in ADE Verifier. To do this:

1. In the **Run** tab, right-click any implementation row and choose **Show Details**.
2. In the expanded implementation view, right-click a row and choose **Push Assigned Space in Implementation Cellview** – **Corner**/**Sweep**/**Both**.
    - Select **Corner** to update only the corner setup.
    - Select **Sweep** to update only the sweep setup.
    - Select **Both** to update both the sweep and corner setups.

The CIW displays the summary of changes made to the sweep and corner setups for the selected cellview.

Additional Information

What is multi-user sharing in Setup Library?

Multiple users can work on a Setup Library cellview simultaneously in ADE Assembler and ADE Verifier. However, editing permissions for the Setup Library assistant are available to only one user at a time. The other users see a lock icon on **Toggle Edit** to indicate that the Setup Library cellview is read-only for them.

You can click **Refresh** to get the latest updates made by other users.

What is the purpose of Refresh?

Using **Refresh** you can refresh or update the setup to show the latest changes. A warning icon on this command indicates that the setup has been modified.

What does coverage mean?

The coverage measures the completeness of the verification setup, which means it identifies if all the project-specific setup requirements defined in the Setup Library cellview are covered in the simulation histories for each block. It is calculated as follows:

Coverage = (Achieved verification goals) / (Target verification goals)

For example, if the specifications include 250 corners and only 100 of them are simulated, you get the coverage of 40% on the given design. This indicates that 60% of the corners are not run, regardless of the number of outputs passing the specifications. With the Setup Library assistant, a project manager can conveniently check whether all the project-specific requirements are covered in the simulation runs at the block level by generating the coverage in ADE Verifier.

What's New

New Setup Library Assistant

The new Setup Library assistant helps you define a project-specific (golden) setup for a block in ADE Assembler that you can reuse to create or modify the setup in Data View assistant. The Setup Library assistant can be accessed using ADE Assembler and ADE Verifier.

See Also:

Known Problems and Solutions

Known Problems and Solutions

This document describes the known issues with the Setup Library assistant and suggests the workarounds for these issues. Each issue is identified by a Cadence Change Request (CCR) number.

CCR 1986378: **The *Calculate Coverage* icon on the toolbar is displayed with an exclamation mark even if no SPACE is defined in the verifier view.**

Description: Currently, the *Calculate Coverage* command on the ADE Verifier toolbar is diaplays an exclamation mark for any changes in the ADE Verifier setup even if the current setup does not use a Verification Space.

Solution: Currently, there is no workaround.

CCR 1986378: **All referenced corners show bold if Corners Setup is opened and closed without any modification.**

Description: Open a maestro cellview containing multiple corners and a valid corner setup in the Setup Library. Drag the Corners Setup from the Setup Library to the Data View to create a reference. In the Data View, choose 'Open Corner Setup' from the context menu. Without making any change, close the Corners Setup by clicking OK. All the referenced corners (or corner names) in the Data View are shown in bold format but their values do not change, or their values are the same as the referenced corners.

This issue occurs when one of the corners in the Corners Setup contains the model file information, but other corners do not have any model file information. When these corners are opened with the Corner Setup form, the SDB structure for these corners is modified to include the model file information, even when the model is not included in the corner definitions.

Solution: Currently, there is no workaround.

See Also:

What's New

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Help Topics

- Getting Started
- Working with the Setup Library Elements
- Verifying the Design Against the Specified Setup
- Miscellaneous Information (FAQs)