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Congestion Analysis Task Assistant

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Congestion Analysis Task Assistant

The **Congestion Analysis** assistant determines the routing capacity of a design and can be run both on globally routed and detail-routed designs. The level of congestion in a design can be represented in the following ways:

- Graphically using a heat map

- Statistically using a histogram

- By using the routing metrics table (used internally by the global routing engine to map capacity and plan routing)

Related Topics

Getting Started

How do I use the Congestion Analysis assistant?

What tasks can I perform using the Congestion Analysis assistant?

How do I use global bias constraints to plan routing?

What is scenic ratio with respect to congestion analysis?

Getting Started

What is Congestion Analysis assistant?

What are the prerequisites for running congestion analysis?

How do I open the Congestion Analysis Assistant?

Is there a workspace available for congestion analysis?

Related Topics

Displaying the Congestion Analysis Assistant ⟋

What is Congestion Analysis?

The Congestion Analysis assistant helps you perform comprehensive routing checks and ensure that accurate results are extracted and displayed. It is available in Layout EXL only and performs the following tasks:

- Lets you view and analyze the routing density of a design

- Helps you streamline the initial floorplanning through detailed placement and routing

- Lets you tune global planning to improve routing convergence and perform congestion-based pin optimization

Related Topics

What are the prerequisites for running congestion analysis?

How do I open the Congestion Analysis Assistant?

Is there a workspace available for congestion analysis?

Getting Started

What are the prerequisites for running congestion analysis?

There are no specific settings required to perform congestion analysis; however, do consider the following points:

- *Default Wire Constraint Group* is set to *LEFDefaultRouteSpec*.

- *Design Style* is set to either *Chip Assembly* or *ASIC*.

- *Route Flow* is set to *Minimum Spanning Tree*.

Related Topics

Getting Started

Setting up the Congestion Analysis Environment

How do I open the Congestion Analysis Assistant?

To display the Congestion Analysis assistant, do one of the following:

- Choose *Window – Assistants – Congestion Analysis*.

- Right-click in the layout window menu bar and choose *Assistants – Congestion Analysis*.

- Click the *Congestion Analysis* icon on the *Design Planning* toolbar.

To hide the Congestion Analysis assistant, do one of the following:

- Click the *Close* button in the Congestion Analysis assistant title bar.

- Right-click in the layout window menu bar and choose *Assistants – Congestion Analysis*.

- Choose *Window – Assistants – Congestion Analysis*.

Related Topics

Design Planner Toolbar

Getting Started

Is there a workspace available for congestion analysis?

Congestion analysis does have a workspace of its own. The workspace displays the Navigator assistant, Palette assistant, and the Congestion Analysis assistant.

To load the Congestion Analysis workspace, choose *Windows – Workspace – Congestion Analysis.*
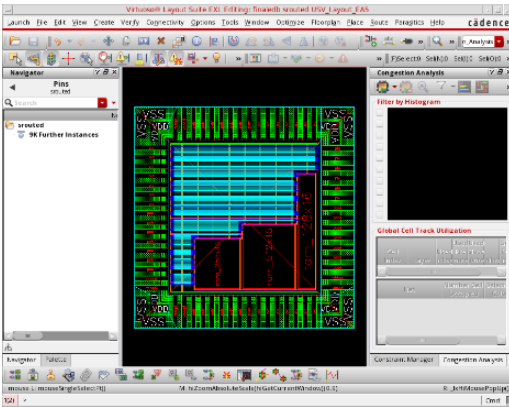
Related Topics

Getting Started

How do I open the Congestion Analysis Assistant?

How do I use the Congestion Analysis assistant?

Using Congestion Analysis assistant, you can perform the following tasks.

- Run Global Routing and Congestion Analysis
- Visualize Congestion
- Analyze Congestion

Related Topics

How do I run congestion analysis on a design?

How do I view congestion in a design?

How do I analyze congestion in a design?

Using the Congestion Analysis Assistant

How do I run congestion analysis on a design?

To run global routing and congestion analysis on the design data:

1. Click the *Congestion Analysis* icon on the toolbar.
   You can view the status and the results of the congestion analysis in the CIW or review the data in the log file.

2. To clear the analysis results and delete global routing, click the *Clear Congestion Analysis Data* icon on the toolbar.

Related Topics

How do I use the Congestion Analysis assistant?

How do I view congestion in a design?

How do I analyze congestion in a design?

How do I view congestion in a design?

Running global routing and congestion analysis displays congestion data in your design. The level of congestion in a design can be represented and viewed in the following ways:

- Heat Map

- Histogram

- Global Cell Track Utilization Table

Related Topics

How do I use the Congestion Analysis assistant?

How do I visualize congestion data in a heat map?

How do I visualize congestion data in the histogram?

How do I visualize congestion in the Global Cell Track Utilization table?

How do I visualize congestion data in a heat map?

Use the heat map to visualize and analyze the illustrated congestion result of the design.

The heat map shows the levels of congestion in different colors.

- Cold colors, such as blue and green, indicate areas that are less congested.

- Warmer colors, such as yellow, orange, and red, indicate areas that are highly congested.

- Hot colors, such as purple and white, indicate areas of over-congestion.
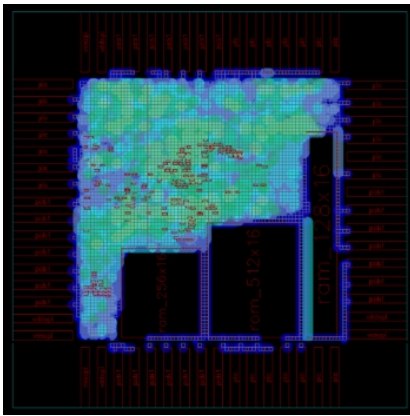
The figure shows the congestion results displayed in the heat map.

Related Topics

How do I use the Congestion Analysis assistant?

How do I view congestion in a design?

How do I visualize congestion data in the histogram?

Using histogram in the Congestion Analysis assistant, you can view and analyze the instant feedback and the level of congestion in a design. It is used for two purposes:

- To display the color palette for the heat map.

- To display the congestion curve in the design.

The length of the bar in each percentage range represents the number of global cells (as a proportion of the entire design) that have a particular level of congestion.
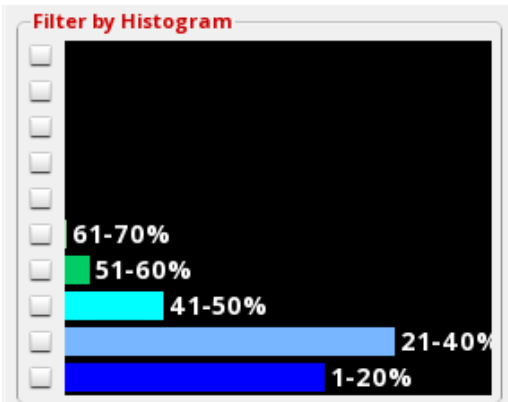
In the example above, most of the gcells are in the `1-20%` and `21-40%` ranges, therefore, the design can be considered less congested from a routing perspective as there are lots of available tracks throughout the design.

Related Topics

How do I use the Congestion Analysis assistant?

How do I view congestion in a design?

How do I visualize congestion in the Global Cell Track Utilization table?

After congestion analysis has been run, the *Global Cell Track Utilization* table is populated with the capacity and availability information of every gcell in the design. The *Global Cell Track Utilization* table is an effective and informative arrangement to quickly view the gcell information.

Global Cell Track Utilization

Cell Index	Layer	Used Blockages	Used Pre Routes	Used Global Routes	Available	Gcell Total Tracks
(159 200)	met3	0	0	14	6	20
(159 210)	met3	0	0	14	6	20
(160 212)	met3	0	0	14	6	20
(162 185)	met3	0	0	14	6	20
(164 183)	met3	0	0	14	6	20
(164 186)	met3	0	0	14	6	20
(167 187)	met3	0	0	14	6	20
(169 186)	met3	0	0	14	6	20
(169 197)	met3	0	0	14	6	20
(169 198)	met3	0	0	14	6	20

Related Topics

How do I use the Congestion Analysis assistant?

How do I view congestion in a design?

How do I analyze congestion in a design?

You can analyze the level of congestion across all layers using the heat map, the histogram, and the global cell track utilization table. To analyze congestion:

- Filter by analysis modes
- Filter by layers
- Filter by histogram

Related Topics

How do I use the Congestion Analysis assistant?

How do I analyze congestion by filtering the histogram?

How do I analyze congestion by using the filtering modes?

How do I analyze congestion by filtering the layers?

How do I analyze congestion by using the filtering modes?

To analyze the congestion across all layers and display it on the heat map, you can change the analysis mode. To do this:

1. Click the drop-down arrow next to the *Filter Global Cells by* icon on the Congestion Analysis assistant toolbar.

2. Choose the appropriate filter mode to view congestion on the heat map. The three filter modes are:

    ○ *All Layers Average Congestion*

    Calculates the average congestion for all horizontal and vertical layers.

    ○ *Used Layers Average Congestion*

    Calculates the average congestion for all horizontal and vertical layers that have global

routing.

- *Maximum Congestion*

Calculates the maximum congested percentage for all horizontal and vertical layers. This is the default analysis mode.

You would mostly want to view maximum congestion because it quickly and graphically provides you the worst possible heat map across all layers.

Related Topics

How do I analyze congestion in a design?

Filtering by Analysis Modes

How do I analyze congestion by filtering the histogram?

Another method to view congestion results is to filter the histogram. This method helps in viewing specific congestion ranges on the heat map. To filter the histogram, do the following:

1. Run congestion analysis.

2. Select the check box next to the congestion range that you want to display on the heat map. The gcells and the level of congestion of the selected range are displayed in the heat map. The gcells from the unselected ranges are dimmed in the heat map.

3. Switch between the different congestion ranges by selecting specific check boxes. The view in the heat map, histogram, and the global cell track utilization table changes to display the variation in the congestion data depending on the range selected.

Related Topics

How do I analyze congestion in a design?

How do I analyze congestion by filtering the layers?

To quickly view congestion results either in the heat map or the histogram, you can also filter congestion results by selecting a layer. The two ways are:

- Selecting a Single Layer

- Selecting Multiple Layers

Related Topics

How do I analyze congestion in a design?

How do I analyze congestion data on a single layer?

How do I analyze congestion data on multiple layers?

How do I analyze congestion data on a single layer?

To analyze congestion data on a single layer:

1. Click the drop-down arrow next to the *Filter Global Cells by* icon on the Congestion Analysis toolbar.

2. Choose a layer for which you want to view congestion.

The congestion data of the selected layer is displayed in the heat map, histogram, and the global cell track utilization table.

Related Topics

How do I analyze congestion by filtering the layers?

How do I analyze congestion data on multiple layers?

Selecting a Single Layer

How do I analyze congestion data on multiple layers?

To analyze congestion data on multiple layers:

1. Click the drop-down arrow next to the *Filter Global Cells by* icon on the Congestion Analysis toolbar.

2. Click the *Layer Display* option.

3. Choose the appropriate layers for which you want to display the congestion data. You can

choose: *All Layers On, All Layers Off, Horizontal Layers Only, or Vertical Layers Only.*

4. Click *OK*.

Related Topics

How do I analyze congestion in a design?

Selecting Multiple Layers

What tasks can I perform using the Congestion Analysis assistant?

Using the Congestion Analysis assistant, you can perform the following tasks.

How do I customize the histogram to display the most congested ranges?

How do I reset the histogram and heat map to display every gcell?

How do I identify congestion hot spots in a design?

How do I find the most congested gcells in a design?

How do I see gcells with no congestion?

How do I toggle the display of the heat map?

How do I view the nets selected in the Navigator assistant in the heat map?

How do I sort the global cell track utilization table?

Related Topics

Tasks in the Congestion Analysis Assistant

How do I customize the histogram to display the most congested ranges?

You can customize the histogram to display only the most congested ranges and expand them to populate the entire histogram. To do this:

1. Click the *Congestion Histogram Customize* icon on the Congestion Analysis assistant toolbar. The Congestion Histogram Customize form is displayed.

2. From the *Customize As* drop-down list, select the method by which you want to customize the histogram. You can choose: *Default*, *Interval*, *Start and End*, or *Specified*.

3. In the *Start at* field, specify the congestion percentage with which to start.

4. In the *End at* field, specify the congestion percentage on which you want to end.

> ⓘ The *Start at* and *End at* fields are enabled only when the customization method is selected as *Start and End*.

5. In the *With Interval* field, specify the interval between the congestion ranges. This field is enabled only when the customization method is *Interval*.

6. Click *Refresh*. The table entries in the Congestion Histogram Customize form are updated.

7. Click *OK*.
   The congestion data displayed in the heat map, the histogram, and the global cell track utilization table is updated based on the selected customization method and the related settings.

Related Topics

What tasks can I perform using the Congestion Analysis assistant?

Customizing Histogram 🗗

How do I find the most congested gcells in a design?

Using the global cell track utilization table, you can quickly view the most congested gcells in a design. To do this:

1. Click the *Congestion Analysis* icon on the Congestion Analysis assistant toolbar.

2. Select a gcell from the *Global Cell Track Utilization* table.
   The nets passing through the selected gcell are displayed below the *Global Cell Track Utilization* table. The heat map is also updated to show the location of the selected gcell. However, the selected gcell appears quite small on the heat map.

3. Use the *Zoom selected Global Cells* icon on the Congestion Analysis assistant toolbar to

examine the selected gcell more closely.

You can also use the heat map to select and view an individual gcell. You can look for the gcells in the heat map and then manually select the gcells that are required. To do this:

1. Click the drop-down arrow next to the *Filter Global Cells by* icon on the Congestion Analysis assistant toolbar.

2. Click *Define Area* to select an area of gcells.

3. Select a region on the heat map by clicking a lower-left point and then dragging the pointer to an upper-right point.

The non-selected gcells are dimmed. Also, the histogram and the global cell track utilization table are updated to indicate only the selected gcells.

Related Topics

What tasks can I perform using the Congestion Analysis assistant?

Selecting and Viewing Global Cells

How do I identify congestion hot spots in a design?

To find congestion hot spots in a design, it is important to identify the nets passing through congested regions of a design so that corrective action can be taken. You can:

- Find nets passing through gcells.

- Visualize selected nets as global paths in the heat map.

To find and display the nets that are passing through a gcell:

1. Run congestion analysis by clicking the *Congestion Analysis* icon on the toolbar.

2. Select a gcell in the *Global Cell Track Utilization* table.

3. Select a net from the table of nets displayed below the *Global Cell Track Utilization* table. All the gcells that the selected net passes through are highlighted. The path displayed by the highlighted gcells is referred to as the global path. The global path of the selected gcells is seen on the heat map.

4. Use the *Zoom selected Global Cells* icon on the Congestion Analysis assistant toolbar to closely view the path of the selected gcell.

5. Select a range of nets from the *Net Selection* table by clicking the start and end nets and keeping the `Shift` key pressed. You can also select multiple nets from the table by clicking multiple nets and keeping the `Ctrl` key pressed.

6. Click the *Show Selected Global Nets Edges* option from the *Filter* drop-down list to show the congestion on gcells associated with the global paths of the selected nets.

Related Topics

What tasks can I perform using the Congestion Analysis assistant?

How do I view the nets selected in the Navigator assistant in the heat map?

How do I reset the histogram and heat map to display every gcell?

To reset the histogram and heat map to display every gcell, you need to change the filtering. To do this:

1. Click the *Filter* button on the Congestion Analysis assistant toolbar.

2. Choose *All Layers without filtering* from the drop-down list.

The congestion analysis result is updated to show information for all gcells.

Related Topics

What tasks can I perform using the Congestion Analysis assistant?

How do I see gcells with no congestion?

Visualizing parts of a design that have zero percent congestion helps to identify regions that could be used to add additional structures such as hard macros, soft blocks, or routing. Alternatively, this can help to identify regions in a design that could be removed to produce a more compact design during floorplanning.

To show only gcells with zero percent congestion:

1. Click the *Filter* button on the Congestion Analysis assistant toolbar.

2. Choose *Show Empty Global Cells Only* from the drop-down list.

The heat map is turned off and only global cells with zero congestion are displayed in the main window.

> ⓘ The histogram and the global cell track utilization table are disabled and cannot be filtered or customized in this mode.

Related Topics

What tasks can I perform using the Congestion Analysis assistant?

How do I sort the global cell track utilization table?

To assist in congestion analysis, you can sort each column in the *Global Cell Track Utilization* table. To do this:

1. Click the header of the column to be sorted.

2. Click the column again to reverse the sorting of the column,

Once a column in the *Global Cell Track Utilization* table is sorted, the triangle on the column name represents whether the sorted column is in ascending or descending order.

Related Topics

What tasks can I perform using the Congestion Analysis assistant?

How do I toggle the display of the heat map?

Sometimes, the heat map obscures the important design information in the main window. In such a situation, you can toggle the display of the heat map in the main window. To do this:

1. Click the *Filter* button on the Congestion Analysis assistant toolbar.

2. Click the *Congestion Map Visible* option from the drop-down list.

The display of congestion map is turned off.

> ⓘ The histogram and the global cell track utilization table are disabled and cannot be filtered or customized in this mode.

Related Topics

What tasks can I perform using the Congestion Analysis assistant?

How do I reset the histogram and heat map to display every gcell?

How do I view the nets selected in the Navigator assistant in the heat map?

The selection of nets is usually done from the Navigator assistant and is considered the primary way of displaying nets on the heat map. You can also select a net or a group of nets from the *Net Selection* table in the Congestion Analysis assistant and have the selected nets displayed in the Navigator assistant.

To select nets from the Navigator assistant and have them displayed in the heat map:

1. Open the Navigator assistant by choosing *Windows – Assistant – Navigator*.

2. Select the nets in the Navigator assistant.

The selected nets in the Navigator assistant are displayed together in the heat map.

Related Topics

What tasks can I perform using the Congestion Analysis assistant?

How do I identify congestion hot spots in a design?

How do I use global bias constraints to plan routing?

After you have identified critical nets or groups of nets, you can add global bias constraints to manage and plan the routing path.

There are various aspects of biasing and you can view the actual results by running global routing and ECO congestion analysis.

Related Topics

How do I create a global bias positive region constraint?

How do I create a global bias negative region constraint?

How do I create a global bias path constraint?

How do I create multiple global bias constraints for specific layers?

How do I add and remove nets in the Global Bias Setup form?

How do I correct a region created in error?

Can I rename default global bias constraint name to a user-defined name?

How do I create a global bias positive region constraint?

A global bias positive region constraint acts as a magnet that can attract a group of nets and buses into a region during global routing.

To create a global bias positive region constraint:

1. Select a net, group of nets, or a bus from the Navigator assistant.

2. Click the *Global Bias Setup* icon on the Congestion Analysis assistant toolbar.
   The Global Bias Setup form displays.

3. Click the *New* button to create a new global bias constraint group.
   A group is created and assigned a name by default. The name can be a number in a series starting from GB00. Also, the net selected in the Navigator assistant appears in the *Nets* list.

4. Add or remove nets in the Global Bias Setup form.

5. To add a positive bias region, click the *+ Rectangles* button.

6. Click and drag to draw a region in the heat map. The region created on the heat map is used as the coordinates for the bias area.
   The bias area is automatically assigned a name by default. The name can be a number in a series starting from vsrGlobalBias_AB_00 and is displayed in the *Bias Areas* list box.
   The green *+* symbol in the *Bias* column indicates that it is a positive bias.

7. To see how the new constraint alters routing and congestion, click the *ECO* button in the Global Bias Setup form.

Alternatively, choose *Global Route and ECO Congestion Analysis* from the drop-down list.

ⓘ The *ECO* button is enabled only when there is a valid global bias constraint.

Related Topics

How do I use global bias constraints to plan routing?

How do I create a global bias negative region constraint?

How do I create a global bias path constraint?

How do I create multiple global bias constraints for specific layers?

How do I correct a region created in error?

How do I create a global bias negative region constraint?

A global bias negative region constraint acts as a magnet that can repel a group of nets and buses out of a region during global routing. The biased nets take priority in being pushed out of the bias region. This can result in the routing for the biased nets becoming more circuitous. Another way to conceptualize the negative bias region is as a soft blockage for a selected set of nets.
To create a global bias negative region:

1. Select a net, group of nets, or a bus from the Navigator assistant.

2. Click the *Global Bias Setup* icon on the Congestion Analysis assistant toolbar.
   The Global Bias Setup form displays.

3. Click the *New* button to create a new global bias constraint group.
   A group is created and assigned a name by default. The name can be a number in a series starting from `GB00`. Also, the net selected in the Navigator assistant appears in the Nets list box.

4. Add and remove nets in the Global Bias Setup form.

5. To edit the global bias constraint group name, click in the *Global Bias* text field and specify another name.

6. To add a negative bias region, click the *+ Rectangles* button.

7. Click and drag to draw a region in the heat map. The region created on the heat map is used

as the coordinates for the Bias Area.

The bias area is automatically assigned a name by default. The name can be a number in a series starting from `vsrGlobalBias_AB_00` and is displayed in the *Bias Areas* list box.

8. Click the green *±* symbol in the *Bias* column next to the bias area. This displays a red — symbol, which indicates a negative bias.

9. To see how the new constraint alters routing and congestion, click the *ECO* button in the Global Bias Setup form.
    Alternatively, choose *Global Route and ECO Congestion Analysis* from the drop-down list.

Related Topics

How do I use global bias constraints to plan routing?

How do I create a global bias positive region constraint?

How do I create a global bias path constraint?

How do I create multiple global bias constraints for specific layers?

How do I create a global bias path constraint?

You can use global bias path constraints to guide a net, group of nets, or a bus along a pre-designated path during global routing. These path-biased nets take priority over the other nets during global routing. This means that the global router may push other nets out of the way and make their routing less optimal.

Creating a path is similar to creating a polygon. To create a global bias path constraint:

1. Select a net, group of nets, or a bus from the Navigator assistant.

2. Click the *Global Bias Setup* icon on the Congestion Analysis assistant toolbar.
    The Global Bias Setup form displays.

3. Click the *New* button to create a new global bias constraint group.
    A group is created and assigned a name by default. The name can be a number in a series starting from `GB00`. Also, the net selected in the Navigator assistant appears in the Nets list box.

4. Add and remove nets in the Global Bias Setup form.

5. Edit the global bias constraint group name by clicking in the *Global Bias* text field and specify another name.

6. To add a path bias constraint, click the *+ Paths* button.

7. Click and drag to draw a path that you want the net to take in the heat map. The path created on the heat map is used as the coordinates for the bias path.
The bias path is automatically assigned a name by default. The name can be a number in a series starting from `vsrGlobalBias_AB_00` and is displayed in the *Bias Areas* list box.

8. To see how the new constraint alters routing and congestion, click the *ECO* button in the Global Bias Setup form.
Alternatively, choose *Global Route and ECO Congestion Analysis* from the drop-down list.

Related Topics

How do I use global bias constraints to plan routing?

How do I create a global bias positive region constraint?

How do I create a global bias negative region constraint?

How do I create multiple global bias constraints for specific layers?

How do I create multiple global bias constraints for specific layers?

To create a negative bias region constraint, create a bias path constraint on a specified set of layers and then run ECO global routing and congestion analysis, you need to:

1. Select a net, group of nets, or a bus from the Navigator assistant.

2. Click the *Global Bias Setup* icon on the Congestion Analysis assistant toolbar.
The Global Bias Setup form displays.

3. Click the *New* button to create a new global bias constraint group.
A group is created and assigned a name by default. The name can be a number in a series starting from `GB00`. Also, the net selected in the Navigator assistant appears in the *Nets* list box.

4. To add a negative bias region, click the *+ Rectangles* button.

5. Click and drag to draw a region in the heat map. The region created on the heat map is used as the coordinates for the bias area.
The bias area is automatically assigned a name by default. The name can be a number in a

series starting from `vsrGlobalBias_AB_00` and is displayed in the *Bias Areas* list box.

6. To create a negative bias, click the green ± symbol in the *Bias* column next to the bias area. This displays a red — symbol, which indicates a negative bias.

7. To add a bias path, click the *+ Paths* button.

8. Click and drag to draw a path that you want the net to take in the heat map. The path created on the heat map is used as the coordinates for the bias path.
The bias path is automatically assigned a name called **vsrGlobalBias_AB_005** and is displayed in the *Bias Areas* list box.

9. Assign specific layers for the bias path.

10. To see how the new constraint alters routing and congestion, click the *ECO* button in the Global Bias Setup form.
Alternatively, choose *Global Route and ECO Congestion Analysis* from the drop-down list.

Related Topics

How do I use global bias constraints to plan routing?

How do I create a global bias positive region constraint?

How do I create a global bias negative region constraint?

How do I create a global bias path constraint?

How can I assign specific layers for a bias path?

To assign specific layers for a bias path:

1. In the Global Bias Setup form, click the *vsrGlobalBias_AB_005* bias area. The *- Selected Area* and the *Define Layers* buttons are now enabled.

2. Click *Define Layers*.
The Bias Layers form displays.

3. Click *Specify*.
The list box listing the layer names is now enabled.

4. Select metal layers from the list box by clicking the mouse and holding the `Shift` key.

   This notifies the router that the global bias path must be completed only for the selected routing layers.

5. Click *Close*.
   The Global Bias Setup form is updated to reflect the layer constraints applied to
   the *vsrGlobalBias_AB_005* bias area.

Related Topics

How do I use global bias constraints to plan routing?

How do I create multiple global bias constraints for specific layers?

How do I add and remove nets in the Global Bias Setup form?

To add nets:

1. Select a net or a group of nets from the Navigator assistant.

2. Click the *+ From Navigator* button in the Global Bias Setup form.
   The nets selected in the Navigator assistant get displayed in the *Nets* list box.

To remove nets:

1. Select a net from the *Nets* list box in the Global Bias Setup form.

2. Click - *Delete*.
   The selected net is removed from the *Nets* list box.

Related Topics

How do I correct a region created in error?

If you have created an incorrect region, you can delete it. To do so:

1. Select the bias area from the *Bias Areas* list box.

2. Click – *Selected Area*.
   The selected bias area is removed.

Can I rename default global bias constraint name to a user-defined name?

You can rename the default global bias constraint name to a user-defined name.

To edit the name, click in the *Global Bias* text field and type the new name.

> ⓘ You can add a net or group of nets selected in the Navigator assistant to the renamed global bias constraint. This is done using the *+ From Navigator* button in the Global Bias Setup form.

What is scenic ratio with respect to congestion analysis?

The scenic ratio determines how close the value is to the ideal route when comparing the route in isolation without any congestion penalties, versus the result when all nets are routed and congestion modifies the taken path. When the value of the scenic ratio is close to 1, it means that the global route is accurate.

> ⓘ The nets on which congestion analysis is not run display the value of the scenic ratio as 0.

Related Topics

How can I modify the scenic ratio of a net?

How can I view the scenic ratio value for a net?

How can I sort the scenic ratio of nets?

About Scenic Ratio

How can I view the scenic ratio value for a net?

To view the scenic ratio value for a net:

1. Click the *Congestion Analysis* icon to run congestion analysis.

2. Choose *Window – Assistants – Navigator*.

3. Right-click a column header in the Navigator assistant.
   A drop-down menu is displayed.

4. Choose *Scenic Ratio* from the drop-down list.

   The *Scenic Ratio* column is displayed in the Navigator. This column displays the value of the scenic ratio for all nets in the design.

Related Topics

What is scenic ratio with respect to congestion analysis?

How can I modify the scenic ratio of a net?

How can I sort the scenic ratio of nets?

How can I sort the scenic ratio of nets?

You can sort the scenic ratio of nets in ascending or descending order.

1. To sort the scenic ratio, click the *Scenic Ratio* column header.
   Clicking the column header the first time displays the scenic ratio of nets in ascending order. This means that the net with the lowest value is displayed at the top of the table.

2. Click the column header again to display the scenic ratios in descending order.

Related Topics

What is scenic ratio with respect to congestion analysis?

How can I modify the scenic ratio of a net?

How can I view the scenic ratio value for a net?

How can I modify the scenic ratio of a net?

To modify the scenic ratio of a net:

1. Set the global bias constraint on a net.

2. Run congestion analysis again.

(i) When congestion analysis is rerun, the value of the scenic ratio may change for other nets as well.

Related Topics

What is scenic ratio with respect to congestion analysis?

How can I view the scenic ratio value for a net?

How can I sort the scenic ratio of nets?