

ADIVA Hole to Hole Checks by Size Range and Net

Notice

Representations in this User Guide are meant as an overview and quick reference. Full details can be found in the On-Line manuals located at the *ADIVA Corporation* website - www.adiva.com

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ADIVA Hole to Hole Checks by Size Range and Net

Running Hole to Hole spacing checks by hole size or range of size in Adiva is a simple process of selecting a standard checking command file and letting it complete the defined checking process. These checks also have the ability to set spacing values based on whether any two objects share the same net or are assigned to different nets.

When checks are complete, a **Violation Checklist** will automatically appear reporting all checks that were run and their results. The comment section of the **Violation Checklist** will display the holes size or the range of hole sizes that were used for that particular check. It will also itemize results where violations are found between two items sharing the same net or different nets.

All **Violation Checklist** functionality is available as defined per the **Adiva DRC Check User Guide**.

ADIVA Hole to Hole Checks by Size Range and Net

Getting Started...

Contained in the default `c:\adiva\data` directory is a check command file...

95_hole2hole_range.mac

...that pre-defines as an example what a typical Hole to Hole spacing check by size/net check command file may look like.

This check command file is designed to run standard hole to hole spacing checks on all hole types based on their declared size range and netting status.

The values contained in this check command file should be adjusted and saved by the user to fit their personal checking environment.

An example of this command file is shown on the next slide. Adjust `min/max hole_size_ranges` and `check_parameter` to fit your situation. Min/Max values are inclusive.

`Hole_size_range` where the min and max values are equal are equivalent to only the one hole size.

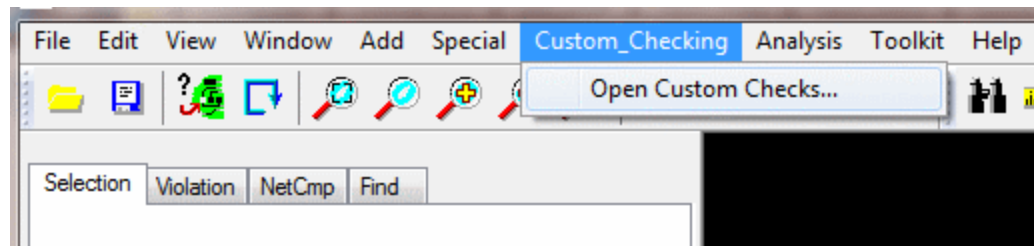
```

# Hole to Hole by Size Range and/or Net Check Command File - ADIVA Version 9.2+
#
LayerRect
PadStackResolution 4      # Sets check resolution accuracy to 1/4 mil
#
### Basic Hole to Hole Spacing – DIFFERENT NET ###
#
# Syntax: PadStackPthToPthR <min1> <max1> <min2> <max2> <param>
#
# Checks all 8 mil holes on different nets to each other for 40 mil spacing
PadStackPthToPthR 0.008 0.008 0.008 0.008 0.040
#
# Checks all 6 mil holes on a given net to all 8 mil holes on a different net for 40 mil spacing
PadStackPthToPthR 0.006 0.006 0.008 0.008 0.040
#
# Checks all 6-8 mil holes on a given net to all other holes on a different net for 100 mil spacing
PadStackPthToPthR 0.006 0.008 0.010 0.250 0.100
#
### Basic Hole to Hole Spacing – SAME NET ###
#
# Syntax: PadStackPthToPthRSN <min1> <max1> <min2> <max2> <param>
#
# Checks all 8 mil holes on the same net to each other for 40 mil spacing
PadStackPthToPthRSN 0.008 0.008 0.008 0.008 0.040
#
# Checks all 6 mil holes on a given net to all 8 mil holes on the same net for 40 mil spacing
PadStackPthToPthRSN 0.006 0.006 0.008 0.008 0.040
#
# Checks all 6-8 mil holes on a given net to all other holes on the same net for 100 mil spacing
PadStackPthToPthRSN 0.006 0.008 0.010 0.250 0.100
#
ViolSave padstk_size_range.vio      # saves a violation file containing the results from above
ShowViolChecklist                  # opens the Violation Checklist displaying above results
#
# END

```

ADIVA Hole to Hole Checks by Size Range and Net Run the Check...

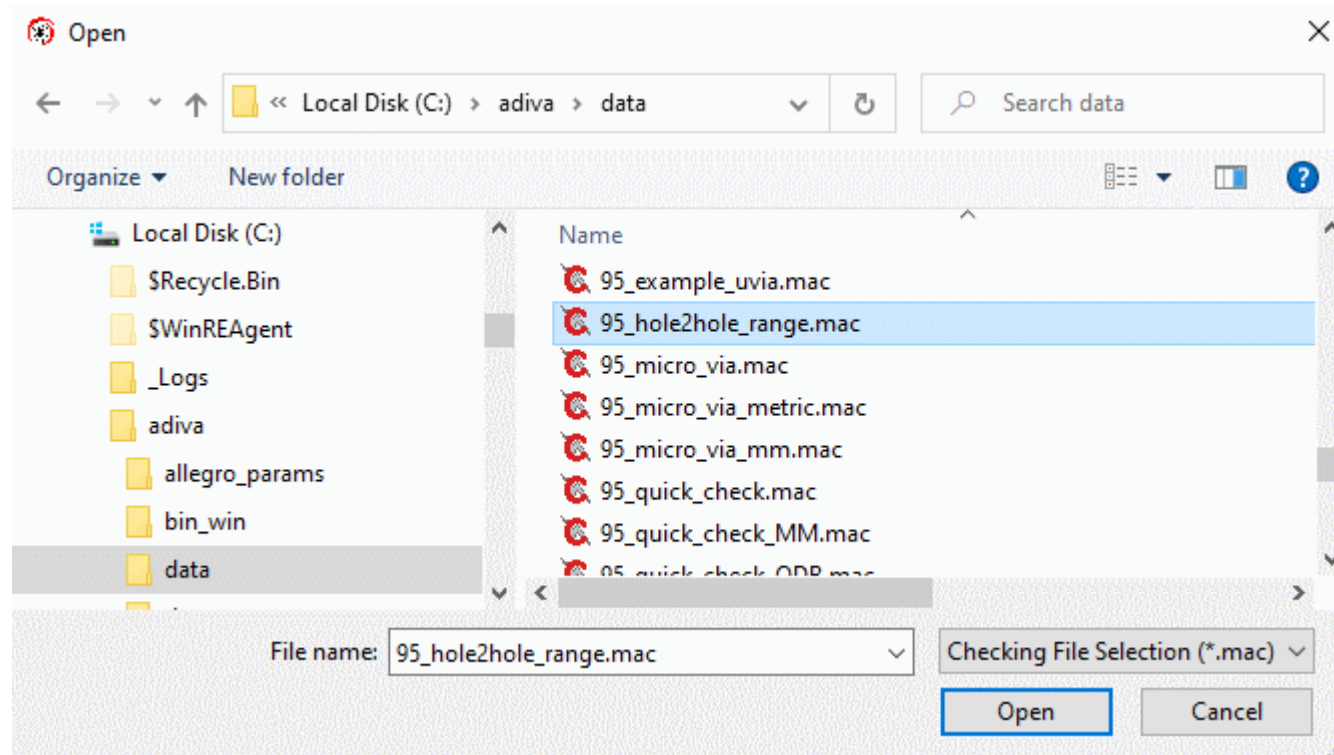
In the main Adiva GUI, select **Custom_Checking** then **Open Custom Checks...**



ADIVA Hole to Hole Checks by Size Range and Net

Select the Custom_Check Command File...

A **File > Open** dialog will appear, choose **95_hole2hole_range.mac** from Adiva's **c:\adiva\data** directory...



ADIVA Hole to Hole Checks by Size Range and Net View Results...

The chosen command file will automatically begin processing and when it completes, the **Violation Checklist** will appear listing any violation found.

The screenshot shows a software window titled "Violation Checklist Report". It features a toolbar with buttons for "Adjust Violation Range", "Save Violation File", "Read Violation File", and "Browse". Below the toolbar, there is a "Violation File:" text box and a "Choose Violations to View..." section with three radio buttons: "Critical" (red), "Concern" (orange), and "Tol" (yellow). The main area contains a table with the following columns: "Accepted", "Param", "Layer", "Seq", "Violation Type", and "Comment".

Accepted	Param	Layer	Seq	Violation Type	Comment						
<input type="checkbox"/>	1065	<input type="checkbox"/>	2	<input type="checkbox"/>	7	2	0.04000	--	1	Min Plated Hole to Plated Hole	0.008-0.008 > 0.008-0.0
<input type="checkbox"/>	2035	<input type="checkbox"/>	4	<input type="checkbox"/>	21	0	0.04000	--	2	Min Plated Hole to Plated Hole	0.006-0.006 > 0.008-0.0
<input type="checkbox"/>	29	<input type="checkbox"/>	1	<input type="checkbox"/>	0	0	0.10000	--	3	Min Plated Hole to Plated Hole	0.006-0.008 > 0.01-0.25
<input type="checkbox"/>	2012	<input type="checkbox"/>	7	<input type="checkbox"/>	43	0	0.04000	--	4	Min Plated Hole to Plated Hole	SN 0.008-0.008 > 0.008
<input type="checkbox"/>	6291	<input type="checkbox"/>	39	<input type="checkbox"/>	8	0	0.04000	--	5	Min Plated Hole to Plated Hole	SN 0.006-0.006 > 0.008
<input type="checkbox"/>	7	<input type="checkbox"/>	1	<input type="checkbox"/>	0	0	0.10000	--	6	Min Plated Hole to Plated Hole	SN 0.006-0.008 > 0.01-

At the bottom of the window, there are four buttons: "Delete Selected Violations", "Clear Accepted Violation File", "Close Violation Checklist", and "Save Violation Summary Report".

Operate the **Violation Checklist** as defined in the **Adiva DRC Check Guide**

ADIVA Hole to Hole Checks by Size Range and Net View Results...

The **Comment** column will display the hole size range used by the particular Violation Type result listed. Comments that begin with “**SN**” are Same Net results. All other results are Different Net results.

Violation Checklist Report

Adjust Violation Range

Violation File:

Save Violation File Read Violation File Browse

Choose Violations to View...

Critical Concern Tol

Accepted	Param	Layer	Seq	Violation Type	Comment				
<input type="checkbox"/>	1065	<input type="checkbox"/> 2	<input type="checkbox"/> 7	2	0.04000	--	1	Min Plated Hole to Plated Hole	0.008-0.008 > 0.008-0.008
<input type="checkbox"/>	2035	<input type="checkbox"/> 4	<input type="checkbox"/> 21	0	0.04000	--	2	Min Plated Hole to Plated Hole	0.006-0.006 > 0.008-0.008
<input type="checkbox"/>	29	<input type="checkbox"/> 1	<input type="checkbox"/> 0	0	0.10000	--	3	Min Plated Hole to Plated Hole	0.006-0.008 > 0.01-0.025
<input type="checkbox"/>	2012	<input type="checkbox"/> 7	<input type="checkbox"/> 43	0	0.04000	--	4	Min Plated Hole to Plated Hole	SN 0.008-0.008 > 0.008-0.008
<input type="checkbox"/>	6291	<input type="checkbox"/> 39	<input type="checkbox"/> 8	0	0.04000	--	5	Min Plated Hole to Plated Hole	SN 0.006-0.006 > 0.008-0.008
<input type="checkbox"/>	7	<input type="checkbox"/> 1	<input type="checkbox"/> 0	0	0.10000	--	6	Min Plated Hole to Plated Hole	SN 0.006-0.008 > 0.01-0.025

Delete Selected Violations Clear Accepted Violation File

Close Violation Checklist Save Violation Summary Report

Different Net Results

Same Net Results

END

**ADIVA Hole to Hole Checks
by Size Range and Net**