codeNexus – Defect Reporter

Defect Reporter enhancement for the 5DX

MSD

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The *Mission* behind codeNexus

To help people move from the old DOS interfaces to a graphical interface.

- Thus you arrive at ‘nexus’, the tie, the bond, the link, the connection or interconnection between two entities.

What is the codeNexus – Defect Reporter?

A ‘User Contributed’ tool for the 5DX that replaces functionality found in:

- Defect Reporter (DOS based)
- Some Review Measurements graphing (DOS based)

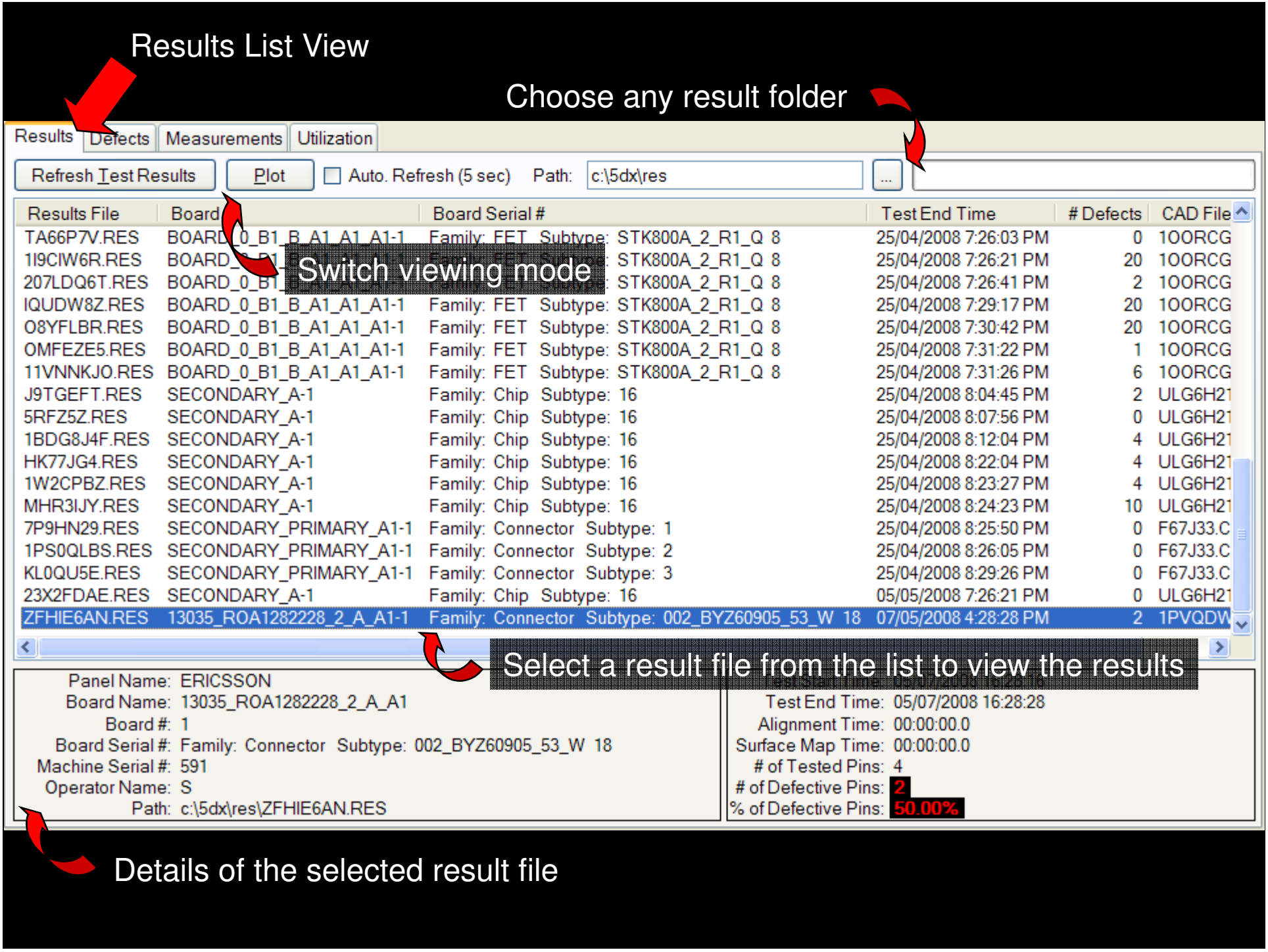
What does the codeNexus – Defect Reporter do?

It is a graphical user interface of the DOS Defect Reporter.

It provides some basic graphing / exporting functionality:

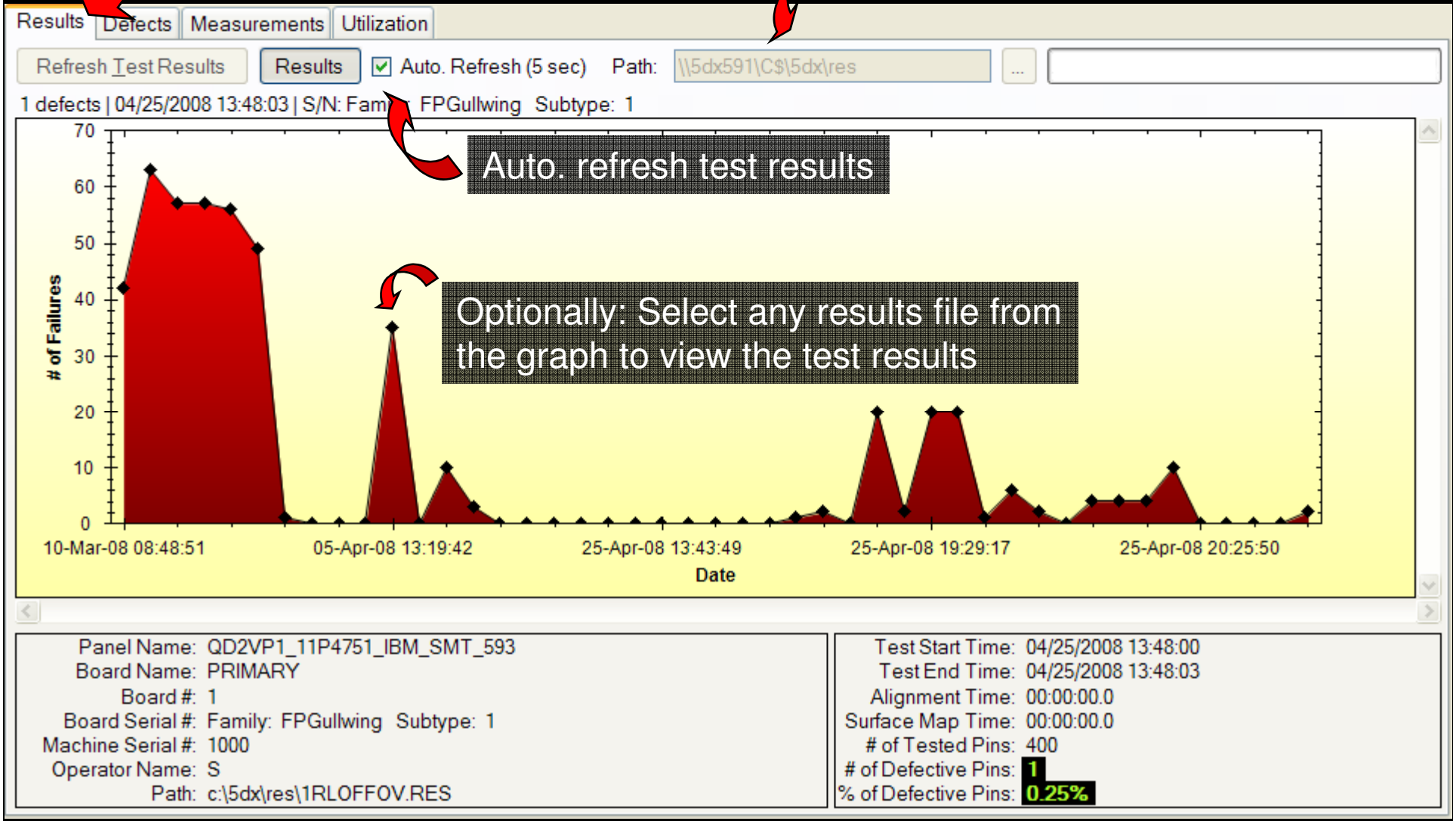
- Different graph types for the test results
- A ‘Defects Only’ view of the test results for production tuning
- Measurement filtering and graphing
- Exporting filtered defect / measurement data to CSV
- Basic chart printing, zooming, and copying functions

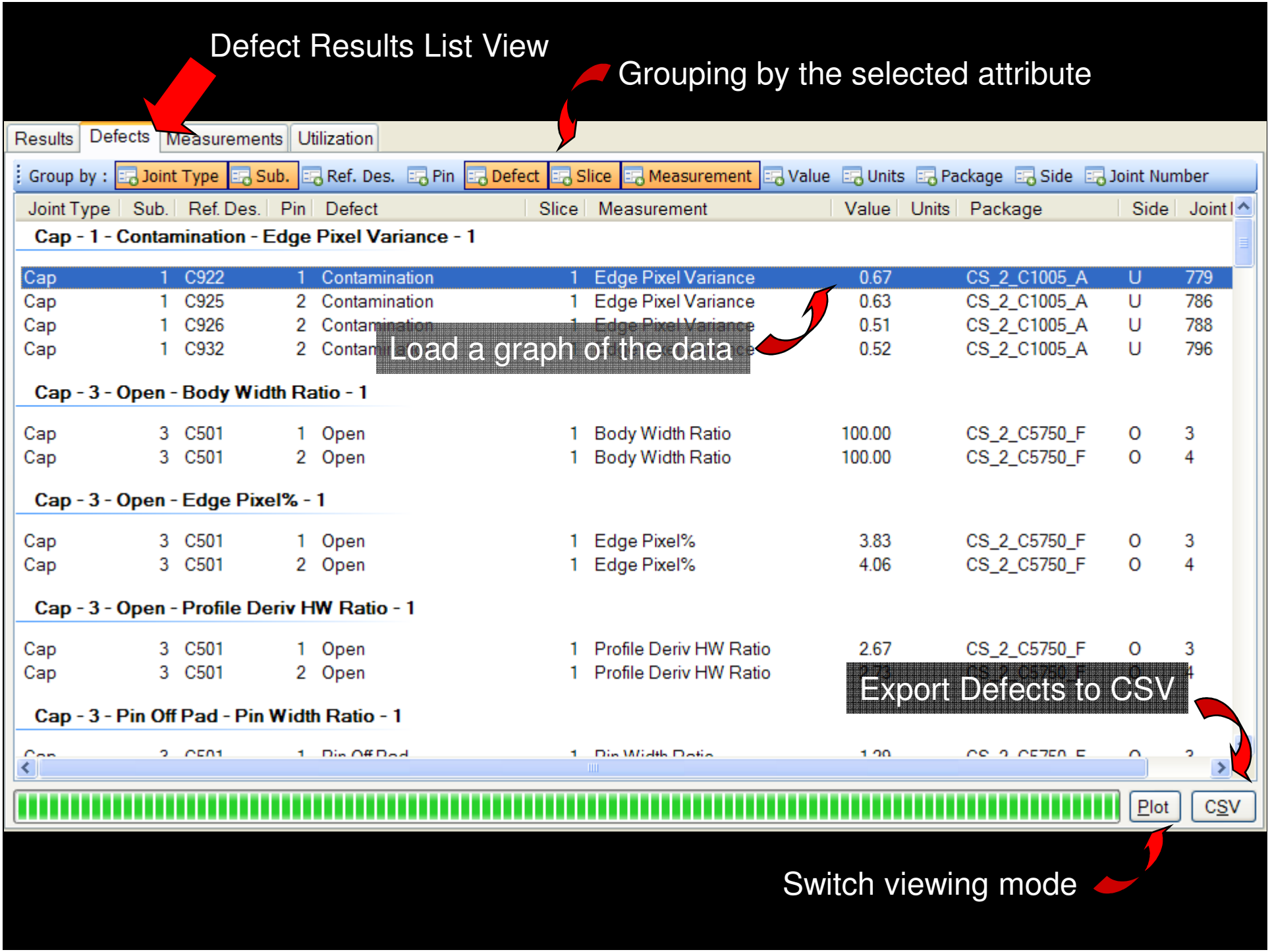
What does the interface look like?


Results List View
Choose any result folder
Results
Defects
Measurements
Utilization
Refresh Test Results
Plot
Auto. Refresh (5 sec)
Path:
c:\5dx\res
...
Switch viewing mode
Results File
Board
Board Serial #
Test End Time
Defects
CAD File
TA66P7V.RES BOARD_0_B1_B_A1_A1_A1-1 Family: FET Subtype: STK800A_2_R1_Q 8 25/04/2008 7:26:03 PM 0 1OORCG
1I9CIW6R.RES BOARD_0_B1_B_A1_A1_A1-1 Family: FET Subtype: STK800A_2_R1_Q 8 25/04/2008 7:26:21 PM 20 1OORCG
207LDQ6T.RES BOARD_0_B1_B_A1_A1_A1-1 Family: FET Subtype: STK800A_2_R1_Q 8 25/04/2008 7:26:41 PM 2 1OORCG
IQUDW8Z.RES BOARD_0_B1_B_A1_A1_A1-1 Family: FET Subtype: STK800A_2_R1_Q 8 25/04/2008 7:29:17 PM 20 1OORCG
O8YFLBR.RES BOARD_0_B1_B_A1_A1_A1-1 Family: FET Subtype: STK800A_2_R1_Q 8 25/04/2008 7:30:42 PM 20 1OORCG
OMFEZE5.RES BOARD_0_B1_B_A1_A1_A1-1 Family: FET Subtype: STK800A_2_R1_Q 8 25/04/2008 7:31:22 PM 1 1OORCG
11VNNKJO.RES BOARD_0_B1_B_A1_A1_A1-1 Family: FET Subtype: STK800A_2_R1_Q 8 25/04/2008 7:31:26 PM 6 1OORCG
J9TGEFT.RES SECONDARY_A-1 Family: Chip Subtype: 16 25/04/2008 8:04:45 PM 2 ULG6H21
5RFZ5Z.RES SECONDARY_A-1 Family: Chip Subtype: 16 25/04/2008 8:07:56 PM 0 ULG6H21
1BDG8J4F.RES SECONDARY_A-1 Family: Chip Subtype: 16 25/04/2008 8:12:04 PM 4 ULG6H21
HK77JG4.RES SECONDARY_A-1 Family: Chip Subtype: 16 25/04/2008 8:22:04 PM 4 ULG6H21
1W2CPBZ.RES SECONDARY_A-1 Family: Chip Subtype: 16 25/04/2008 8:23:27 PM 4 ULG6H21
MHR3IJY.RES SECONDARY_A-1 Family: Chip Subtype: 16 25/04/2008 8:24:23 PM 10 ULG6H21
7P9HN29.RES SECONDARY_PRIMARY_A1-1 Family: Connector Subtype: 1 25/04/2008 8:25:50 PM 0 F67J33.C
1PS0QLBS.RES SECONDARY_PRIMARY_A1-1 Family: Connector Subtype: 2 25/04/2008 8:26:05 PM 0 F67J33.C
KL0QU5E.RES SECONDARY_PRIMARY_A1-1 Family: Connector Subtype: 3 25/04/2008 8:29:26 PM 0 F67J33.C
23X2FDAE.RES SECONDARY_A-1 Family: Chip Subtype: 16 05/05/2008 7:26:21 PM 0 ULG6H21
ZFHIE6AN.RES 13035_ROA1282228_2_A_A1-1 Family: Connector Subtype: 002_BYZ60905_53_W 18 07/05/2008 4:28:28 PM 2 1PVQDW
Select a result file from the list to view the results
Panel Name: ERICSSON
Board Name: 13035_ROA1282228_2_A_A1
Board #: 1
Board Serial #: Family: Connector Subtype: 002_BYZ60905_53_W 18
Machine Serial #: 591
Operator Name: S
Path: c:\5dx\res\ZFHIE6AN.RES
Test End Time: 05/07/2008 16:28:28
Alignment Time: 00:00:00.0
Surface Map Time: 00:00:00.0
# of Tested Pins: 4
# of Defective Pins: 2
% of Defective Pins: 50.00%
Details of the selected result file

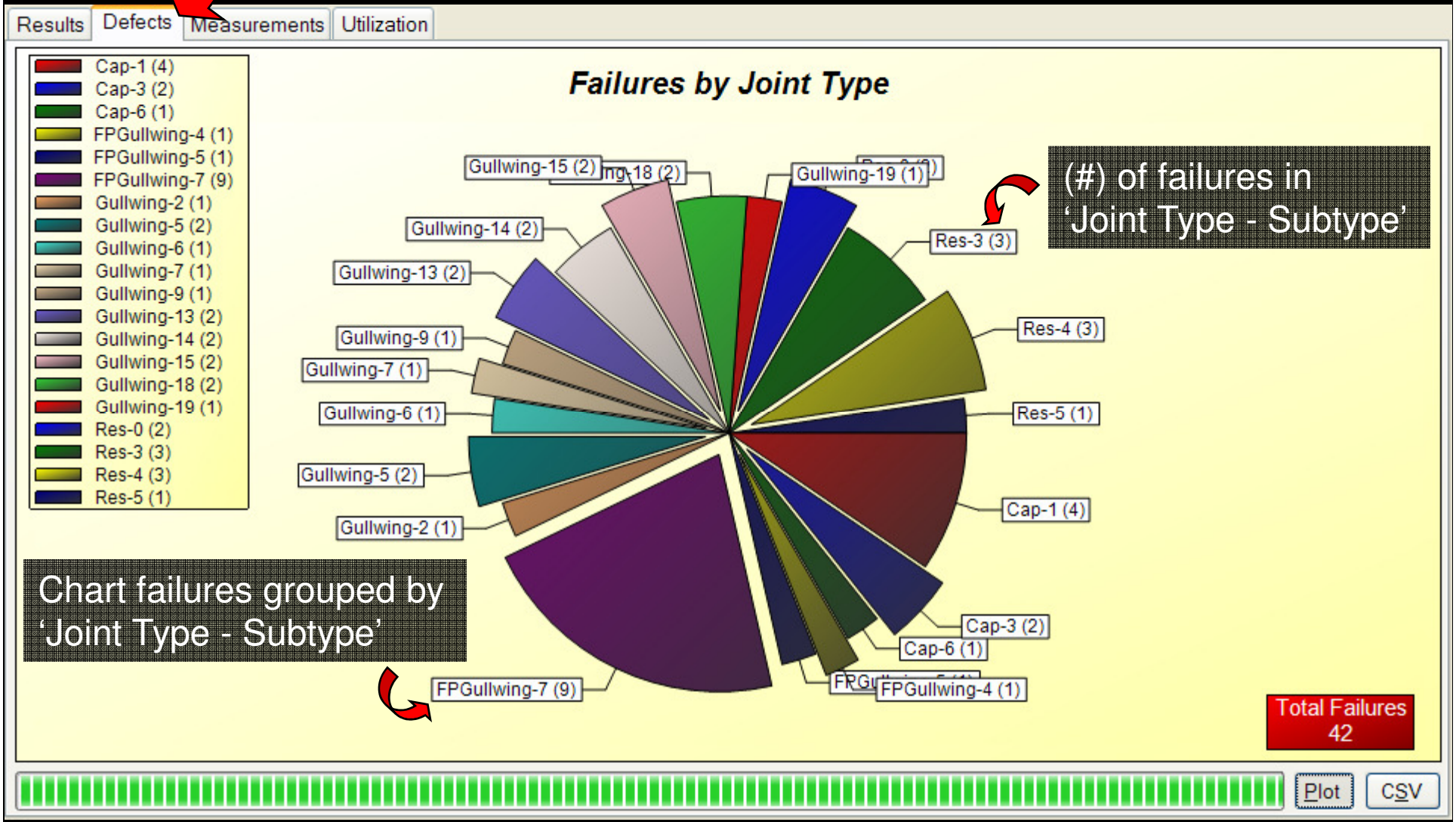
Results Plot View

Remotely monitor results on a 5DX




Defect Results List View
Grouping by the selected attribute
Results
Defects
Measurements
Utilization
Group by :
Joint Type
Sub.
Ref. Des.
Pin
Defect
Slice
Measurement
Value
Units
Package
Side
Joint Number
Joint Type | Sub. | Ref. Des. | Pin | Defect | Slice | Measurement | Value | Units | Package | Side | Joint
Cap - 1 - Contamination - Edge Pixel Variance - 1
Cap 1 C922 1 Contamination 1 Edge Pixel Variance 0.67 CS_2_C1005_A U 779
Cap 1 C925 2 Contamination 1 Edge Pixel Variance 0.63 CS_2_C1005_A U 786
Cap 1 C926 2 Contamination 1 Edge Pixel Variance 0.51 CS_2_C1005_A U 788
Cap 1 C932 2 Contamination 1 Edge Pixel Variance 0.52 CS_2_C1005_A U 796
Load a graph of the data
Cap - 3 - Open - Body Width Ratio - 1
Cap 3 C501 1 Open 1 Body Width Ratio 100.00 CS_2_C5750_F O 3
Cap 3 C501 2 Open 1 Body Width Ratio 100.00 CS_2_C5750_F O 4
Cap - 3 - Open - Edge Pixel% - 1
Cap 3 C501 1 Open 1 Edge Pixel% 3.83 CS_2_C5750_F O 3
Cap 3 C501 2 Open 1 Edge Pixel% 4.06 CS_2_C5750_F O 4
Cap - 3 - Open - Profile Deriv HW Ratio - 1
Cap 3 C501 1 Open 1 Profile Deriv HW Ratio 2.67 CS_2_C5750_F O 3
Cap 3 C501 2 Open 1 Profile Deriv HW Ratio
Export Defects to CSV
Cap - 3 - Pin Off Pad - Pin Width Ratio - 1
Plot
CSV
Switch viewing mode

Defect Results Plot View



Measurements Filtering / Charting View

Measurement filters to filter any measurement

Export filtered data to CSV

Measurements Charting cont…

Show all or only defective measurements

Menu for Copy / Print / Save Picture

Utilization

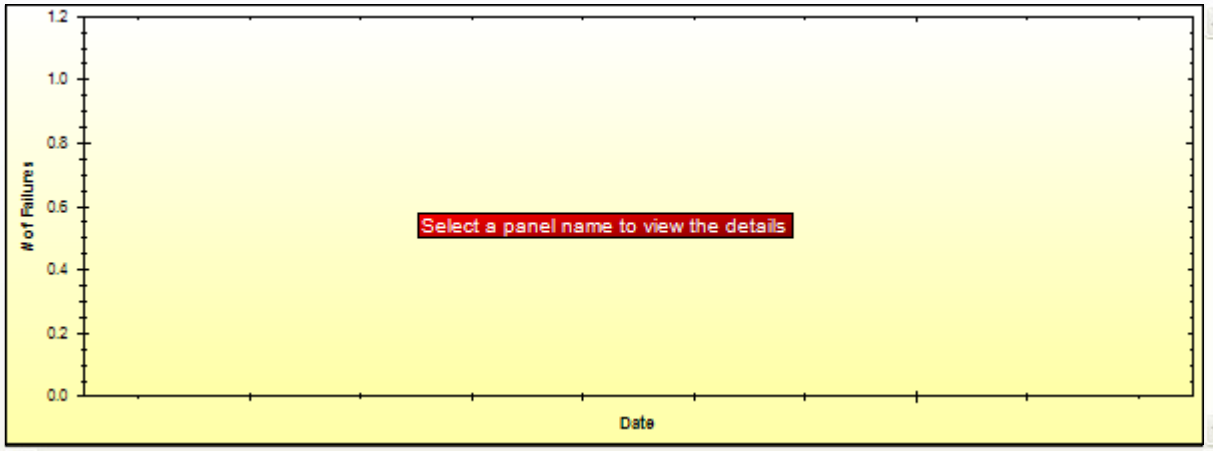
Test result chart for selected program name

Results | Defects | Measurements | Utilization

Operation Summary Report
06/15/2008 20:43:34 to 06/16/2008 22:15:05

# of Boards Tested: 102
# of Boards Failed: 87
Defect Rate (PPM): 402,555 PPM
% of Machine Test Time: 62.00 %
Avg. Test Time/Board: 143 seconds
# of Pins Failed: 10,272
# of Pins Tested: 25,517

Please use the 'Refresh Test Results' button on the 'Results' tab to update the operation summary report information.



Machine 'Operation Summary Report'

Panel Name					Pins Tested	Pins Failed	Defect PPM	Board N
PROGRAMNAME1-1	2	11	0	0	0	0	1,000,000	PRIMAR
PROGRAMNAME2-1	3	67	0	0	0	0	1,000,000	PRIMAR
PROGRAMNAME2-2	1	605	32	8	19,673	9,647	490,368	PRIMAR
PROGRAMNAME2-3	11	444	0	0	1,301	24	18,447	PRIMAR
PROGRAMNAME3	7	4	0	0	17	17	1,000,000	PRIMAR
PROGRAMNAME4	1	77	12	4	2,384	228	95,638	PRIMAR
PROGRAMNAME5	2	9	0	0	5	5	1,000,000	PRIMAR
PROGRAMNAME6	1	11	0	0	652	0	0	PRIMAR
PROGRAMNAME7	3	7	0	0	405	1	2,469	PRIMAR
PROGRAMNAME8	7	43	0	0	64	20	312,500	PRIMAR
PROGRAMNAME9	3	5	0	0	624	2	3,205	PRIMAR
PROGRAMNAME10	58	111	0	0	365	302	827,397	PRIMAR

Click the program name to view test result chart data for it

FAQ

What does it cost to buy?

- Nothing.

What versions of 5DX software does it work on?

- All versions from v7.xx to v8.xx

What versions of Microsoft Windows does it work on?

- All versions of Windows NT to Windows XP
  - Provided .NET 2.0 can be installed on it

Key Points to Remember

A chance to improve your current daily tasks.

This is ‘User Contributed’ software and as such may have little or no support.

If you are not able to download it from the web.

- Contact:
  - Jeremy Pemberton-Pigott (Technical Marketing Engineer)
    - jeremy_pemberton-pigott@agilent.com

THE END

Any Questions?

Pocket Slides

Installation

How is it installed?

- There are 2 methods
  1. Launch from Desktop
     - Place the executable somewhere familiar on the local PC's drive (note: network drive support requires a special security override in Windows)
     - Make a shortcut to the executable on your desktop
  2. Total Integration
     - Rename rpt.exe in the Rxx\Master directory to ".old"
     - Copy the codeNexus executable into the Rxx\Master directory
     - If the DOS window is appearing for you then rename the trpt.bat to ".old" in the above directory and create a new trpt.bat file with the line "start rpt.exe" without the quotes in it.

Build Operator Menu
Network Setup

To setup the program to run from a network drive you need to grant network access permissions on the 5DX for the program. Note that a user with Administrator privileges is required to perform these steps.

Server Name = MyServer

Server Share = MyShare

Program directory = \Software\MyProgramNameDirectory

Combined network path = \\MyServer\MyShare\Software\MyProgramNameDirectory

Reformed network path = //MyServer/MyShare/Software/MyProgramNameDirectory

Build Operator Menu
Network Setup

With the reformed network path you can now configure the 5DX for all Windows XP users.

On the 5DX controller, in a Command Prompt window, go to the following directory and issue the commands in the order given below:

- Click the ‘Start’ button on the Taskbar
- Click on ‘Run…’
- Enter ‘cmd’ without the quotes and press the ‘Enter’ key.
- In the Command Prompt window enter the following:
  - cd /d %windir%\Microsoft.NET\Framework\v2.0.50727
  - C:\>CasPol.exe -pp off -m -ag 1.2 -url file://**MyServer/MyShare/Software/MyProgramNameDirectory**/* FullTrust

Build Operator Menu
Network Setup

- Now run the executable and make sure that you don't get the System.Permissions.EnvironmentPermission error message below or a crash message of "System.Security.SecurityException", if you do recheck the steps above.