

Agilent E2976A System Validation Package 2.1

## **User Interface Reference**



**Agilent Technologies**

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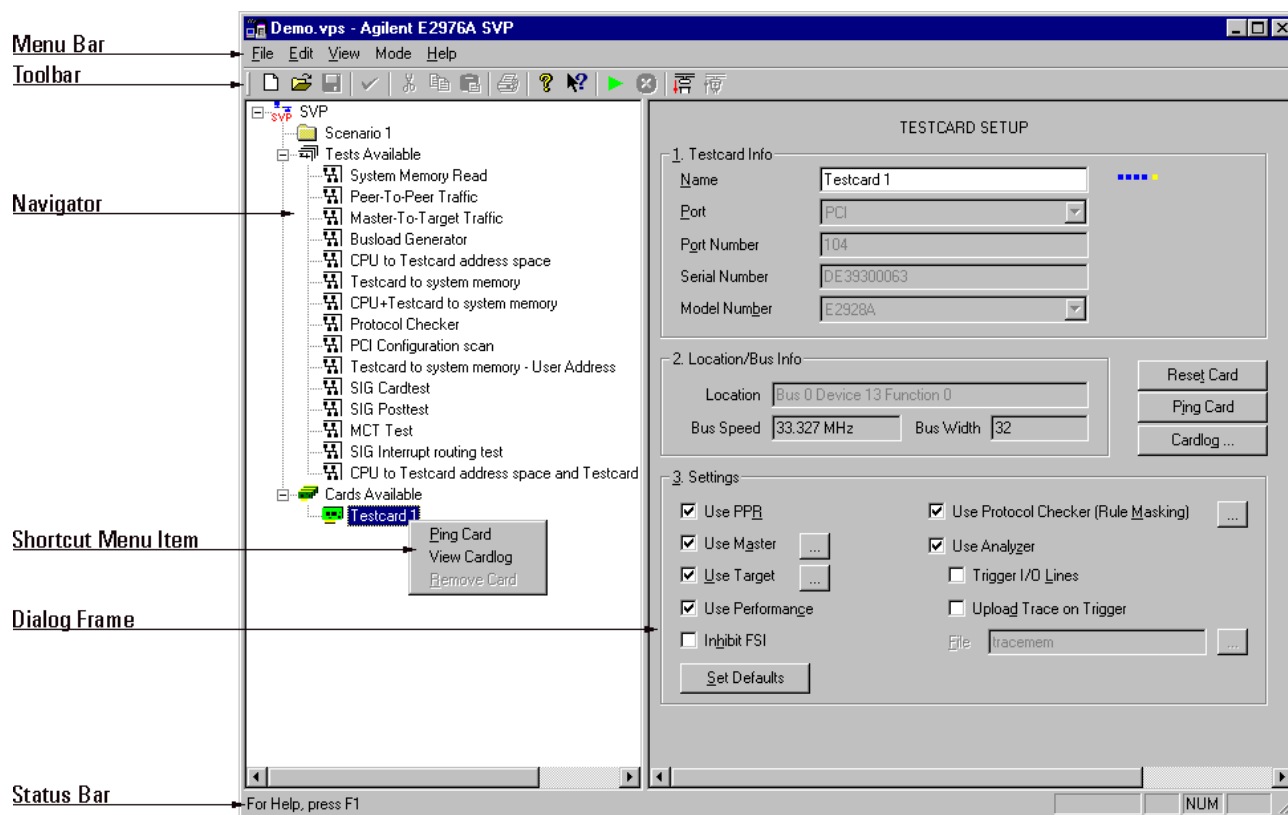
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# The Agilent E2976A SVP Window

The Agilent E2976A SVP window is the user interface for setting up and running system tests. It is always visible while the application is running. The Agilent E2976A SVP window consists of a menu bar, a toolbar, a navigator with shortcut menus, a dialog frame and a status bar.



**Menu Bar** The different menus in the menu bar give you access to most of the SVP functions. The functions unique to SVP are explained in “Menus” on page 7.

**Toolbar** The toolbar gives you quick access to the most commonly used functions. These are explained in “Menus” on page 7.

**Navigator** The navigator helps you find through your defined test structure and open the corresponding dialog windows. All dialog windows are explained in *“Windows” on page 17*.

In addition, shortcut menus give you quick access to the features that are valid for the selected item. The items in the shortcut menus are explained in *“Menus” on page 7*.

**Dialog Frame** The dialog frame shows the selected dialog windows that are explained in *“Windows” on page 17*.

**Status Bar** The status bar gives information about the current operation mode and shows how to get online help.



# Menus

This section describes the features that are unique to the SVP application. All features are accessible within the menus in the menu bar or within the shortcut menus in the navigator.

# File Menu

The *File* menu items can be used to run file handling actions, and to run and stop tests and entire SVP objects.

## Features Unique to SVP

The *File* menu contains standard desktop features and features unique to the SVP application, such as:


- *Open*

To load a previously saved session, click this item. The session file (VPS file) can then be selected from the *Open File* dialog box.

- *Run*


To run the current scenario or the entire SVP object, click this item.

Note that before you click the *Run* item, ensure that you are in online mode, and that at least one scenario has been configured.

For quick access, click the *Run* icon  in the toolbar or use the shortcut menus.

While the test is running, the test report is generated. The test report gives information about the test results. For further information on the test report, refer to “*SVP Reporting Dialog Box*” on page 13.

- *Stop*

To stop the running scenario or SVP object, click this item. For quick access, click the *Stop* icon  in the toolbar or use the shortcut menus.

**NOTE** You cannot continue a stopped test.

- *Print ...*

To print the static report, click this item. The static report contains information about the test configuration. For further information on the static report, refer to “*SVP Reporting Dialog Box*” on page 13.



# Edit Menu

The *Edit* menu can be used to apply changes and to configure the test architecture.

- *Apply*

To apply changes in test configuration settings, use this item. For quick access, click the *Apply* icon  in the toolbar.

In both cases you will be asked via a dialog box if the changes should be applied.

**Select ...**

You can use the *Select* commands to select available tests for scenarios and available cards for tests. These commands are also available within the shortcut menus. Clicking on these commands opens the “*Select from Available Items Dialog Box*” on page 11.

- *Select Test(s)*

To select an available test for the current scenario, use this item.

- *Select Card(s)*

To select an available card for the current test, use this item.

**Insert ...**

You can use the *Insert* commands to insert new scenarios, new tests and new cards in the navigator. These commands are also available within the shortcut menus.

- *Insert New Scenario*

To insert a new scenario in the current SVP object, use this item.

- *Insert New Test*

To insert a new test in the *Tests Available* item, use this item.

- *Insert New Card*

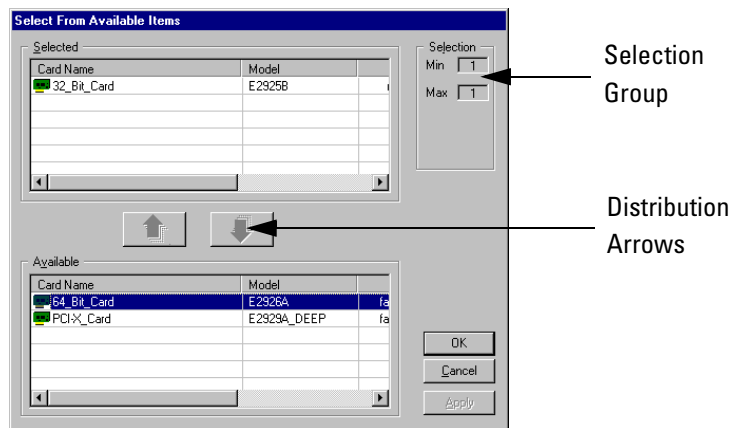
To insert a new card in the *Cards Available* item, use this item. This feature is only available in offline mode. In online mode, cards are inserted automatically.

- Remove ...** You can use the *Remove* commands to remove current scenarios, available tests and available cards from the navigator.
- *Remove Scenario*  
To remove the selected scenario, use this item. The last scenario in the navigator cannot be removed.  
For quick access, use the shortcut menu of the *Scenario* item in the navigator.
  - *Remove Test*  
To remove a test from the *Tests Available* container, click this item.  
For quick access, use the shortcut menu of the *test* item in the navigator.
  - *Remove Card*  
To remove a card from the *Cards Available* container, click this item.  
In online mode, cards connected to the system under test cannot be removed. For quick access, use the shortcut menu of the *testcard* item in the navigator.

## Select from Available Items Dialog Box

This dialog box is opened when you click one of the Select commands. It shows all available tests or cards and the ones already selected.

**Select From Available Cards** The dialog box for selecting testcards is shown in the figure below. The dialog box for selecting tests looks similar but contains no *Selection* group.



**Selection Group** *Min* and *Max* show the minimum and maximum number of testcards that can be used for the respective test.

**Distribution Arrows** You can move particular components from one container to the other by using the distribution arrows or by double-clicking the respective component.

Multiple components can be moved by using the Ctrl and Shift keys.

# View Menu

The *View* menu items can be used to switch the *Toolbar* or *Status Bar* on or off, to view reports and to set program options.

## Features Unique to SVP

The *View* menu contains standard features and features unique to the SVP application, such as:

- *Static Report ...*

To view the static report, use this item. Clicking this item opens the “*SVP Reporting Dialog Box*” on page 13.

- *Test Report ...*

To view the test report, use this item. The test report contains the status and the results of testing. As soon as the testing takes place (after clicking the *Run* item), the information is added to the report in defined time intervals. Clicking this item opens the “*SVP Reporting Dialog Box*” on page 13.

- *Cardlog*

To get information about the connection established to the testcard currently selected, use this item. Clicking this item opens the “*SVP Reporting Dialog Box*” on page 13.

- *Options ...*

To switch the auto-save option on or off, or to modify the time span format, click this item. That opens the “*SVP Options Dialog Box*” on page 15.

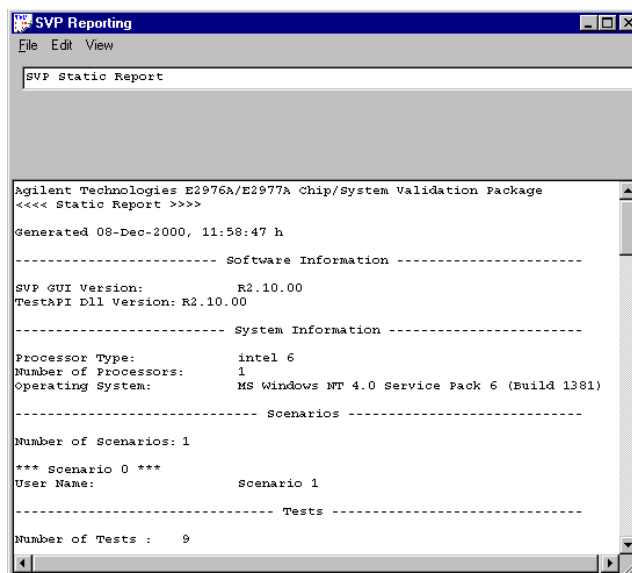
## SVP Reporting Dialog Box

The SVP Reporting dialog box shows the static report, the test report or the cardlog.

**SVP Reporting View Menu** You can switch between the different reports by checking the respective items in the SVP Reporting *View* menu.

You can make the SVP Reporting dialog box always visible on top of the screen by checking the *Always on Top* item.

**Static Report** The static report is generated after the setup has been finished and before any actual testing takes place.



This report gives information about:

- Software  
Version, build number or DLL versions.
- System configuration  
Operating system, number of processors, number of busses.

**NOTE** You can add items unknown to the SVP application in the static report (for example, system name, system state).

- Testcard configuration  
Number of cards, types of cards, firmware version(s), possibly serial numbers to uniquely identify cards.
- Test setup and the number of scheduled tests

**Test Report** The test report gives information about:

- Date and time
- Testcard status
- System status
- Test data  
Addresses, block sizes, estimated testing times.
- Progress information  
Elapsed time, tests finished or tests to go.
- Performance and metrics

**View Cardlog** The cardlog report informs about the connection established to the testcard. If errors occur on the testcard, the respective function that noticed the error will be listed here.


## SVP Options Dialog Box

You can modify general options and define the directories where all files used in the test session can be stored.

**General Options** You can get access to the general options by clicking the *Options* tab.

- *Auto-save Objects*

If selected, all changes in test configuration settings immediately are valid. If not selected, you can apply changes by

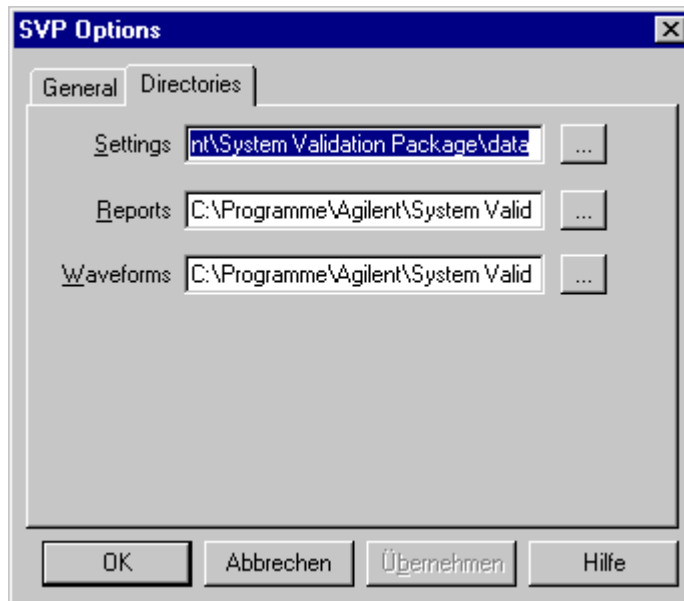
- clicking into the navigator, or
- clicking the *Apply* icon  in the toolbar, or
- by opening the Edit menu in the menu bar and selecting *Apply*.

In all this cases you will be asked via a dialog box if the changes should be applied.

- *Time Span Format*

The time span format is used to set all time definitions of your current session.

**Directories** You can get access to the directories by clicking the *Directories* tab.




You can select the directories where card settings (VPS files), reports (RPT files) and generated waveforms (WFM files) can be stored. Clicking the details button next to the selected data path allows you to browse.

# Mode Menu

The *Mode* menu can be used to switch between online and offline mode.


- *Go Online*

To switch on the connection to the system under test, click this item.

The online mode allows you to run the testing and to generate a test report. For detailed information on the test report, refer to “*SVP Reporting Dialog Box*” on page 13. For quick access to the online mode, click the icon  in the toolbar.

- *Go Offline*

To switch off the connection to the system under test, click this item.

The offline mode allows you to configure the testing without using any testcard. For quick access to the offline mode, click the icon  in the toolbar.

# Help Menu

The *Help* menu items can be used to get information about the entire SVP application or about specific problems.

A *Guided Tour* helps you to familiarize with the commonly used features of the SVP application. Clicking this item leads you through all steps of setting up an entire SVP object.



# Windows

This section describes all windows used to set up a test session.

## SVP Object Window

The SVP Object window is displayed by clicking the SVP item in the navigator. This window contains edit fields to identify the entire test object and shows the configured scenarios, the available tests and the available testcards. You can get further information by double-clicking on the respective objects.

In addition, the SVP object window allows you to view the test report and modify settings that affects the static report, card identification and test behavior on error.

- *View Log ...*  
Opens a text edit window that shows the test report. For further information on the test report, refer to “*SVP Reporting Dialog Box*” on page 13.
- *Settings ...*  
Opens the SVP Test Settings Dialog Box to set an action (stop or continue) on error, to define the card identification and to select the extent of the static report.

## SVP Test Settings Dialog Box

The SVP Test Settings dialog box contains the drop-down list boxes for selecting general test settings and check boxes to define the contents of the static report. In this dialog box, you can find the following elements:

- *ID Cards By*

The settings for each testcard are assigned to a configured testcard name. These settings contain the following information to identify the corresponding physical testcard: the type of connection, the serial number, the bus location and the model number. All this information will be stored in the settings file.

If you use the settings file from a previously configured test for another system under test, the software assigns the previously configured testcard names to the physically available testcards.

*ID Cards By* determines the criterion used to identify the matching testcard for each testcard name. For example, if you select Serial Number, SVP will look for the testcards whose serial numbers match the ones stored in the settings file.

| ID Cards By         | Testcards are assigned according to the              |
|---------------------|--|
| Connection          | external connection (for example, COM 1, COM 2, ...) |
| Serial Number       | serial number  |
| Location (Bus/Slot) | location in the bus configuration                    |
| Model Number        | model numbers  |

Testcards that are connected to more than one port (for example, PCI and RS-232) are always searched in the order of their fastest connection.

- *On Error*

In this drop-down list, you can define whether the tests stop or continue after an error. Errors can be protocol violations, data compare errors, or master abort conditions.

**Reports** You can show specific information in the static report by selecting the following check boxes:

- *Software Info.*  
SW version, build number, DLL versions
- *System Info.*  
Operating system, number of processes, number of busses
- *Scenario*  
Number of scenarios, tests implemented in the scenarios
- *Test*  
Number of tests, test configuration
- *Testcard*  
Testcard configuration

## Tests Available Window

The Tests Available window is displayed when clicking the *Tests Available* item in the navigator.

This window shows function, start time, duration and the used testcards of all defined tests of the current session.

To modify properties or to get detailed information about an available test, double-click on the particular component to open the corresponding Test Setup window.

## Cards Available Window

The Cards Available window is displayed when clicking the *Cards Available* item in the navigator.

This window gives information on the testcards and shows where they are installed on.

To modify properties or to get detailed information about an available card, double-click on the particular component to open the corresponding Testcard Setup window.

## Scenario Details Window

The Scenario Details window is displayed when clicking the *Scenario* item in the navigator.

The Scenario Details window shows all tests integrated in the current scenario with their functions and durations. You can also insert new tests here. The Scenario Details window also shows the *Name* and the *Total Duration*.

**Name and Total Duration** In the *Name* field you can enter a new name for the scenario. This name will then appear in the navigator immediately. The total duration is the maximum period of time that results from the sum of start delay and duration defined in the Test Setup window.

**Select Test(s) Button** To insert an available test in the current scenario, click the *Select Test(s)* button. That opens the “*Select from Available Items Dialog Box*” on page 11.

To modify test properties or to get detailed information about the used tests, double-click on the selected component in the Scenario Details window to open the corresponding Test Setup window.

# Test Setup Window

The Test Setup window is displayed when clicking a test item in the navigator. The Test Setup window allows you to set up a test by selecting test properties and to insert cards. This window also gives information about the cards used by the specified test.

## Name and Description

The following items are optional:

- *Name*

You can modify the name of the current test. The name will be valid for all further actions in the current session.

- *Description*

You can enter a short description of the current test. This entry will appear in the static report.

## Test Properties

The test properties are:

- *Function*

You can select one of the predefined test functions *busload*, *card2sysmem*, *configscan*, *cpu2card*, *cpucard2sysmem*, *master2target*, *peer2peer*, *protocolcheck* and *sysmemread* from the selection list.

You can find information about the selected test below the selection list.

- *Address (Space/Offset)*

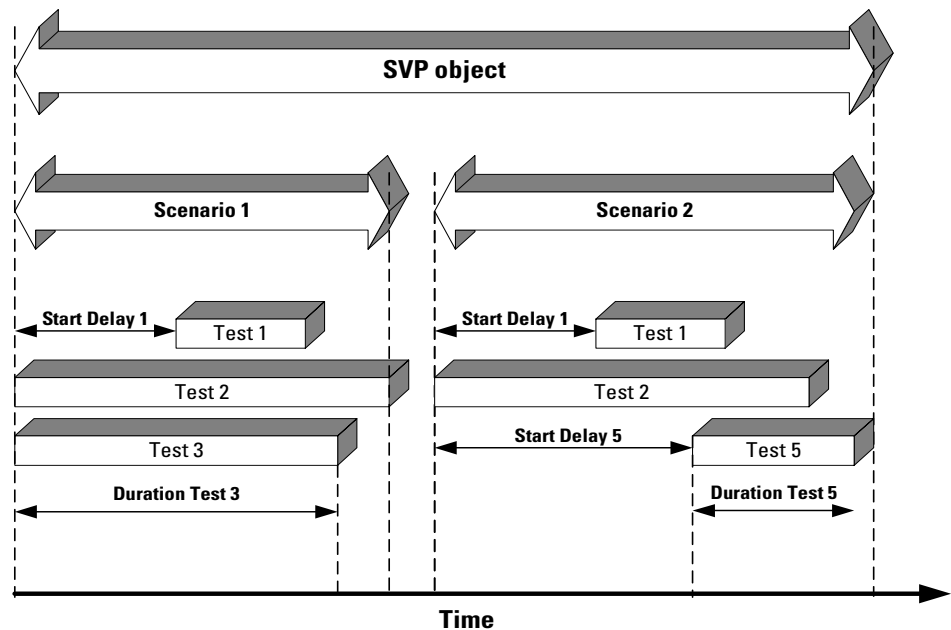
The address space you have to select from the selection list depends on the selected test function. *MEM* is default.

| Test Function          | Possible Address Space |
|------------------------|------------------------|
| busload                | MEM (default) or IO    |
| card2systemem          | MEM (default)          |
| configscan             | not available          |
| cpu2card               | MEM (default) or IO    |
| cpucard2systemem       | not available          |
| master2target          | MEM (default) or IO    |
| peer2peer              | MEM (default) or IO    |
| protocolcheck          | not available          |
| systememread           | MEM (default)          |
| card2systememuser      | MEM (default)          |
| cardtest               | MEM (default)          |
| posttest               | not available          |
| MCT Test               | not available          |
| Interrupt Test         | not available          |
| cpu2card_card2systemem | MEM (default)          |

You can enter an offset in the edit field. The default value is 000B8000\h.

- *Start Delay (<Time Span Format>)*

The delay time starts when the scenario in which the test is integrated begins to run. See the timing in the figure below.



The predefined time span format can be modified by selecting *Options* in the *View* menu.

- *Duration (<Time Span Format>)*

The duration time defines how long the current test will run.

- *Bytes to Transfer*

You can enter an integer number of bytes to be transferred in the range 1 ...  $2^9$ . The default value is 4096.

If the duration time is longer than the time needed to transfer the specified bytes, the testing restarts. If the duration time is shorter than the time needed to transfer the specified bytes, the transfer will not be completed. The elapsed time is displayed in the Scenario Details window.

- *Bandwidth*

Requested bus bandwidth in percent. You can enter the bandwidth in the range 1 ... 100 or move the slider to specify the value. The test tries to occupy the bus with this bandwidth.

The default value is 100.

- Select Card(s) Button** To insert a new card in the current test, click the *Select Card(s)* button. That opens the “*Select from Available Items Dialog Box*” on page 11.
- Extended Options Button** To choose various test options for some PCISIG tests, click the *Extended Options* button. This opens the respective “*Card Settings Dialog Boxes for Test Setup*” on page 27.
- Cards Selected** The *Cards Selected* container gives information about the cards used by the defined test. A double-click on a selected testcard opens the “*Testcard Setup Window*” on page 24.

## Testcard Setup Window

The Testcard Setup window is opened by clicking a testcard item in the navigator. The Testcard Setup window gives information about the testcard and the PCI/PCI-X bus it is plugged into. This window also allows you to modify card settings.

- Testcard Info** The *Testcard Info* group contains product and installation identifiers. These entries cannot be modified in online mode. They are determined by the current card and its installation.
- Binary Code** The SVP application is searching the testcards after the criterion defined in *ID Cards By* (see “*SVP Test Settings Dialog Box*” on page 18). The number assigned for every card is displayed as binary code next to the *Name* edit field.
- Card Operations Buttons** There are several buttons to perform testcard operations:
- *Reset Card*  
Clicking this button allows you to reset the testcard to the factory defaults. The settings are used the next time the card is rebooted.

**NOTE** The testcard is unusable prior to rebooting.

- *Ping Card*  
Clicking this button checks the connection to the testcard by calling a ping function (causes green and red LEDs on the testcard to flash). A ping box will report any connection errors.




- *Cardlog ...*

Clicking this button opens the SVP Reporting dialog box and informs about the connection established to the testcard. For further information on the cardlog report, see “*SVP Reporting Dialog Box*” on page 13.

### Settings

The Settings group contains several check boxes used to enable or disable the current card features in online and offline mode. Switching off the features that are not necessary for your test configuration results in shorter run times.

Details buttons  next to several check boxes allow you to view the card properties that can be modified for your specific test. For more information about single testcard parameters, please refer to *Testcard Parameters* in the *Agilent E2976A System Validation Package User's Guide* (pdf-file).

The check boxes are:

- *Use PPR*

To generate protocol permutations for transactions, this check box must be selected. If not selected, the PCI/PCI-X Exerciser uses always fixed values for the properties. Clicking the *Use Master* and *Use Target* details buttons displays the available properties.

- *Use Master*

To execute the *sysmemread*, *card2sysmem*, *cpucard2sysmem*, *peer2peer* tests, this check box must be selected. For the *master2target* test, this check box also must be selected, if the testcard acts as the master. Clicking the details button next to this check box, opens the “*Card Settings Dialog Box*” on page 27 to check the master attributes.

- *Use Target*

To execute the tests *cpu2card* and *peer2peer*, this check box must be selected. For the *master2target* test, this check box also must be selected, if the testcard acts as the target. Clicking the details button next to this check box, opens the “*Card Settings Dialog Box*” on page 27 to select the target attributes.

- *Use Performance*

To run the performance counters, this check box must be selected. As a result, the performance values efficiency, throughput and utilization are listed in the test report.

- *Inhibit FSI*

This check box inhibits the Front Side Interface Executable (FSI Executable).

To enable external control for the *card2sysmem*, *cpu2card*, *cpucard2sysmem* and *configscan* tests, this check box must not be selected. For *sysmemread*, *peer2peer*, *master2target*, *protocolcheck* and *busload*, this check box can be selected.

- *Use Protocol Checker (Rule Masking)*

To execute the protocol checker, this check box must be selected.

Clicking the details button next to this check box, opens the “*Protocol Rule Masking Dialog Box*” on page 32 that allows you to enable and disable protocol rules.

- *Use Analyzer*

The following check boxes are only available when the *Use Analyzer* check box is selected.

- *Trigger I/O Lines*

To enable cross-triggering with the test or to connect an external logic analyzer, this check box must be selected. Cross-triggering means, that you connect the trigger I/O ports of two testcards.

- *Upload Trace on Trigger*

To write the trace memory from the testcard to a WFM file (default is *tracemem*) after the testing is triggered, this check box must be selected. The trace memory waveform file can be used for in-depth root cause analysis. This option usually is not recommended, because it can take very long time to complete.

To change the name or the directory where the file should be stored, click the details button next to the *File* edit field.

**Set Defaults Button**

Clicking this button sets all card properties in the GUI to default values. For default values, please refer to the *Agilent C-API/PPR Programming Reference* which is delivered with the testcard.

## Card Settings Dialog Box

The Card Settings dialog box opens when you:

- Click the *Extended Options* button in the Test Setup window.

The Card Settings dialog box is only available for some SIG tests. The Card Settings dialog box for various test options is described below.

- Click the details buttons of the *Use Master* and *Use Target* check boxes in the Testcard Setup window.

See “*Card Setting Dialog Box for Testcard Setup*” on page 29 for more information.

## Card Settings Dialog Boxes for Test Setup

The appearance of the Card Settings dialog box depends on the selected SIG test.

The Card Settings dialog box allows you to choose various options for the following SIG tests:

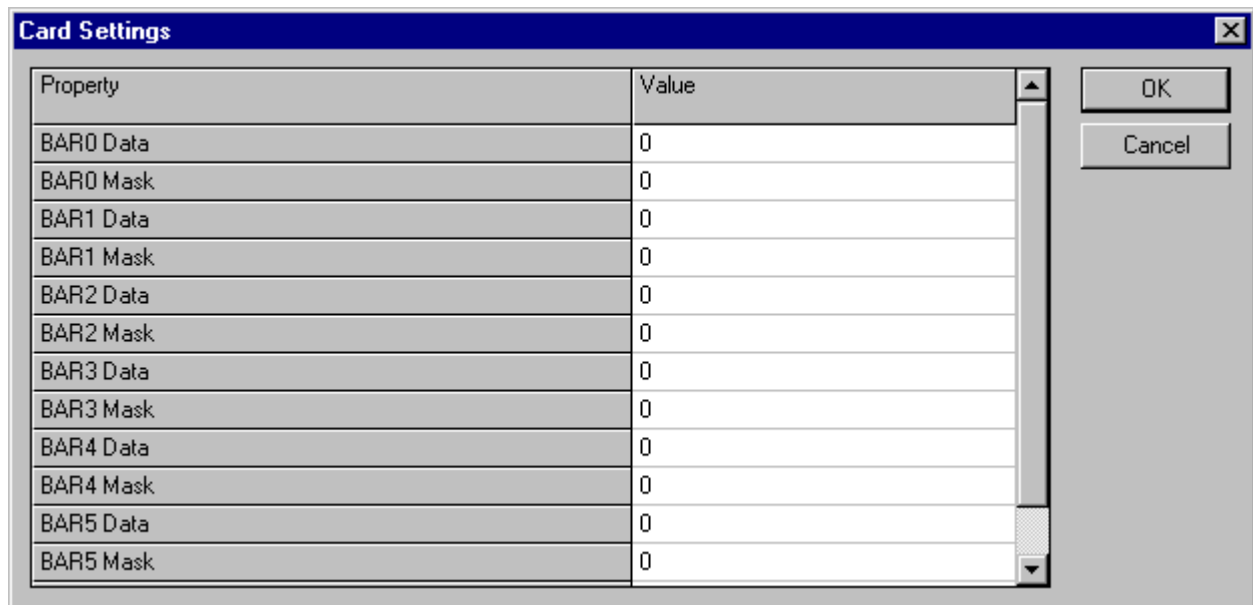
- SIG Cardtest

You can define the card to be tested by its device number. You can also define the power management state delay for the power management test included in the SIG Cardtest. The valid values for the delay (in ms) are 100 ... 10000.

| Property       | Value |
|----------------|-------|
| Device Number  | 10    |
| PM State Delay | 100   |

- SIG Posttest

You can define the location, the type and the size of the BAR decoders, and the relevant bits and the values of the command register.

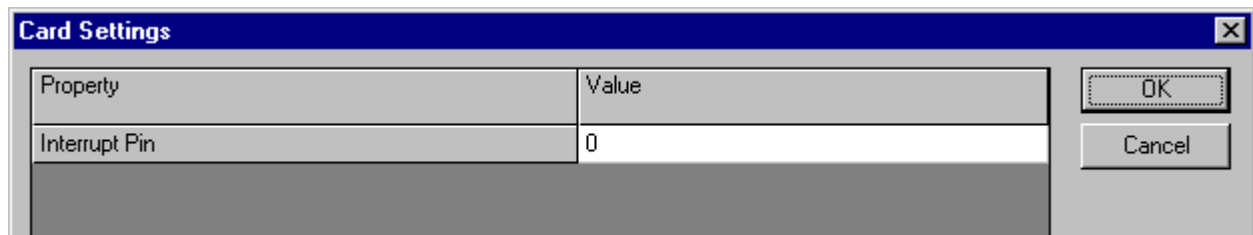


The 'Card Settings' dialog box displays a table for configuring BAR decoders. The table has two columns: 'Property' and 'Value'. The properties listed are BAR0 Data, BAR0 Mask, BAR1 Data, BAR1 Mask, BAR2 Data, BAR2 Mask, BAR3 Data, BAR3 Mask, BAR4 Data, BAR4 Mask, BAR5 Data, and BAR5 Mask. All values are currently set to 0. To the right of the table are 'OK' and 'Cancel' buttons.

| Property  | Value |
|-----------|-------|
| BAR0 Data | 0     |
| BAR0 Mask | 0     |
| BAR1 Data | 0     |
| BAR1 Mask | 0     |
| BAR2 Data | 0     |
| BAR2 Mask | 0     |
| BAR3 Data | 0     |
| BAR3 Mask | 0     |
| BAR4 Data | 0     |
| BAR4 Mask | 0     |
| BAR5 Data | 0     |
| BAR5 Mask | 0     |

- SIG Interrupt routing test

You can define a particular interrupt line.



The 'Card Settings' dialog box displays a table for configuring the interrupt pin. The table has two columns: 'Property' and 'Value'. The property listed is 'Interrupt Pin', and its value is currently set to 0. To the right of the table are 'OK' and 'Cancel' buttons.

| Property      | Value |
|---------------|-------|
| Interrupt Pin | 0     |

## Card Setting Dialog Box for Testcard Setup

The appearance of the Card Settings dialog box depends on whether you use PCI or PCI-X testcards:

- For PCI testcards, this dialog box contains a table with all available *master* or *target* properties and a button for syntax checking.
- For PCI-X testcards, this dialog box contains a table with all available *requester* or *completer* properties and a button for syntax checking.

### Master Properties

If the *Use PPR* check box in the Testcard Setup window is selected, the dialog box contains both properties used to permutate master attributes and invariable master properties.

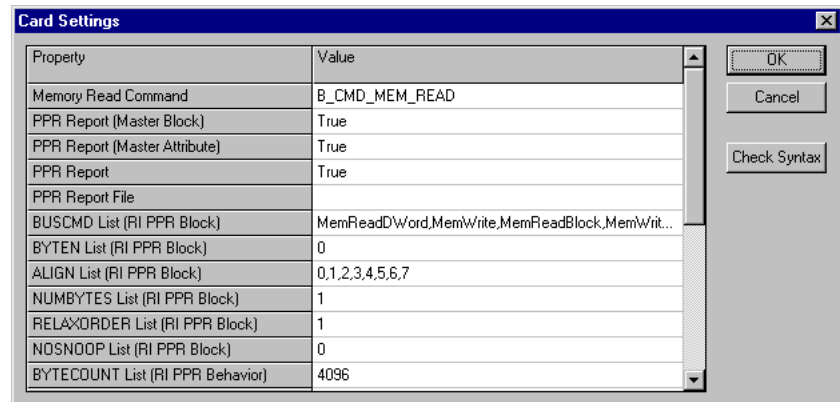
| Property                               | Value   |
|--|---|
| Memory Read Command                    | B_CMD_MEM_READ  |
| PPR Report (Master Block)              | True  |
| PPR Report (Master Attribute)          | True  |
| PPR Report                             | True  |
| PPR Report File                        |   |
| Block Algorithm (Master PPR)           | BPPR_ALG_PERM   |
| Block Alignment List (Master PPR)      | (%32=0), (%32=4)  |
| Block Size List (Master PPR)           | 4,8,32,128  |
| Block Byte Enable List (Master PPR)    | dword0, word0, byte0, byte1, byte2                          |
| Block Commands List (Master PPR)       | mem_read, mem_write, mem_writeinvalidate, mem_readline, ... |
| WAITS List (Master PPR Attribute)      | 0,1,2,3,4,5,6,7   |
| Burst Length List (Master PPR Attri... | 0   |

### Target Properties

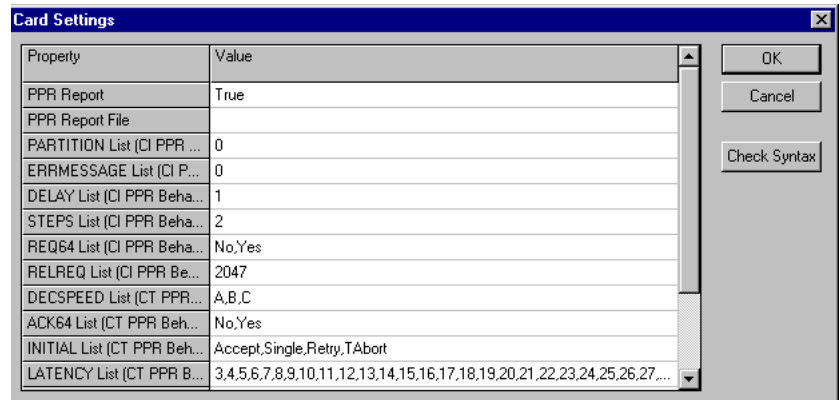
If the *Use PPR* check box in the Testcard Setup window is selected, the dialog box shows the properties used to permutate target attributes. There are no invariable target properties.

| Property                            | Value                          |
|-------------------------------------|--------------------------------|
| PPR Report                          | True                           |
| PPR Report File                     |                                |
| Target Attribute Page Number        | 2                              |
| TERM List (Target PPR Attribute)    | 32*noterm, 2*retry, disconnect |
| WAITS List (Target PPR Attribute)   | 1,2,3,4,5,6,7                  |
| DPERR List (Target PPR Attribute)   | 0                              |
| DSERR List (Target PPR Attribute)   | 0                              |
| APERR List (Target PPR Attribute)   | 0                              |
| WRPAR List (Target PPR Attribute)   | 0                              |
| ACK64 List (Target PPR Attribute)   | no,yes                         |
| DACPERR List (Target PPR Attribute) | 0                              |
| WRPAR64 List (Target PPR Attribute) | 0                              |

**Requester Properties** If the *Use PPR* check box in the Testcard Setup window is selected, the dialog box contains both properties used to permutate requester behaviors and invariable requester properties.



**Completer Properties** If the *Use PPR* check box in the Testcard Setup window is selected, the dialog box shows the properties used to permutate completer behaviors. There are no invariable completer properties.



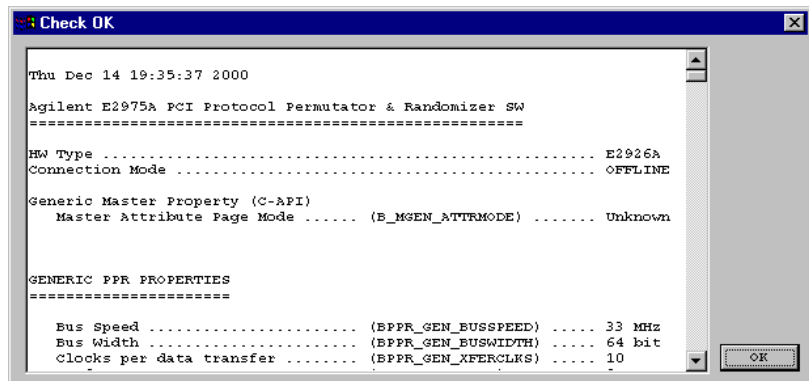
**Check Syntax Button** Clicking the *Check Syntax* button opens the Check Syntax dialog box.

## Check Syntax Dialog Box

Clicking the *Check Syntax* button in the Card Settings dialog box opens the Check OK dialog box, assuming that no errors occurred during program execution. Otherwise a Check Failed dialog box displays the occurred errors.

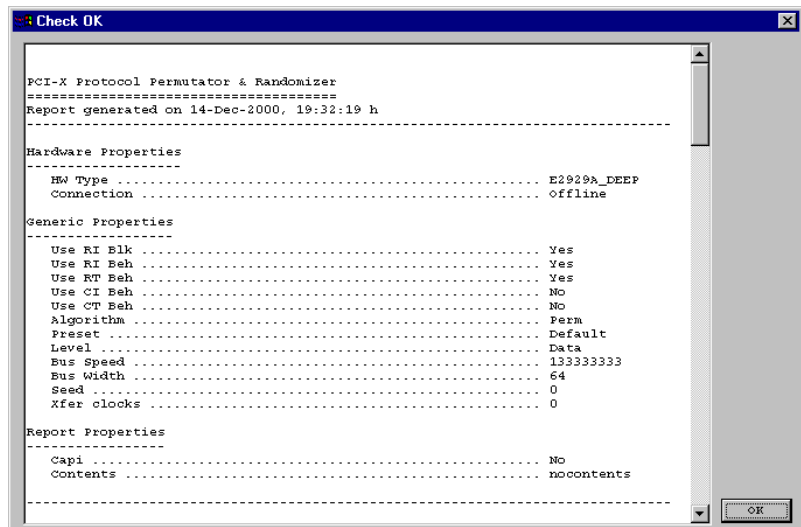
The content of the Check OK dialog box differ for PCI and PCI-X testcards:

- For PCI testcards, this dialog box contains a PCI Protocol Permutator and Randomizer software report with the results of the executed testing.



The individual sections of the report are explained in detail in the *Agilent C-API/PPR Programmer's Guide*, which is delivered with the PCI testcard.

- For PCI-X testcards, this dialog box contains a PCI-X Protocol Permutator and Randomizer software report with the results of the executed testing.

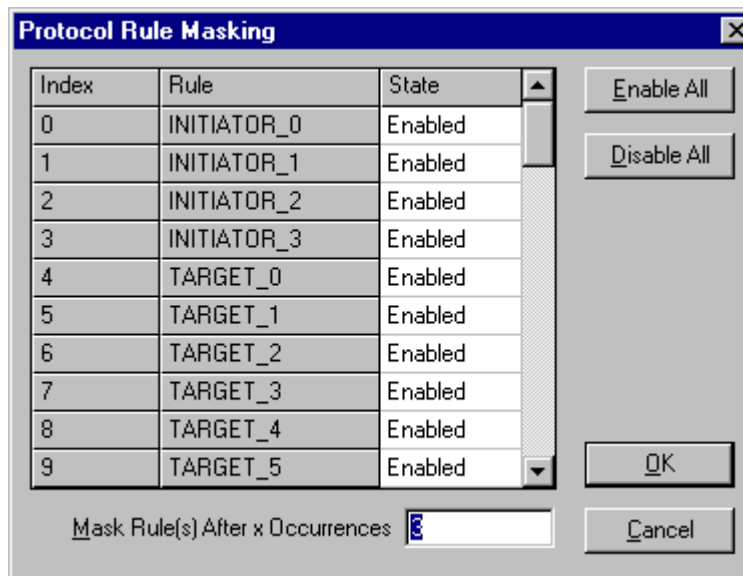


## Protocol Rule Masking Dialog Box

The content of the Protocol Rule Masking dialog box differ for PCI and PCI-X testcards:

- For PCI testcards, this dialog box lists all protocol rules defined by the PCI specification and some Agilent rules (see the *Agilent C-API/PPR Reference*, which is delivered with the PCI testcard).
- For PCI-X testcards, this dialog box lists all protocol rules defined by the PCI-X specification and some Agilent rules (see the *Agilent C-API/PPR Programming Reference*, which is delivered with the PCI-X testcard).

The following figure shows the Protocol Rule Masking dialog box for PCI-X protocol rules as an example.



Each testcard has a protocol observer that monitors the PCI or the PCI-X bus in real time to detect any protocol violations. This dialog box allows you to enable and to disable protocol rules.

### Enable or Disable all Rules

You can enable or disable all rules listed anywhere in the table by clicking the respective button. A right-click in the rule table will open a shortcut menu, where you can also select these features.

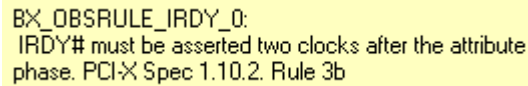
### Enable or Disable one Rule

You can enable or disable a selected rule by using the shortcut menu, which is available by right-clicking in the rule table. Clicking in the state column of the selected rule will change the current state of this rule.



**Rule Description** You can get detailed information by selecting *Rule Description* in the shortcut menu of a selected rule. Clicking on the rule identifier will also show the description of the selected rule.

For example, if you click on IRDY 0, the following description is shown:



BX\_OBSRULE\_IRDY\_0:  
IRDY# must be asserted two clocks after the attribute  
phase. PCI-X Spec 1.10.2. Rule 3b

**Rule Masking after a Specified  
Number of Occurrences**

The Protocol Rule Masking dialog box allows you to mask rules after a specified number of occurrences, so that storage of identical rule violations in the test report is limited. The number can be entered in the *Mask Rule(s) After x Occurrences* field.

## Protocol Rules SEM8, SEM9, LAT0

Violations of these rules are known to be caused by

- the E2920 series testcards whenever they are connected via PCI port
- using the FSI-Executable

To detect potential problems with these rules caused by other cards that have this problem, use an external connection and inhibit FSI. To inhibit FSI, select the respective check box in the Testcard Setup window. Otherwise, these rules can be masked out.

