



Agilent Technologies

Agilent N1019A-N5467B/C User Defined Application Version 01.80

Released Date:	15 November 2013
(Application Generator) Supported Operating Systems:	Microsoft Windows XP Service Pack 2 or later, Microsoft Windows Vista, Microsoft Windows 7
(Infiniium Real-Time Generated App) Minimum Infiniium Oscilloscope Baseline Version:	5.70 (80000 Series), 1.41 (90000 Series, 90000 X-Series, 90000 Q-Series), 2.00 (9000 Series)
(FlexDCA Generated App) Minimum FlexDCA Version:	1.80
File Name:	SetupInfUserDefApp01800000.exe

Highlights

Optional integrated switch matrix control:

- Supports instruments from Agilent, BitifEye and Giga-tronics.
- Add path correction using Infiniium real-time options PrecisionProbe or InfiniiSim, or FlexDCA option InfiniiSim DCA.
- Instrument simulators included to support development and testing.

Automatically execute tests over a range of config variable settings.

Additions:

Application Generator

Edit Menu

- New Find menu option to search only test steps

Tools Menu

- New Manage > Switch Matrix menu
- New Options > Generated App > Use Simulators option

Config Tab

- Editor: New “reset connection” option
- Editor: New “allow multi-select” option

Connections Tab

- Editor: New option to define signal paths for switch matrix control

Events Tab

- New Permutation event fires as multi-select configs cycle through choices

Generated App

Tools Menu

- New Switch Matrix menu (when app designed to control switch matrix)
 - Requires option: N5467B/C-7xx (Infiniium real-time) or N1010A-7xx (FlexDCA)

Setup Tab

- New permutation management tabs (when app designed to allow multi-select configs)

Modifications:

Application Generator

You may no longer create Add-Ins that target compliance apps supporting only Add-In Interface 1.0.

Tools Menu

- Options > Launch items moved to new Generated App tab.

Agilent N1019A-N5467A User Defined Application Version 01.76

Released Date:	11 October 2013
(Application Generator) Supported Operating Systems:	Microsoft Windows XP Service Pack 2 or later, Microsoft Windows Vista, Microsoft Windows 7
(Infiniium Real-Time Generated App) Minimum Infiniium Oscilloscope Baseline Version:	5.70 (80000 Series), 1.41 (90000 Series, 90000 X-Series, 90000 Q-Series) , 2.00 (9000 Series)
(FlexDCA Generated App) Minimum FlexDCA Version:	1.80
File Name:	SetupInfUserDefApp01760000.exe

Additions:

Application Generator

Tools Menu

- Option > Miscellaneous: New option to preserve the generated app's In-Tool Launch documents directory (default project location).

Set Up Tab

- New external instrument option to disconnect from the instrument during In-Tool Launch (useful for externals such as Agilent VSA which only allow one client connection at a time).

Steps

- DisplayMessage step now has a "Browse Button" option in the AskForData group so you can prompt user for a file location.

Modifications:

Application Generator

Connections Tab

- When you add a connection alternative value, the tool no longer automatically prepends the name of the connection.
- You may embed spaces in a connection alternative value.

Steps

- Fixed use of 'Launch External App' step in a While loop.
- Added more error checking to Text expressions.

Math Library

- Fixed: Math:WorstForRange(Double,Double,Double[]) may return wrong value

Debug Run

- When you start a Step Debugger session, the tool now automatically sets the Reserved_OtherFilesDir variable
- In-Tool Launch from PC: When you exit the generated app it now prompts you to restore the scope's previous setup.
- Fixed: Parse Multiple Values when parse characters = space plus any other characters
- Fixed bug: After defining external instrument with wrong "sockets" setting and trying to connect, failed to allow you to change the "sockets" setting until you restarted the tool.

Generated App

(FlexDCA only) Removed DefaultSetup command that was executing before the start of every run.

Fixed uninstaller.

Note: To manually remove a generated app, delete these directories from the machine where the app is installed:

(FlexDCA App, WinXP)

C:\Documents and Settings\All Users\Application Data\Agilent\FlexDCA\Apps\User Defined**<appname>**
C:\Program Files\Agilent\FlexDCA\Apps\User Defined**<appname>**

(FlexDCA App, Win7)

C:\ProgramData\Agilent\FlexDCA\Apps\User Defined**<appname>**
C:\Program Files (x86)\Agilent\FlexDCA\Apps\User Defined**<appname>**

(Infiniium App, WinXP)

C:\Documents and Settings\All Users\Application Data\Agilent\Infiniium\Apps\User Defined**<appname>**
C:\Program Files\Agilent\Infiniium\Apps\User Defined**<appname>**

(Infiniium App, Win7)

C:\ProgramData\Agilent\Infiniium\Apps\User Defined**<appname>**
C:\Program Files (x86)\Agilent\Infiniium\Apps\User Defined**<appname>**

Agilent N1019A-N5467A User Defined Application Version 01.75

Released Date:	7 May 2013
(Application Generator) Supported Operating Systems:	Microsoft Windows XP Service Pack 2 or later, Microsoft Windows Vista, Microsoft Windows 7
(Infiniium Real-Time Generated App) Minimum Infiniium Oscilloscope Baseline Version:	5.70 (80000 Series), 1.41 (90000 Series, 90000 X-Series, 90000 Q-Series) , 2.00 (9000 Series)
(FlexDCA Generated App) Minimum FlexDCA Version:	1.80
File Name:	SetupInfUserDefApp01750000.exe

Additions:

Application Generator

File Menu

- Export Definitions: Exports a summary of key aspects (steps, variables) of the project.

Tools Menu

- Manage > Text Libraries: Added FormatNumber function.

Events Tab

- Added “App Shown – Demo Mode” event to execute steps when generated app is started in “no scope” demo mode.

Modifications:

Application Generator

On launch, warns user if their PC's current regional settings use a character other than period (.) for number decimal.

Fixed various keyboard shortcuts.

Fixed screen relocation bug on multi-monitor computers.

Edit Menu

- Find: Now finds text in math expressions and in Single SCPI Command steps that target external instruments.

Connections Tab

- Fixed Connection Alternatives when connection name contains underscore (_) characters.

Debug Tab

- Fixed IO with 81134A pulse generators.

Generated App

Fixed memory management when opening large projects with lots of images.

Fixed intermittent control-related exceptions thrown by Run dialog during very long runs.

Agilent N1019A-N5467A User Defined Application Version 01.74

Released Date:	7 March 2013
(Application Generator) Supported Operating Systems:	Microsoft Windows XP Service Pack 2 or later, Microsoft Windows Vista, Microsoft Windows 7
(Infiniium Real-Time Generated App) Minimum Infiniium Oscilloscope Baseline Version:	5.70 (80000 Series), 1.41 (90000 Series, 90000 X-Series, 90000 Q-Series) , 2.00 (9000 Series)
(FlexDCA Generated App) Minimum FlexDCA Version:	1.80
File Name:	SetupInfUserDefApp01740000.exe

Highlights:

Application Generator

- You can now search for text you typed in the project (see Edit > Find)
- You can now transfer files between the scope application and the generated app when they are on different machines.
- You can now include sample results projects, created by your generated app, in your installer.

Additions:

Application Generator

Steps

- Transfer File step: You can now transfer files between the machine the scope application (FlexDCA or Infiniium) is running on and the machine the generated app is running on. For an add-in, this feature requires Add-In Interface 1.16.

Miscellaneous Tab

- You can now include sample results projects, created by your generated app, in your installer.

Modifications:

Application Generator

On launch, warns user if their PC's current regional settings use a character other than period (.) for number decimal.

Fixed various keyboard shortcuts.

File Menu

- (Export/Import) Fixed behavior when group-associated connection prompts exist.

Edit Menu

- (Find) You can now search for text you typed in the project.

Tools Menu

- (Scope Option Requirements) Fixed editing of existing "Required Alternatives" and "Optional Alternatives".
- (Manage Internal Variables) Fixed variable renaming impact on "Connection Alternatives".

Set Up Tab

- You can no longer assign nickname 'scope' to an external instrument.

Steps

- Single SCPI Command: Fixed error message when editing existing step after renaming an external instrument.
- If/While steps: Fixed text comparisons when operands contain commas.

Step Debugger

- If you execute a single SCPI command that generates more than 1 entry in the instrument's error queue, all errors are now read and reported at the same time.

Connection Prompts

- Connection Alternative values are now checked to ensure they contain only alphanumerics and underscores.

Debug Run

- When opening a project, the tool no longer automatically connects to the saved scope address.
- Projects saved with version 1.74 or newer will not restore Debug Run tab settings when opened on a different PC.

Build

- "Generate Installer" and "Install Now" are no longer aborted if the tool was unable to generate the remote interface help file.

Generated App

Installer

- Now removes `_mcr` directories for UDFs being installed.
- (Add-In Only) Fixed installation of "Other" files.

Everywhere units are specified (limits, results, etc.) they are now separated from the number by a space, e.g. 1.5 GHz

Instrument Connection

- You may now refer to sockets-based instruments using Visa Aliases and SICL addresses with host names or IP address.

Steps

- Fixed `:SYSTEM:PRESET` command when sent to external instruments.
- Now restores user-specified bandwidth limit (Tools > Infiniium > Acquisition Setup) after a LoadMask step executes.
- If a single SCPI command generates more than 1 entry in the instrument's error queue, all errors are now read and reported at the same time.

Configs

- Fixed use of config variables whose names are values are numbers and whose values = name - 1.

Tools

- (Real-Time Only) When using Infiniium 4.20 or newer, checking Tools > Acquisition Setup > Enable no longer causes recalculation of existing on-screen measurements.

Automation

- SuppressSimpleMessages now suppresses Compliance/Debug mode toggle prompts.

HTML Report

- (Real-Time Infiniium Only): HTML Report now includes probe info.
- Now supports multi-line user comments.

Agilent N1019A-N5467A User Defined Application Version 01.73

Released Date:	1 December 2012
(Application Generator) Supported Operating Systems:	Microsoft Windows XP Service Pack 2 or later, Microsoft Windows Vista, Microsoft Windows 7
(Infiniium Real-Time Generated App) Minimum Infiniium Oscilloscope Baseline Version:	5.70 (80000 Series), 1.41 (90000 Series, 90000 X-Series, 90000 Q-Series), 2.00 (9000 Series)
(FlexDCA Generated App) Minimum FlexDCA Version:	1.80
File Name:	SetupInfUserDefApp01730000.exe

Highlights:

Application Generator

- Breaking Change: Removed Operation Complete step. Now use new "Query Operation Complete" option inside the Single SCPI Command step editor.
- Infiniium apps may now be enabled for installation on a PC.

Additions:

Application Generator

Tools Menu

- (Manage > Reserved Variables) New Reserved_XxxAddress (Xxx = Infiniium or FlexDca) variable holds the connected scope application's address.

Modifications:

Application Generator

- Breaking Change: Removed Operation Complete step. Now use new "Query Operation Complete" option inside the Single SCPI Command step editor.
- Added ability to see reference counts and to see and set Debug Run value to more places.
- Enhanced scope family/firmware minimum/required version cross-checking.

File Menu:

- (Save) No longer tries to save previously-entered custom .html file when connection is changed back to "Simple".
- You may now import fragments into a project that has no tests.

Tools Menu:

- Options: Fixed NoScope (Preview) Mode
- (FlexDCA Only) Added support for Scope Option (86100DU-401) Advanced Eye Analysis

Tests Tab:

- Fixed use of channel variables in ApplyTransferFunction step.

Build Tab:

- Infiniium apps may now be enabled for installation on a PC.

DebugRunTab:

- Connect To Instrument prompt now offers sockets-based connections when appropriate.
- (Infiniium Real-Time Only) Simplified DebugRun setup requirements when the connected scope supports file transfer (Infiniium 4.10 or later).

Generated App

- (FlexDCA only) Fixed screen shots when image label contains an apostrophe (')
- (FlexDCA only) Fixed screen shots when N1019A and FlexDCA are running on same machine but N1019A is connected to another address.

Agilent N1019A-N5467A User Defined Application Version 01.72

Released Date:	1 October 2012
(Application Generator) Supported Operating Systems:	Microsoft Windows XP Service Pack 2 or later, Microsoft Windows Vista, Microsoft Windows 7
(Infiniium Real-Time Generated App) Minimum Infiniium Oscilloscope Baseline Version:	5.70 (80000 series), 1.41 (90000 series, 90000-X series) , 2.00 (9000 series)
(FlexDCA Generated App) Minimum FlexDCA Version:	1.80
File Name:	SetupInfUserDefApp01720000.exe

Modifications:

Application Generator

Setup Tab:

- Fixed renaming of external instrument nickname.

Build Tab:

- Fixed premature build error regarding image full path exceeding 259 characters.

Agilent N1019A-N5467A User Defined Application Version 01.71

Released Date:	1 September 2012
(Application Generator) Supported Operating Systems:	Microsoft Windows XP Service Pack 2 or later, Microsoft Windows Vista, Microsoft Windows 7
(Infiniium Real-Time Generated App) Minimum Infiniium Oscilloscope Baseline Version:	5.70 (80000 series), 1.41 (90000 series, 90000-X series) , 2.00 (9000 series)
(FlexDCA Generated App) Minimum FlexDCA Version:	1.80
File Name:	SetupInfUserDefApp01710002.exe

Additions:

Application Generator

SetupTab:

- You may now execute SetVariable steps when the GeneratedApp's user selects a test group filter on the Set Up tab.

Generated App

- New File > Execute Script menu item and automation command enables end users to launch arbitrary scripts.

How To

- New "How To" topic in User's Guide describes how to create custom-formatted tests results.

Modifications:

Application Generator

File Menu:

- Now when you open a project that uses Full Path variables in Load Setup/Mask steps and Apply Transfer Function steps, you no longer get prompts to export missing files.

Config Tab:

- Fixed missing Find References to internal and config vars in various steps

Generated App

- You may now suppress prompts during installation using switch: /noprompt
- AskForData dialog instruction field is now a multi-line, scrollable textbox.
- (Infiniium Real-Time Only) Restored error text reporting for SCPI commands and queries.

Agilent N1019A-N5467A User Defined Application Version 01.70

Released Date:	20 July 2012
(Application Generator) Supported Operating Systems:	Microsoft Windows XP Service Pack 2 or later, Microsoft Windows Vista, Microsoft Windows 7
(Infiniium Real-Time Generated App) Minimum Infiniium Oscilloscope Baseline Version:	5.70 (80000 series), 1.41 (90000 series, 90000-X series) , 2.00 (9000 series)
(FlexDCA Generated App) Minimum FlexDCA Version:	1.80
File Name:	SetupInfUserDefApp01700006.exe

Highlights:

Application Generator

- Supports application development for FlexDCA (as model number N1019A).
- Requires Agilent IO Libraries Suite version 16.2 or newer.
- (N1019A only) You can now install the license in a PC-based FlexDCA to enable control of any DCA-X.
- New steps: Default Scope Setup, Transfer External File, HTML Table, Operation Complete.

Generated App

- (FlexDCA only) You can now install generated apps on a PC.
- (Infiniium Real-Time only) Loads as read-only: all test results created by UDA 1.60 or older apps.

Additions:

Application Generator

Tools Menu:

- Manage > Reserved Variables: New variable, "Reserved_DebugMode" equals "True" when the app is in Debug mode.
- Options > Debug: "Maintain" option now split into two options.

Compatibility Tab:

- New Add-In Interface Level: 14

SetupTab:

- New field for specifying minimum required scope firmware version for your generated application.

Tests Tab:

- New steps: Default Scope Setup, Transfer External File, HTML Table, Operation Complete, Get SCPI Error, Clear SCPI Error Cache.
- Single SCPI Command: New option to disable automatic SCPI Error checking to manually inspect errors.
- New text compare operators for If and While step predicates: "StartsWith", "EndsWith" and "Contains".
- Intermediate/Final Result steps: New option to disable engineering formatting

Step Debugger:

- New 'Return' button to make it clearer how to exit a subroutine or event after you Step In.

Configs Tab:

- For user-editable configs, you can now validate what the user enters against a min/max.

Connections Tab:

- You can now use a variable to determine which connection prompt to display.

Events Tab:

- New option to not default scope when generated app launches.

Miscellaneous Tab:

- You can now specify a "Getting Started" document to be included in the help.

Modifications:

Application Generator

Tests Tab:

- You can now put line breaks (\n) in a test's Description and Reference fields.
- When you copy a test group, the tests it contains now get copied.
- Now supports variables in the full path of these steps: Load Scope Setup, Load Scope Mask File, Apply Transfer Function.
- You can now edit a subroutine from inside the Call Subroutine step editor
- WriteToFile Step: Now interprets "\n" as a line break
- Query *OPC? now supported in command files.

- Disabled test steps are no longer displayed in Tests tab preview pane.
- Fixed ExternalApp step Args path substitution on Win7.
- Fixed error checking of full paths when they contain a variable and illegal path characters.
- Fixed build reporting of illegal file path characters.

Connections Tab:

- Fixed connection diagram variable: Variable rename now updates variables in the Instructions.

Build Tab:

- Fixed Install Now for non-admin users on Win7.

'Connect to Instrument' dialog now allows faster display of IO Libs instrument names without attempting to connect to each one.

Improved appearance on high resolutions screens.

Generated App/Add-In

Renamed Run Tests tab button from "Run" to "Start".

Now supports .txt file extension for ARSL scripts.

Now installs to c:\program files (x86)\... on Win7 scopes

Fixed launch from Infiniium Analyze menu on Win7 scopes.

Improved appearance on high resolutions screens.

Agilent N5467A User Defined Application Version 01.61

Released Date:	6 April 2012
(Application Generator) Supported Operating Systems:	Microsoft Windows XP Service Pack 2 or later, Microsoft Windows Vista, Microsoft Windows 7
(Generated App) Minimum Infiniium Oscilloscope Baseline Version:	5.70 (80000 series), 1.41 (90000 series, 90000-X series) , 2.00 (9000 series)
File Name:	SetupInfUserDefApp01610000.exe

Modifications:

Generated App/Add-In

Fixed installer/uninstaller issues.

Fixed Reserved_XxxPath variables.

Agilent N5467A User Defined Application Version 01.60

Released Date:	1 March 2012
(Application Generator) Supported Operating Systems:	Microsoft Windows XP Service Pack 2 or later, Microsoft Windows Vista, Microsoft Windows 7
(Generated App) Minimum Infiniium Oscilloscope Baseline Version:	5.70 (80000 series), 1.41 (90000 series, 90000-X series) , 2.00 (9000 series)
File Name:	SetupInfUserDefApp01600000.exe

Highlights:

Application Generator

- You may set internal text variables equal to quoted text, variables of any type, and text library properties and functions.
- You can now define tests as “No Result” for use as subroutines in Add-Ins
- Simplified and improved use of external instruments.
- You can now execute a file containing variable name/value pairs to quickly set many variables at once (See: Debug Runner > Set Variables screen).
- New instrument address finder.

Generated App

- Installer supports Windows 7 scopes (as long as app is built with N5467A version 1.50 or newer).
- No longer requires a license to use its remote interface.
- New Acquisition Setup controls (see: Tools > Infiniium).

Additions:

Application Generator

Tools Menu:

- Manage > Internal Variables
 - You can now define internal variables that hold text and use them anywhere you can use internal numeric variables, except for math expressions
- Manage > Text Libraries
 - You can now import libraries containing custom text properties and functions.
- Options > Miscellaneous

- New option to preserve generated app's user preferences during In-Tool Launch

Tests Tab:

- You can now define tests as "No Result" for use as subroutines in Add-Ins (See: Final Result Step Limit Type).
- Steps may now use text expressions consisting of quoted text, variables of any type, and text library properties and functions.

Configs Tab:

- (App only) You can specify a config as "Debug Only" (displays only when generated app is in Debug Mode).

Debug Run Tab:

- 'Set Address' feature now includes an instrument address finder.

Step Debugger:

- You can now set a reserved variable's value
- You can now execute a file containing variable name/value pairs to quickly set many variables at once (See: Set Variables screen)

Generated App/Add-In

The address a user enters for an external instrument is now stored in reserved variable named: Reserved_<name>Address.

(App only)

- New Acquisition Setup controls (see: Tools > Infiniium).
- Set Up tab now helps you find addresses of required external instruments.
- New calibration wizard on PrecisionProbe/PrecisionCable input screen.

Modifications:

Application Generator

Installation: Updated Agilent Licensing component to latest version.

(Add-In only) No longer hides features that are not available at too low an add-in interface level; instead issues error if they are used.

File Menu:

- The Generator tool now prevents you from overlapping your "working files" and "saved project" locations.

- Fixed conversion to add-in of apps containing test groups.
- Import Fragment now updates imported steps affected by a config rename and updates imported pass limits affected by an internal variable rename.

Set Up Tab:

- Simplified construction external instrument definition by offering “standard” error query/response rules.

Tests Tab:

- You can now use variables in an External Application step to specify the entire Program ‘Full path’ or Script ‘Full path’.
- You can now set a timeout value for LoadSetup, LoadMask and ApplyTransferFunction steps.
- More types of combinations and comparisons are now allowed in conditional predicates.
- Fixed multi-value parsing when the parse character is a double-quote.

Configs Tab:

- Changing a config’s variable name now correctly updates SetVariable steps.
- Reference search now finds config variables on the right hand side of a IfStep or WhileStep predicate.

Automation Tab:

- You no longer need an N5452A remote interface license to use the N5467A's automation feature.
- The automation tab now works when you are using a custom remote interface port.

Step Debugger:

- Variable window now shows variables found in Verify Condition Step pass limits.

Generated App/Add-In

Now automatically handles internal numeric variable and internal string variable name collisions between add-in and host compliance application.

(App only) At start of run, no longer verifies connectivity of external instruments with empty addresses.

(App only) Fixed “Previous session terminated unsuccessfully...restore recovered data” action.

(App only) Fixed scope setup restoration upon app shutdown.

(App only) Fixed Remote User Port usage on Win7 scopes.

(App only) Fixed remote interface startup warning when last session left an automation script open.

Agilent N5467A User Defined Application Version 01.50

Released Date:	1 September 2011
(Application Generator) Supported Operating Systems:	Microsoft Windows XP Service Pack 2 or later, Microsoft Windows Vista
(Generated App) Minimum Infiniium Oscilloscope Baseline Version:	5.70 (80000 series), 1.41 (90000 series) , 2.00 (9000 series)
File Name:	SetupInfUserDefApp01500000.exe

Highlights:

Application Generator

- You may now control which oscilloscopes your generated applications can be executed on: contact your Agilent sales representative for information on custom UDA licensing.
- You can now specify which scope features your generated app or add-in requires (to help your users avoid run-time surprises); see Tools > Scope Option Requirements.

Generated App

- You can now use Infiniium's InfiniiSim and PrecisionProbe features.
- New Automation Tab enables click-free test selection, configuration and execution.

Additions:

Application Generator

Tools Menu:

- New Scope Option Requirements feature enables you to:
 - Inject an Infiniium dependency specification into your generated app. When you launch the generated app, missing scope options will be reported.
 - Detect when optional Infiniium features are present. You will be able to abort optional tests or select alternative steps when the scope doesn't have the option(s) you specify.

Events Tab:

- New "Any Test Ends" event.

Miscellaneous Tab:

- You can now specify maximum number of trial details & images per test (these affect the corresponding generated app View > Preferences > Report > Trial Display settings).

Generated App

- Now supports the InfiniiSim feature (See Tools->Infiniium).
- Now supports the PrecisionProbe/PrecisionCable feature (See Tools->Infiniium).
- New Automation Tab enables click-free test selection, configuration and execution. In this tab, you can now create a script of commands that can automatically select items found in the Set Up, Select Tests, Configure, Connect and Run tabs. It's like having a remote interface client built right into the app.
- Supports Remote Interface Version 2.00.
- When installed on the scope, the generated app now enables you to access its remote interface help file through menu button: help >

Modifications:

Application Generator

Installer now requires PC to have Agilent IO Libraries 15.1 or newer.

File Menu:

- During "Open Project", if you export "additional" external app scripts the path to the files will now be adjusted in the "Manage External Application Scripts" dialog box.

Tests Tab:

- Editing an If or While step predicate no longer produces "Please specify a variable to be compared" error.
- When you create an internal variable from within the Predicate Term Definition dialog, the variable is now selected.

Debug Runner:

- Fixed :SYSTEM:PRESET execution from within DebugRun.
- Setting a variable in the Debug Run dialog no longer produces "Please select an internal variable to set" error.

Generated App/Add-In

- (Generated App only) Remote interface no longer requires the Infiniium scope option "App Remote" (ID="CRI"). You can now remotely control your generated app on any scope.
- (Generated App only) Improved behavior of Run progress meter.
- The installer now requires the logged-in user to have administrator privileges.

Agilent N5467A User Defined Application Version 01.41

Released Date:	30 April 2011
(Application Generator) Supported Operating Systems:	Microsoft Windows XP Service Pack 2 or later, Microsoft Windows Vista
(Generated App) Minimum Infiniium Oscilloscope Baseline Version:	5.70 (80000 series), 1.41 (90000 series) , 2.00 (9000 series)
File Name:	SetupInfUserDefApp01410000.exe

Highlights:

(Add-In projects only) Now supports Add-In Interface version 1.11.

(App projects only) New 'App Exits' event.

New 'Ask For Data' prompt.

Increased availability of Reserved variables.

Improved 'Insert Variable'.

Improved pass limits handling of zero case.

New generated app remote interface command: SelectAllTests.

Additions:

Application Generator

Tools Menu:

- Options: Added new 'Display' tab entries.

Tests Tab:

- User Message Step: New 'Ask For Data' prompt to get input from users.
- Margin formulas are now shown in the info pane.

Debug Runner:

- Added an 'Apply' button to the Set Variable For Debug Run screen so you can continue setting other variables.

Events Tab:

- (App projects only) New 'App Exits' event executes its steps when the user exits the generated app.

Generated App/Add-In

New remote interface command: SelectAllTests.

Modifications:

Application Generator

Changed the screen displayed when you exit the tool while unsaved changes exist.

Tools Menu:

- Manage Internal Variables: Restored 'Add' behavior to close dialog by default. 'Leave Open' behavior is now optional (see Tools->Options::Display).

(Add-In projects only) Compatibility Tab:

- Now supports Add-In Interface version 1.11.

Set Up Tab: Fixed external instrument description field.

Tests Tab:

- Fixed Verify Condition Step rounding for PrecisionLevel > 0 case.
- Improved variable validation in dialog boxes that allow you to enter %var% substitutions.
- Pass Limits
 - For variable or zero single-ended limits, now provides a default Nominal value.
 - For variable single-ended limits, now enables user to enter a Nominal value.
- You may now do the following with a Reserved variable:
 - Set Config variable equal to a Reserved variable (if the config is editable).
 - Write the Reserved variable's value to a file.
 - Report the Reserved variable's value in the results.
 - Use the Reserved variable on the right hand side of a conditional predicate (text comparisons only), e.g. if (MyConfig = Reserved_ xxx).
- In the Specify Value Source screen, when the 'Source' is 'Text' you may now insert variables.
- You can now report arbitrary text in an Intermediate Value step.
- When using Insert Variable to choose a variable:
 - You no longer have to match the case of the variable you are looking for, e.g. "myvar" matches "MyVar"
 - You can add a trailing space to match the end of the name, e.g. "myvar " matches "MyVar" but not "MyVar2".
 - You can access the Manage screen to add new internal variables.

- Restored 'Edit' behavior to open 'Test Definition' screen by default. "Auto Manage" behavior is now optional (see Tools->Options::Display).

Config tab:

- Deprecated config variable names containing characters other than alphanumeric or underscore. Recommend existing ones be changed to meet new criteria, although legacy projects with deprecated names will build and run as before.

Connections Tab:

- Connection Editor now enables you to specify whether you want this connection prompt to reset the scope or not.

Debug Runner:

- No longer initializes internal variables to NaN (Not a Number); this enables steps to fail if an internal variable has not been set before being used (which is what happens in the generated app). Resetting internal variables now puts them in an "uninitialized" state.
- Improved variable identification in the Debug Run dialog box's variable watch window.

Automation Tab:

- Default automation script uses new remote interface command: SelectAllTests
- When automation script encounters an Exit step, it now aborts the rest of the script or file.

Generated App/Add-In

For final result steps with rounding > 10E2, now performs rounding before comparing to pass limits. (This behavior already existed for rounding < 10E2.)

Fixed "File not found" error when external app scripts executed from within Subroutines or Events.

Fixed the User Message Step's Ask prompt "Suppression Response".

(Generated App only) Existing Results screen (which may display at the start of a run) now shows you how many trials exist for each test result to be modified.

(Generated App only) Fixed HTML Report Logo.

(Generated App only) HTML Report now shows you the limit set that was active during the last run, not the one currently active.

Agilent N5467A User Defined Application Version 01.40

Released Date:	18 February 2011
(Application Generator) Supported Operating Systems:	Microsoft Windows XP Service Pack 2 or later, Microsoft Windows Vista
(Generated App) Minimum Infiniium Oscilloscope Baseline Version:	5.70 (80000 series), 1.41 (90000 series) , 2.00 (9000 series)
File Name:	SetupInfUserDefApp01400001.exe

Highlights:

You can now:

- Create dynamic pass limits using internal variables.
- Create information-only tests that have no pass limits.
- Set internal and config variables during a Debug Run.
- Launch an add-in from within the generator.
- Get full-screen scope images.
- Use a helper to insert %var% clauses.

(Details below)

Additions:

Application Generator

Tools Menu:

- (Add-Ins) Options->Miscellaneous tab: New setting for choosing the default minimum Add-In interface for new projects.

Various screens now provide an "Insert Variable" helper to construct "%var%" clauses.

Tests/Subroutines/Events Tabs:

- Manage Steps screens have a new 'Extract' button that will move the selected steps into a new subroutine.
- You can now set internal and config variable values from the Debug Runner screen.

Tests/Subroutine Tabs:

- You can now select a "full screen" image for an Intermediate Value step.

(Add-Ins) New 'Compatibility' Tab:

- Enables you to trade off new features in your add-in for increased legacy application compatibility.

Tests Tab:

- You can now select a "full screen" image for a Final Result step.

Miscellaneous Tab:

- You can now specify a .txt Release Notes file.

Modifications:

Application Generator

Increased enforcement of internal variable case sensitivity.

File Menu:

- 'New Project' now resets all internal and config variable values.
- 'Open Project' now restores the Debug Run values for internal and config variables to what they were when the project was saved (Ensure Tools->Options::Debug::Maintain is checked before you start the Debug Run to avoid resetting these).
- 'Open Project' now restores the build number (3rd segment of version field).
- You can no longer use an older version of the N5467A application generator to import a fragment created by a newer version. (You may find that some fragments created by 1.40 will fail to import into 1.30 projects. Please upgrade to N5467A version 1.40)

Build Menu:

- You can now 'Launch' an add-in to test it without having to install it in a real compliance application.

Tools Menu:

- Manage->Internal Variables: You can now add multiple internal variables more easily.
- Options::Debug: "Persist" user preference option setting (now called "Maintain") is now saved/restored between application generator sessions.

Tests/Connections/Subroutines/Events Tabs:

- Now filters entries in a VariableName combo box as you type.

Tests/Subroutines/Events Tabs:

- You can now use internal variables in a Verify Condition Step's limits.
- Debug Run:
 - Added protection to prevent errors that occur during Debug Runs from terminating the application generator.
 - (Add-Ins) Now lets you include the 'User Defined Group Ended' event.

Tests/Configs/Connection Tabs:

- You can now rename tests, configs and connections using names that differ only by capitalization.

Tests Tab:

- You can now use internal variables in a test's Final Result pass limits.
- You can now define tests that have no pass limits.
- You can now create test groups for your add-in's tests.
- Now when you edit a test that has steps, the Step Editor automatically opens.

Configs Tab:

- You can no longer set the value to use for a Debug Run from the Config editor screen (now use Debug Runner screen).

Connections Tab:

- You can now associate connection instructions with whole test groups instead of with individual tests, enabling a diagram to display before the group's event steps execute.

Events Tab:

- You can now add steps to an add-in's sub-group events.
- Fixed use of WriteFileStep in Events (no longer get "malformed run option" error during generated app startup).

Build Tab:

- Add-In installer filename now includes guidance to help you identify compatible compliance applications.

Automation Tab:

- Now available for use with add-in projects.

Generated App/Add-In

Installer now verifies Microsoft .NET 3.5 or newer is installed on scope before proceeding.

“Verify Condition Step” now responds correctly to frequency measurement query when no waveform is present.

(App) Legacy projects will be loaded as read-only (can't append) due to changes in the data model. (Mention this in your generated app's Release Notes so users will not be surprised by this when they upgrade).

(App) Fixed 'Set Up' tab test group filters.

(App) Exceptions thrown in “Create/Edit User Defined Limit Set” screen no longer terminate the application.

(App) Fixed bug in “Create/Edit User Defined Limit Set” screen: You can now set a nominal value for case: value < 0

(App) New user preference to autoscroll the HTML Report to the selected test result (View:Preferences:Report).

(App) HTML Report:

- Overall Pass/Fail status now displayed at top.
- Application name now appears in the HTML Report title instead of in the Test Configuration table.
- Now reports if any test was run while in 'Debug' mode (see 'Configure' tab).
- Added navigation buttons in between result detail sections

(App) When you open a project made by a different application, the error message now correctly reports the version the app that saved the project.

(App) Fixed loading of projects made by different applications when the application's name is listed as a “compatible” app.

(Add-In) Fixed installation of custom “other” files when the destination directory does not already exist.

(Add-In) Add-In tests now identify themselves as “User Defined” in the host application's HTML Report (Add-In Interface 1.10 or later).

(Add-In) Add-In now reports its beta/release status in the host application's Help->About screen and HTML Report (Add-In Interface 1.10 or later).

Agilent N5467A User Defined Application Version 01.30

Released Date:	2 November 2010
(Generator tool) Supported Operating Systems:	Microsoft Windows XP Service Pack 2 or later, Microsoft Windows Vista
(Generated App) Minimum Infiniium Oscilloscope Baseline Version:	5.70 (80000 series), 1.41 (90000 series) , 2.00 (9000 series)
File Name:	SetupInfUserDefApp01300004.exe

Additions:

Generator Tool

You can now create “Add-Ins” that can be installed into existing compliance applications.

New ‘Automation’ tab enables you to automate generated app behavior.

Tools Menu:

- Manage
 - New Reserved Variable: Reserved_ProjectAppPath
- Options
 - New ‘Build’ tab
 - New ‘Debug’ tab

Steps:

- New ‘Apply Transfer Function’ Step
- New ‘Write File’ Step

Events:

- New ‘Any Trial Ends’ Event

Miscellaneous:

- You can now include a test procedure PDF file in a generated app
- Manage > Other Files: You may now have a period (.) in your custom install directory, e.g. c:\temp\mydir.something\

Modifications:

Generator Tool

Custom Math Libraries compiled against previous versions of N5467A must be rebuilt to work with this version. See the “Managing Math Libraries” topic in the user manual.

Removed Basic Mode.

Build:

- Generator tool no longer hangs when you build an event step that calls a recursive subroutine.
- Now generates build error if a non-CommandFile step refers to a non-existent external instrument.

Set Up tab:

- Displayed build number now dynamically updates each build.
- When you rename an external instrument, the change is now propagated to the steps.

Tests tab:

- Now warns when you are about to delete a test group that has run events associated with it.

Debug Run:

- You can now persist internal variable values across debug runs via the Tools->Options dialog.
- Debug Run Echo Console now displays Console App launch command args.
- Fixed on-scope debug run involving external instruments.

Step Editor:

- Console App step no longer complains about missing success text when verification is turned off.

Miscellaneous:

Parsing: Wherever you can specify how text is parsed, you can now specify more than one character; the text will be split every time any of those characters is found. This includes special characters enabling parsing of multi-line files.

%var:% syntax now returns a non-engineering formatted string if the value is a whole number.

The External Instrument Definition dialog now warns about reference changes only when you change the nickname (case sensitive).

You can now control external instruments via a SICL socket address, such as the N4903A J-BERT high-performance serial BERT.

Build Results Pane: Fixed build error line number when error step is preceded by one or more comments.

When you enable or disable a step, it now moves to the center of the visible window (now matches the edit step behavior).

In While blocks containing a ContinueWhile followed by BreakWhile, the Break is now skipped.

Generated App

Added splash screen to installer.

Now supports Remote Interface version 1.70.

Fixed a crash that could occur when the generated app contained a long-running while loop.

Application installer is now fully automated.

Scope: When a scope is missing the UDA option license, installed UDA apps now appear under Analyze->Unlicensed Apps submenu.

When an abort step fires in a Run Event, you can now see the message you specified in the step.

No longer throws exception when you use a config value that looks like a numeric too big to fit inside a double precision float var, e.g. 1E9841345714544.

An IntermediateValue step followed by an AbortStep will no longer terminate the application.

Agilent N5467A User Defined Application Version 01.22

Released Date:	13 July 2010
(Generator tool) Supported Operating Systems:	Microsoft Windows XP Service Pack 2 or later, Microsoft Windows Vista
(Generated App) Minimum Infiniium Oscilloscope Baseline Version:	5.70 (80000 series), 1.41 (90000 series) , 2.00 (9000 series)
File Name:	SetupInfUserDefApp01220001.exe

Modifications:

Generator Tool

File Menu:

- Now you can open projects when your PC has language localization enabled.

Configs:

- Now removes leading and trailing spaces from config definition entries, preventing phantom config issues.

Generated App

Launch:

- No longer reports "malformed run options" when an event contains a SetVariableStep whose source is a SCPI command.

Agilent N5467A User Defined Application Version 01.21

Released Date:	14 May 2010
(Generator tool) Supported Operating Systems:	Microsoft Windows XP Service Pack 2 or later, Microsoft Windows Vista
(Generated App) Minimum Infiniium Oscilloscope Baseline Version:	5.70 (80000 series), 1.41 (90000 series) , 2.00 (9000 series)
File Name:	SetupInfUserDefApp01210001.exe

Modifications:

Generator Tool

File Menu:

- Build: Fixed a “recursive subroutine error” that would sometimes be reported when there was no recursion.

Steps:

- You are now prevented from creating a Math Expression in which you pass a multi-term expression as an argument to a function call, e.g. “Math:Abs(x – y)” (The UDA step execution engine does not handle these types of arguments yet.).
- You are now prevented from including library functions or properties in IF and WHILE step predicates, e.g. “if (x < Math:Abs(y))” (The UDA step execution engine does not handle these types of predicates yet.).

Generated App

Installer:

- Now opens up port exceptions in the oscilloscope’s firewall to enable control of the generated app via its remote interface (in case no previous app had ever opened these ports.)

Agilent N5467A User Defined Application Version 01.20

Released Date:	15 March 2010
(Generator tool) Supported Operating Systems:	Microsoft Windows XP Service Pack 2 or later, Microsoft Windows Vista
(Generated App) Minimum Infiniium Oscilloscope Baseline Version:	5.70 (80000 series), 1.41 (90000 series) , 2.00 (9000 series)
File Name:	SetupInfUserDefApp01200000.exe

Additions:

Generator Tool

File Menu:

- You may now export and import individual tests and subroutines.

Tools Menu:

- Debug Run: You may now reset each config's Debug Run value to its default value.

Steps:

- "If", "Else" and "EndIf" Steps now enable you to create conditional blocks of steps.
- "While", "Break", "Continue", and "EndWhile" Steps now enable you to repeat blocks of steps.
- "Abort" Step now enables you to stop the test or run in progress.
- "Return" Step now enables you to exit a subroutine or event before its last step.

Modify Steps dialog:

- <ctrl>A now selects all steps.
- Improved cursor behavior when adding and deleting test steps.

Events:

- "Any Test Group Starts": Fires every time test flow enters a new group, at any level, including the RootGroup.
- "App Shown": Fires as soon as the generated app is launched.

Modifications:

Generator Tool

File Menu:

- New Project now removes group-specific events.
- Make Project Editable now works when the project has no user files.

Tools Menu:

- Moved Predefined Variables button to Tools > Manage > Reserved Variables. You can now find references to reserved variables.
- Some keyboard shortcuts in the Manage menu and in the Choose Step Type dialog were changed to make the two lists consistent.

External Instruments:

- Fixed error message when you edit an existing definition.

Debug Run Dialog:

- At the start of each Debug Run session, now sets all internal variable values to value "NaN" (Not a Number).
- Now displays the current values of all internal and config variables directly referenced by the steps in the list.
- Breakpoints now indicated as a "B" in the first column.
- No longer executes commented-out steps inside subroutines.
- When running the generator tool on a scope, no longer asks you for the SICL address; now automatically uses lan[localhost]:inst0.
- Added protection against recursive subroutine calls.

Steps:

- You may now copy and paste steps between step containers. The <ctrl>+x keyboard shortcut has been removed.
- Now when you add steps, they get inserted above the selected line.
- When you edit a step whose value source is a Config, the Specify Value Source dialog now defaults to the correct config.
- DisplayMessage Step: Now you can display messages with response choices, such as "OK / Cancel", "Yes / No", etc. and access the user's response in a variable.

- LoadMask Step: Build now works when running on PC even if you have not entered the Mask File Path on the 'Debug Run' tab yet.
- SetVariable Step: You can now set a user-editable config to arbitrary text.
- SleepStep: You may now use a math expression to define the duration.

Configs:

- Fixed "Rename" action when the label is a superset of the variable name.

Subroutines:

- Now you can delete steps causing recursive loops.

Events:

- Now prevents you from adding a call to a subroutine directly or indirectly containing an Intermediate Value step.
- When you rename a test group, the associated group-specific Event is now renamed instead of replaced.

Build:

- Now you no longer get an error when launching the generated app from within the tool when the scope does not have an App Remote license.

Managers:

- Internal Variables: You may now change references from one internal variable to another. Internal Variable Names may now also contain underscores (_)
- ManageConsoleApps: Removed "Substitute" option; now use "Change Refs".
- You may now export search results to a file.
- Math Libraries: IDs may now also contain numbers and underscores (_). You may no longer load the same library twice.
- Other Files: you can now edit an entry to point to the same named file in a different directory.

Generated App

Remote interface upgraded to version 1.60.

Agilent N5467A User Defined Application Version 01.11

Released Date:	27 January 2010
(Generator tool) Supported Operating Systems:	Microsoft Windows XP Service Pack 2 or later, Microsoft Windows Vista
(Generated App) Minimum Infiniium Oscilloscope Baseline Version:	5.70 (80000 series), 1.41 (90000 series) , 2.00 (9000 series)
File Name:	SetupInfUserDefApp01110000.exe

Additions:

Generator Tool

Non-Agilent Technologies external instruments (SCPI-compliant) are now supported.

Modifications:

Generator Tool

Fixed intermittent N5467A installer upgrade failures.

An event may no longer include Intermediate Value steps or subroutines that call them (causes error at generated app runtime).

When you abort an "Open Project" action, a new project is now started.

Now finds references to config variables used inside connection definitions.

Now respects user-provided timeouts for queries when value source is "scope" or "external instrument".

Debug Run now works with steps involving configs that have parentheses in their labels.

Now handles bad external instrument addresses more gracefully.

Display dialogs containing tree views starting at the top of the tree.

The project is now marked dirty when you add/remove additional files in the Manage External Scripts dialog.

When you load a project that contains Console Application definitions, the Supporting Files list box no longer shows duplicates.

Agilent N5467A User Defined Application Version 01.10

Released Date:	04 December 2009
(Generator tool) Supported Operating Systems:	Microsoft Windows XP Service Pack 2 or later, Microsoft Windows Vista
(Generated App) Minimum Infiniium Oscilloscope Baseline Version:	5.70 (80000 series), 1.41 (90000 series) , 2.00 (9000 series)
File Name:	SetupInfUserDefApp01100000.exe

Additions:

Generator Tool

You can now define subroutines of steps that can be called by Tests, Events, and other subroutines.

- See: 'Subroutine' tab in main dialog

Math expressions may now include properties and function calls for external math libraries.

- A core math library is included with the generator tool.
- You may also plug in custom libraries that you create as well.
- See: Tools > Manage > Math Functions

New step type: Load Scope Mask which enables mask testing and loads the specified mask file.

- As with scope setup files, in order to run this step from a PC you will need to provide a scope-centric path on the 'Debug Run' tab

You may now install User Defined Function files into Infiniium's UDF directory.

- See: Tools > manage > Miscellaneous Files

You may now set breakpoints in the Debug Run dialog.

You can now disable an individual Test step or Event step to temporarily exclude it from the build.

You can now add comments to Test step lists and Event step lists.

"Find References" results are now available in the main dialog Results pane, 'Find' tab.

Added support for installing miscellaneous files (those not already handled by another mechanism).

- See: Tools > Manage > Miscellaneous Files

Added predefined variables to enable you to discover certain runtime paths.

- See: Tools > Predefined Variables

Verify Condition step now has “Abort Test” option which respects the generated app’s Preference setting, Run: Test Abort Action.

Added F1 help support for build errors

Generated App

Screen shots now include waveform memory scales if a waveform is displayed

Modifications:

Generator Tool

Buttons for managing external instruments have been moved to a separate dialog, accessible from:

- Menu: Tools > Manage > External Instruments
- ‘Set Up’ tab: Manage buttons

You may now set user-editable Config variables in Set Variable steps.

You may now use Config variables as the source for Final Result value.

Tool now warns you if you try to load a scope setup or mask from within a Command or Command File step (suggests you use the specialized step for these).

In Tests and Event step lists, copied steps are now inserted immediately after the selection.

Tool now warns you upon renaming a config or internal variable that references in command files will not be updated.

Test and Event step lists are now editable via a separate dialog.

The Debug Run button in the Test Definition dialog now enables you to combine that test’s steps with associated events to exercise a more complete run.

The Debug Run button in the Events tab now enables you to combine events to exercise a more complete run.

The Events combo box entries are now listed in order of runtime execution.

Build now catches conditions leading to image file paths that would exceed the file system max of 259 characters.

Find Config References now finds usages in Intermediate Value and Final Result steps.

Set Variable step exceptions are now handled by the standard runtime abort handler (no dialog will interrupt the run now).

When you change a config’s label, all steps referring to that config by label are now updated.

When Intermediate or Final Result step reports either a config variable or a math expression, you can now include an image.

%VAR:% clauses in External App step Args field now work correctly.

When you edit a test whose pass limit is a single-ended (non-range) value of 0, you no longer get false limit-changing warning if you do not change the limit.

When you edit a Set Variable step, the variable box now defaults to the current variable name.

The requirement to make Intermediate and Final Result step labels unique is now a case sensitive comparison.

The Connection Changing event now only fires if the user actually changes the connection (clicks 'Next', not 'Ignore').

When developing on an oscilloscope, you can now execute a Load Setup step within a Debug Run.

Fixed various text boxes that would jump the cursor to the end when you typed in them.

While a generated app is running, the main dialog status bar now indicates this and you can no longer perform a build.

Added validation to pass limits "Nominal" field.

Console App Step: "Use Timeout" now unchecked when disabled.

Now you can only add Test Groups when either the Tests or Config tab is active.

Generated App

Now uses remote interface version 1.40.

Improved stability on runs > 48 hours in duration.

When you save a project, now warns if the path length you choose would cause one or more of the project's files to exceed operating system max path length.

File > Export Results > CSV output is now sorted the same way as results are displayed in the 'Results' tab.

'Configure' tab combo box caption now says "Select a value" or "Select or type in a value" to indicate whether or not it accepts user-defined text.

Agilent N5467A User Defined Application Version 01.01

Released Date:	28 August 2009
(Generator tool) Supported Operating Systems:	Microsoft Windows XP Service Pack 2 or later, Microsoft Windows Vista
(Generated App) Minimum Infiniium Oscilloscope Baseline Version:	5.70 (80000 series), 1.41 (90000 series) , 2.00 (9000 series)
File Name:	SetupInfUserDefApp01010000.exe

Additions:

Added new entries in the Tools->Manage menu to support connection diagrams and external application scripts.

Modifications:

External Application Dialog:

- Redesigned to clarify difference between executing a program and a script.
- Scripts are now always installed.
- Scripts are now installed in the generated application's installation location.
- You may use %VAR variables in the Script Full Path filename.

If you abort an "open project" action after selecting the project, a new project is now always started.

You can now modify a connection definition to use a different image or custom HTML file even when the new file has the same name as the old one, as long as the old file is not currently used by any other connection definition.

External app step scripts are now always saved with the project.

In the "Manage CommandFiles/ConnectionXxx/ScopeSetupFiles" dialogs, the 'Browse' button in the 'Change References' action now starts in the last directory used for that file type.

Agilent N5467A User Defined Application Version 01.00

Released Date:	1 July 2009
(Generator tool) Supported Operating Systems:	Microsoft Windows XP Service Pack 2 or later, Microsoft Windows Vista
(Generated App) Minimum Infiniium Oscilloscope Baseline Version:	5.70 (80000 series), 1.41 (90000 series), 2.00 (9000 series)
File Name:	SetupInfUserDefApp01000000.exe

Initial Release