

Brew MP SDK Release Notes



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Brew MP SDK Release Notes

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Brew MP SDK Download

Downloading the Brew MP™ SDK provides everything needed to start developing applications for Brew and Brew MP devices. Clicking **Download SDK** launches a download and installation package that installs the Brew MP SDK on your computer.

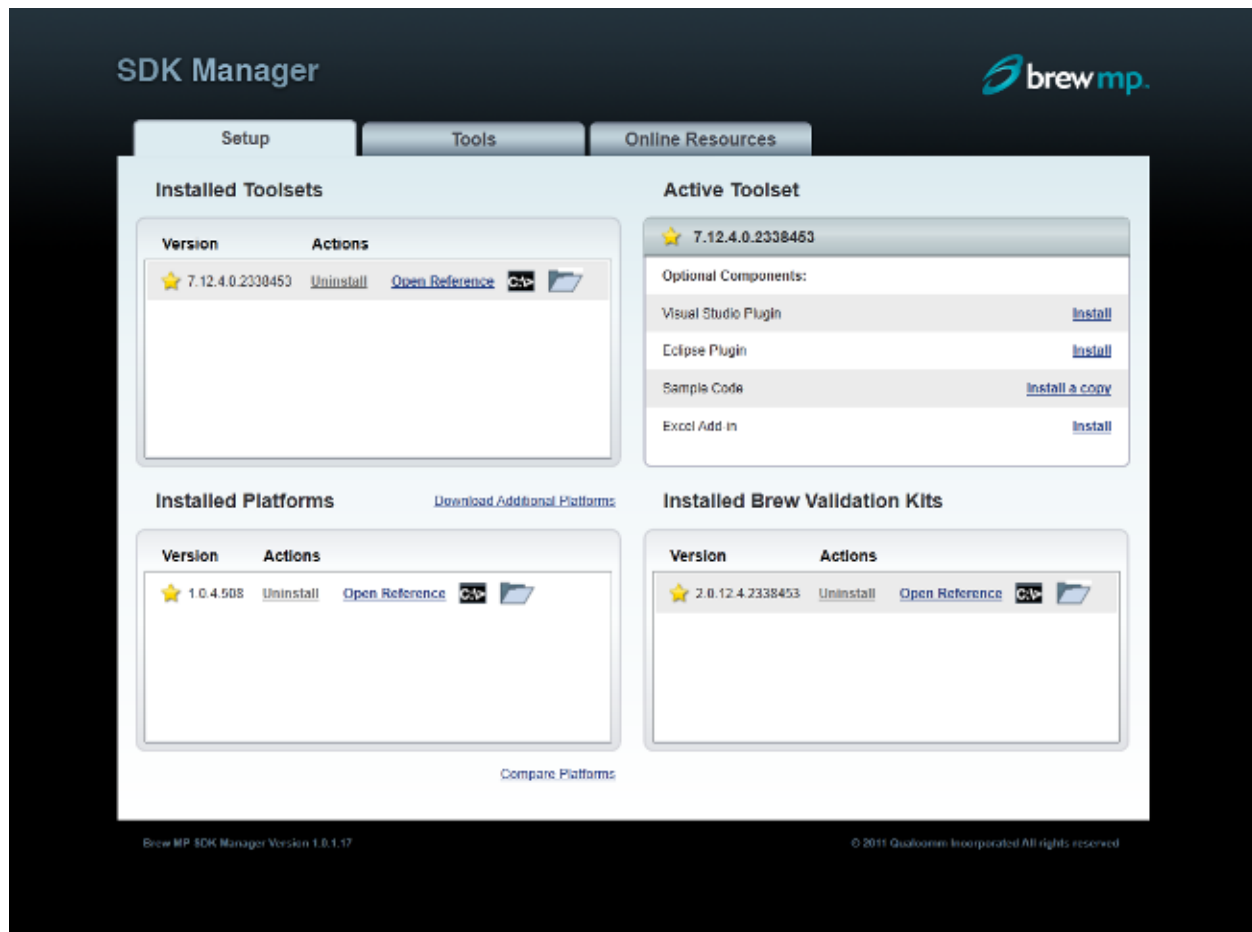
The SDK Download package guides the user through the setup process. The SDK tools, documentation, libraries, header files, and all other related files are installed by default in Windows directory C:\Program Files\Qualcomm\Brew MP SDK.

When installation is complete, the user can launch the SDK Manager from the completed installation dialog or by selecting it from the start menu: All Programs > Qualcomm > Brew MP SDK > SDK Manager.

SDK Manager

The SDK Manager is the starting point for using the Brew MP SDK. Access to all tools, documentation, directories, and files is available through the SDK Manager.

Launching the SDK Manager displays the Setup page. The Setup page is used to view, manage, and install additional IDE plugins and Platform Kits.



The Setup page provides easy access to reference documentation for each Installed Toolset, Platform, and Brew Validation Kit. Click an **Open Reference** link on the Setup page to read these guides:

- Tools Reference: Complete Tools Reference for each Installed Toolset.
- API Reference: Complete API Reference for each Installed Platform.
- Brew Validation Kit Test Reference: Complete test reference for each Installed Brew Validation Kit.

Platforms

The Installed Platforms pane displays the list of Platform Kits installed on the computer. Different versions of the Platform Kit are designed to plug-and-play with the Installed Toolset. A default version of the Platform Kit is installed during the SDK installation. The default version contains everything needed to start developing applications. Advanced developers and manufacturers may want to download a different version of the Platform Kit to more closely emulate the target device.

The Platform Kit is a versioned release of a specific implementation of Brew 3, Brew 4, or Brew Mobile Platform, packaged for simulation and development on a computer. Each Platform Kit contains the API Reference, header files, make files, libraries, and sample code for a versioned Platform release. Simulator DLLs, device profiles, and device packs are included to plug into the Simulator to closely emulate the Platform release embedded in the target device.

Platform and Platform Kit release versions are denoted by Brew or Brew MP w.x.y.zzzz. Platform Kits are available for Brew 3.x, Brew 4.x, and Brew MP 1.0.1, 1.0.2, 1.0.3, and 1.0.4. New Platform interfaces and features are introduced in versioned releases denoted by a change in **y**. Bug fixes and minor updates are denoted by a change in **zzzz**. For the best simulation and validation experience, users should download the latest Platform Kit version **zzzz** that is less than or equal to the Platform version embedded in the target device.

Platform Pro Kits are a superset of Platform Kits, containing everything from the same versioned Platform Kit plus PVS Test Modules. Platform Pro Kits are correspondingly larger than Platform Kits for the same versioned Platform release (e.g., 2 GB versus 350 MB).

Shortcuts to all installed Platform Kits are available through the "Open Platform Directory in Command Prompt" and "Open Platform Directory in Windows Explorer" icons in the Installed Platforms pane. The current Platform Kit can also be found through the system environment variable %BREWMP_PLATFORM%.

Brew Validation Kits

The Installed Brew Validation Kits pane displays the list of Brew Validation Kits (BVK) installed on the computer. The latest version of the BVK is installed during SDK installation.

The BVK contains a set of tests that validates the Platform implementation on a target device. Manufacturers use the BVK to validate that their devices support the application ecosystem. The BVK is executed during the Brew MP Validation process (BMV). BMV ensures that commercial devices implement the platform interfaces as expected, so that developers can rely on the target to run Brew applications in a standardized way.

The BVK is a versioned release of validation tests and related utilities and files. Different versions of the BVK are designed to plug-and-play with the Installed Toolset validation tools (Results Manager, Test Manager, DebugBot, and Report Generator).

Shortcuts to all installed BVKs are available through the "Open Brew Validation Kit Directory in Command Prompt" and "Open Brew Validation Kit Directory in Windows Explorer" icons in the Installed Brew Validation Kits pane. The current BVK can also be found through the system environment variable %BREWMP_TESTSET%.

Toolsets

The Installed Toolsets pane displays the list of Toolsets installed on the computer. Download and install the latest Brew MP SDK to get the latest Toolset release. Installing a new Brew MP SDK installs a new Toolset without overwriting previously installed Toolsets, Platform Kits, or Validation Kits.

The Toolset includes all the Brew MP SDK Tools, including Developer, Target, and Validation Tools.

The Toolset is a versioned release of Brew MP SDK Tools. The Toolset is designed to plug-and-play with different versions of the Platform and Brew Validation Kits.

Shortcuts to all installed Toolsets are available through the "Open Toolset Directory in Command Prompt" and "Open Toolset Directory in Windows Explorer" icons in the Installed Toolsets pane. The current Toolset can also be found through the system environment variable %BREWMP_TOOLSET%.

Active Toolset

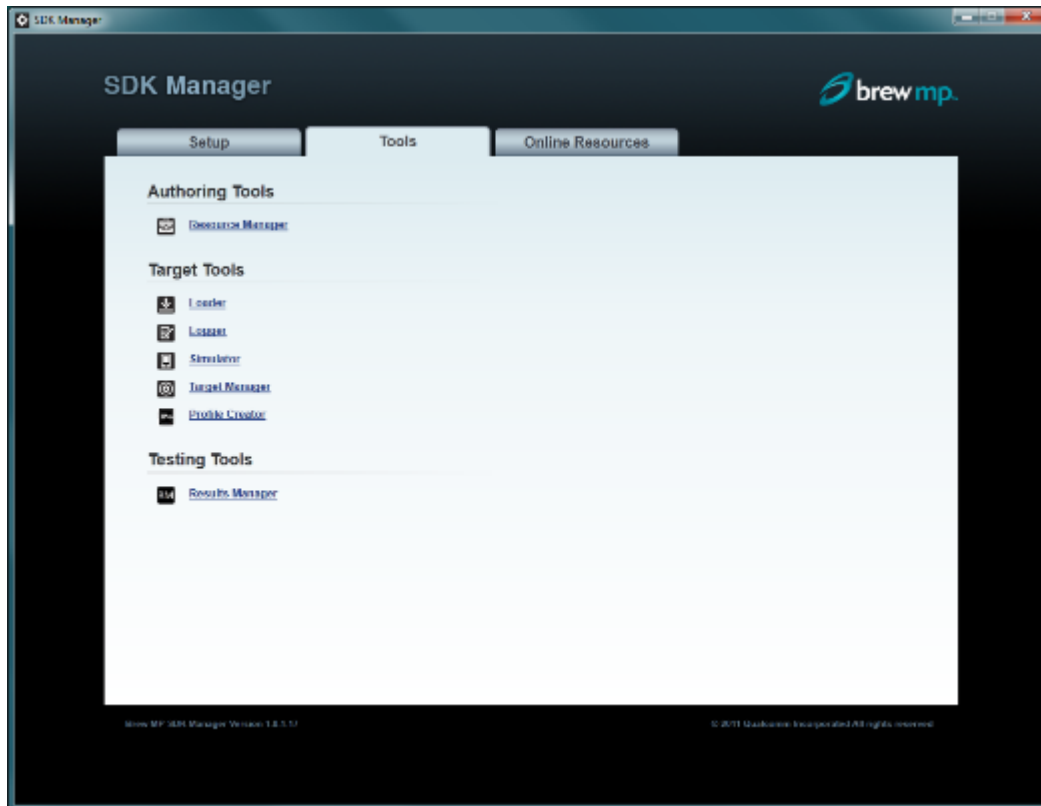
The Active Toolset pane provides easy management of Brew MP SDK plugins, add-ons, and sample code for the user's Integrated Development Environment (IDE). Both Visual Studio (2005/2008/2010) and Eclipse (Mentor Graphics Sourcery CodeBench) are supported.

The plugins install project wizards to incorporate the Brew MP development model directly into the IDEs. The plugins provide one-click solutions for building, executing, and debugging applications within the IDE.

Users have the option to download sample code packaged as Visual Studio or as Eclipse project files. Multiple copies of sample code can be installed in different locations on the computer.

Developer, Target, and Validation Tools

The SDK Manager Tools page provides ready access to the most popular Brew MP SDK Development (Authoring) Tools, Target Tools, and Validation (Testing) Tools.



Resource Manager

Resource Manager creates and edits Brew MP module information and resource files (CIF and CAR files), and compiles them (to MIF and BAR files, respectively).

Loader

Loader provides file and module management. Loader is used to load applications and data files onto a target and transfer data between the target and the computer.

Logger

Logger displays device statistics and log messages while applications are running on a target device.

Simulator

The Brew MP Simulator emulates a Brew MP target device and is used to develop, test, and debug Brew applications and extensions. The Simulator runs Platform DLLs that emulate the versioned Platform release embedded in the target device. A simulation target is created from the simulation profile included in the Platform Kit that most closely represents the target hardware. Users can create their own profile and simulation plugins for a more accurate simulation of their device.

Target Manager

Target Manager manages all target devices, whether simulated or real. Target Manager is used to create, identify, and configure targets. Heap Analyzer, Interrogator, and Remote Control tools are accessible through Target Manager. Developer Mode enablement, connection configuration, and utility and sample code installation are also accessible through Target Manager.

Profile Creator

Profile Creator helps users quickly create custom simulation profiles to accurately simulate their device. It can be used without purchasing any third-party tools.

Test Manager

Test Manager is a command-line tool for loading and running BVK and PVS test modules on a target.

Results Manager

Results Manager is a GUI tool used to manage and display test results generated by Test Manager. Results Manager is meant to be the center of the BMV workflow. All test results, logs, and analysis for the BMV process should be contained within the Results Manager workspace. All other validation tools reference this workspace.

Interrogator

Interrogator is accessed from Target Manager (via Interrogate). It queries USB Gateway enabled devices or Simulator targets and displays static device properties.

Report Generator

Report Generator is a command-line tool used to generate reports from the data contained within the Results Manager workspace and output from Interrogator.

DebugBot

DebugBot is command-line tool for debugging test modules on targets. It uses the Visual Studio plugin and works with Click2Run and Click2Debug.

Other tools, drivers, libraries, and utilities

The Toolset contains other tools, drivers, libraries, command-line utilities, and related files. These include the QIDL Compiler, CIF Compiler, Connect, Heap Analyzer, USB drivers, and other target tools and libraries.

To access these files directly, open the Toolset directory from the SDK Manager Setup page.

For detailed information on all tools, open the *Tools Reference* from the SDK Manager Setup page.

What's New in Brew MP SDK rev 7.12.5

This section describes new features and changes to the Brew MP SDK Rev 7.12.5.

PLATFORM

The default Platform Pro version installed with the Brew MP SDK is updated to Brew MP 1.0.4.601.

Platform Validation Suite

The Platform Validation Suite (PVS) has been deprecated.

BREW VALIDATION KIT

The default Brew Validation Kit (BVK) version installed with the Brew MP SDK is updated to BVK 2.0.12.5.2465243. See the *Brew Validation Kit Release Notes* for detailed information.

TOOLSET

The Brew MP SDK Toolset has been upgraded with enhancements to the Validation Test Tool (Results Manager).

Product	Change
Results Manager	The Other section in Results Manager has been changed to Deprecated to match the Pro kit changes. (All PVS modules have been moved to Deprecated in the Pro kit.)

What's New in Brew MP SDK rev 7.12.4

This section describes new features and changes to the Brew MP SDK Rev 7.12.4.

PLATFORM

The default Platform version installed with the Brew MP SDK continues to be Brew MP 1.0.4.508.

BREW VALIDATION KIT

The default Brew Validation Kit (BVK) version installed with the Brew MP SDK is updated to BVK 2.0.12.4.2384311. See the *Brew Validation Kit Release Notes* for detailed information.

TOOLSET

The Brew MP SDK Toolset has been upgraded with enhancements to the Validation Test Tools (Report Generator and Test Manager).

Tool	Enhancement
Report Generator	Changed the command-line argument name from -deviceresults to -interrogatorResults for ease-of-use.
Report Generator	Enhanced the Certification reports to identify a lack of matching results as None (instead of leaving the result blank) in the High Level Summary.
Report Generator	Enhanced the Class Support report to include a Qualcomm disclaimer, a table of contents, and an overview.
Test Manager	Enhanced Test Manager to interpret a Known [Issue] test result as Unsupported, instead of Unexecuted.
Test Manager	Enhanced Test Manager by adding the -skip parameter to skip specified test modules.
Test Manager	Enhanced Test Manager to abort the current test and move to the next test if the USB Gateway fails to connect after 30 seconds.
Test Manager	Enhanced Test Manager to combine BFS and any other combinations of filters in a single test session.

What's New in Brew MP SDK rev 7.12.3

This section describes new features and changes to the Brew MP SDK Rev 7.12.3.

PLATFORM

The default Platform version installed with the Brew MP SDK continues to be Brew MP 1.0.4.508.

BREW VALIDATION KIT

The default Brew Validation Kit (BVK) version installed with the Brew MP SDK is updated to BVK 2.0.12.3.2310763. See the *BVK Release Notes* for detailed information.

TOOLSET

The Brew MP SDK Toolset has been upgraded with the new Profile Creator tool and enhancements to AppSigner and the Validation Test Tools (Test Manager, Results Manager, DebugBot, and Report Generator).

Profile Creator

Create tool to generate device profiles for the Simulator.	Created a tool that allows manufacturers to create device profiles without the need for Adobe tools that are expensive and require a lot of training. The tool will generate a device skin with the correct screen sizes. There are no key buttons on the target; however, device keys are mapped to the PC keyboard. A default visual asset is provided, and the manufacturers can customize the screen sizes and key mappings through the tool. See <i>Profile Creator Help</i> for more details.
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AppSigner

Add MOD1 compatibility.	Enable developers to sign applications that are compiled as MOD1.
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Validation Test Tools

Test Manager: Add parameters for running specific test types.	<p>Added parameters so the user can filter the test set to a specific type of test.</p> <pre>-runoption=a run only automated test modules -runoption=ai run only auto-interactive test modules -runoption=i run only interactive test modules</pre> <p>For example:</p>
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	<pre>\$ TestManager.exe -run=AddrBook -runoption=a \$ TestManager.exe -run -bfs="%BREWMP_TESTSET%\bfs\ BL1BFS.xml -runoption=ai</pre>
Test Manager: Add command to clean device of all test artifacts.	<p>Added command to completely remove from the device all test modules, frameworks, and any other test artifacts.</p> <pre>\$ TestManager.exe -clean</pre>
Test Manager: Add command to pull logs off target.	<p>Added command to copy all logs from the target to the workspace. The user should then immediately process the logs so the new results will be incorporated into the workspace.</p> <pre>\$ TestManager.exe -getlogs \$ TestManager.exe -process</pre>
Test Manager: Automatically clean target if test artifacts found under BDS Mods.	<p>Added feature to clean target of test artifacts if they are found under BDS Mods. This eliminates the possibility of module collisions.</p>
Test Manager: Add information in log for auto-interactive tests to specify if result came from user.	<p>Previously, the result in the log of an auto-interactive test did not specify whether the result was from the user or the applet. Test Manager now adds a line indicating if the result is from the user. This improves analysis.</p>
Test Manager: Add command to load test module onto target.	<p>Added command to load test module onto target without executing it. This eases the workflow if the user must execute a test module while disconnected from the computer. Load command has been overloaded for this purpose.</p> <pre>\$ TestManager.exe -load=AddrBookTest</pre>
Test Manager: Add option to specify kit.	<p>Added option to specify from which kit a test module originates. This solves collision issues when test modules share names between kits.</p> <pre>\$ TestManager.exe -run=ThreadTest -kit=bvk</pre>
Test Manager: Create new BFS for BL2 specification.	<p>Created new BL2BFS.xml file that contains the current specification for BL2 certification.</p>
Results Manager: Add Find feature.	<p>Added feature to search for a test module or test case name inside the Results Manager GUI. Edit > Find or CTRL+F enables the feature.</p> <p>Find feature also added to log view window. Log view automatically opens with selected test case at the top of the window.</p>
Results Manager: Add icon to mark post-process test cases.	<p>Added icon (gear) in Results Manager GUI to mark OAT test cases that require post-processing. Icon is under the Module column.</p>
Results Manager: Enhance editing experience of comment cells.	<p>Enhanced the editing experience for the Issue, Impact, and Severity cells in the Results Manager GUI. It is now easier to insert and view longer comments.</p>
Results Manager: Add Undo/Redo.	<p>Added Undo/Redo feature to Results Manager GUI. Affects comment edits only.</p>
Results Manager: List test modules in sections based on their Brew Levels.	<p>Added feature to list test modules in sections based on their Brew Levels. By default, there is a BL1, BL2, and Other section. If the user creates a custom BFS file and saves it under</p>

	%BREWMP_TESTSET%\bfs, then that will create a custom section in the GUI.
Results Manager: Keep current device pack and test data files inside workspace directory.	The current Device Pack and test data files are now saved inside the workspace directory. This keeps all relevant files inside the workspace to ease sharing and submission of workspaces. Only the current version is kept. Changing device packs or test data files will overwrite previous versions.
DebugBot: Add option to specify kit.	Added option to specify from which kit a test module originates. This solves collision issues when test modules share names between kits. <pre>\$ DebugBot.exe -module=ThreadTest -kit=pvs -ide=vs2010 -workspace=myWorkspace -target=myTarget</pre>
Report Generator: Change option name for workspace path.	Previously, Report Generator used -workspace (-ws) to specify the workspace path. This caused confusion, as the option name was shared across tools, but used slightly differently. Report Generator has updated the name of the option to -workspacepath (-wsp) to clarify that the entire path to the workspace needs to be provided. <pre>\$ ReportGen.exe -report=cert -level=1 -wsp=C:\ProgramData\ QUALCOMM\Targets\myTarget\Workspaces\myWorkspace\ Workspace.qwsp</pre>
Report Generator: Enhance Class Support report to incorporate actual test result data.	The Class Support report has been enhanced to incorporate actual test result data to improve reporting on whether or not a class is truly supported on the target.
Report Generator: Eliminate overlap between reports.	The BL1 Certification, BL2 Certification, and API Validation Results reports have been updated to eliminate any overlap of test results. The BL1 and BL2 Certification reports now only include results from BVK modules listed in their respective BFSs. The API Validation Results report now only includes results from non-BL test modules. Also, the API Validation Results report will not include results from PVS test modules that overlap functionally with BL1 BVK test modules.
Report Generator: Add option to specify output path and filename.	Added option to allow the user to specify the output path and filename of the report. <pre>\$ ReportGen.exe -report=cert -level=1 -wsp=C:\ProgramData\QUALCOMM\Targets\ myTarget\Workspaces\myWorkspace\Workspace.qwsp -output=C:\Temp\MyReport.doc</pre>
Report Generator: Create new Workspace Comparison report.	Added new Workspace Comparison report. Takes two or more workspaces as input and produces a comparison of test results in a side-by-side table in a spreadsheet.
BVK: Convert all CTF modules in PVS to CTFApplet modules and move them into BVK.	All CTF modules from the 1.0.4 Platform Pro have been converted to CTFApplet modules and are now available in the BVK. This allows debugging of test modules on target through DebugBot. Also, this ensures that all modules execute in Kernel Mode.

What's New in Brew MP SDK rev 7.11.12

This section describes new features and changes to the Brew MP SDK Rev 7.11.12.

PLATFORM

Default Platform Version

The default Platform version downloaded with the Brew MP SDK is updated to Brew MP 1.0.4.508. This version includes the latest Brew *API Reference*. Older versions of the Platform Kit installed on your computer will not be affected.

VALIDATION

Brew Validation Kit

The default Brew Validation Kit (BVK) version downloaded with the Brew MP SDK is updated to BVK 2.0.11.12.zzzz. This version has incorporated auto-interactive tests for Brew API Level 1 (BL1) APIs. See the *BVK Release Notes* for detailed information.

TOOLSET

The Brew MP SDK Toolset has been upgraded with enhancements to Resource Manager, Heap Analyzer, and Validation Test Tools (Results Manager, Test Manager, Debugbot, and Report Generator).

Resource Manager

<ul style="list-style-type: none"> • Add Multiple file/All file formats for any From File dialog box. 	Updated the From File and From Directory dialog boxes to support multiple file selection, as well as an option to select All Files limited to the following file types: CAR, CIF, BAR, MIF, BRX, MFX.
<ul style="list-style-type: none"> • Enhance user messaging dialog when opening MIF/BAR files. 	Added a Do not show this dialog again option when opening MIF/BAR files.
<ul style="list-style-type: none"> • Enhance drag and drop functionality. 	Enhanced drag-and-drop support to support multiple files, as well as adding a new tab when dragging a file into a workspace (as opposed to replacing the file in the current tab).

Heap Analyzer

<ul style="list-style-type: none"> • Add configuration file editor UI to Heap Analyzer GUI. 	Added a GUI to Heap Analyzer for modifying the INI configuration file.
<ul style="list-style-type: none"> • Enable logging to device for unconnected monitoring. 	Enhanced logging to support storing results on device when not connected to the computer.
<ul style="list-style-type: none"> • Save the period stat details on the computer. 	Added ability to save periodic stat details on the computer (for every session on demand, including

	<p>Save as or Export options), as well as an option to save this data on Device, including:</p> <ul style="list-style-type: none"> • Export feature • Kernel Heap (split, bucketizer), Page Heap and Running module statistics • Import feature • Provide option to import this saved data file to view in Heap Analyzer's UI.
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Validation Test Tools

<ul style="list-style-type: none"> • Test Manager: Implement support for auto-interactive tests. 	<p>Added support for auto-interactive BVK tests. These tests are either user-invoked requiring the user to set up the test conditions before executing the tests or applet-invoked requiring user verification after the test has executed.</p>
<ul style="list-style-type: none"> • Implement concept of a BMV Workspace. 	<p>Added support for a BMV workspace supporting the following data elements: PID, Build ID, Pro Kit version, BVK version, DPK path (editable), Test Data path (editable), Known Issues path (editable), and Friendly Name (editable).</p>
<ul style="list-style-type: none"> • Integrate Results Manager with test result database. 	<p>Added database support to Results Manager.</p>
<ul style="list-style-type: none"> • Present user with UI for managing test results. 	<p>Added GUI support to Results Manager to manage results of multiple test runs.</p>
<ul style="list-style-type: none"> • Allow user to configure Result Manager rules. 	<p>Enhanced Results Manager to support the following automated rules for selecting results: Best, Latest, Best unless failure, and Latest unless failure.</p>
<ul style="list-style-type: none"> • Upgrade DebugBot to use same commands and data as Test Manager. 	<p>Modified DebugBot to use same commands and data as Test Manager.</p>
<ul style="list-style-type: none"> • Update Report Generator to use workspace data. 	<p>Migrated Report Generator from raw log file input to database input.</p>
<ul style="list-style-type: none"> • Test Manager now saves test logs to a database. 	<p>Enhanced Test Manager to save all execution results in a database.</p>

What's New in Brew MP SDK rev 7.11.09

This section describes new features and changes to the Brew MP SDK Rev 7.11.09.

PLATFORM

Default Platform Version

The platform version remains at 1.0.2.549.01. This version will be installed with Brew MP SDK rev 7.11.09. You can see this platform listed in the Installed Platforms Window on the SDK Manager/Setup Page. Additional platform versions can be downloaded.

VALIDATION

Brew Validation Kit

This release introduces the Brew Validation Kit (BVK), also known as the API Test Kit. The API tests validate the behavior of the Brew MP APIs implemented on the device. The initial release of BVK provides coverage of the APIs designated as Brew MP API Level 1 (BL1). These BVK tests are fully automated and are free of device pack dependencies.

Brew MP Validation Process

The Brew MP Validation process (BMV) has been updated to incorporate results from the BVK downloaded with the Brew MP SDK. The updated process is required for devices that are scheduled to achieve Technical Acceptance starting on March 1, 2012, or later. Devices that achieve Technical Acceptance before March 1, 2012, can continue to follow the prior process, which incorporates results from the PVS test modules included with Platform Pro Kits.

Qualcomm recommends that manufacturers prepare for the new Validation process by running both procedures on devices scheduled to achieve Technical Acceptance around the transition deadline.

The Brew Validation Kit will be updated and released quarterly. Manufacturers will be required to validate their device with a BVK release version that is not older than one (1) release from the latest version on the date of the Pre-CV or CV request. Manufacturers can obtain the schedule for upcoming BVK releases from Brew OEM Relations Managers or Brew CE staff.

TOOLSET

Eclipse

Sourcery CodeBench for Brew MP is now the preferred GNU solution for professional Brew C and C++ developers. CodeBench is a complete IDE based on Eclipse and the GNU toolchain. It replaces the previous version of Sourcery G++.

Sourcery CodeBench for Brew MP now includes support for both ARM and Win32, plus all Brew MP prerequisites, so that users can just install one package to complete their setup.

See the Installation and Set Up guide on the [SDK & Tools](#) on page page of the Brew MP website for details.

Report Generator

The Report Generator command-line tool (ReportGen.exe) can now be used to automate the production of the API Validation Results report used in the BMV 1.0 and 2.0 processes.

Results Manager

Results Manager is a new GUI tool found on the SDK Manager/Tools page.

It is used to view test results during the BMV 2.0 process and mark the results that will be used for reporting purposes. It reads test result data from the workspace database created by Test Manager. Results Manager can be used to import and merge results from multiple test engineers. It can also be used to annotate test results with failure analysis information. See the *Tools Reference* for details.

Sample Code - Default location

Sample Applications are no longer available by default on Simulator targets created from platforms 1.0.2.665, 1.0.3.976, 1.0.4.444 and higher. The modules can be installed from Target Manager (Edit > Properties > Features). They are also found inside the utilities folder of the SDK at %brewmp_toolset%\utilities.

Target Manager - Heap Analyzer

Heap Analyzer is a new one-click, Brew MP SDK PC-side tool for heap analysis and diagnostics during Brew MP module development. It tracks heap usage for all running applets and services on simulated and physical targets. Different types of heap information can be analyzed, such as split heap and buckets, kernel heap, page heap, and module information.

Split heap configuration can only be analyzed if supported on the physical target. Split heap and page heap are not applicable for simulated targets.

See the *Target Manager Help* for details.

Target Manager - Utility Applets

The Target-2-App stress tool has been updated to be a standalone target context tool. It is available through Target Manager.

Target Manager- Interrogator

Interrogator can now query the target to build a list of supported MIME types. After device interrogation, this information can be found on the MIME Types tab.

Test Manager

The testbot tool has been replaced by the Test Manager tool. It can be found at %brewmp_toolset%\bin\testmanager.exe. It loads and executes test modules and then processes and parses test logs and maintains a master database of all the test results.

Test Manager also has new functionality:

- Provides full support for executing BVK and PVS test module
- Uses the Brew MP Feature Specification (BFS) file to filter the list of test modules to be executed in a test session
- Executes all CTF test modules in kernel mode in order to eliminate CTF test dependencies on page heap

See the *Tools Reference* for details.

What's New in Brew MP SDK rev 7.11.06

This section describes new features and changes to the Brew MP SDK Rev 7.11.06.

PLATFORM

Default Platform Version

The platform version remains at 1.0.2.549.01. This version will be installed with Brew MP SDK rev 7.11.06. You will see this platform listed under Platforms in the Setup tab of the SDK Manager. To install other Brew MP platform versions or add-ons, go to the [SDK & Tools](#) page of the Brew MP website.

TOOLSET

Target Manager - Utility Applets

The Target-2-App stress tool has been updated to be a standalone target context tool. It is available through Target Manager.

Target Manager- Interrogator

Performance improvements have been made to the interrogator agent utility. Before interrogating a target, previous versions of the interrogator agent and createinstancetester should be removed from the target. Both interrogationagent and createinstacetester utilities must be installed on the target before interrogation. This is done from Target Manager by selecting the Properties option in the Edit menu, or right-click the connected target if it's a physical target or right-click the running target if it's a simulator target, and select properties. The required utilities may be installed from the Features tab.

CAL APIs

Additional CAL APIs have been added to start and stop an applet, as well as other basic shell operations. See the *Connect Abstraction Layer Technology Guide* posted on the Brew MP website and the *Connect Abstraction Layer Reference* included in the Documentation folder of the Brew MP SDK installation.

Target Manager - UI Improvements

Now that Target Manager supports physical targets, as well as simulated, the focus of Target Manger is no longer on Device Profiles. Instead the focus is on creating and/or identifying targets and configuring them. The user can still construct simulation targets, but this workflow would not be part of the main display, making Target Manager more like a dockable window that just shows target status. Users can then right-click, double-click, hover over, etc., to get more information and/or configure targets.

Utility Documentation

New documentation is now available for each utility. From the SDK Manager, install the Sample Code from the Active Toolset and the documentation is included in each utility's doc folder.

Eclipse - CIF and CAR editor

Tooltip information displays when the mouse hovers over keywords in the CIF and CAR editor.

Eclipse - Lua support

The Eclipse Plugin now supports Lua. This includes a Lua parser, syntax highlighting, code completion, Click-2-Build, Click-2-Run, and more. See the *Tools Reference* for details.

Eclipse - C Build Properties dialog

The C Build Properties dialog has been updated to include support for libraries, library directories, and preprocessor definitions.

Microsoft Visual Studio and Eclipse-Code Wizard: C++ Application (MOD1/DLL1)

The IDE Plugin wizards for generating C++ Brew applications now include support for MOD1 and DLL1 file formats.

Microsoft Visual Studio - Click2Test Applets

This feature augments C2R & C2D by making use of the Stress Utilities (StressCPU, StressFile, StressHeap, and MonkeyTest). A new menu allows a developer to setup stress conditions on their target prior to running their module by selecting from a list of stress parameters under the Brew MP Properties dialog which will launch stress utilities to setup initial conditions before launching their application.

Sample Code - Extension dependence

All Sample Code test apps that depend on extensions now share a solution folder with their extensions. The extensions are now a project dependency in the test app solution, so they will be built together. Also, test apps have been renamed with the suffix "testapp" instead of "app."

TestBot

The TestBot tool has been updated to include several new command-line options. See the *Tools Reference* documentation for details.

What's New in Brew MP SDK rev 7.11.05

This section describes new features and changes to the Brew MP SDK Rev 7.11.05.

PLATFORM

Default Platform Version

The platform version remains at 1.0.2.549.01. This version will be installed with Brew MP SDK rev 7.11.05. You will see this platform listed under Platforms in the Setup tab of the SDK Manager. To install other Brew MP platform versions or addons, go to the [SDK & Tools](#) page of the Brew MP website.

TOOLSET

Simulator - Bluetooth Simulation

The Bluetooth Simulation uses a USB BT dongle on the PC for real-time simulation. It is supported on Brew MP 1.0.4 and higher platforms. Currently, the required drivers and sample application are not released with the Brew MP SDK. These will be included in a future release.

Simulator - Enhanced GPS Simulation

The Simulator has a new UI for controlling the GPS simulation settings. These settings are stored as ISettings items. This feature is supported in Brew MP 1.0.4.335 and 1.0.3.907 and higher platforms. The GPS menu option is available in the Tools menu.

SDK Manager

Within the setup tab new for installed Toolsets and Platforms, a new link for Open Reference has been added that will open the *API Reference* and *Tools Reference*.

Target Manager - Interrogator

In the previous version, Class Interrogation happened when the tool was started. Now, you enter the Classes tab and run interrogation by clicking the Interrogate Classes button (microscope). Module names are now displayed in the UI.

Advanced interrogator feature has been added. Select advanced Interrogation from the Action menu to check the following:

- A module can be instantiated as a service.
- Performs a CreateInstance on the class. This may crash your target due to Brew MP Platform issues. If a crash occurs, reboot the target and repeat the interrogation. The class it previously crashed on will be skipped.

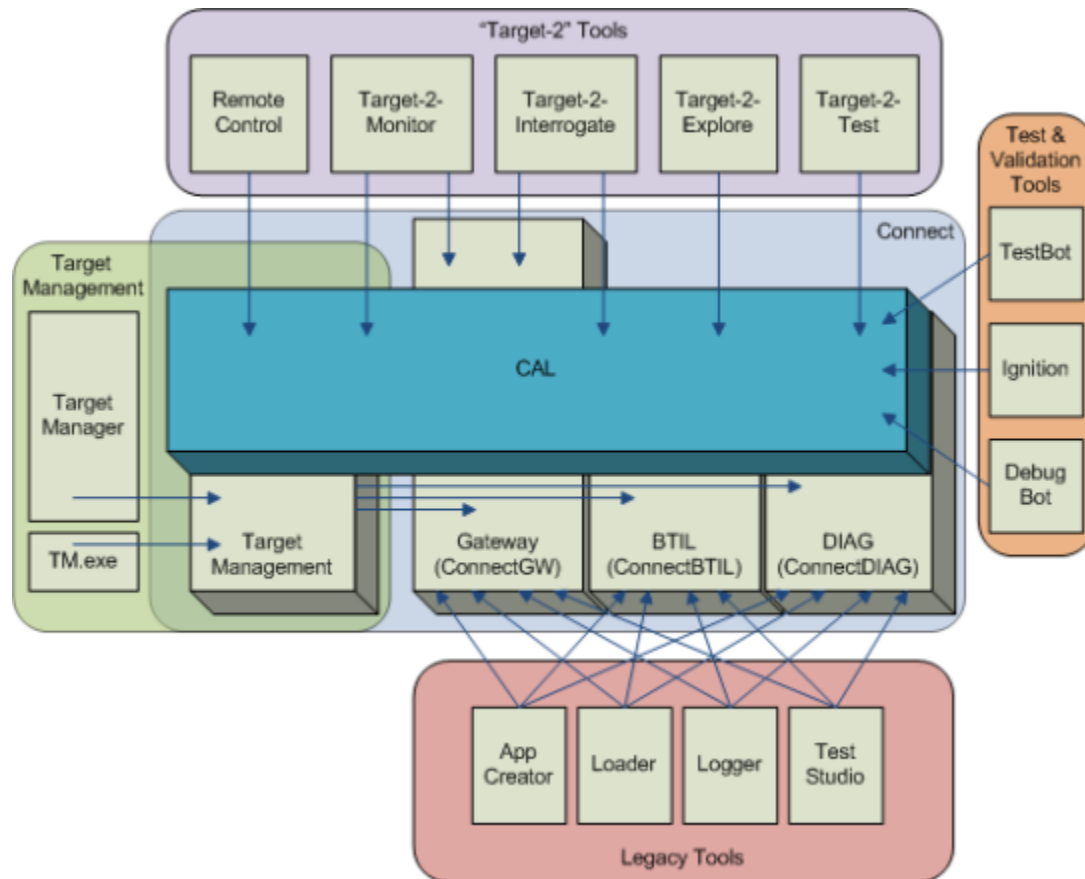
A new Advanced Interrogation column is added to the results output.

Connect Abstraction Layer APIs

Connect Abstraction Layer (CAL) is a new way of communicating with targets. It supports both simulated and physical targets interchangeably, communicating over the Gateway, BTIL, and/or Diag (physical devices only). After a user configures a target in Target Manager, CAL automatically handles connections

and communication using the best available technology (Gateway/BTIL/Diag). The user no longer needs to know which technology should be used for a given operation. Conversely, for advanced users who want to explicitly use a particular technology, CAL provides the means to get a handle for the device that allows the user to use Gateway, BTIL, or Diag directly.

CAL APIs are "flat c" and can be invoked by any language/environment. Test applications have been written in C/C++, .NET, and Java. Unlike ConnectGW and BTIL, there is no static library to link in. While this could change in the future (depending on demand), the hope was that installation and removal of Brew MP toolsets would not silently switch the version of CAL being used.



For more information, see the *Connect Abstraction Layer Reference* included in the Documentation folder of the Brew MP SDK installation.

Microsoft Visual Studio and Eclipse - BID file deprecation

The IDE Plugin Code Wizards now generate H headers instead of BID files. BID files are being deprecated.

Microsoft Visual Studio and Eclipse - Lua work flow support

Eclipse now supports Brew MP Lua applications and their work flows. Please see the *Tools Reference* for more information.

Microsoft Visual Studio - Code Wizard: C++ Application (MOD/DLL)

The Microsoft Visual Studio IDE Plugin now has a wizard for generating C++ Brew MP applications. Currently MOD and DLL applications are supported. MOD1 and DLL1 will be supported in a future release.

Microsoft Visual Studio - Click2Test Applets

This feature augments C2R and C2D by making use of the Stress Utilities (StressCPU, StressFile, StressHeap, and MonkeyTest). A new menu allows a developer to set up stress conditions on their target prior to running their module, by selecting from a list of stress parameters under the Brew MP Properties dialog. This dialog will launch stress utilities to set up initial conditions before launching their application.

Brew MP Utility Apps

- The trig_basic sample code has been removed from the SDK.
- The following new features have been added to the AppManager:
 - Display annunciator states:
 - Battery
 - Wi-Fi
 - Bluetooth
 - Signal strength (bars)
 - Uninstall option for selected applet.
- In the Developer Mode applet, the persist option has been removed.

Microsoft Visual Studio - Code Wizards generate 4 icons

The IDE Plugin Code Wizards now generates applets with all four required icons. The following is a summary of the new MIF icon sizes:

- 16x16 pixels = Small
- 26x26 pixels = Medium
- 40x40 pixels = Large
- 50x50 pixels = Extra large

Heap Analyzer - Improvements

Heap Analyzer is now available via the Target Manager UI. To use, right click a connected and running target and select the Heap Analyzer option.

New logic has been added to collect additional statistics from GetRAMFree and IHEAP_GetModuleMemStats.

Test Kit

The Brew MP SDK master installer now by default installs the new Test Kit. This kit includes:

- Brew Level 1 (BL1) tests are Brew MP API tests that can be used to confirm that the device under test has all the required Brew MP APIs for a device to be connected up to the Brew Application Shop.
- Test frameworks (CTFA, UITF, and OAT)
- ToolkitCompatibility tests are for confirming that BTIL and Connect Gateway device connections are fully operational.

More tests will be added in future releases.

TestBot

The TestBot tool has been updated to work with the new test kit and run the new BL1 tests. TestBot makes use of existing test frameworks like CTFA, OAT, and UITF. A legacy version of TestBot will remain in the kit, and this should be used for running legacy PVS tests (Platform Pro Kit).

BREWRMC CLI Tool

The BREWRMC CLI tool can be used to create Brew MP resources from CSV and TXT formatted files. BREWRMC.exe is located in the %brewmp_toolset%\bin directory: brewrmc.exe -help.

Excel Addin

The Excel Addin is a plugin for Excel available to install via the SDK Manager. This plugin allows you to translate Brew resources using Google's translate web service.

What's New in Brew MP SDK rev 7.11.02

This section describes new features and changes to the Brew MP SDK Rev 7.11.02.

PLATFORM

Default Platform Version

Version 1.0.2.549.01 is the default platform version installed with Brew MP SDK rev 7.11.02. You will see this platform listed under Platforms in the Setup tab of the SDK Manager. To install other Brew MP platform versions or addons, go to the [SDK & Tools](#) page of the Brew MP website.

TOOLSET

Brew MP Utility Applets

The runtime packages (Brew MP files) are located in the Toolset's utilities folder. The source code and documentation are installed as part of the Sample Code installer (accessible from the SDK Manager).

The following new feature has been added:

- Monkey Test: You can now specify ClassIDs to exclude the applet from running in and you can also configure Monkey Test to run against just one applet.

Target Manager

Target Manager has had the following new features added:

- Add Device Wizard including support for legacy devices using BTIL over DIAG and MODEM ports.
- Remote control screen capture. Please see the documentation for more information. (Toolset 7.11 Rev 2.0.xxxxxx\documentation\Remote_Control.chm). SICPClient is required to be loaded onto the Target to be able to capture screenshots.
 - For Simulator - from Target Manager right-click the Simulation Target (ensure it's running), select Install Features, check SICPClient and click the Installed Checked Utilities button.
 - For Device - from Target Manager right-click and select the Device Setting options, then select the Features tab, check SICPClient and click the Installed Checked Utilities button.
- Target interrogation including the ability to compare the target platform being interrogated and an installed platform. Please see the documentation for more information. Documentation for this feature will be available in the next release. Interrogatoragent is required to be loaded onto the Target for Interrogator to be able to interrogate targets.
 - For Simulator - from Target Manager right-click the Simulation Target (ensure it's running), select Install Features, check Interrogatoragent and click the Installed Checked Utilities button.
 - For Device - from Target Manager right-click and select the Device Setting options, then select the Features tab, check Interrogatoragent and click the Installed Checked Utilities button.

To run Interrogator, right-click your connected and running target listed in the Target Manager UI and select Interrogate. The Interrogator UI will be displayed and the target interrogation will start automatically. You can re-interrogate a device by clicking the Force option.

Heap Analyzer - Heap node filters (Prototype Tool)

Heap Analyzer is a PC-side UI tool that acts as a one-click solution for heap analysis and diagnostics. The Heap Analyzer now has the added capability to compare heap dumps. Please see the documentation for more information. (Toolset 7.11 Rev 2.0.xxxxxxx\documentation\HeapAnalyzer.chm)

Utilities

There has been a reorganization of the files and directory within the Utilities directory to enhance user experience. (Toolset 7.11 Rev 2.0.xxxxxxx\utilities\..)

Microsoft Visual Studio - Incremental Installation Performance Enhancements

Enable Incremental Installation option is now available from Microsoft Visual Studio -> Project Menu -> Brew MP Properties -> Package -> Advanced.

If you enable this option, only changed files will be loaded to the target when performing Click2Run/Debug. This should be used for projects that include multiple/large modules as loading times will be reduced.

What's New in Brew MP SDK rev 7.11.01

This section describes new features and changes to the Brew MP SDK Rev 7.11.01.

PLATFORM

Default Platform Version

Version 1.0.2.549 is the default platform version installed with Brew MP SDK rev 7.11.01. You will see this platform listed under Platforms in the Setup tab of the SDK Manager. To install other Brew MP platform versions or addons, go to the [SDK & Tools](#) page of the Brew MP website.

TOOLSET

Brew MP Utility Applets

A number of new Brew MP Utility Applets have been added to the SDK. The runtime packages (.Brew MP files) are located in the Toolset's utilities\run folder. The source code and documentation are installed as part of the Sample Code installer (accessible from the SDK Manager).

- Monkey Test: Stability Applet has been deprecated and its replacement is Monkey Test (monkeytest_RVCT22arm9_Release.brewmp and monkeytest_Win32_Release.brewmp) which is now available in the SDK. Monkey Test has two new features:
 - the ability to escape from trapped UI states
 - logging of execution times
- Stress Heap: Stresses the heap memory, filling it with specific block sizes. Using this Brew MP application you can take a Heap Analyzer file and restore a device (physical target) to the same heap state that it was in when the heap snapshot was taken. This also works with simulation targets.
- Stress File: Stresses the file system, filling it to an indicated percentage.

Visual Studio Plugin

- C Windowing Project Wizard has been added. Users can use this wizard to create new C Windowing applets.
- Incremental Installation (Loading): Incremental Installation is a new global option that is currently a prototype version and usage of this feature is discouraged in this build. The feature will be fully operational in the next SDK release.

Eclipse IDE Plugin - Lua Contextual Editor

The following two new features have been added to the Lua Contextual Editor.

- Error Highlighting in CIF and CAR files
- Outline View for CIF and CAR constructs

Heap Analyzer - Heap node filters

The Heap Analyzer now has the added capability to filter the heap nodes in a given heap dump by various criteria. A summary report of the number of nodes and total memory allocated that match the set filter is displayed.

Resource Manager

Support has been added for X-Large icons. This feature has been added to the Applet Icons section within the Applets view and underneath the General tab.

What's New in Brew MP SDK rev 7.10.11/12

This section describes new features and changes to the Brew MP SDK Rev 7.10.11/12.

PLATFORM

Default Platform Version

Version 1.0.2.488 is the default platform version installed with Brew MP SDK rev 7.10.11/12. You will see this platform listed under Platforms in the Setup tab of the SDK Manager. To install other Brew MP platform versions or addons, go to the [SDK & Tools](#) page of the Brew MP website.

TOOLSET

SDK Manager Localization

The SDK Manager now has a configuration file setting which can be used to switch between languages (currently Chinese or English).

Target Debugger

TargetDebugger.exe can be used for debugging Lua applications and now supports command line interaction.

Simulator

The following Simulator functionality is now available. To use these new functions, you need the supporting Sapphire profile which includes keyguard, Led, Earphone, and RMC support. This profile is available in the following Brew MP Platforms: 1.0.2.545 and higher, 1.0.3.760 and higher, 1.0.4.43 and higher, 1.2.0.268 and higher.

- Keyguard support: Keyguard can be turned on when phone flip is closed and turned off when phone flip is opened.
- Earphone: Headphone jack events for inserting and removing headphones are now simulated.
- Removable Media Card (RMC): Simulates the states and events of inserting and removing an RMC.
- Backlight: Device screen now fades/brightens in response to the IBacklight API calls.

Test Studio

Product Line Requirements (PLR) are now supported in Test Studio. This provides the ability to configure a predefined set of tests and have Test Studio run those tests, for example Brew Level 1 (BL1) tests.

TestBot

TestBot.exe is a command line utility for executing PVS tests. It uses the same core underlying test controller as Test Studio.

Brew MP Utility Applets

A number of new Brew MP Utility Applets have been added to the SDK and are installed as part of the Sample Code installer (accessible from the SDK Manager).

- StressCPU allows you to increase the CPU usage via an interactive Brew application.
- Developer Mode allows the user to control the USB Developer mode settings on their device. The Developer Mode applet is designed to work on legacy handsets that do not support widgets or windowing as well as Brew MP devices that do.
- App Store Depot demonstrates the implementation of an App Store in BREW. A windowed, widget-based application, App Store Depot is configurable to support both local and remote server setups, configurable from an .ini file. The application demonstrates downloading installable .Brew MP packages over the air, and allows the user to install these packages onto the device.
- Utility Panel is an applet grouping example. An applet from fs:/usermods can be displayed in the panel by adding code to the applet's .mif file similar to the following example:

```
--Mark this app for inclusion in Utility Panel

ModRsc
{
    id = 1020, --Applet base resource id + 1000
    type = 1, --RESTYPE_ENCSTRING (see AEEResType.h)
    data = EncStringRscData(0xff, "UTILITY")
}
```

These applets are displayed as icons that can be rearranged on the screen using a touch interface and used to launch the respective applets using a double tap or keyboard select command.

Eclipse Plugin - Managing a multi-module project

Eclipse now has support for multi-module/multi-class support as previously available for Microsoft Visual Studio. Features include:

- Multi module support in an Eclipse Workspace
- Added user preferences for:
 - Packaging multiple modules
 - Starting up applets

Eclipse Contextual Editor

A new Contextual Editor is available as part of the Eclipse plugin. This editor allows for inline editing of Resource Files like CIF and CAR. The Contextual Editor includes features like Template Insertion, Code Completion, Syntax Highlighting, Brace Matching, etc., while editing CIF/CAR files.

Heap Analyzer (Prototype Tool)

The Heap Analyzer is a PC Side UI tool which acts as a one-click solution to Heap Analysis and Diagnostics. The UI tool is organized into the following four panels.

- **Configuration Panel**

This panel provides two major functionalities.

- First, it lets the user select the Target that is currently connected (USB and Simulator) and lets user do a Heap Walk on the selected Target. The Heap Walk button checks if the target is equipped with all the dependent modules and executables. If not, it automatically installs the modules in the target. A progress bar is displayed to keep the user informed of the time remaining for the Heap Walk to be completed.
- Second, it provides the user with a list of heap dumps that have been previously walked. An Explore button opens a explorer window taking the user to the location of these heap dump csv log files. These heap dump log files are stored at "%APPDATA%\Qualcomm\Brew MP \HeapAnalyzer" by default.

- **Diagnostics Panel**

This panel is a tabbed panel that provides the following tab items.

- **Used Nodes Tab:** This table aggregates all the used nodes based on node size and displays the total number of nodes in each node size, the total size used. It displays Percentile information (total size of each Node Size as a percentage of the Maximum Total size of any Node size). It also displays a Percentile usage Bar Graph for a quick glance of the total size used.
- **Free Nodes Tab:** Same format as the Used Nodes Tab.
- **All Nodes Tab:** This table provides a complete view of each Heap node - address, size, Owner, Task Name, Context Id, Tag, Timestamp.

Interpretation of these fields

Owner -1: Free node, 0: HeapInternalNodes, 1: Untagged_Node, 2: fs:/mod/context, the Actual Context (ex: fs:/sys/mod/catapp)

TaskName -1: TaskName not available, the actual Task Names (ex: UI, MAIN TASK etc)

ContextId -1: Heap1Wrapper unavailable, 0x0: Context Id not available, actual Context id (ex: 0x1001000)

Tag Debug String

Timestamp -1: Timestamp not available, Actual time stamp (ex: 1114460418828)

- **Visualizer Tab:** Displays a graphical view of the heap usage with color codings representing Free and used nodes
- **Context-Id Usage Tab:** Same format as the Used and Free Nodes Table. The aggregation is based on the Context-Id. The total number of nodes and the total size for each Context-Id is displayed. The Percentage field provides Total size used by each context id as a percentage of the total heap size.

- **General Statistics Panel**

This panel provides general statistics such as the Free size available, Size allocated by system, Size allocated by Heap Internal, Total allocated size and the total size of the Heap. This panel serves as a reference when interpreting data in different tabs in the Diagnostic Panel. It also contains a list of the Top 10 Free node sizes.

- **Log Window Panel**

This panel provides status information during heap walks, warnings and error messages to keep the user informed of the Heap Analyzer UI's activities.

(Documentation will follow in a future release.)

What's New in Brew MP SDK rev 7.10.9/10

This section describes new features and changes to the Brew MP SDK Rev 7.10.9/10.

PLATFORM

Default Platform Version

Version 1.0.2.488 is the default platform version installed with Brew MP SDK rev 7.10.9/10. You will see this platform listed under Platforms in the Setup tab of the SDK Manager. To install other Brew MP platform versions or addons, go to the [SDK & Tools](#) tab of the Brew MP website.

Platform plugins C++ support enhancements

C++ exceptions and CTOR/DTOR support for .MOD development has been added. Further support for .MOD1 is pending.

Platform ClassIDs listed in csv and xml files

Platform builds now include BMPIds.csv and BMPIds.xml files in the documentation folder that list ClassIDs for that particular platform. These files can be used to compare two platforms to find out what has been added. Use the Target Manager Comparison feature to compare platforms (see feature description in the Target Manager Enhancements section below).

TOOLSET

Visual Studio Plugin Enhancements

- Visual Studio 2010 is now supported for Click2Debug.
- A Widget App Wizard has been added to the Visual Studio Plugin. Users can now use the Widget App Wizard to generate code for basic Brew MP widget-based application functionality.
- The Visual Studio Plugin now includes an Advanced tab in the Brew MP Properties' Build dialog that provides a way to specify custom libraries and preprocessor definitions. For more info, refer to Tools Reference > Visual Studio Plugin > Building your application.

Brew About Application included in Samples

A System Info (brew_about) application is now included in the Sample Code installation package. This application queries the device for software details, memory status and app status and displays the results.

Target Manager Enhancements

- Target Manager now allows naming of physically connected devices.
- Target Manager now supports remote control of physical devices through the PC using new Connect Abstraction Layer (CAL) APIs. To access Remote Control, right-click the target name in the Target Manager and click Remote Control. New Connect Abstraction Layer (CAL) header files will be made available in an upcoming release.
- Target Manager now includes a Compare Platforms feature. This feature compares the BMPIds.csv and BMPIds.xml files for two selected installed platforms and produces a report showing a list of Class IDs for the two platforms and differences between the two. To compare installed platforms

from Target Manager, select both the targets from the Installed Platforms list, right-click and click Compare Platforms.

What's New in Brew MP SDK rev 7.8.1

This section describes new features and changes to the Brew MP SDK Rev 7.8.1.

PLATFORM

Default Platform Version

Version 1.0.2.481 is the default platform version installed with Brew MP SDK rev 7.8.1. You will see this platform listed under Platforms in the Setup tab of the SDK Manager. To install other Brew MP platform versions or addons, go to the [SDK & Tools](#) page of the Brew MP website.

Platform plugins support C++ (BREW 3.1.2 to latest Brew MP 1.2)

- The platform plugins support C++ project creation and compilation.

Brew MP SDK classic plugin support

Brew MP SDK classic plugin support for 3.1.2, 3.1.5 and 4.0.2 is now available with the following features:

- Wizard support for creating MOD/DLL projects.
- Ability to "click-to-debug" on Sim3, Sim4, or Brew MP Simulator.
- Ability to "click-to-build" and load using Loader for 3.1.2, 3.1.5 and 4.0.2 targets using free armgcc compiler.
- Ability to "click-to-debug" on Brew MP targets.

Platform features and plugin support for BREW 3.1.2 to latest Brew MP 1.2

- All platform plugins to the SDK now support ARM GCC compilation, using CodeSourcery tool chain.
- The plugins contain latest API reference organization, including family/subfamily categorization.
- The platform plugins support C++ project creation and compilation.
- IDE plugins and wizards support dialog selection for each of these platforms.

TOOLSET

Classic BREW / Brew MP SDK Side by Side Compatibility

We recommend that everyone migrate to the latest Brew MP SDK with classic plugin support, but it is possible to have classic BREW SDKs (3.1.x and 4.0.x) installed alongside the Brew MP SDK.

- Brew MP SDK and BREW SDK can cohabitate on same machine.
- No interference with environment variables or registry keys.
- Tools layers (BTIL) are managed independently and can cohabitate in Side by Side.
- Scenarios like AppLoader to BREW target and Loader to different BREW or Brew MP targets work simultaneously.

Target Manager support for Physical Targets - Now available on main screen

- Brew MP devices that are developer mode enabled (gateway) appear when connected.
- Support for Device Enablement Service (DES), unlocking phone for development through WEB credentials.
- Support for Device Enablement Signature, unlocking phone for development through signature file.

Interrogator - Now available in SDK Manager-Tools Tab

- Obtain scanned ClassIDs from Brew MP devices.
- View various other items of information: hardware properties, settings, file system, etc.
- Compare ClassID output files of Interrogator device info to other outputs or to the Brew Product Line specification.
- Compare BREW or Brew MP Product Lines specification for introduction of ClassIDs.

Localization plugin to Excel - Now available in SDK Manager-Setup Tab (Hammer 8)

- Plugin for Excel to support Localization partner workflows.
- Conversion of CAR resource to Excel for easy 3rd party localization.
- Conversion of Excel localized resources back to CAR for application integration.

SDK Source Kit Beta Program

- Tools source available to limited BETA program, general availability EOY 2010
- BETA targeted to localization companies and select developers.
- Source kit includes, SDK Installers, Plugin Installers, SDK Manager, Simulator, Target Manager, Loader, Logger, BTIL, Resource Manager.

Component Heap Tracker - Now available in Tools-Util directory

- Requires Platform-PRO installation with PDBs for Simulator Stack trace.
- Simulator plugin support for tracking Heap Corruption, load app, reboot, and it appears in Simulator-Tools menu.
- Traps stack for all Heap corruption, i.e. freeing NULL pointer, buffer overruns.
- Optional feature to log and report all memory allocations.

Localization plugin to Excel - Now available in SDK Manager-Setup Tab

- Plugin for Excel to support Localization partner workflows.
- Conversion of CAR resource to Excel for easy 3rd party localization.
- Conversion of Excel localized resources back to CAR for application integration.

Managing and debugging a multi-module project

A Brew MP application can be debugged with the extension modules used in Visual Studio. To debug a multiple module project, the project needs to contain the extension and the application that calls it. Typically, the application module is specified as the primary module to be debugged. Breakpoints can be set in the extension code same as in an application. GDB treats the primary module like an executable, and the additional modules that get loaded in the process are treated as shared libraries.

A version of ARM EABI GDB that supports shared libraries is needed. Codesourcery Spring 2010 or newer has shared library support.

Debugging a running process in Visual Studio

The Visual Studio Plugin can now debug running simulation targets. The Debugger attaches to a running Simulation target instead of starting and closing the target process. The Plugin no longer closes the Simulator when the debug session ends, the target will continue to run.

GENERAL

On-device debugging features

The following on-device debugging features are now available.

- Breakpoints (F9)
- Step-over (F10)
- Step-in (F11)
- Step-out (Shift-F11)
- Display Local variables (only simple data types)
- Display function arguments
- Stack back trace
- User interruption of execution (Ctrl-Break)
- Memory Display
- Expression evaluation
- Reporting abort exceptions
- Displaying compound data types - expanding structures etc.
- Display CPU Registers

What's New in Brew MP SDK rev 7.6

This section describes new features and changes to the Brew MP SDK Rev 7.6.

PLATFORM

Default Platform Version

Version 1.0.2.410 is the default platform version installed with Brew MP 1.0 rev 7.6. You will see this platform listed under Platforms in the Setup tab of the SDK Manager. To install other Brew MP platform versions or addons, go to the [SDK & Tools](#) page of the Brew MP website.

Support for BREW 3.1.5 SP02/4.0.2 SP19 in Brew MP Tools

Installers for Brew 3.1.5 SP02 and 4.0.2 SP19 platforms are now available. Support for each platform has been enhanced as follows:

- Brew 3.1.5 SP02
 - Brew MP SDK 3.1.5 SP02 Platform Installer added
 - Free compiler support added for armgcc
 - API reference reworked in Family / Subfamily representation
- Brew 4.0.2 SP19
 - Brew MP SDK 4.0.2 SP19 Platform Installer added
 - Free compiler support added for armgcc
 - Includes OpenGL ES extension
 - API reference reworked in Family / Subfamily representation

TOOLSET

Windows 7 support in Brew MP Toolset

Windows 7 support has been verified on majority of the tools with the following stipulations.

- Installers must be run as Administrator.
- SDK Manager "setup" must be run as Administrator.
- Brew MP tools support execution with UAC on (Target Manager, Brew MP Simulator, Loader, Logger, etc).
- Classic tools may require UAC off (Sim 3, Sim 4, deprecated tools).

Visual Studio Plugin support for 3.1.5 & 4.0.2

The following support for Brew 3.1.5 and 4.0.2 has been added to the Brew MP Visual Studio Plugin:

- Wizard support for creating MOD/DLL projects
- Ability to "click-to-debug" on Sim3, Sim4, or Brew MP Simulator
- Ability to "click-to-build" and load using loader for 3.1.5 and 4.0.2 targets using free armgcc compiler
- Ability to "click-to-debug" on Brew MP targets

IDE Plugins (Visual Studio & Eclipse)

The following enhancements have been made to the Brew MP Visual Studio and Eclipse plugins.

- Properties improvements for Compile, Package, and Run

- Multi-module and multi-class support in same project

Test Studio workspace migration

- Creating a project allows you to import from prior workspace
- Device Database for reference platforms contains DPK, Test Data, Known Issues to allow validation to begin with this know data.

GENERAL

On-device debugging features

The following on-device debugging features are now available.

- Breakpoints (F9)
- Step-over (F10)
- Step-in (F11)
- Step-out (Shift-F11)
- Display Local variables (only simple data types)
- Display function arguments
- Stack back trace
- User interruption of execution (Ctrl-Break)
- Memory Display
- Expression evaluation
- Reporting abort exceptions
- Displaying compound data types - expanding structures etc.
- Display CPU Registers

What's New in Brew MP SDK rev 7.5

This section describes new features and changes to the Brew MP SDK Rev 7.5.

PLATFORM

Default Platform Version

Version 1.0.2.320 is the default platform version installed with Brew MP 1.0 rev 7.5. You will see this platform listed under Platforms in the Setup tab of the SDK Manager. To install other Brew MP platform versions or addons, go to the [SDK & Tools](#) page of the Brew MP website.

Support for BREW 3.1.5 SP02/4.0.2 SP19 in Brew MP Tools

Support for Brew 3.1.5 SP02/4.0.2 SP19 platforms is being added to the Brew MP toolset. Toolset features include integration with Visual Studio (using Sim 5 and click2build) and device support for Loader and Logger. Platform installers for Brew 3.1.5 SP02/4.0.2 SP19 will be available on the Brew MP website in June 2010.

TOOLSET

Windows 7 support in Brew MP Toolset

Windows 7 UAC OFF is partially supported in this release. Full UAC OFF support will be provided in June 2010. Support for UAC ON Level 4 is in the process of being tested, with an expected delivery in July 2010.

Multi module support

- Debugger now supports debugging of multiple modules loaded in a process in the same session. This includes simultaneous debugging of a Brew MP application and extension modules that it uses. A Codesourcery update is required to use this feature. See [What's New in Brew MP SDK rev 7.5](#) on page 37 for more information.
- IDE Plugins now support multi-module, multi-class development including Visual Studio solution files, Eclipse workspace folders, user preferences for packaging multiple modules and startup applet, and new Add Class feature.

Loader and Logger

- Loader support for package installation - Loader can create a tar file out of a package/module and installs the package (tar) to device. Loader can also select the volume along with collection during module installation. If a tar file is dragged and dropped on the Loader, it installs it on the connected device.
- Loader support for MMC - Loader can display MMC directories as well as install apps and copy files to and from MMCs.
- Logger has been changed to increase Diag message length to more than 50 characters.

Tracking Heap Memory Usage utility for Simulation

The [Tracking Heap Memory Usage](#) utility is available on the Brew MP website in the Library to a limited audience.

Note: You must have correct access and be logged on to see this in the Library.

This utility runs in the background and logs the heap stats every 5 seconds into the Logger and heap_XXX.log in the application's directory. A sample application and documentation to demonstrate the heap tracker functionality will be available to general developers in June 2010.

Device Enablement Service on Brew MP Devices - Alpha version

An alpha version of the Brew MP Developer Enablement Service (DES) is available and toolset support has been added in this release. Special access is required for this version of the DES and is based on Brew MP Developer Network security group access.

DES is a server run by Qualcomm, which puts the device in Developer Enablement Mode allowing a developer to run arbitrary (or unsigned) code on a commercial Brew MP device. In this mode signatures are not required in order to execute dynamic code on the device. DES is intended to make it easier and less costly to enable development upon a commercial device than through the use of conventional test signatures.

Dialogs have been added to the appropriate tools to prompt users for Developer Network account and password when access to the DES is required.

Target Manager

- Support for 3.x/4.x devices - Target Manager can now interact with 3.x and 4.x simulated targets. Support for physical devices will be available in June 2010.
- Other Target Manager tool integration will be coming in future releases.

Test Studio

- Improved verification that the proper version of Perl is loaded - Test Studio now checks on startup to verify that a compatible version of Perl is available.
- Improved device re-connection capability - Test Studio now attempts to reconnect to a device should the PC-to-target connection drop during testing.

GENERAL

Codesourcery update required for multi module debugging

To make use of the multi-module debugging feature in Brew MP Toolset rev 7.5, a version of GDB with shared library support is needed. Codesourcery Spring 2010 release has an arm-none-eabi-gdb which includes the required support.

What's New in Brew MP SDK rev 7.4

This section describes new features and changes to the Brew MP SDK Rev 7.4.

PLATFORM

Default Platform Version

Version 1.0.2.320 is the default platform version installed with Brew MP 1.0 rev 7.4. You will see this platform listed under Platforms in the Setup tab of the SDK Manager. To install other Brew MP platform versions or addons, go to the [SDK & Tools](#) page of the Brew MP website.

MOD1 work with armgcc

MOD1 and accompany libraries have been extended to work with armgcc (starting with 1.0.2.320, not supported in 1.0.1 platform).

Simulator 5 no longer included in platforms from 1.0.3 on

Simulator 5 is deprecated in platform kits from Brew MP 1.0.3 and later and is no longer included in the Brew MP SDK. All Brew MP tools in the SDK now support Simulator 6 which is included in the Brew MP SDK.

TOOLSET

AppCreator

AppCreator now supports Simulator 6.

Resource Manager supports IDL/h

Resource Manager now supports IDL/h format for defining ClassIDs.

System Task Application

The System Task Application has been added to the Brew MP SDK as part of the Sample Applications install.

What's New in Brew MP SDK rev 7.3

This section describes new features and changes to the Brew MP SDK Rev 7.3.

PLATFORM

Default Platform Version

Version 1.0.2.320 is the default platform version installed with Brew MP 1.0 rev 7.3. You will see this platform listed under Platforms in the Setup tab of the SDK Manager. To install other Brew MP platform versions or addons, go to the [SDK & Tools](#) page of the Brew MP website.

TOOLSETS

Resource Manager command line support for conversion of mfx/brx to cif/car

Resource manager CLI now supports translating files from mfx/brx to cif/car format.

GENERAL

Support for CodeSourcery Tool Chain

Make.d compilation now supports CodeSourcery IA32 and armgcc for DLL1 and MOD1 creation.

Known Issues

The Known Issues for Brew MP products are constantly updated on the Brew MP website as new issues are found. You are strongly encouraged to visit the Brew MP [SDK & Tools](#) page to access updated known issues lists for each product release.