# Change history

1.5.0.0

* Transition to x64 for PC! Client is now 64 bit application and it supports servers for x86 and x64!
* Fixed a serious bug in the server connection.
* Rewrote the data structure for the physical layout view. It is now faster, it has a better visualization, and scales easier for 64 bit.
* It is no longer required to send heap information up front. HeapInspector is able to deal with allocations from various heaps without having to know during initialization.
* Ranges don’t need to be associated with heaps anymore, Heap Inspector will auto-size when necessary.
* Heap names \*can\* be associated with a heap, but it is not required.
* Fixed a bug in the drop down selection of the bar chart, where the view was not updated.

1.4.1.0

* Added support for VS2013
* Short-term fix for adding many heapinfo structures.

1.4.0.0

* Added support for exporting snapshots to CSV.
* Dropped support for VS2008, added support for VS2012 (PC).
* Optimized the opening of the callgraph.
* Added analysis mode to snapshot view.
* Fixed “out of memory exception” when entering callgraph (this had nothing to do with being out of memory by the way).
* Fixed important issues in symbol loading for PC.
* Fixed important issue: allocations could be lost right after initialization of HeapInspector.
* Fixed issue: when HeapInspector is shut down, the pending operations are still transmitted before shutting down the send threads. This makes the memory usage on shutdown a lot better.
* Fixed issues that could occur on Windows 8.
* Added pretty Heap Inspector icons to all forms.
* Added shortcut keys to open/save and exit.

1.3.0.0

* First multiplatform release for PS3 and PC.
* Fixed running “unfself” if path contains spaces for PS3.
* PS3 Sample code now contains code for hooking into \_malloc\_init.
* Fixed request for symbols when closing sessions (for writing server errors to file) while there were no server errors.
* Fixed a crash if the platform package was not installed. This also caused a corruption of the window layout.
* If no platform plugins are found, a message is displayed.

1.2.0.0

* Replaced the BasicServerSample with the Manual Sample. Added Hook, MultithreadedHook and ReplaceNewDelete sample.
* Added mhook functionality for hooking PC allocations.
* Added support for using Microsoft Symbol Server for PC.
* Added support for using Custom Symbol server for PC.
* The global options form now has options for ‘general’ and ‘platform specific’ settings. The platform specific settings are handled by the plugin. The PC version has a control that can set the options for the Microsoft Symbol Server.
* Added Visual Studio 2008 and 2010 support for PC and PS3.

1.1.2.0

* Added support for VS2010 for the BasicServerSample project (use the vcxproj file).
* PS3 file unfself.exe is now searched primarily in the PATH envvar and secondary in the SCE\_PS3\_ROOT directory, similar to how the ppu-lv2-addr2line.exe is searched. This makes it easier to switch SDKs by switching only the SCE\_PS3\_ROOT envvar.

1.1.1.0

* Fixed a problem when loading elf symbol files from paths containing spaces.
* This version includes a first set of optimizations. More to come later.
* Large refactoring of server code so that the majority of the code is shared across platforms. This makes the PC version now up to par with the PS3 version. This concludes the multiplatform preparation.

1.1.0.0

* HeapInspector now uses a plugin structure, where all platform specific functionality is put into platform plugins. This is done in preparation of a multiplatform release.
* Introduced a “heat map” mode in the layout view. This view shows the most recent allocations.
* The callgraph view now by default hides common parents for convenience. This can be disabled by using the ‘hide common parents’ button in the toolbar.
* Fixed a crash in the ‘save as’ code.

1.0.3.0

* Fixed discrepancy between the allocation graphs and the other views. The allocation graph is now much more precise.
* Replaced the pthread implementation with PS3 OS lv-2 synchronization primitives. This solves problems with pthread primitives allocation memory, causing potential deadlocks.
* Fixed crash when ppu-lv2-addr2line could not be found. Improved searching for ppu-lv2-addr2line as well: the file is being searched in the PATHs, and then using SCE\_PS3\_ROOT.
* Fixed problems with resizing the app and the barchart control.
* Fixed a problem in the replay function that could cause inconsistencies in the data (which could lead to crashes).
* Delete key is now supported in the snapshot form.
* Fixed a precision error in the layout view.
* Fixed two crashes when the blocks in the layout view were scrolled out of view.
* Optimized the bucket graph view and the layout view resource and performance use a bit.
* It can now be selected whether symbol data is stored in the session file through the Tools/Options dialog.
* Closing or saving a session will now release the binding to the symbol file. This will help prevent linker errors because HeapInspector still has a lock on the symbol file.
* [PC] using a faster and more accurate callstack retrieval function.
* [PC/Xbox 360] Fixed a problem with pdb symbol lookup when using multiple sessions.

1.0.2.0

* Server libraries for rtti-enabled and rtti&exception enabled applications are now also distributed.
* Calling Initialise during the static initialization phase works correctly now.
* Improved robustness if Initialise is called after some thread(s) are already allocating memory.
* Fixed a crash in the layout view concerning zero-length allocations.

1.0.0.0

* Server threads are now properly exited. This also fixes crashes when Shutdown was called.
* Greatly improved server thread safety.
* Auto-follow button is now automatically checked when starting a connection and automatically unchecked when connection is closed. This is hopefully much more convenient.
* If the client gets disconnected by the server, the client now remains in a correct state: cursors can be set in the allocation graphs and the GUI does not have any unwanted updating anymore.
* Fixed a rounding error in the bucket graph view.
* When double-clicking a bar in the callgraph, a filter is used depending on the view that is selected (size requested, size received or wasted).
* The sample project will not cause a ‘project not found’error anymore when loading the solution.
* Port number can now be set in the GUI instead of being hardcoded to 3000.
* Improved the bucket distribution GUI.
* Resolved race condition in the bucket GUI. Now the graphs will not display out of the client area anymore.
* Snapshots can now be renamed.
* Open/Save/Close session buttons are now properly reenabled when the server disconnects.
* Fixed an issue where the graphs could get in a broken state. The minimum zoom range is now set to 1/100th of the largest value on the graph, which makes more sense.

0.8.3.0

* Server now outputs “libHeapInspector.a” instead of “HeapInspector.lib” files.
* Double-clicking a bar in the bar-chart for filtered callgraphs is now enabled.
* When ppu-lv2-addr2line.exe cannot be started, a proper message is displayed in both debug and release configurations.
* Connect/Disconnect/Connect on PS3 is fixed.
* Added support for converting “.self” files to “.elf” files.
* Heap range errors are now properly reset when a new session is started.
* Sessions now also store all required symbol information. The dependency to a symbol file like an elf or pdb is therefore not necessary anymore after saving. This also opens up the possibility for comparing sessions in a later version of HeapInspector.
* Improved usability for connection dialog a bit.

0.8.2.0

* Renamed Types.h to HeapInspectorTypes.h to avoid any clashes.
* Closing a session will properly clear all of the graphs.
* When selecting a heap, the graphs are properly updated.
* Disabled heap switching during playback to avoid crashes.
* Fixed setting cursors on non-primary heap.
* Clamped zooming in and out on both graphs to sane values.
* Scintilla should not crash anymore on 64 bit Windows.
* Fixed bug where the first line in view was drawn incorrectly.

0.8.1.0

* The correct version number is now displayed in the about box.
* Closing Heap Inspector while being connected will not cause a crash anymore.
* Improved the thread-safety of Heap Inspector. Some or all of the stability issues when connected should be fixed.
* Fixed error handling when loading symbols.
* Allocation graphs are now always properly updated.
* Improved precision of allocation graphs.
* Fixed a bug in enabling the memory layout view while being connected.