

**Ver: 6.3.12 EW22795**

Function-like macros with zero parameters caused the Source Browser to lose the definition following the macro.

For example, after this definition:

```
#define MACRO() macro_body
```

x in the following lines would not be recognized the Source Browser:

```
MACRO()  
int x;
```

This has been corrected.

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**Ver: 6.3.12 EW22784**

The debugger might close unexpectedly during long trace acquisition (several hours) in the time line window. This no longer happens.

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**Ver: 6.3.12 EW22775**

Parsing large ORTI description files could cause the ORTI plugin to fail with a "memory exhausted" message. This has been corrected.

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**Ver: 6.3.12 EW22710**

If a path for the build log file contained an argument variable (like "\$PROJ\_DIR\$") and the "Overwrite old file" option was selected, the log was still appended to the existing file. This has been corrected.

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**Ver: 6.3.10 EW22766**

In some cases, single stepping or running to breakpoints when the Call Stack window is open could make the IDE unresponsive. This has been corrected.

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**Ver: 6.3.10 EW22764**

If you used two or more monitors, ending a debug session with the main IDE window open on one monitor but the Disassembly window on another monitor, IAR Embedded Workbench could terminate unexpectedly when you restarted the debug session. This has been corrected.

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**Ver: 6.3.10 EW22667**

In Watch windows, pointers to ARM Thumb functions now correctly show the function name.

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**Ver: 6.3.10 EW22609**

Files in editor panes were not always restored to the correct panes. This has been corrected.

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**Ver: 6.3.10 EW22528**

A minor memory leak when using the source browser has been fixed.

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**Ver: 6.3.10 EW22494**

The date and time format used in the Product Info dialog was operating system dependent. It now has a fixed format using UTC time to make it easy to compare the contents of different installations.

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**Ver: 6.3.10 EW19961**

Evaluation of a cast expression in C-Spy, containing a plain char, such as "(char \*)42" when the target program does not use the plain char type anywhere, could result in crash. This has been corrected.

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**Ver: 6.3.10 EW19781**

The name of the currently opened workspace is now displayed along with the Embedded workbench name in the Windows Taskbar and Task Manager

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**Ver: 6.3.6 EW22665**

Using the \_\_setSimBreak macro to set a "write" breakpoint ("W") resulted in breakpoints set as "read" ("R") instead. This has been corrected.

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**Ver: 6.3.5 EW22610**

The checkmark in front of the "Mixed-Mode" entry on the Disassembly window context menu had been lost. It is back now.

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**Ver: 6.3.3 EW22496**

The Stack window no longer crashes upon opening when, under certain circumstances, C-Spy has insufficient information about target system stacks to display stack information as intended.

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**Ver: 6.3.2    EW22463**

The command 'Undo Checkout' in the Version Control System submenu for SCC did not work. This has been corrected.

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**Ver: 6.3.1    EW22409**

If the Watch window was not already open, executing "Add to Watch" on a selection in the editor window just opened the Watch window without adding an entry to it. Now it does.

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**Ver: 6.3.1    EW22401**

A build problem where argument variables, in some circumstances, were not expanded relative to the configuration actually being built has been corrected

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**Ver: 6.3.1    EW22394**

A malfunctioning automatic horizontal scroll feature when dragging a selection from the editor window to the left or the right has been turned off.

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**Ver: 6.3.0    EW22342**

If two or more IAR Embedded Workbench toolchains (for different microcontroller architectures) were installed in the same directory, and some of the toolchains were only available in English, launching IAR Embedded Workbench in a non-English language meant that the Information Center was not available for English-only toolchains. This has been corrected.

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**Ver: 6.1.7    EW22305**

The dialog box used for choosing a directory from the Find in Files dialog box had wrong dialog box title and button name. This has been corrected.

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**Ver: 6.1.6    EW22203**

Errors and warnings detected when building were reported as twice as many they really were. This has been corrected.

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**Ver: 6.1.6 EW22178**

Recursive definitions of a preprocessor macro no longer causes IAR Embedded Workbench to terminate abnormally.

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**Ver: 6.1.6 EW22127**

Large and complex projects no longer cause the IAR Embedded Workbench source browser to freeze.

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**Ver: 6.1.6 EW22076**

The IDE command <b>Stop Build</b> now works properly when it is applied to pre- or post build actions when they are started in a new command shell.

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**Ver: 6.1.5 EW22182**

Type definitions containing pointers to functions could produce incorrect debug information leading to unexpected IAR Embedded Workbench termination when the debugger was started. This has been corrected.

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**Ver: 6.1.5 EW21536**

The "Go to definition" command applied to a symbol which definition was located in a conditionally included header file could fail. This has been corrected.

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**Ver: 6.1.4 EW22164**

Invoking project build commands could cause the IAR Embedded Workbench to freeze under Windows7. This has been corrected.

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**Ver: 6.1.3 EW22211**

The IAR Embedded Workbench IDE sometimes failed to delete temporary files named EWnnn in the project Obj and List directories when they were no longer needed. This no longer occurs.

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**Ver: 6.1.3 EW22156**

IAR Embedded Workbench could leak GDI (Graphics Device Interface) objects in some cases. This no longer occurs.

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**Ver: 6.1.3 EW22125**

In some cases, when using trace based data features, executing an application in the debugger over a long time could result in a "Runtime Error!" message and abrupt IAR Embedded Workbench termination. This no longer occurs.

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**Ver: 6.1.3 EW22116**

IDE Embedded Workbench could terminate unexpectedly when changing editor font type or/and size. This has been corrected.

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**Ver: 6.1.0 EW22005**

The "Project>Options>Linker>Output>Output file:" text box accepted a file path instead of just a filename which could lead to project building problems. This has been corrected and the option has been renamed.

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**Ver: 6.1.0 EW21924**

A serious memory leak could lead to IAR Embedded Workbench abnormal termination. This has been corrected.

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**Ver: 6.1.0 EW21916**

A variable declared in an assembler source file could be given an incorrect address when it was displayed in a Watch window. This has been corrected.

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**Ver: 6.1.0 EW21869**

Namespaces could not be used when the IAR C-SPY Debugger resolved names. This has been corrected.

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**Ver: 6.1.0 EW21862**

There was a redundant warning when the flash loader checked for the presence of arguments. This warning is no longer issued.

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**Ver: 6.1.0 EW21840**

Using a path containing ".." to defined output directories could make it impossible to start the debugger. This has been corrected.

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**Ver: 6.1.0 EW21751**

Corrupt .wstdt and .dbgdt files in a project's settings directory could cause IAR Embedded Workbench to quit unexpectedly. Now, if this situation occurs, the IAR Embedded Workbench IDE reverts to default layouts.

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**Ver: 6.1.0 EW21646**

A file path exceeding the \_MAX\_PATH Windows limit could cause the IAR Embedded Workbench to freeze or quit unexpectedly. Now such situations are detected and flagged as errors.

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**Ver: 6.0.6 EW22150**

IAR Embedded Workbench could terminate unexpectedly when reloading a project that had been externally modified if the project being reloaded needed to be converted to a newer version. This has been corrected.

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**Ver: 6.0.0 EW19988**

Variables of array, struct, union or class type placed at an absolute address were not displayed properly in the Watch window family. This has been corrected.

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**Ver: 5.8.1 EW21923**

Applying format alternative from "Trace expression window" context menu to an empty row caused the IAR Embedded Workbench to exit unexpectedly. This has been corrected.

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**Ver: 5.6.3 EW21715**

Large and complex projects could cause the IAR Embedded Workbench source browser to freeze. This has been corrected.

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**Ver: 5.6.3 EW21660**

Construction like

extern struct ST s;

could make contents of "Go to Function" window incorrect. This no longer happens.

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**Ver: 5.6.3 EW21603**

Incorrect address of members of anonymous structs and unions was shown in the Live Watch window. This has been corrected.

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**Ver: 5.6.3 EW21589**

Instantiated code templates were stripped of multiple blanks. This no longer happens.

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**Ver: 5.6.2 EW21532**

If you exited the debugger while the application was running and the option "Leave Target Running" is selected, an incorrect stack threshold exceeding warning was issued. This no longer happens.

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**Ver: 5.6.2 EW21491**

Adding a file to a project will now use the current case of the file name, even if it was previously included in the project with another case.

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**Ver: 5.6.0 EW21413**

Opening a context menu in the Editor window will no longer produce strange error entries in the Debug Log window.

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**Ver: 5.6.0 EW21154**

Negative values of long long type greater than  $(2^{31})-1$  (absolute) can now be entered manually in the Watch window.

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**Ver: 5.6.0 EW20856**

There was a problem when switching from multi-file compilation mode to single-file compilation, causing the error "Build error: Multiple tools write to the same file" to be issued. This problem has been corrected.

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**Ver: 5.6.0 EW20276**

Breakpoints with the path not under \$PROJ\_DIR\$ were not saved with relative paths. Paths on the same drive are now always saved as relative to \$PROJ\_DIR\$, regardless where the file resides (unless it is actually under \$TOOLKIT\_DIR\$, in which case it will be relative to \$TOOLKIT\_DIR\$).

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**Ver: 5.5.5    EW21391**

Dragging an expression containing a dereferenced function pointer onto the Memory window no longer causes the debugger to crash.

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**Ver: 5.5.4    EW21255**

The source file paths retrieved from the externally built ELF/DWARF object file are now correctly interpreted by the debugger.

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**Ver: 5.5.3    EW21331**

Sometimes, during downloading to flash memory, the IDE could become unresponsive. This has been corrected.

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**Ver: 5.5.3    EW21301**

Sometimes, while stepping in a complex C++ program, the displayed source code location did not reflect the current program counter. This has been corrected.

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**Ver: 5.5.0    EW20980**

A rare problem with downloading files in the Motorola S37 format into the wrong memory location has been corrected.

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**Ver: 5.4.3    EW20902**

In some cases, during initialization of the Stack plugin immediately after downloading the ELF/DWARF input file, the Embedded Workbench IDE exited unexpectedly. This has been corrected.

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**Ver: 5.4.3    EW20824**

A C/C++ macro definition containing a '#' character no longer causes the IAR Embedded Workbench IDE to exit unexpectedly.

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**Ver: 5.4.1    EW20780**

An '#undef' preprocessor directive not followed by a preprocessor symbol no longer causes the IAR Embedded Workbench IDE to exit unexpectedly.

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**Ver: 5.4.0    EW20752**

The Embedded Workbench could crash if a large selection in the text editor was right-clicked. This has been corrected.

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**Ver: 5.4.0    EW20703**

It is now possible to right-click a breakpoint in the Editor and Disassembly windows to open the Edit Breakpoint dialog box.

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**Ver: 5.4.0    EW20488**

The ILINK checksum fields "Alignment" and "Initial value" are now correctly enabled and disabled.

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**Ver: 5.4.0    EW20486**

The value of bit field variables located in the anonymous structure/union could be incorrectly shown in the Live Watch window. This has been corrected.

---

**Ver: 5.4.0    EW20397**

It is now possible to resize the Goto Function dialog of the Text Editor. The function list in the dialog is also sorted alphabetically.

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**Ver: 5.4.0    EW20269**

The C-SPY macro " \_\_openFile ( input\_file, "r+b" )" could fail if the input\_file had the read only attribute set. This has been corrected.

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**Ver: 5.4.0    EW20237**

There was no way to select the checksum algorithm sum32 in "Project>Options>Linker>Checksum". This has been corrected.

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**Ver: 5.4.0    EW20108**

When the execution has stopped at a breakpoint, the corresponding breakpoint entry in the Breakpoints window is marked by the green arrow.

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**Ver: 5.3.4 EW20940**

The debugger could become inresponsive when attempting to display large floating-point values. This has been corrected.

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**Ver: 5.3.3 EW20668**

The "Clean" command sometimes failed to remove compiler-generated list files. This has been corrected.

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**Ver: 5.3.3 EW20660**

It was impossible to browse to a location in the source file when creating a new code breakpoint. This has been corrected.

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**Ver: 5.3.3 EW20546**

Value of 64-bits large double numbers could be incorrectly displayed when using the default display format. This has been corrected.

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**Ver: 5.3.3 EW20497**

An incorrect \$ variable like \$FILE\_PATHB\$ used in custom build definitions could lead to crash. This has been corrected.

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**Ver: 5.3.3 EW20202**

The sizes of the windows in the IAR Embedded Workbench IDE were not restored properly if the application was minimized when it was closed.

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**Ver: 5.3.3 EW19825**

If a debug file has changed between sessions, all absolute user breakpoints are disabled and a log is issued to this effect.

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**Ver: 5.3.3 EW19178**

If the IAR Embedded Workbench IDE was placed partly outside the screen or minimized when it was closed the dialog box asking for confirmation of termination of a debug session could appear outside the screen.

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**Ver: 5.3.2 EW20573**

The command line utility cspybat.exe downloaded code to memory after the flashloader download which could cause problems in some hardware. This has been corrected.

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**Ver: 5.3.1 EW20530**

The flashloader based on a previous flashloader framework could not properly be invoked from Cspybat.exe. This has been corrected.

---

**Ver: 5.3.1 EW20425**

If an input expression in the "Linker configuration file editor" dialog box contained space or tab characters, it could be incorrectly evaluated to 0. This has been corrected.

---

**Ver: 5.3.1 EW20339**

Opening the Code Coverage window in the Japanese language version no longer causes the Embedded Workbench IDE to exit unexpectedly.

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**Ver: 5.3.0 EW20112**

Circular #include preprocessor directives could make the IDE unresponsive. This has been corrected.

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**Ver: 5.3.0 EW20103**

A multiple failure to open a file using the 'fopen()' library function could use up all available file handles. This no longer occurs.

---

**Ver: 5.3.0 EW20039**

C-SPY no longer crashes when accessing certain pointer-to-member variables.

---

**Ver: 5.3.0 EW19869**

Some RealView 3.1 generated ELF/DWARF formatted files could be incompatible with C-SPY debugger. This resulted in an error:

ELF/DWARF Error: Unsupported .debug\_info format version:5660

This has been corrected.

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**Ver: 5.3.0 EW19816**

An illegal instruction executed in a tight loop generated an excessive warning output to the Debug Log window. This could render the debugger unresponsive. This has been corrected.

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**Ver: 5.3.0 EW19748**

The fill pattern can now be of any length as long as it is composed of full bytes, but must be given in hexadecimal notation, starting with 0x.

---

**Ver: 5.2.9 EW19880**

The Embedded Workbench IDE could terminate abnormally if the application JAWS from Freedom Scientific was running concurrently. This has been corrected.

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**Ver: 5.2.8 EW20152**

In some cases, evaluating variables of the type complex structures, for example via ToolTip, could lead to an abnormal termination of the IDE session. This has been corrected.

---

**Ver: 5.2.7 EW20133**

A modulo operator with a 0 divisor within preprocessor directives could cause the IDE to terminate abnormally. This has been corrected.

---

**Ver: 5.2.5 EW19942**

The "New Breakpoint..." dialog would occasionally become too large, partially hiding window contents. This has been corrected.

---

**Ver: 5.2.5 EW19806**

An incorrect preprocessor directive in the form of

```
#define X(y) #x
```

could make the Embedded Workbench terminate abnormally. This has been corrected.

---

**Ver: 5.2.0 EW20179**

The workspace file did not save relative paths to project files that were outside/above the workspace directory. This has been corrected.

---

**Ver: 5.2.0 EW19877**

Builds no longer fail if the paths of any of the output directories use the \$WS\_DIR\$ variable.

---

**Ver: 5.1.1 EW19773**

The IAR Embedded Workbench IDE could become unresponsive if recursive macros were used in a preprocessor expression with the "Generate browse information" selected in the IDE options dialog box. This has been corrected.

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**Ver: 5.1.1 EW19771**

If you open the Find in Files dialog box with unsaved files open, you will be asked how to proceed with the unsaved files. Previously, if there was selected text in an editor window when you opened the Find in Files dialog box, it would be deselected after you had taken care of the unsaved files. This has now been corrected, and the selection still exists when you return to the Find in Files dialog box.

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**Ver: 5.1.1 EW19623**

The Build log file now contains also the file name and line number where applicable.

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**Ver: 5.1.0 EW20114**

Editor "Go to Function" failed in code containing "namespace". This has been corrected.

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**Ver: 5.1.0 EW19704**

Selecting the "Treat all warnings as errors" linker option generated multiple "--warnings\_are\_errors" flags to ILINK.

This has been corrected.

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**Ver: 5.1.0 EW19689**

The project manager maintains a number of variables, such as \$PROJ\_DIR\$ or \$TOOLKIT\_DIR\$, which can be used in project options (and other places) and which are expanded to strings as appropriate. If you specify a variable on the form \$\_NAME\_\$, it will now be expanded to the value of the environment variable named NAME.

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**Ver: 5.1.0 EW19670**

A source line containing only '#define' but nothing more could cause the IAR Embedded Workbench IDE to exit abnormally. This has been corrected.

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**Ver: 5.1.0 EW19625**

A problem with adding additional libraries on the ILINK "Library" page has been corrected.

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**Ver: 5.1.0 EW19619**

If a .c file contains a time stamp, using the \_\_TIME\_\_ macro, it is desirable that the file is recompiled each time a project is built. One easy way to accomplish this is to render the .c file "not up to date" in the prebuild build action (in the Project>Options dialog.), for example by using 'touch' on the source file or removing the object file. A bug has been fixed which prevented this technique from working properly (it used to require two invocations of Make to bring a project up to date).

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**Ver: 5.1.0 EW19615**

Tooltips for variables in the editor window now reflect the global default integer format.

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**Ver: 5.1.0 EW19614**

When a debug session is active, files will now normally open in the built-in text editor even if an external editor has been specified.

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**Ver: 5.1.0 EW19609**

The pragma directive "#warning" is now correctly highlighted by the text editor.

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**Ver: 5.1.0 EW19608**

The \_\_openFile C-SPY macro function can now use the value "b" for the access parameter to open files in binary mode. This makes it possible for the C-SPY macro function \_\_writeFileByte to handle binary files correctly.

Allowed \_\_openFile access parameter combinations are:

r, r+, rb, rt, rb+, rt+, r+b, r+t

a, a+, ab, at, ab+, at+, a+b, a+t

w, w+, wb, wt, wb+, wt+, w+b, w+t

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**Ver: 5.1.0 EW19607**

The \_\_openFile C-SPY macro function can now use the value "b" for the access parameter to open files in binary mode. This makes it possible for the C-SPY macro function \_\_readFileByte to handle binary files correctly.

Allowed \_\_openFile access parameter combinations are:

r, r+, rb, rt, rb+, rt+, r+b, r+t

a, a+, ab, at, ab+, at+, a+b, a+t

w, w+, wb, wt, wb+, wt+, w+b, w+t

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**Ver: 5.1.0 EW19590**

Symbol #CYCLES is now also available when debugging files in intel-extended and motorola formats using simulator

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**Ver: 5.1.0 EW19576**

A problem with file sharing violations between the Source Browser and Find in Files has been corrected.

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**Ver: 5.1.0 EW19566**

Problems with entering multiple lines of text in the Check-In dialog comment field has been corrected.

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**Ver: 5.1.0 EW19562**

A number of key bindings issues have been fixed.

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**Ver: 5.1.0 EW19556**



## IAR Embedded Workbench IDE - Corrected problems

When navigating in the Source Browser by typing the first few letters of a symbol, the topmost item (the project name) is now ignored.

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**Ver: 5.1.0    EW19552**

Changing output directories could temporarily result in build problems. This has been corrected.

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**Ver: 5.1.0    EW19543**

In some cases, references were incorrectly shown in the QuickWatch, Watch and Locals windows. This has been corrected.

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**Ver: 5.1.0    EW19532**

If you based a new project build configuration on an old configuration, and the project contained files that had been excluded from the old configuration, these files would incorrectly be included in the new configuration. This has been corrected.

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**Ver: 5.1.0    EW19531**

The editor function browser did not recognize functions within the 'namespace' block. This has been corrected.

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**Ver: 5.1.0    EW19523**

The text editor now reloads externally modified files correctly.

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**Ver: 5.1.0    EW19486**

Deselecting "Automatic runtime library selection" will now add the "--no\_library\_search" options to the ILINK command line.

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**Ver: 5.1.0    EW19464**

C-SPY no longer crashes if a C-SPY macro invoked by a breakpoint deletes the very same breakpoint.

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**Ver: 5.1.0    EW19461**

If there are unsaved files when the building of a project is started, you are now given a chance to save none/all/some of the files or cancel the operation.

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**Ver: 5.1.0    EW19455**

Division by 0 within preprocessor directives could cause IAR Embedded Workbench to terminate abnormally. This has been corrected.

---

**Ver: 5.1.0    EW19448**

The ILINK configuration file editor no longer loses data at the end of the file each time it is edited.

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**Ver: 5.1.0    EW19371**

It is now possible to choose a background color for editor windows.

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**Ver: 5.0.1    EW19535**

While debugging, multiple instances of the same file could be opened if its path contained non-ASCII characters. This has been corrected.

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**Ver: 5.0.1    EW19459**

In some situations the Embedded Workbench could crash when the Find in Files dialog was opened. This has been corrected.

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**Ver: 4.8.4    EW19783**

Problems with entering multiple lines of text in the Check-In dialog comment field has been corrected.

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**Ver: 4.8.4    EW19235**

Tool-tip watch, 'Quick Watch' and 'Add to Watch' did not work unless the function or variable was marked. This has been corrected.

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**Ver: 4.8.3    EW19007**

In some situations, edit boxes were left unclosed when repeatedly clicking in a window with editable contents.

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**Ver: 4.8.3    EW18927**

Clicking the vertical scrollbar in the Disassembly window multiple times could earlier lead to incorrect behaviour.

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**Ver: 4.8.3    EW18891**

Floating windows placed on the secondary monitor outside the IAR Embedded Workbench IDE main window will now be centered on the primary display monitor if moving from a system with two display monitors.

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**Ver: 4.8.3    EW18726**

When a project file is opened, the IDE now detects if it has been modified since it was last opened, and if so, will make the next build a complete rebuild.

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**Ver: 4.8.3    EW18660**

In a custom build rule, the files listed in "Additional input files" were not always checked correctly when determining if the rule should be applied during a build operation. This has been corrected.

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**Ver: 4.8.3    EW18314**

Using nested C++ types in the following code example no longer leads to abnormal debugger termination.

Example:

```
template <class T>
class A
{
    T* data;
};
class B : public A<B>
{
};
int main(void)
{
    B b;
    return 0;
}
```

---

**Ver: 4.8.3    EW13522**

The project manager now detects when open project files are modified on disk, and gives an opportunity to reload them.

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**Ver: 4.8.1    EW19018**

When downloading or restoring the memory contents from a Motorola S37 formatted file, the highest address byte was always set to 0. This has been corrected.

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**Ver: 4.8.0    EW18946**

The IAR Embedded Workbench no longer crashes when you type a colon or a semicolon followed by a return character in an otherwise empty source file.

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**Ver: 4.8.0    EW18746**

A very rare problem in IAR Embedded Workbench, that could delete project files if a project directory was moved, has been corrected.

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**Ver: 4.8.0    EW16369**

A problem where the Profiling plug-in module did not remember its state has been corrected

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**Ver: 4.7.2    EW18554**

The debugger no longer terminates abnormally if the Profiling functionality is activated and when there are too few breakpoints available.

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**Ver: 4.7.1    EW18463**

Placing a variable using the '@' operator at an address outside the defined address space could cause the debugger to exit unexpectedly. This has been corrected.

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**Ver: 4.7.1 EW18358**

Adding a trailing semicolon to the 'File types' list box in the Find in Files dialog box, no longer causes the Embedded Workbench IDE to exit unexpectedly.

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**Ver: 4.7.1 EW18352**

If the debugger, when terminating a debug session, failed to stop the target execution, a crash could occur. This has been corrected.

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**Ver: 4.7.1 EW18351**

Missing an swtdXXX.dll file no longer causes project files to be backed up every time the project is opened.

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**Ver: 4.7.1 EW18340**

A problem where the Stack window could cause a crash when a debug session started has been corrected.

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**Ver: 4.7.1 EW18329**

Flash loader warnings in the debugger log were easy to miss among all other log output, which could make errors difficult to understand. This has been corrected.

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**Ver: 4.7.1 EW18309**

In some cases, stopping at a step point in highly optimized code could make the Embedded Workbench IDE exit with no warning. This has been corrected.

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**Ver: 4.7.1 EW18212**

The Watch window, and related windows, no longer scroll to the top of the list when stepping or expanding large structures or arrays.

---

**Ver: 4.7.1 EW17411**

C-SPY no longer crashes when trying to load a file in the unsupported ELF/DWARF format. The file is rejected and a debug session is not started.

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**Ver: 4.7.1 EW17239**

Expanding an STL data structure in the Watch window of the debugger, when the data structure fits entirely in a processor register, no longer causes a crash.

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**Ver: 4.7.1 EW16661**

A problem with keeping user-defined key bindings has been corrected.

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**Ver: 4.7.1 EW16421**

A source browser filter for non-member functions and variables has been added.

---

**Ver: 4.7.1 EW16393**

The driver SDK has been modified to allow for some more flexibility in managing threads, as follows:

- \* The documentation now describes from which threads each driver function can be called.
- \* The built-in critical section locks in DpDriver are now optional.
- \* The background execution thread now gets specific sign on/off calls using DbDriverCmd.

---

**Ver: 4.7.1 EW16392**

The driver SDK has been modified to allow for some more flexibility in managing threads, as follows:

- \* The documentation now describes from which threads each driver function can be called.
- \* The built-in critical section locks in DpDriver are now optional.
- \* The background execution thread now gets specific sign on/off calls using DbDriverCmd.

---

**Ver: 4.7.0 EW18077**

The Auto Indent function now better handles lines already indented using tabs (could also cause a crash in unusual circumstances.)

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**Ver: 4.7.0 EW18068**

In some cases the display of STL objects in a readable format did not work. This has been corrected.

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**Ver: 4.7.0 EW17983**

If the debugger is in source level stepping mode a green arrow is only shown for the current PC in the editor window. If the debugger is in assembly level stepping mode the green arrow is only shown in the disassembly window.

The green arrow that points at the current source location is now only visible in one of the text editor and the disassembly window. It is in the text editor if the debugger is in statement stepping mode and in the disassembly window if it is in steppoint stepping mode.

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**Ver: 4.7.0    EW17951**

Specifying output directories with a path that contained an illegal drive letter could cause the IAR Embedded Workbench IDE to exit abnormally. This has been corrected.

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**Ver: 4.7.0    EW17780**

If a function was placed using the @ operator, the function was not present in the "Go to Function" list. This has been corrected.

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**Ver: 4.7.0    EW16751**

A problem with misplaced bracket match indicators and bookmarks on lines containing tabs (ASCII character 0x09) has been corrected.

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**Ver: 4.7.0    EW16793**

A horizontal scrollbar has been added to the MISRA C options list.

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**Ver: 4.7.0    EW16753**

When an example workspace was opened from the Startup screen, a different workspace that the selected could appear. This has been corrected.

---

**Ver: 4.7.0    EW16235**

By default, the debugger used disassembly level stepping. It now uses source level stepping by default if there is source code where the execution stops for the first time.

---

**Ver: 4.7.0    EW16112**

A problem with parsing errors producing strange error messages like:

Thu May 11 11:03:17 2006: [syntax error, unexpected HEXCONSTANT, expecting IDENTIFIER] <internal> line 1, column 23

or

Thu May 11 11:03:17 2006: [syntax error, unexpected TYPE\_NAME, expecting IDENTIFIER] <internal> line 1, column 55

while loading the 'custom\_formats.dat' file, has been corrected.

('custom\_formats.dat' file contains a set of C-SPY macros used to display STL objects in a readable format).

---

**Ver: 4.7.0    EW11887**

A new "Statics" window has been added for inspecting variables with static storage duration.

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**Ver: 4.6.7    EW18129**

Saving files over a network could sometimes take more than 10 seconds per file. This has been corrected.

---

**Ver: 4.6.4    EW17891**

The Stack plugin no longer locks the debugger up when attempting to display stack variables of struct type with trailing padding or variables of certain union types.

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**Ver: 4.6.4    EW17843**

The settings for the Stack plugin are now saved with each project, so it is possible to maintain different settings for different projects.

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**Ver: 4.6.4    EW17826**

It is possible now to reset the target system without stopping the execution first. This applies only to drivers that support this feature.

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**Ver: 4.6.4 EW17824**

When saving project files (and some other files) file paths are made relative to either \$PROJ\_DIR\$ (the directory where the project file resides) or \$EW\_DIR\$ (the Embedded Workbench installation directory). \$EW\_DIR\$ will now only be used if the path refers to a file "under" \$EW\_DIR\$ AND the "distance" from \$EW\_DIR\$ is shorter than the distance from \$PROJ\_DIR\$.

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**Ver: 4.6.2 EW17747**

In previous versions of IAR Embedded Workbench, installing a new IAR Embedded Workbench 4.6.0 product in the same directory where a different IAR Embedded Workbench 4.0-4.5 product was already installed could in some cases cause compatibility problems when using the old product.

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**Ver: 4.6.2 EW17668**

Stepping over statements that generate no code bytes could lead to the unexpected termination of IAR Embedded Workbench. This has been corrected.

---

**Ver: 4.6.2 EW17642**

When source browse information generation was enabled, the source browser could sometimes enter an infinite loop. This has been corrected.

---

**Ver: 4.6.2 EW17574**

The Disassembly window now properly filters away certain irrelevant internal labels.

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**Ver: 4.6.2 EW17563**

Having a single identifier at the end of a source file could cause IAR Embedded Workbench to crash. This has been corrected.

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**Ver: 4.6.0 EW17517**

It is now possible to edit the search path in the Find in Files dialog box.

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**Ver: 4.6.0 EW17416**

Block operations, such as "trim trailing blanks" and "indent block" are performed much faster on large files now.

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**Ver: 4.6.0 EW17370**

Default selected button is "Find next" instead of "Close" so that you with "Enter" can find the next hit.

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**Ver: 4.6.0 EW17369**

Pressing ESC in the Incremental Search dialog used to move the cursor back to where it was before the search started. It now leaves the cursor where it is.

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**Ver: 4.6.0 EW17367**

A command for commenting and uncommenting blocks of code has been added.

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**Ver: 4.6.0 EW17366**

Workspace and project files are now (optionally) saved before a project is built.

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**Ver: 4.6.0 EW17365**

The file dialog now remembers the last file type selection.

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**Ver: 4.6.0 EW17251**

There is now a menu insertion point where plugins can register their about box menu commands.

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**Ver: 4.6.0 EW17219**

Previously, some hardware debugger drivers could only be used from within the IAR Embedded Workbench IDE, and not from the command line. These drivers can now be used also from the command line.

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**Ver: 4.6.0 EW17112**

When autoindenting, the editor now uses tabs and/or spaces as determined by editor settings.

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**Ver: 4.6.0    EW16989**

The iarbuild command line tool now has an option to filter build messages by severity.

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**Ver: 4.6.0    EW16858**

It is now possible to add custom file types in the Find in Files dialog

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**Ver: 4.6.0    EW16336**

The text editor now indicates an appropriate line width for printing, either based on a user-settable fixed number of characters or on the current printer page width.

---

**Ver: 4.6.0    EW15740**

The Live Watch window could be opened even if the C-SPY driver did not support it. This has been corrected but still could appear when using older drivers.

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**Ver: 4.6.0    EW14458**

It is now possible to toggle breakpoints by double-clicking the left margin in the text editor.

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**Ver: 4.6.0    EW13708**

When copying text from the ASCII part of a memory window NULL characters ('\0') were removed. They now become dots in the clipboard.

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**Ver: 4.5.1    EW17361**

After initially displaying "Collecting information..." the Source Browser window could show no more information. This has been corrected.

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**Ver: 4.5.1    EW17323**

The IDE no longer crashes if you try to split an editor window directly after the debugger has been started or stopped.

---

**Ver: 4.5.1    EW17086**

When source browse information generation was enabled, saving a text editor file could sometimes fail. This has been corrected.

---

**Ver: 4.5.0    EW16951**

A program error which caused incorrect Find in Files search results for files with lines exceeding 255 characters has been corrected.

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**Ver: 4.5.0    EW16893**

Source browser data was not collected when using the '\$FILE\_DIR\$' argument variable to specify additional include paths for the compiler.

---

**Ver: 4.5.0    EW16834**

If you had a read-only file open in the editor and chose the Save As command from the Edit menu you were asked if you wanted to remove the read-only attributes of the file, and if you said yes the original read-only file will be overwritten without showing you a Save As dialog.

---

**Ver: 4.5.0    EW16825**

Stepping through your application program containing multiple C/C++ statements within a single preprocessor macro could earlier cause the debugger to terminate abnormally. This has been corrected.

---

**Ver: 4.5.0    EW16763**

When saving a workspace file failed, for example if it was write protected, an error message was not displayed.

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**Ver: 4.5.0    EW16750**

IAR Embedded Workbench could earlier not handle paths with more than one space.

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**Ver: 4.5.0    EW16742**

Source browse information for functions declared using the #pragma location directive or the @ operator was incorrectly displayed in the Source Browser window.

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**Ver: 4.5.0    EW16738**

In the workspace window there is a new popup menu command for adding the topmost editor document to the current project.

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**Ver: 4.5.0    EW16732**

Loading of large projects, or specifically projects with large dependency files (.dep), has been speeded up considerably.

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**Ver: 4.5.0    EW16728**

Source browse information for an #if preprocessor directive containing a macro with parameters was incorrectly displayed in the Source Browser window.

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**Ver: 4.5.0    EW16720**

The Auto window incorrectly displayed certain nested expressions as "TBD".

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**Ver: 4.5.0    EW16700**

In some cases, the debugger could earlier fail to clear temporary breakpoints set to control the execution of the flash loader. This has been corrected

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**Ver: 4.5.0    EW16650**

The build log and the text editor have now different images for errors and warnings.

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**Ver: 4.5.0    EW16605**

If you selected a cursive font like "Monotype Corsiva", all fonts selected thereafter also became cursive.

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**Ver: 4.5.0    EW16578**

There is now a context menu command for opening a file included with an include statement in c/cpp code. It is also possible to jump between source and include files with the same name.

---

**Ver: 4.5.0    EW16540**

When a bracket is entered or the caret is placed after a bracket in the text editor the matching bracket is highlighted.

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**Ver: 4.5.0    EW16265**

When closing a workspace file containing a read-only project file, an error message was displayed but without the possibility to save the project file.

---

**Ver: 4.5.0    EW14776**

In the debugger, a memory attribute is sometimes needed when casting to a pointer type. The error message issued when the attribute is missing is now clearer.

---

**Ver: 4.5.0    EW14285**

To simplify examining variables defined in assembler files, assembler labels are now by default treated as variables of type int, located at the label location, instead of as integer constants with the label address as the value. The display can be further customized using context menus in e.g. the Watch debugger window.

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**Ver: 4.4.2    EW16645**

A problem with source code control operations on Embedded Workbench projects connected to Microsoft Visual SourceSafe has been corrected. Now all operations can be performed on the projects.

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**Ver: 4.4.2    EW16579**

A problem when terminating execution of CSpyBat.exe using ctrl-c has been corrected.

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**Ver: 4.4.1    EW16449**

A problem that sometimes caused the IDE to crash when old projects were opened has been corrected.

---

**Ver: 4.4.1    EW16426**

If a project was placed in the Embedded Workbench installation directory, Find in Files regarded the project's files as system include files. This meant that when the option "Project files and user include files" (i.e. no system include files) was selected, no files were searched through.

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**Ver: 4.4.1    EW16348**

The format variant "NEC compatible" for XCOFF78K now sets the '-yspn' flags by default

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**Ver: 4.4.0    EW16182**

An expression in form of a variable enclosed in redundant parentheses can be properly evaluated now

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**Ver: 4.4.0    EW16137**

The --misrac\_verbose option (when turned on) is no longer emitted for each object file on the XLINK command line.

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**Ver: 4.4.0    EW16124**

In some situations the IAR Embedded Workbench could terminate abnormally when the Compiler Options dialog box was displayed.

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**Ver: 4.4.0    EW16111**

Run to Cursor no longer fails to stop the execution at the correct location. This could happen for certain statements with nested function calls.

---

**Ver: 4.4.0    EW16098**

In some situations the selected editor tab went out of synch with the displayed document. (This could happen if many editor tabs were visible and you selected the leftmost one.) When this happened it could also make the IAR Embedded Workbench to terminate abnormally.

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**Ver: 4.4.0    EW16090**

Better default directories are picked for file browsing dialog boxes.

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**Ver: 4.4.0    EW16072**

The filename and line number are now shown for build errors.

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**Ver: 4.4.0    EW16071**

The IAR Embedded Workbench no longer terminates abnormally when starting to edit a text file after selecting the leftmost editor tab from large number of tabs.

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**Ver: 4.4.0    EW16015**

C-SPY no longer highlights the wrong call when traversing the call stack.

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**Ver: 4.4.0    EW15987**

The 'Go to Function' button (in the bottom left corner of editor windows) did not work if syntax highlighting was turned off.

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**Ver: 4.4.0    EW15916**

The text editor context menu no longer displays an inordinate amount of text in the 'Go to definition' menu command when the selection is large.

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**Ver: 4.4.0    EW15635**

The option to choose project files has been put back in the Find in Files dialog box. The dialog box has also been redesigned.

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**Ver: 4.4.0    EW15457**

The asterisk indicating that a workspace or a project contains unsaved changes is now updated directly upon a Save All command.

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**Ver: 4.4.0    EW15228**

Rebuild all could periodically fail on computers with hyper threading enabled

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**Ver: 4.4.0    EW15208**

There is no longer a problem with selecting a group of files to search thanks to new design of the Find in Files window

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**Ver: 4.4.0    EW15121**

C-SPY can now display pointer-to-member variables.



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**Ver: 4.4.0 EW14796**

The Toggle Breakpoint toolbar button was moved to the off-line toolbar to make it available when not debugging.

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**Ver: 4.3.1 EW15857**

The Break button on the Debugger toolbar could indicate that the debugger was still running even after the execution had completed. This has been corrected.

---

**Ver: 4.3.1 EW15843**

Executing the same macro before and after downloading of a debuggee could lead to abnormal session termination. This has been corrected.

---

**Ver: 4.3.1 EW15765**

Editing memory in the Memory window is now executed group-wise. When you start typing an edit box appears with the contents of the part of the memory you are about to modify. The data is not written until the box is closed.

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**Ver: 4.3.1 EW15739**

When inspecting source code in mixed mode on the Output page of the Trace window, focus is no longer moved to the corresponding source file.

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**Ver: 4.3.1 EW15738**

The Trace window did not keep its visual state properly when the window was moved or the debug session was restarted.

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**Ver: 4.3.1 EW15735**

The following Xlink output formats have been removed from list of available formats as obsolete:

- NEC2
- NEC2-symbolic
- NEC78K
- NEC78K-symbolic

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**Ver: 4.3.1 EW15722**

Non-default formats for items in the Watch window were not saved correctly when exiting the IAR Embedded Workbench. This has been corrected.

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**Ver: 4.3.1 EW15720**

Corrected a problem with limitations in the toolbar search field.

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**Ver: 4.3.1 EW15638**

Errors in custom build settings could cause annoying repeating error messages in the Build log window. Also, certain custom build errors could cause some problems with subsequent builds even after being corrected. This has been corrected.

---

**Ver: 4.3.1 EW15614**

When generating an assembler output file from the C compiler, the file should not automatically be further processed by the tool chain, even though such a file is normally subject to processing by the assembler. In previous versions of the workbench, this was accomplished by simply hiding the assembler output file. Now, the file can be seen and conveniently accessed in the project window (without being processed.)

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**Ver: 4.3.1 EW15531**

When using the Memory window, the settings were not stored/restored when exiting the debugger or the IAR Embedded Workbench. This has now been corrected.

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**Ver: 4.3.1 EW15515**

When changing output file format for a project, the old output file could remain shown in the Workspace window indefinitely. This has been corrected.

---

**Ver: 4.3.1 EW15492**

Adding multiple source files with the same name would cause valid but annoying repeating error messages in the Build log window. This has been corrected and now the error message doesn't appear until an actual build operation is performed (and it only appears once).

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**Ver: 4.3.1 EW14817**

When splitting a source window the new window used to show the top of the file. It now shows the same part of the file as the original window.

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**Ver: 4.3.1 EW14774**

File and line number has been put back into the build log window.

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**Ver: 4.3.1 EW14731**

The Editor now removes trailing blanks when text files are saved. This feature can be switched off on the Editor settings page.

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**Ver: 4.3.1 EW13986**

The project manager can now handle the Compile command for multiple files or for a group.

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**Ver: 4.3.0 EW15406**

The Break button on the Debugger toolbar could indicate that the debugger was still running even after the execution had completed. This has been corrected.

---

**Ver: 4.3.0 EW15391**

A project file could appear more than once in the Workspace window if its pathname was capitalized differently.

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**Ver: 4.3.0 EW15224**

After changing the exclude-from-build property for a file, the project manager did not relink the project. This has been corrected.

---

**Ver: 4.3.0 EW15222**

A problem where (in the sizeof operator of the C-SPY macro language) the size of an array variable was incorrectly reported as the size of a pointer to its element type has been corrected.

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**Ver: 4.3.0 EW15221**

In C-SPY expressions, some registers with "complex" names couldn't be accessed using the #name or #`name` syntax. This has been corrected.

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**Ver: 4.3.0 EW15203**

When removing a file from a project, the project manager did not relink the project. This has been corrected.

---

**Ver: 4.3.0 EW15159**

Tab characters were treated as unprintable in the Message window. Now they are output as space characters.

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**Ver: 4.3.0 EW15141**

A problem where C-SPY could not load a macro file containing a macro with an empty function body has been corrected.

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**Ver: 4.3.0 EW15137**

A plain assignment in C-SPY expressions, such as x=42, no longer causes reading of the left-hand side.

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**Ver: 4.3.0 EW15108**

Some plug-ins could not open their windows or opened the Help window instead. This has been corrected.

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**Ver: 4.3.0 EW15101**

Pressing F1 in the C-SPY Live Watch window displayed help for the Watch window. This has been corrected.

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**Ver: 4.3.0 EW15058**

Execution of Reset command is now indicated in Trace output window

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**Ver: 4.3.0 EW14851**

If there was no valid backtrace information, source-level step operation could run to exit when leaving a function. This has been corrected.

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**Ver: 4.3.0    EW14221**

The default filter in "Add Files" dialog does not include header files now.

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**Ver: 4.2.1    EW15354**

Because of initialization file corruption, sometimes the Disassembly window could appear even when no debugger session was active. This problem, which could result in an internal error for hardware debugger systems, has been corrected.

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**Ver: 4.2.1    EW15291**

In some cases, not all zones were listed in the Breakpoints dialog box for breakpoints at an absolute address. This has been corrected.

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**Ver: 4.2.0    EW15450**

A problem with the fact that IAR Embedded Workbench becomes unresponsive after switching projects several times has been corrected. The problem was caused by incorrect saving of floating window(s) desktop information, which led to uncontrolled growth of the debugger desktop (.dbgdt) file.

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**Ver: 4.2.0    EW15037**

Sometimes, data coverage coloring failed for hardware debugger systems. This has been corrected.

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**Ver: 4.2.0    EW15028**

When a legacy project file (with the extension .prj or .pew) was opened, the IDE sometimes crashed directly after the project file was converted to the current format. This problem has been corrected.

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**Ver: 4.1.1    EW14377**

It is now possible to activate a single interrupt through mouse click when running a simulator driver.

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**Ver: 4.0.0    EW14256**

Improved visualization of the C-source lines in the Disassembler window by adding a color to the debugger option.

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**Ver: 4.0.0    EW14108**

Snapping to a step point works now across the line border. That means that toggling a breakpoint at a source line that does not contain any step points results in a breakpoint set/clear at the nearest step point below. If there is no such step point no breakpoint will be set/cleared.

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**Ver:            EW19468**

The text editor now reloads externally modified files correctly.

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**Ver:            EW19458**

Division by 0 within preprocessor directives could cause IAR Embedded Workbench to terminate abnormally. This has been corrected.

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**Ver:            EW19318**

Japanese version of code templates file was saved using improper encoding. This has been corrected.