

Object files format and support

Description

All debug sessions require that you load a debug object file that is supported by AVR Studio. Usually a debug file contains symbolic information which is not included in a "thinner" release file. The debug information enables AVR Studio to give extended possibilities when debugging, e.g. source file stepping and symbolic watches.

Below is a brief description of the object file formats that is supported by AVR studio.

Object file format	File	Description
Extended Intel hex	.hex	This format is usually produced by most of the developer packages and is targeted for release testing. No additional debug information is included, and therefore not a recommended format for debugging. The file contains only program memory data. Source file stepping and symbolic watches are not available.
UBROF	.d90	UBROF is an IAR proprietary format. The debug output file contains a complete set of debug information and symbols to support all type of watches. UBROF8 and earlier versions are supported. This is the default output format of IAR EW 2.29 and earlier versions. See below how to force IAR EW 3.10 and later versions to generate UBROF8.
ELF/DWARF	.elf	ELF/DWARF debug information is an open standard. The debug format supports a complete set of debug information and symbols to support all type of watches. The version of the format read by AVR Studio is DWARF2. AVR-GCC versions configured for DWARF2 output can generate this format.
AVR COFF	.cof	COFF is an open standard intended for 3rd party vendors creating tools that give AVR Studio support. With AVR Studio 4.09 the AVR COFF format support is extended to support full debugging with source file stepping and complete watch support.
AVR Assembler format	.obj	The AVR assembler output file format contains source file info for source stepping and is an Atmel internal format only. The .map file are automatically parsed to get some watch information.

Before debugging, make sure you have set up your compiler/assembler to generate a debug file like one of the formats above.

3rd party compiler vendors should output the ELF/DWARF object file format. Contact us [here](#) for more information.