Using APACHE ANT for automation in ISOLAR-A Use Case

What

Automation of standard tasks during the modelling of AUTOSAR Systems using ISOLAR-A and APACHE ANT.

Why

There are a lot of time consuming, repeating standard tasks in the modeling of AUTOSAR Systems. ISOLAR-A can easily be automated by employing the power of the integrated Apache ANT. This saves time and frees brain power for the core task at hand: The modeling of the System. It also guarantees higher quality results by avoiding errors during repetitive chores.



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FTVE

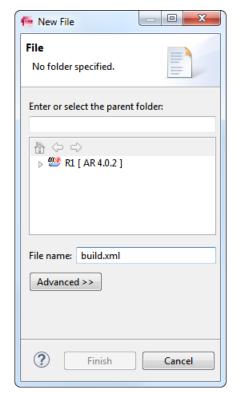
How (1/2)

For this example, the compilation of a SWC after the generation of the RTE in "Contract Phase" was chosen.

APACHE ANT is included in ISOLAR-A, only a file named "build.xml" needs to be created inside your AUTOSAR project.

In this example, the C compiler is executed by using the exec-Task of ANT. This was placed in a new target in a new project in the "build.xml" file.

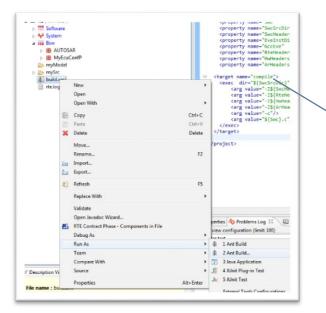
Properties can be used to easily adjust the file to different installation settings. They can be put directly in the "build.xml" file or be stored in a separate ".properties" file in the Java Properties format.



How (2/2)

The target, which contains the call to the C compiler, is executed by using the Eclipse "Run as" functionality. In an additional dialog further configuration or adaptation is possible, although optional.

Of course you can use the full range of available ANT features such as many different tasks, dependencies between tasks, incremental execution etc.



dit configuration and la Run an Ant build file.	nch.
Name: R1 build.xml	
	ild 🖟 Targets 🔌 Classpath 👁 Properties 🛋 JRE 🖉 Environment 🔲 Common
Check targets to execute:	Description
Name	Description
	Apply
٢	Run Close

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Tools used

- ETAS ISOLAR-A v9.1
- APACHE-ANT v1.9.2 (already included in ISOLAR-A v9.1)
- ETAS ISOLAR-EVE v3.0 (only in example project as source for GCC compiler and RTE generator)

Downloads

- <u>Example Project</u>: A simple ISOLAR-A project, containing a single SWC with source code, as well as an ANT script to automate the compilation.
- ANT v1.9.2 Manual (included in the ANT v1.9.2 archive)

Links

- APACHE ANT Homepage
- Manual for latest ANT version (most things should apply for ANT v1.9.2)

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