ASVAT Build Files (v1.0 31 Aug 2019)

How to convert an Ada gprbuild file to an ASVAT gprbuild file

The first part of the gprbuild (.gpr) file giving the languages and the source and object directories remain essentially the same, but it is recommended that the Object\_Dir setting is set to a new directory to contain just the ASVAT output files. If the build uses more than one Ada compiler the Languages should be changed so that there is only Ada language and not one for each Ada compiler.

If it is not already present declare a package Compiler to cause gprbuild to use gnat2goto instead of an Ada compiler and denote its object file extension as .json\_symtab, see below:

package Compiler is

-- Use gnat2goto instead of the Ada compiler

for Driver ("Ada") use "gnat2goto"; -- This assumes gnat2goto is on the $PATH

for Object\_File\_Suffix ("Ada") use ".json\_symtab";

end Compiler;

The package Naming, if present, does not need to be changed.

In the future ASVAT will use the Binder with special parameters. For the moment the “ehco” command replaces the Binder by declaring a Binder package as shown below:

package Binder is

for Driver ("Ada") use "echo";

end Binder;

ASVAT uses a special linker which requires both symtab\_link and symtab2gb tp be on the program path. A linker package is declared thus:

package Linker is

-- Use symtab2gb as the linker via the aggregation program symtab\_link

for Driver use "symtab\_link"; -- Both symtab\_link and symtab2gb are on $PATH

end Linker;

Example

As an example, a complete Ada and ASVAT gprbuild files for the UKNI project are given below:

**The Ada gprbuild file:**

project UKNI is

for Source\_Dirs use (".", "AVR");

for Object\_Dir use "../IB\_Phase3\_Build/";

for Main use ("main.adb"");

package Naming is

for Body\_Suffix ("Ada") use ".adb";

for Separate\_Suffix use ".adb";

for Spec ("timer") use "timer.ads";

for Body ("timer") use "timer.shw";

for Spec ("memory\_checks") use "memory\_checks.ads";

for Body ("memory\_checks") use "memory\_checks.shw";

end Naming;

end UKNI;

For comparison the ASVAT build file is on the next page.

**The ASVAT gprbuild file:**

project UKNI\_AVSAT is

for Languages use ("Ada");

for Source\_Dirs use (".", "AVR");

for Object\_Dir use "../ASVAT\_Outputs/";

for Main use ("main.adb");

package Compiler is

-- Use gnat2goto instead of the Ada compiler

for Driver ("Ada") use "gnat2goto";

for Object\_File\_Suffix ("Ada") use ".json\_symtab";

end Compiler;

package Naming is

for Body\_Suffix ("Ada") use ".adb";

for Separate\_Suffix use ".adb";

for Spec ("timer") use "timer.ads";

for Body ("timer") use "timer.shw";

for Spec ("memory\_checks") use "memory\_checks.ads";

for Body ("memory\_checks") use "memory\_checks.shw";

end Naming;

package Binder is

for Driver ("Ada") use "echo";

end Binder;

package Linker is

-- Use symtab2gb as the linker

for Driver use "symtab\_link";

end Linker;

end UKNI\_AVSAT;