

## 11.5 ``include`

This directive is used to insert the entire contents of a source file in another file during compilation. The result is as though the contents of the included source file appear in place of the ``include` compiler directive. ``include` can be used to include global or commonly used definitions and tasks without encapsulating repeated code within module boundaries.

This directive can be useful in the following situations:

- providing an integral part of configuration management;
- improving the organization of Verilog-AMS HDL source descriptions; or
- facilitating the maintenance of Verilog-AMS HDL source descriptions.

### Addressing Issue #15 >>

The syntax for ``include` is shown in Syntax 11-7.

```
include_compiler_directive ::= system_include | user_include
user_include ::= `include "filename"
system_include ::= `include <filename>
```

*Syntax 11-7—Syntax for include compiler directive*

The compiler directive ``include` can be specified anywhere within the Verilog-AMS HDL description. The *filename* is the name of the file to be included in the source file. The *filename* can be a full or relative path name. Since the Verilog-AMS standard uses external files to define standard constants and disciplines, and those files will normally be located with the simulator rather than in the users directories, the *angle-bracket* syntax is used to differentiate which is intended. If “” quoting is used then the user directories are searched first and then the simulator installation directories, and vice versa if ‘<>’ quoting is used.

Only white space or a comment can appear on the same line as the ``include` compiler directive.

A file included in the source using ``include` can contain other ``include` compiler directives. The number of nesting levels for included files are finite.

### Examples:

```
`include <constants.h> // Include constants.h from simulator
                        // installation
`include "constants.h" // Include constants.h from user directories
```

```
`include "parts/count.v"  
`include "fileA"  
`include "fileB" // including fileB
```

**Note:** Implementations can limit the maximum number of levels to which include files can be nested, but this limit shall be a minimum of 15 levels.