

OD.doc

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Chapter 1

OD.doc

1.1 OD -- The Oberon-A module definition utility

\$RCSfile: OD.doc \$

Description: Documentation for the Oberon-A module definition utility.

Created by: fjc (Frank Copeland)

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\$Author: fjc \$

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Description	What is OD?
Distribution	Copyright and distribution
Requirements	What do I need to run OD?

Running OD...

Shell	...from the Shell
Workbench	...from the Workbench
FPE	...from FPE

The Author	Contacting the author
Bugs & Suggestions	Reporting bugs and suggestions
Changes	Changes since the last release
To Do	Bugs to fix and improvements to make

1.2 What is OD?

OD is the Oberon-A module definition utility. Its purpose is to create a summary of the objects exported by a module, to act as a reference for programmers. It is similar in most ways to the Oberon System's 'browser' utility.

The definition file created by OD closely resembles an Oberon-2 module containing only declarations and procedure headings. It is produced directly from a module's symbol file, and contains only those declarations exported by the module and visible to its clients. It is

structured roughly as follows:

```
DEFINITION <module>;

CONST
  <name> = <value>;
  ...

TYPE
  <name> = <type>;
  ...

VAR
  <name> : <type>;
  ...

<procedure heading>
...

END <module>.
```

Within each division, identifiers are listed alphabetically. It is not possible to reproduce the structure of the original module.

Type-bound procedures and library call procedures are shown as part of the declaration of the associated record type.

1.3 Copyright and distribution

OD is part of Oberon-A and is:

Copyright © 1994-1995, Frank Copeland

See Oberon-A.doc for its conditions of use and distribution.

1.4 What do I need to run OD?

OD requires Release 2.04 (V37) of the Amiga operating system, or a later version.

1.5 Running OD from the CLI

Format: OD <files> [TO <directory>] [MAKEICONS]
 [EXTERNAL] [SIZE] [EXPAND]

Template: FILE/A,MAKEICONS/S,TO/K,
 EXTERNAL/S,SIZE/S,EXPAND/S

Purpose: Generates definition files from symbol files.

Path: OBERON-A:OD

Specification: OD reads the symbol file specified in the FILE parameter and generates a definition file which is output in the directory specified in the TO parameter, or in the current directory if there is none. You can specify several symbol files to be processed by giving an AmigaDOS pattern as the FILE argument.

OD uses the standard AmigaDOS pattern matching routines, so the FILE arguments must fully specify the symbol file name, including the extension. If a TO parameter is given, it must be the name of an existing directory.

If the EXTERNAL argument is given, additional information about external type and procedure declarations is output. If the SIZE argument is given the size of all objects is output. If the EXPAND argument is given extended types are output with the fields and type-bound procedures of the base type(s) are output.

If the MAKEICONS argument is given, an icon is created for the definition file. The default icon is found in "ENV:OD/def_file.info".

OD requires a stack of at least 10000 bytes. See the AmigaDOS manual entry for the STACK command.

1.6 Running OD from the Workbench

See Running OD from the Shell for a general description of OD's operation and the effect of the various arguments.

OD can be run in two ways:

1. Use extended selection to select one or more symbol files. Then hold down the shift key and double-click on the OD icon.
2. Select the icon for the drawer in which the symbol file(s) are stored, then double-click the OD icon. In this case the pattern for the name(s) of the symbol file(s) to be processed must be specified in a tooltip as "FILE=<pattern>".

All arguments available when running OD from the Shell can be specified as tooltips in OD's icon. The tooltips can be edited by clicking the icon and selecting the "Information" item from the Workbench "Icons" menu.

For switch arguments like MAKEICONS the name of the argument is entered as a tooltip. Keyword arguments like FILE are entered as "FILE=<argument>". The standard WINDOW tooltip is also understood by OD. If it is omitted a default console window is opened.

A typical list of tooltips might look like this:

```
WINDOW=CON:0/0/640/200/OD'ing.../CLOSE/WAIT
```

```
FILE=#?.sym  
EXTERNAL  
(SIZE)  
(EXPAND)
```

Enclosing the SIZE argument in parentheses disables it without the need to delete the entire tooltype. To enable it, edit the tooltype to remove the parentheses and save the icon.

Set the default stack to at least 10000 bytes.

1.7 Running OD from the FPE utility

A tool button in the FPE window can be configured to run OD (see FPE.doc). In the button editor, set the Command field to the full path name of the OD program. Set the Arguments field to "Code/!M.Sym", or wherever else the module's symbol file may be found. If you wish the definition file to go somewhere else than the current directory, add the destination to the Arguments field. Specify a console window as the Console field. Put at least 10000 in the stack field.

For example:

```
Command="DH1:Oberon-A/OD"  
Arguments="Code/!M.Sym TO OBERON-A:Defs"  
Console="CON:0/11/540/189/OD'ing !M.../CLOSE/WAIT"  
Stack=10000
```

To create a definition file:

1. select the module in the Module gadget.
2. click on the tool button OD is bound to.
3. sit back and relax for a bit.

1.8 Reporting bugs and suggestions

You are encouraged to report any and all bugs you find, as well as any comments or suggestions for improvements you may have.

Before reporting a suspected bug, check the file ToDo.doc to see if it has already been noted. If it is a new insect, clearly describe its behaviour including the actions necessary to make it repeatable. Indicate in your report which version of OD you are using. Include an example of a definition file or symbol file that demonstrates the bug.
