

Steps for Converting TRNSYS for Windows from 32-bit to 16-bit

These steps will convert TRNSYS from its default-installed mode (being used with Windows95 or Windows NT) to 16-bit mode. At this time, the Solar Lab has stopped support for the 16-bit Windows 3.1 version of TRNSYS 14.2. However, we are supplying this information for people that are using MS Fortran 5.1 with Windows 3.1 or Windows 95. For information on using other compilers or compiling in DOS mode, see Appendix II of the main TRNSYS Reference Manual as well as the TRNSHELL manual.

1. The Fortran source code needs to be recompiled for the new MS PowerStation 4.0 to MS Fortran 5.1). To do this easily, run alltrn16.bat, which is in the \trnwin directory. This batch file will recompile all the Fortran source code with MS Fortran 5.1. This file assumes that the following statements are included in the autoexec.bat file (if you installed the MS PowerStation 4.0 in the default directory of c:\msdev)

```
SET PATH = c:\fortran\bin; "%PATH%"  
SET INCLUDE = c:\fortran\include; "%INCLUDE%"  
SET LIB = c:\fortran\lib; "%LIB%"
```

2. Several of the TRNSYS icons in the Windows TRNSYS group need to be changed so that the proper program is called. To change the Properties of the TRNSYS icons in Windows 95, click on the desired icon with the Right Mouse Button and select Properties from the list of possible actions that appears. Within the Properties Window, select the Tab at the top called "Shortcut." Within the shortcut screen, you can change the Command Line and Working Directory of the icon. Change the command lines and working directories of the following icons to use the proper 32-bit version of the program.

Description: TRNSYS

Command Line: \trnwin\trnsys16.exe (it was \trnwin\trnsys32.exe)
Working Directory: \trnwin

Description: TRNSHELL

Command Line: \trnwin\trnshl16.exe (it was \trnwin\trnshl32.exe)
Working Directory: \trnwin

3. From an MS-DOS window, type the following two commands to create the 16-bit version of the TRNSED program. The TRNSED program allows for a modified display of the TRNSYS input file to allow non-TRNSYS users to run TRNSYS.

```
>cd \trnwin  
>copy \trnwin\trnshl16.exe \trnwin\trnsed.exe
```

4. The items in the Setup screen in the TRNSHELL program need to be changed. Start the TRNSHELL program from the TRNSYS group. The setup menu can be found under the File menu:

```
Compiler: \FORTRAN\BIN\fl /c /Fpi /AL /Gt /Aw /Gw  
Rebuild: \trnwin\maktrn16.bat
```

5. The 32-bit PowerStation compiler allows the TRNSYS user to include more than 99 types in a TRNSYS simulation. This is not possible with the MS Fortran 5.1 compiler. This compiler will now allow you to include 300 different Type numbers. To allow this, you need to modify the exec.for routine in \trnwin\kernal. In the section of code listed below, comment out the INCLUDE statement for exec32.inc which will then allow you to use 300 different type numbers in your TRNSYS simulations.

```

C*****COMPILER DEPENDENCIES*****
C      This section is to be used if you are using FORTRAN 5.1 (16-bit)
C      and cannot fit the full 300 Types into the .DLL file. Comment in
C      the next line and comment out the include file
C      755 CONTINUE
C      OR If using the 32-bit compiler, you can include the full 300 types
C      by commenting in the INCLUDE file below and commenting out the
C      Line 755 statement above.
C      INCLUDE 'exec32.inc'
C
C*****

```

6. If you purchased the IISiBat package (not the Presim package), the items in the IISiBat Simulation manager also need to be changed. This can be done by clicking on the “codes” icon in the main IISiBat window. The paths should be changed to:

```

trnsys14      =>      \trnwin\trnsys16.exe      (it was \trnwin\trnsys32.exe)
make          =>      \trnwin\maktrn16.bat     (it was \trnwin\maktrn32.bat)

```

If you have any questions about this conversion or if it is necessary for you, please contact your TRNSYS distributor. The TRNSYS distributors do not recommend this conversion because MS Fortran 5.1 is an inferior 16-bit compiler. Following this update, no 16-bit version of TRNSYS or the associated utility programs will be sold or distributed. No updates will be made of TRNSHELL16, TRNSYS16, or the associated 16-bit compiling programs (such as maktrn16.bat)