

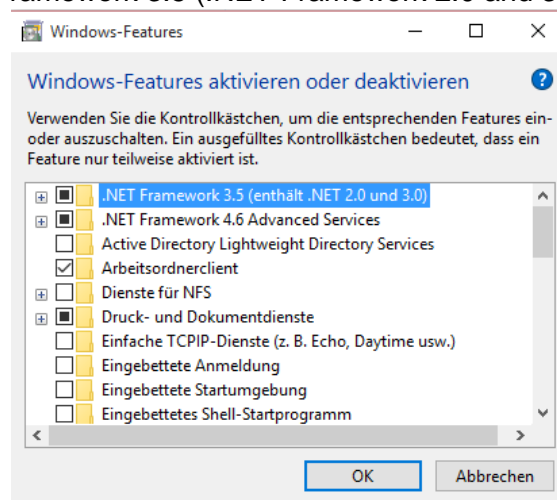
Installation TELEMAC for Windows (parallel)

Notes

- The easiest way to install TELEMAC is to install the "utilities" with the Automatic Installer and TELEMAC itself via SVN. Via SVN, new versions of TELEMAC can be installed quickly later on without changing older versions.
- The installation can only be carried out with administrator rights.
- These instructions do not cover every error, but should provide a good overview of the installation procedure. In case of further problems, the forum offers good initial assistance (<http://www.opentelemac.org/index.php/kunena/index>).

Installation Step-by-Step:

1. Installation of **Microsoft NET-Framework 2.0** (if not already available).
 - a. Either direct download and installation from the Microsoft website, or
 - b. Control Panel → Programs and Features → Activate or deactivate Windows features → Check at .NET Framework 3.5 (.NET Framework 2.0 and 3.0 will also be installed).



2. Download and execution of **automatical Installer** for Telemac (Access only after registration on the Telemac website).

Website: <http://www.opentelemac.org/index.php/binaries>



The automatic installer installs the following programs that are necessary for TELEMAC into the folder `C:\opentelemac-mascaret\` (**IMPORTANT: this path should also not be changed**):

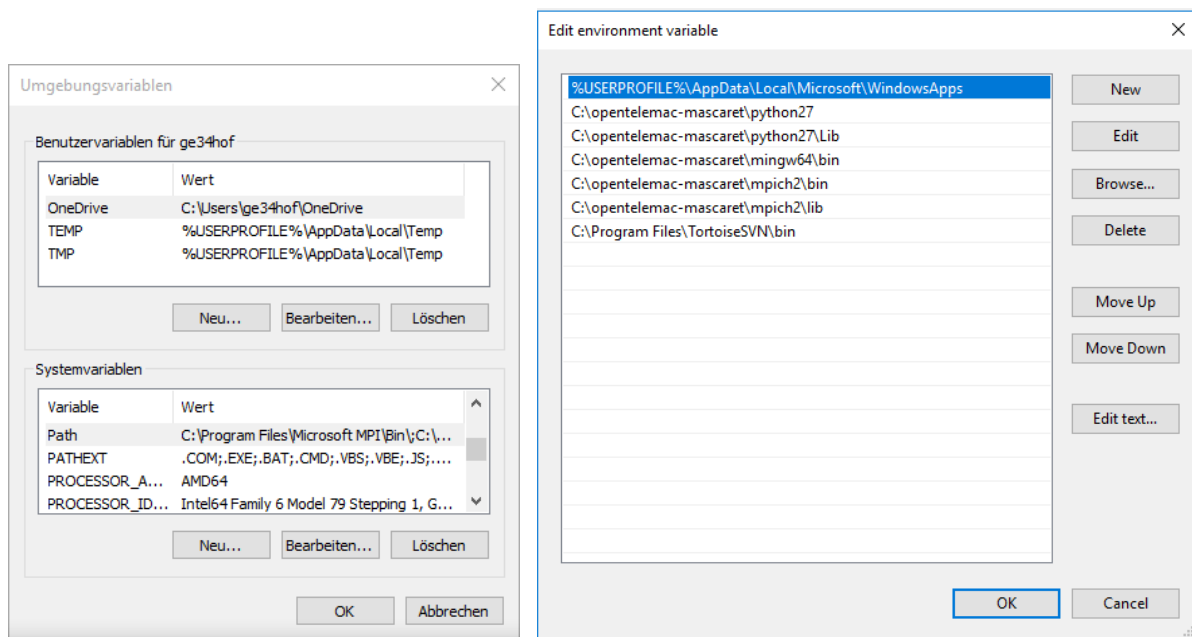
- a. **Python 2.7** with libraries *numpy*, *scipy* und *matplotlib*
- b. **gfortran** (Fortran-Compiler)
- c. **TortoiseSVN** (Client for download of TELEMAC-Installation-data)
- d. **MPICH2** (Library needed for parallelized execution of TELEMAC)
- e. **METIS** (Program for mesh partitioning)

IMPORTANT: While the automatic installation of the "utilities" works without problems, the installation of TELEMAC creates some problems. Therefore, either the automatic installer can be closed as soon as TELEMAC is to be installed or the automatic installer can be continued until the end (abort) (the former is preferable).

3. The **environment variables** for Windows has to be adjusted. These are set through Control Panel → System → Advanced system settings → Environment variables (the appearance of the windows might change depending on the Windows-Version).

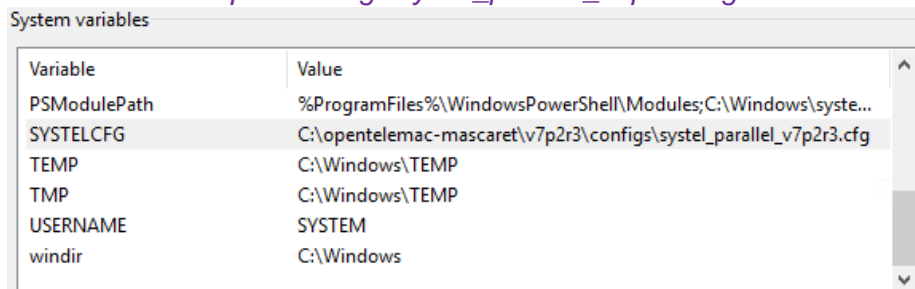
At „Path“ following additional path names has to be given (each separated by a semicolon):

```
C:\opentelemac-mascaret\python27;  
C:\opentelemac-mascaret\python27\Lib  
C:\opentelemac-mascaret\mingw64\bin;  
C:\opentelemac-mascaret\mpich2\bin;  
C:\opentelemac-mascaret\mpich2\lib;  
C:\Program Files\TortoiseSVN\bin;
```



Additionally, a new variable *SYSTELCFG* has to be specified, using the following path name (please note: the name might change according to the chosen TELEMAC-version; here we use v7p3r1):

C:\opentelemac-mascaret\v7p3r1\configs\systemel_parallel_v7p3r1.cfg



4. Validating the proper installation of the programs:

Before running TELEMAC, the proper installation of all needed tools has to be checked. This can be done using the command shell (cmd.exe). Start cmd and type in the following commands:

```
python -v
```

```
gfortran -v
```

```
mpiexec
```

If the installation is complete, then these commands should display information on each tool. There should occur **no error message**.

5. A description on **how to install TELEMAC** is given at:

http://wiki.opentelemac.org/doku.php?id=instructions_to_finish_installing_the_telemac_system_manually_after_a_failure_of_the_automatic_installation

SVN starts the download. Use the following SVN-command for TELEMAC version v7p3r1:

```
svn co http://svn.opentelemac.org/svn/opentelemac/tags/v7p3r1 "C:\opentelemac-  
mascaret\v7p3r1" --username ot-svn-public --password telemac1*
```

IMPORTANT: As indicated in the instructions, the following steps must always be adapted to the version to be installed. For example, if the version v7p3r1 is to be installed, it must always be written instead of v7p3.

6. The **Compilation of TELEMAC** is described in the how-to as well. It is essential to place the configuration file `sysrel_parallel_v7p3r1.cfg` in the directory `C:\opentelemac-mascaret\v7p3r1\configs\`.

The content of the configuration file can be seen below. Only the version must be adapted (**red**) in line 12-13 and in case there is an error message „-dredgesim“ (**green**) in line 15. The error message is printed right after the compilation : „*Could not find the following module: dredgesim*“. In this case the module „-dredgesim“ has to be deleted.

```
1      # _____  
2      # ____/ TELEMAC Project Definitions / _____/  
3      #  
4      [Configurations]  
5      configs: wing64mpi  
6      #  
7      #  
8      # _____  
9      # ____/ Windows gfortran parallel / _____/  
10     [wing64mpi]  
11     #  
12     root: C:\opentelemac-mascaret\v7p3r1  
13     version: v7p3r1  
14     language: 2  
15     modules: system -dredgesim  
16     #  
17     mpi_cmdexec: C:\opentelemac-mascaret\mpich2\bin\mpiexec.exe -wdir <wdir> -n <ncsize> <exename>  
18     mpi_hosts:  
19     #  
20     cmd_obj: gfortran -c -O3 -fconvert=big-endian -DHAVE_MPI -frecord-marker=4 <mods> <incs> <f95name>  
21     cmd_obj_c: gcc -c <srcName> -o <objName>  
22     cmd_lib: ar cru <libname> <objs>  
23     cmd_exe: gfortran -fconvert=big-endian -frecord-marker=4 -v -lm -o <exename> <objs> <libs>  
24     #  
25     mods_all: -I <config>  
26     #  
27     sfx_obj: .o  
28     #  
29     incs_all: -I C:\opentelemac-mascaret\mpich2\include  
30     incs_parallel: -I C:\opentelemac-mascaret\mpich2\include  
31     incs_special: -I C:\opentelemac-mascaret\mpich2\include  
32     libs_partel: C:\opentelemac-mascaret\metis\lib\libmetis.a  
33     libs_all: C:\opentelemac-mascaret\metis\lib\libmetis.a C:\opentelemac-mascaret\mpich2\lib\libmpich2g.a  
34     #  
35     #  
36     sfx_zip: .zip  
37     sfx_lib: .lib  
38     sfx_obj: .o  
39     sfx_mod: .mod  
40     sfx_exe: .exe  
41     #  
42     val_root: <root>\examples  
43     val_rank: all
```

7. **Known problems**

On Windows systems there may be difficulties with the registration of the MPI daemon. The following line must then be entered in the prompt (user name and password must then be entered):

```
mpiexec –remove  
mpiexec –register
```

If TELEMAC was compiled without error message but does not execute any models, the following line must be entered in the command prompt (preferably as administrator):

```
smpd –install
```