

## Installation Instructions for Perl and WORM on a Windows PC

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In order to run WORM on a Windows PC, the Perl language interpreter must be installed. There are several releases of Perl for Windows PCs. Strawberry Perl can be installed without an administrator account by the following instructions. The following instructions assume that Strawberry Perl is installed in c:\Strawberry. If a different directory is used, adjust the instructions accordingly. If a Perl release other Strawberry is used, adjust Step 2 accordingly. The following instructions assume that MCNP was previously installed on the Windows PC.

### 1. Install Strawberry Perl.

#### a. Create the directory:

- 1) c:\Strawberry

#### b. In a web browser:

- 1) Go to the Strawberry Perl homepage (<https://strawberryperl.com/>).
- 2) Select **ZIP, Portable, special editions**.  
(You should be at <https://strawberryperl.com/releases.html>.)
- 3) Select the link to the latest version, the ZIP edition, and 64bit.

*NOTE: The ZIP edition can be installed without an administrator account.  
The Microsoft Installer (MSI) version requires an administrator account.*

- 4) Select Save File.
- 5) Open the ZIP file.
- 6) Extract the files to c:\Strawberry.

#### c. From a MCNP window:

- 1) Go to c:\Strawberry.
  - a) Execute "relocation.pl.bat".

*NOTE: Executing update\_env.pl.bat (also provided by Strawberry Perl and mentioned in the README.txt file) is not necessary. This file has not worked as intended and the environment variables will be set by the mcnp\_env.bat file.*

- 2) Close the MCNP window.

### 2. Edit the mcnp\_env.bat file in your home directory.

#### a. If you do not know your home directory (location of mcnp\_env.bat):

- 1) Open a MCNP window with the MCNP Command Prompt icon/link.
- 2) Execute DOS command: SET
- 3) Get your home directory from environment variables HOMEDRIVE and HOMEPATH.

- 4) Close (exit) the MCNP window.
- b. Open mcnp\_env.bat in a text editor (e.g., Notepad).
  - 1) Insert the following line (this is a single line) after the existing PATH command:

```
@ PATH C:\Strawberry\c\bin;C:\Strawberry\perl\site\bin;  
C:\Strawberry\perl\bin;%PATH%
```

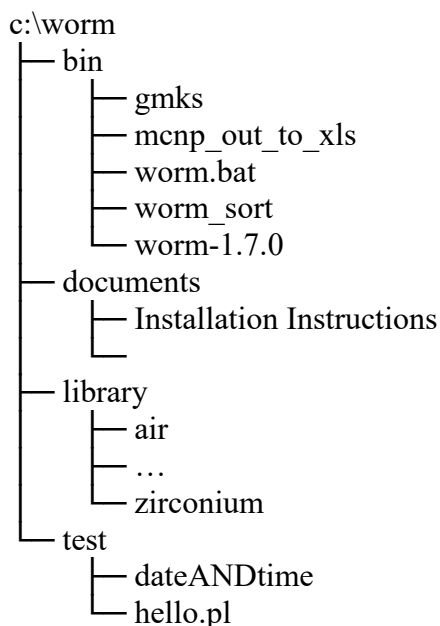
- 2) Save file.
- 3) Close the text editor.

## Installation Instructions for WORM on a Windows PC

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The following instructions assume that MCNP and Perl were previously installed on the Windows PC. (Note: The BASH script *mcnp\_out\_to\_xls*, which uses the BASH script *gmks* and Perl script *worm\_sort*, will not work on Windows systems.)

1. Copy or unzip the worm distribution files to the Windows PC. The following instructions assume the files are on the c: drive as follows.



2. Go to c:\worm\test.
  - a. Execute “perl hello.pl”.
  - b. If the response was “Hello, World!”, Perl was successfully installed.
  - c. If Perl is not installed, install Perl.
3. Edit the mcnp\_env.bat file in your home directory.
  - a. If you do not know your home directory (location of mcnp\_env.bat):
    - 1) Open a MCNP window with the MCNP Command Prompt icon/link.
    - 2) Execute DOS command: SET
    - 3) Get your home directory from environment variables HOMEDRIVE and HOMEPATH.
    - 4) Close (exit) the MCNP window.
  - b. Open mcnp\_env.bat in a text editor (e.g., Notepad).
    - 1) Insert the following line (this is a single line) after the existing PATH command:

`@ PATH C:\worm\bin;%PATH%`

- 1) In order to use the WORM library provided, the environment variable `wormlibr` must be set. Insert the following line (this is a single line) after the existing PATH commands:

```
@ set wormlibr=c:\worm\library
```

- 2) Save file.
  - 3) Close the text editor.
4. Test WORM.
- a. From a MCNP window:
    - 1) Go to `c:\worm\test`.
    - 2) Execute “worm dateANDtime”
      - a) Display should echo “perl c:\worm\worm-1.7.0 dateANDtime”
      - b) WORM should have created files:
        1. `dateANDtime_in`
          - a. File contents should be the current date and time, e.g., Wed Sep 1 10:04:11 2021.
        2. `dateANDtime_key`
          - a. File contents should be “dateANDtime”
      - 3) Execute “worm read-air”
        - a) Display should echo “perl c:\worm\worm-1.7.0 read-air”
        - b) WORM should have created files:
          1. `read-air_in`
            - a. File contents should be:

```
C -----...
C Air, Dry (near sea level):
C Density = 0.001205 g/cc
C -----...
m1      6000.80c      -1.240000E-04
          7014.80c      -7.523238E-01
          7015.80c      -2.944157E-03
          8016.80c      -2.317810E-01
        18036.80c      -3.852735E-05
        18038.80c      -7.667263E-06
        18040.80c      -1.278081E-02
```
          2. `read-air_key`
            - a. File contents should be “read-air”
    - 4) Close (exit) the MCNP window.

## Installation Instructions for WORM on a Linux/Unix platform

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1. Copy or unzip the worm distribution files to the Linux/Unix platform.
2. Have the users set their executable path to the bin directory.
3. Have the users set the environment variable `wormlibr` to the full pathname for the worm library.
4. Note: Linux/Unix installations have the additional functionality of the BASH script *mcnp\_out\_to\_xls*. BASH script *mcnp\_out\_to\_xls* invokes the BASH script *gmks* and the Perl script *worm\_sort*.