Data Download Options - Cygwin

Digital Archive of Canadian Climatological Data

Environment and Climate Change Canada
Environnement et Changement climatique Canada
Canada

Environment and Climate Change Canada
For questions or concerns please contact the office appropriate to your data request or location:

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Aussi disponible en français

Document Version

Version	Date of Update	Details of Edit(s)
1.0	2021-08-04	Standardized version of instructions created. To include: 1. Official title page from ECCC; 2. Version; 3. Date of update; 4. Contacts.
2.0	2023-01-25	Updated email address on page ii. Added information regarding data update frequency on CDO website.

Table of Contents

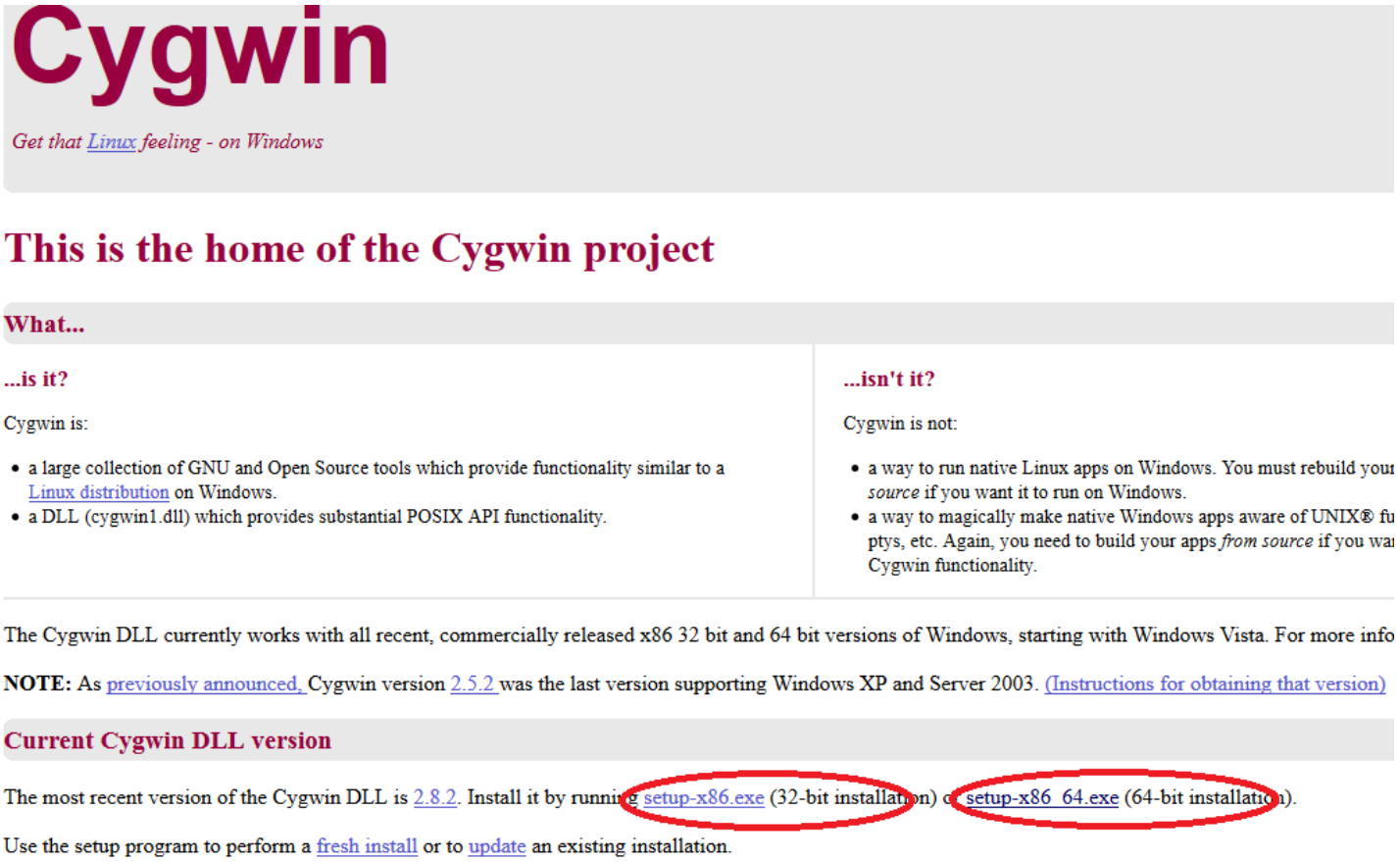
Detailed instructions to install Cygwin (wget) for Windows Operating Systems

Cygwin is an open source tool which allows users to run native applications on Windows. The following are step-by-step instructions on how to install Cygwin as well as the “wget” package (required to use Cygwin on Windows).

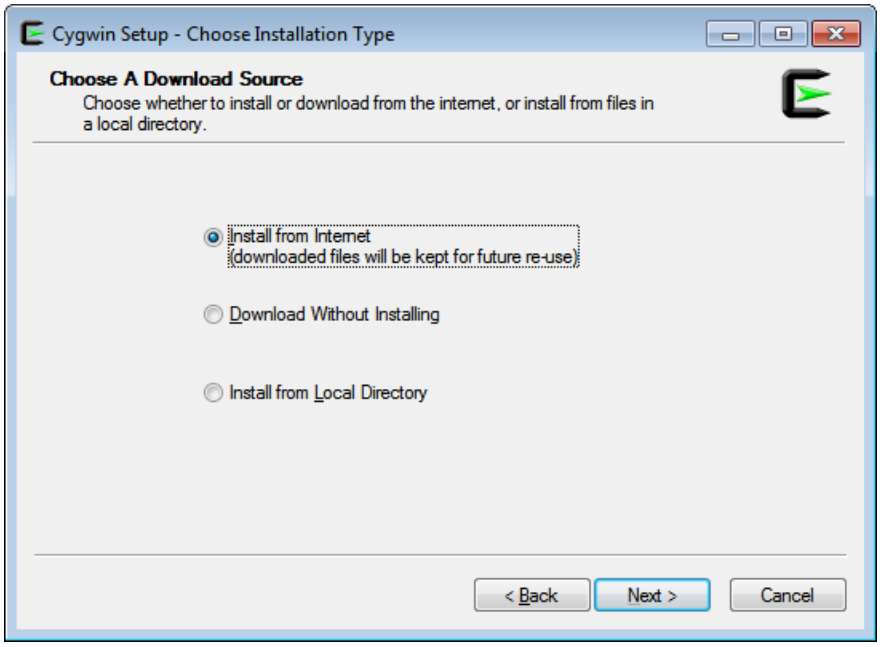
Installation

1. Download Cygwin

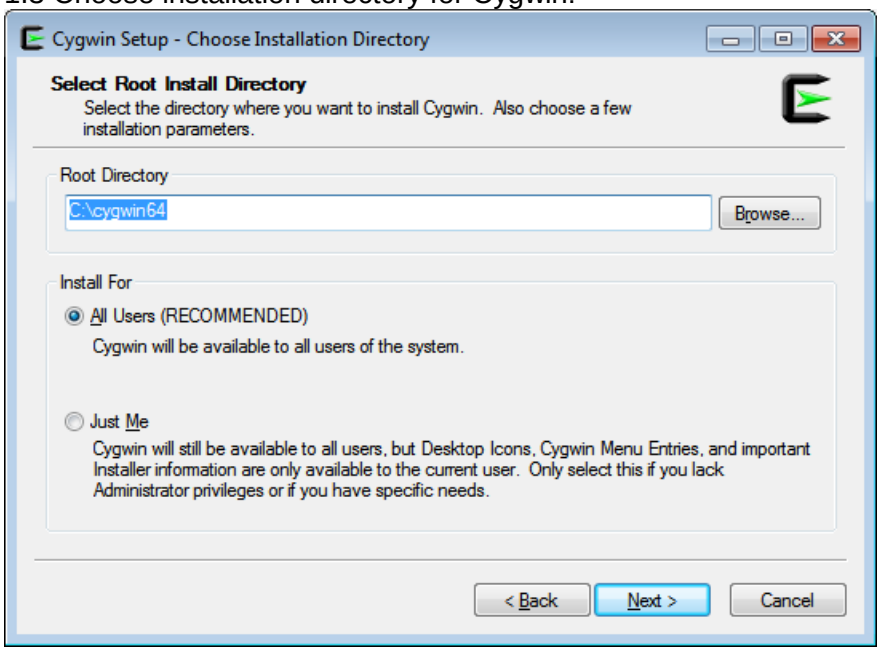
1.1 Go to https://www.cygwin.com, then download Cygwin for your computer:



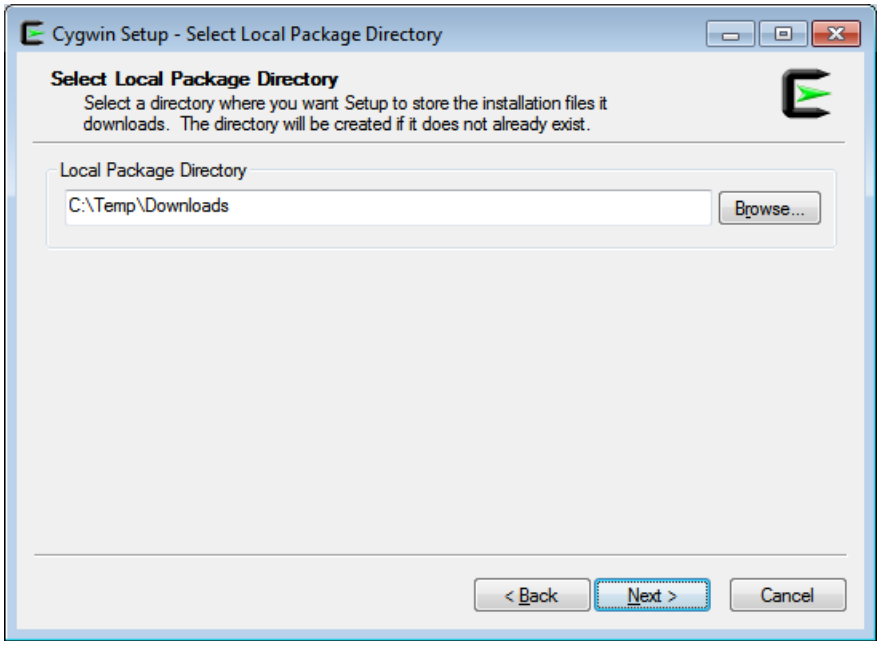
1.2 Run downloaded setup-x.86.exe (or setup-x86_64.exe for 64 bit Windows). Choose default download source – Install from internet:



1.3 Choose installation directory for Cygwin:

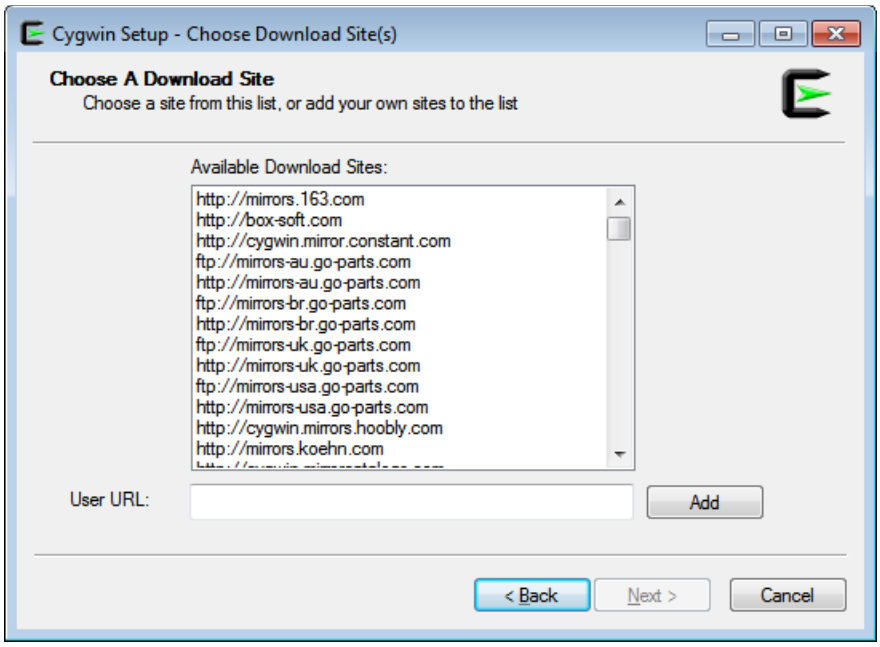


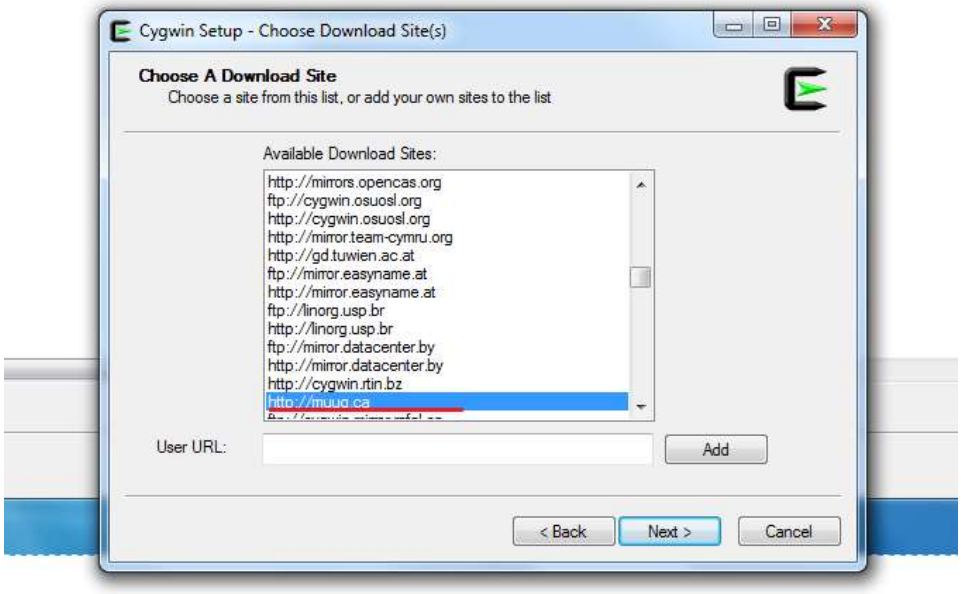
1.4 Select local package directory where installation files will be stored:



2. When Downloading, select your internet connection type.

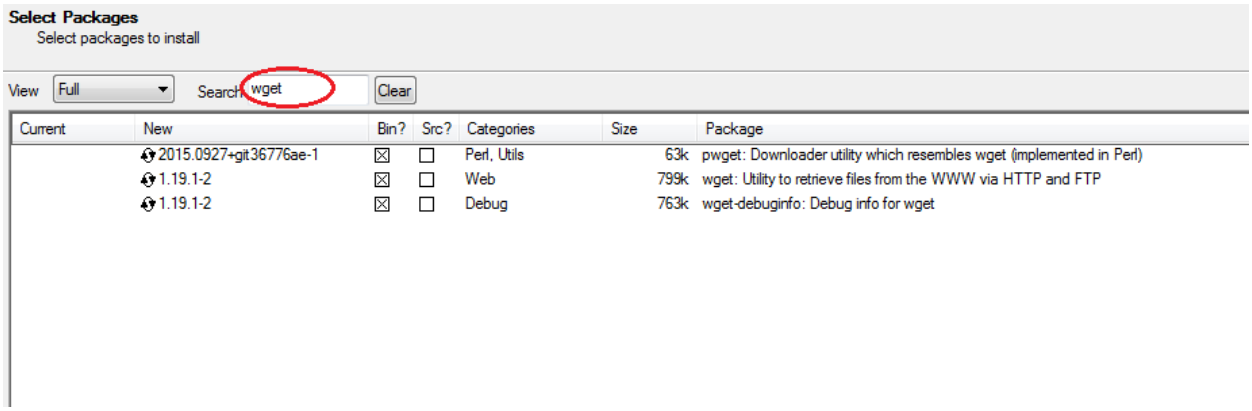
Select your internet connection type, by default it is direct. Choose site close to your location (e.g. Manitoba)



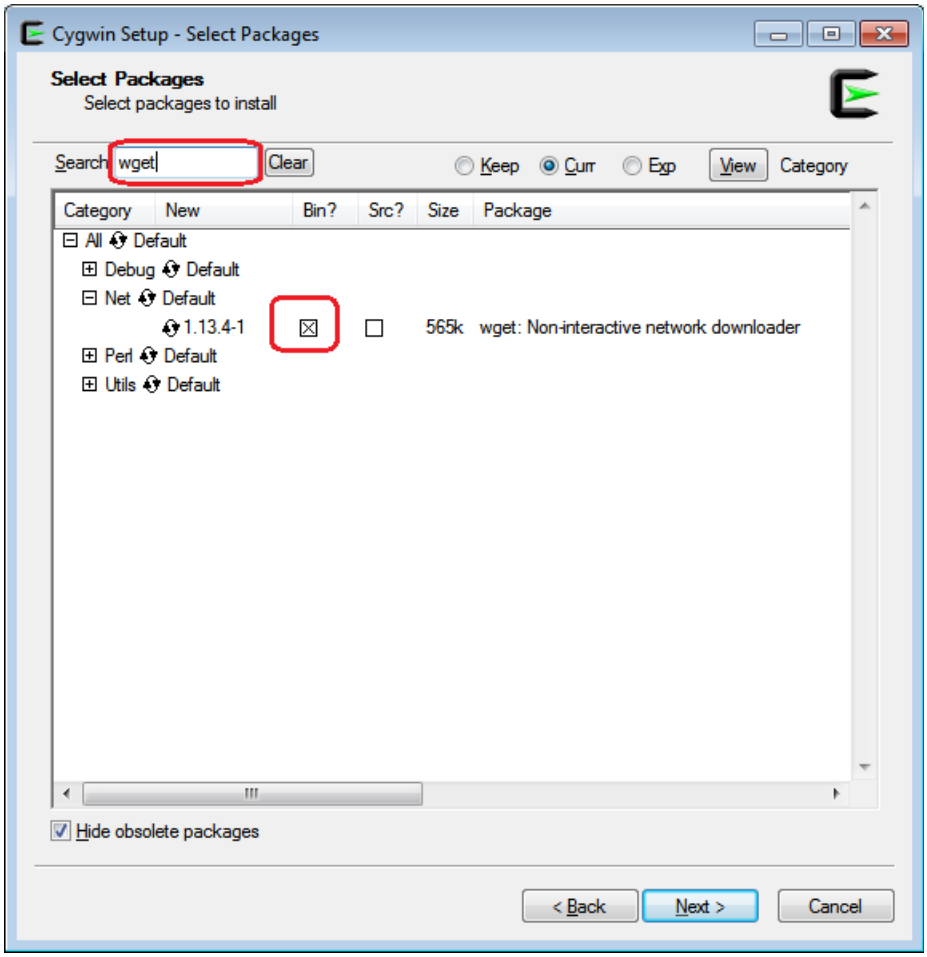


3. Search for wget

In the next window enter wget into search box and in results select appropriate checkbox to install wget tool.

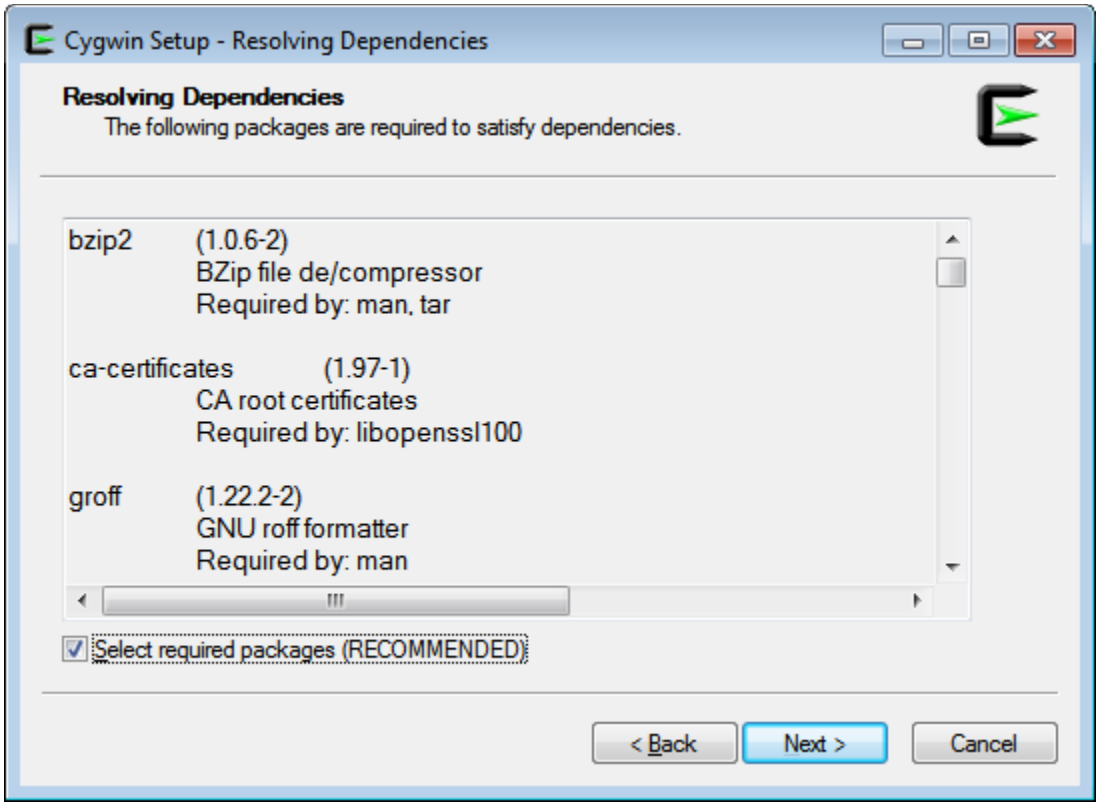


Your screen should look like this:

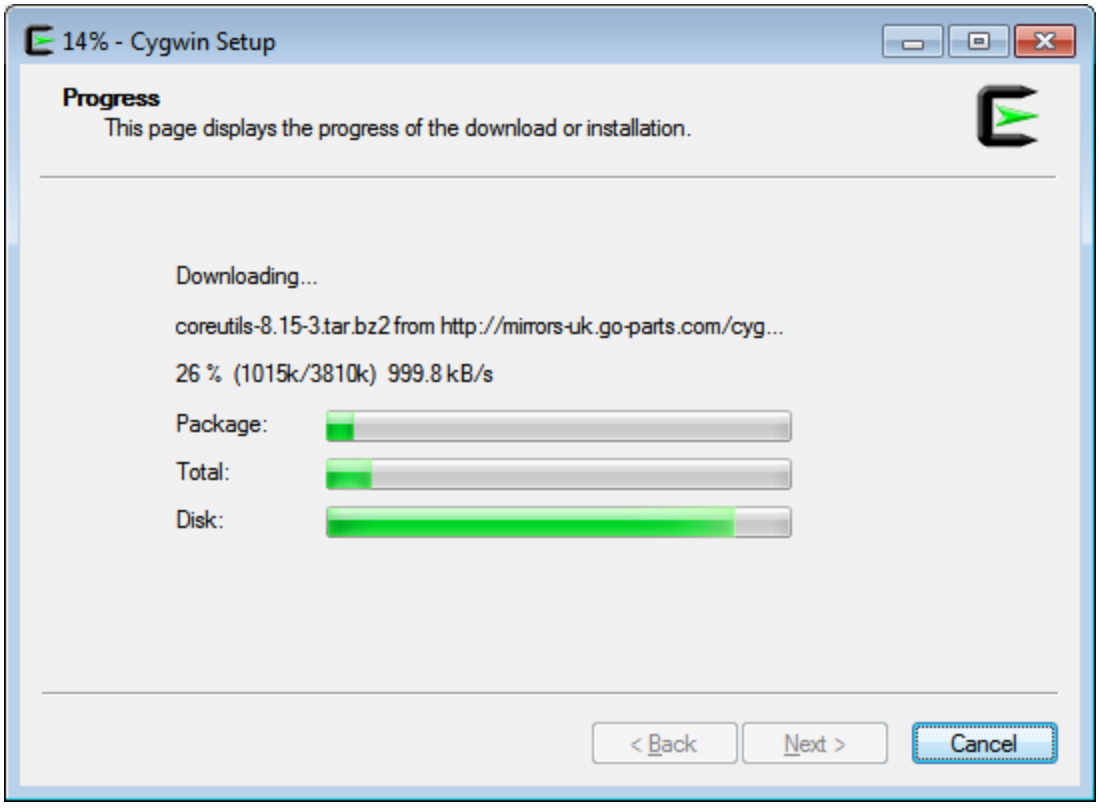


4. Follow “Next” and “Finish” steps

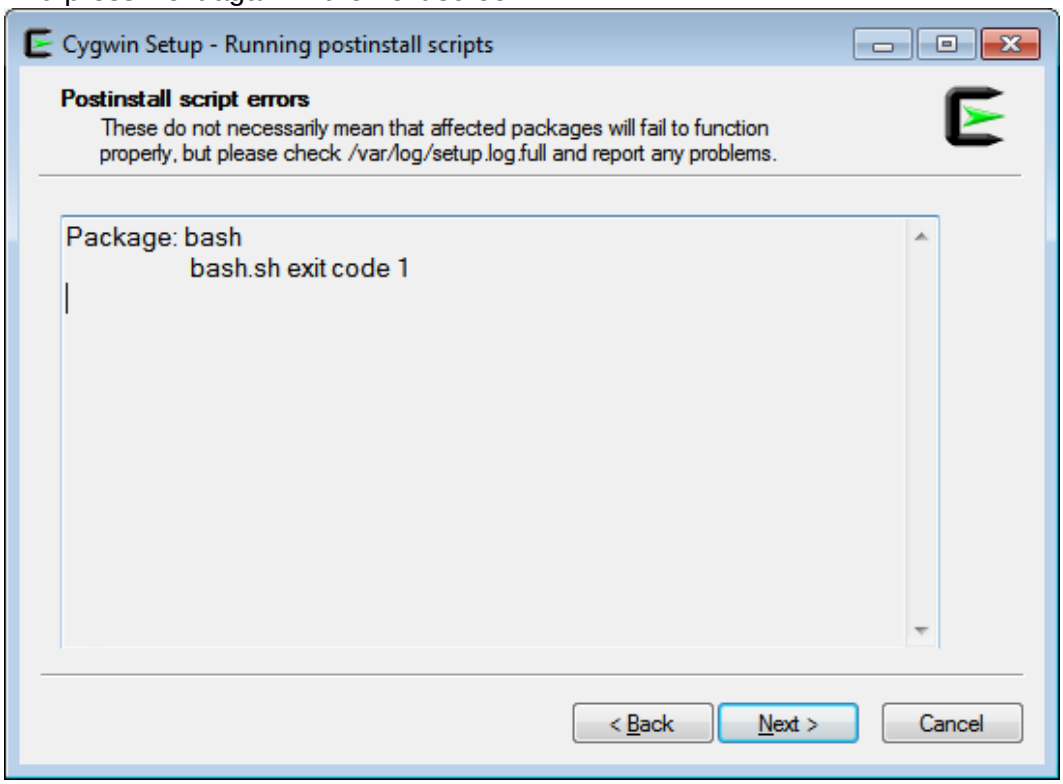
On the next screen just click Next:



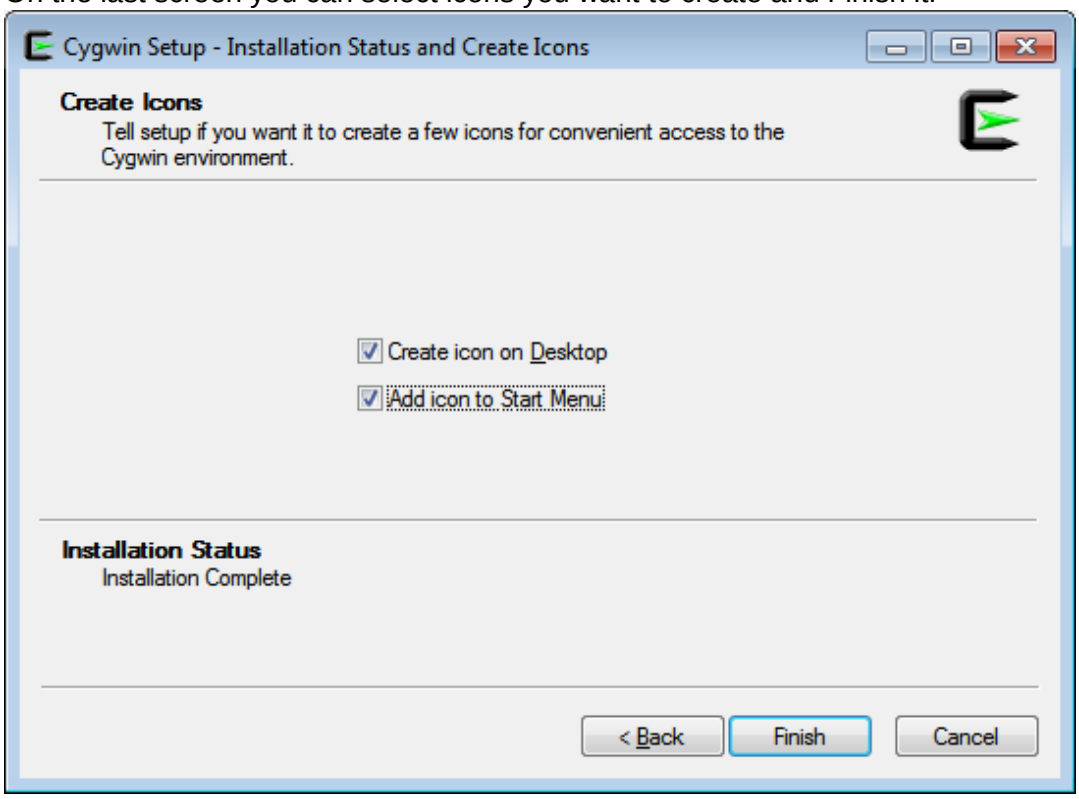
Wait until installation is completed:



And press Next again in the next screen:



On the last screen you can select icons you want to create and Finish it:



You should see such icon on your Desktop if you selected to create one on previous step:

Using Cygwin

5. Using the full command line to extract data.

Using the full command line to extract data. The command lines in the “Command lines.txt” document was designed to be used as a whole, for Cygwin to successfully download any hourly, daily, or monthly data if available for a particular Climate station at once. Therefore, if you try to breakdown and only use just parts of the command line, it may not work or prompt you to any valid site. Also, if you happen to skip some of the code provided, Cygwin will not be able to extract data using the script as the connection to the server is broken.

6. Open Cygwin and type command

Example: to download all available hourly data for Yellowknife A, from 1998 to 2008, in .csv format:

```
for year in `seq 1998 2008`;do for month in `seq 1 12`;do wget --content-
disposition
"http://climate.weather.gc.ca/climate_data/bulk_data_e.html?format=csv&stati
onID=1706&Year=${year}&Month=${month}&Day=14&timeframe=1&submit=
Download+Data" ;done;done
```

```
WHERE;
• year = change values in command line (`seq 1998 2008)
• month = change values in command line (`seq 1 12)
• format= [csv|xml]: the format output
• timeframe = 1: for hourly data
• timeframe = 2: for daily data
• timeframe = 3 for monthly data
• Day: the value of the "day" variable is not used and can be an arbitrary
value
• For another station, change the value of the variable stationID
• For the data in XML format, change the value of the variable format to xml
in the URL.
```

See “Command lines.txt” for more examples of command lines.

Using the proper stationID associated to the Climate Station of your interest.
One of the most common errors when using the commando line is to confuse the stationID values needed from a Climate station. The file “Station Inventory EN.csv” included on the Get More Data FTP site will serve as reference to find the corresponding “statioID(s)” for the Climate station(s) of your interest.

7. Copying the command line from program to program – beware of spacing/quotations

Beware of Quotations!

As small as it looks, sometimes operating systems change symbols contained in the original command line when copied from one program to another.

Please see the example below:

- The correct quotations to use (highlighted in blue) are the ones included in the original command line of our Readme text file:

for year in `seq 1998 2008`;do for month in `seq 1 12`;do wget --content-disposition "http://climate.weather.gc.ca/climate_data/bulk_data_e.html?format=csv&stationID=1706&Year=${year}&Month=${month}&Day=14&timeframe=1&submit= Download+Data" ;done;done

- After copying the command line into another program (for example Word) and then into Cygwin, the format of the quotations change as shown (highlighted in green) below:

for year in 'seq 1998 2008';do for month in 'seq 1 12';do wget --content-disposition "http://climate.weather.gc.ca/climate_data/bulk_data_e.html?format=csv&stationID=1706&Year=${year}&Month=${month}&Day=14&timeframe=1&submit= Download+Data" ;done;done

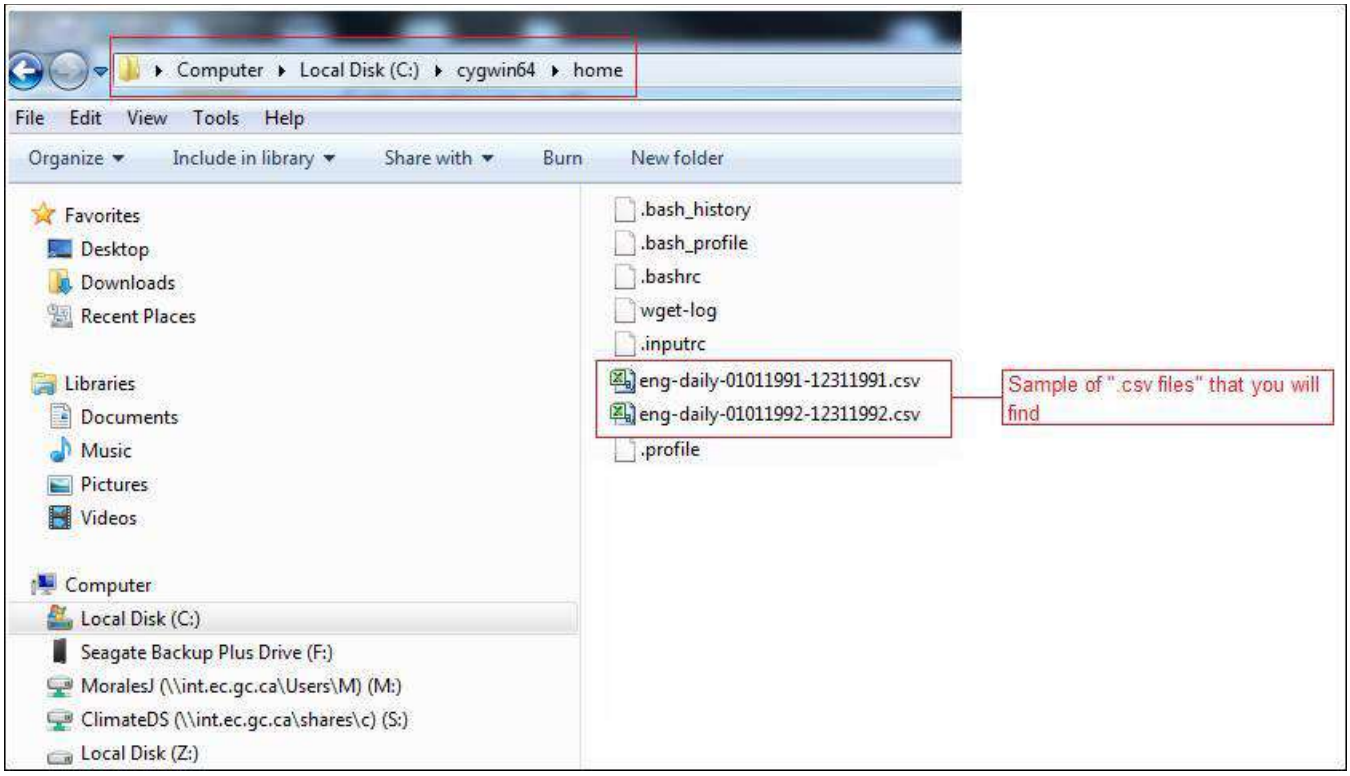
8. Using the proper stationID associated to the Climate Station of your interest.

Use the proper stationID associated to the Climate Station of your interest

One of the most common errors when using the command line is to confuse the stationID values needed from a Climate station. Please refer to the “Station inventory” document where you will find the station identifications (stationID) in column “D”. You can also use the station inventory to see for what period the station has data in both the hourly and daily data intervals (in columns “N” to “Q”), this will avoid trying to obtain data for a period for which the station does not have any.
- .

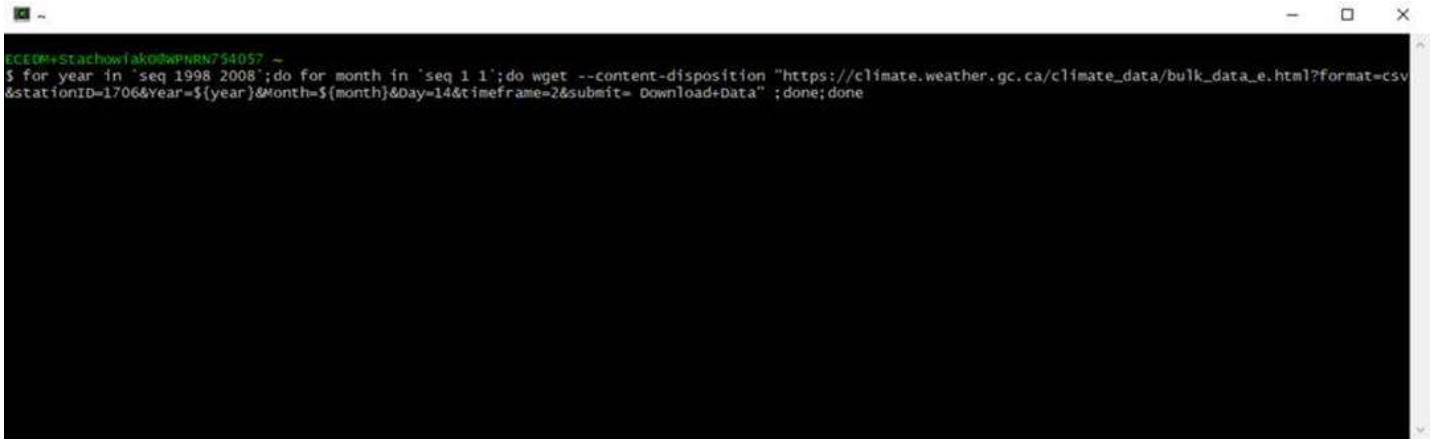
9. Find your files in your home directory:

C:Cygwin64:Home:

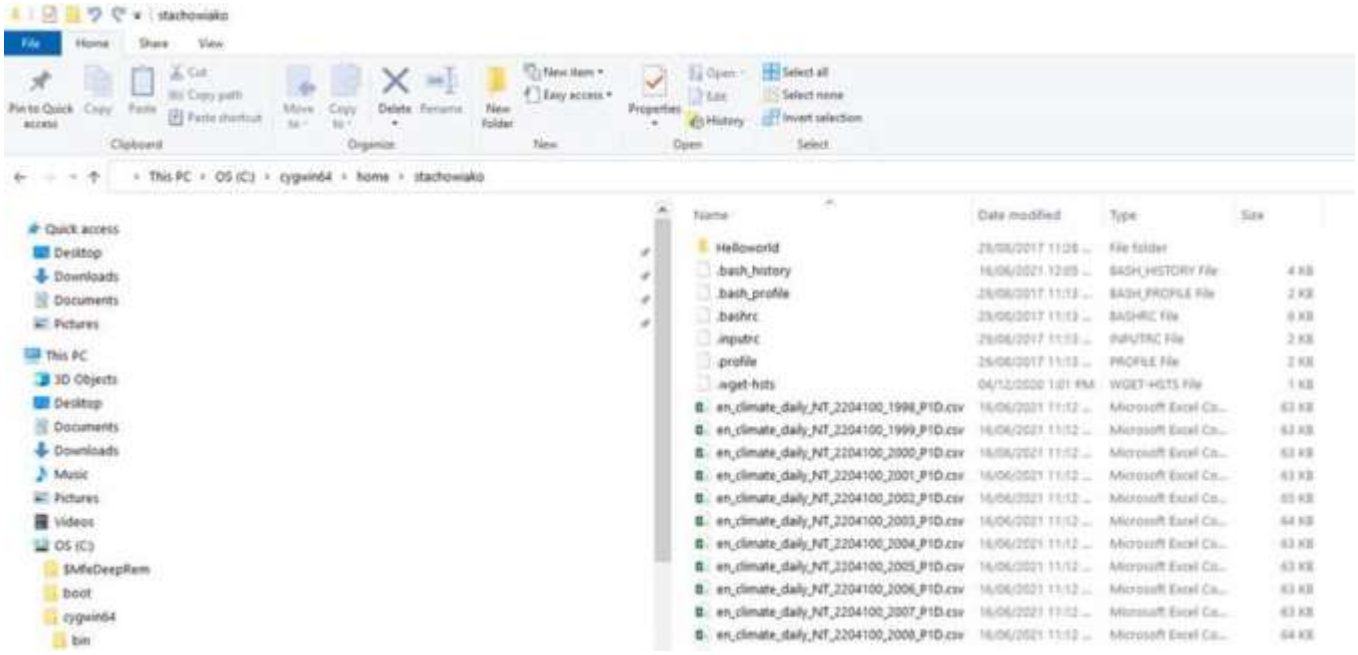


10. Hourly and daily downloads screenshots

The following is the daily input:

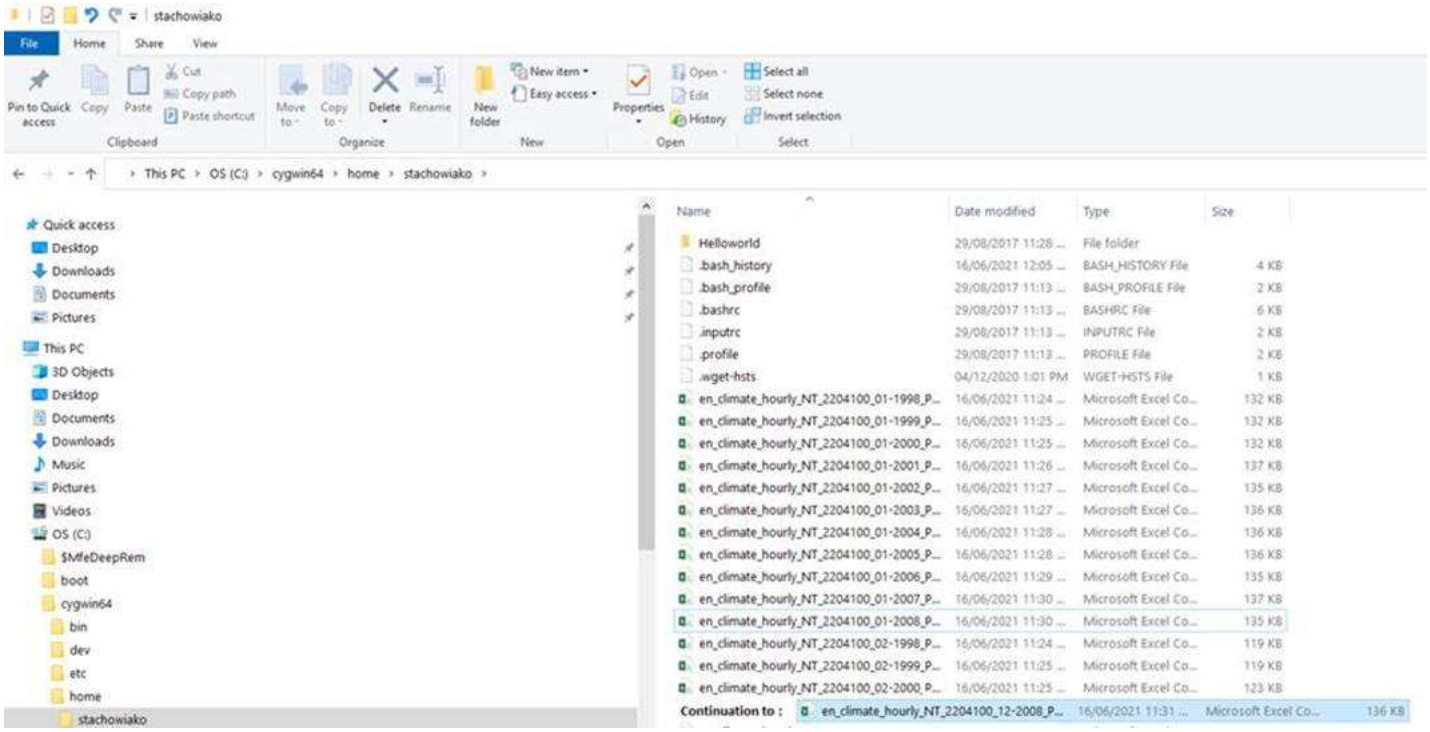


The following is the daily output:



The following is the hourly input:

The following is the hourly output:



11. Climate Data Online (CDO) Historical Climate Data Update Frequency

- The derivations of MSC's daily data from hourly data are performed for each climate day, where the Climate Day (Day X) is defined as 0601UTC (Day X) to 0600UTC (Day X+1)
- Daily derivations are done twice per day (please refer to FAQ 17):
    - Calculations of daily values will occur twice during the day at 1000UTC and 1900UTC. The first run at 1000UTC will occur for all stations. The second run at 1900UTC will occur only for stations with late arriving values for that day and stations that have undergone hourly corrections in the MSC Archive QC tool.
- Hourly climate data on the Climate Data Online website is updated once per day.
- Monthly Climate Summaries data on the Climate Data Online is updated on the 5th day of the month (please refer to FAQ 16)