Introduction to HTAP

Batch run and optimization capabilities for HOT2000 V11.3

# Required software

HTAP depends on the following third-party components.

* Java: <https://java.com/en/download/>
* Ruby: <http://rubyinstaller.org/>
* Github desktop: <https://desktop.github.com/>
* GenOpt: <https://simulationresearch.lbl.gov/GO/>

When installing these software, take care to add the executable directories (ie

C:\Program Files\genopt

In addition to these, you may find the following tools useful:

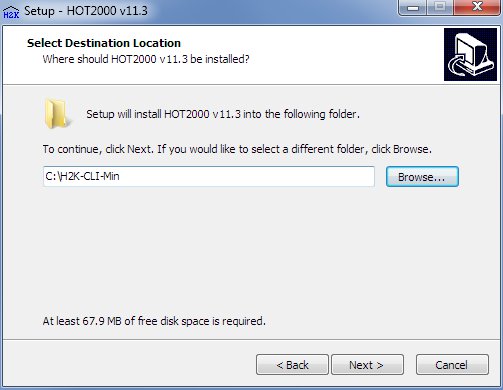
* A text file editor, such as notepad++
* A data analysis program, such as Matlab, tableau or excel.

# HTAP installation and configuration

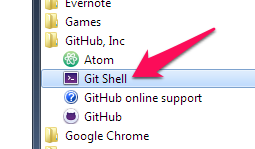
HTAP consists of two parts:

1. HOT2000 v11.3 (including command-line client)
2. HTAP scripts and configuration files.

**a)** To download HOT2000 v11.3, visit <https://drive.google.com/open?id=0B739af025L-QSVY3YW15dEFkWG8>, and install these files in the following order:

1. vc\_redist.x86.exe (install this one first)
2. HOT2000 v11.3 Setup.exe - if you don't already have it
3. HOT2000 v11.3 Setup(CliModeOnly).exe - When prompted, set the destination location to C:\H2K-CLI-Min (as below)  
     
   

**b)** To Install the HTAP scripts and configuration files, checkout the files from GitHub:

1. Open up the git shell from the start menu  
     
   
2. Type in the following command from location C:\>

PS C:\> git clone https://github.com/NRCan-IETS-CE-O-HBC/HTAP.git

Cloning into 'HTAP'...

remote: Counting objects: 996, done.

remote: Total 996 (delta 0), reused 0 (delta 0), pack-reused 996

Receiving objects: 100% (996/996), 12.02 MiB | 2.46 MiB/s, done.

Resolving deltas: 100% (590/590), done.

PS C:\>

Git will create a new folder on your computer at location C:\Ruby4HTAP. This folder will contain the HTAP scripts, some archetypes, and configuration files.

1. Before you can run HTAP simulations, you must first copy the archetype files to the   
   C:\H2K-CLI-Min\User\ directory. HTAP includes a ruby script to do this for you:

PS C:\> cd .\Ruby4HTAP\Archetypes

PS C:\Ruby4HTAP\Archetypes> ruby .\CopyToH2K.rb

>> Copying ./BC-Step-LargeSFD.h2k to C:\H2K-CLI-Min\User\... done.

>> Copying ./BC-Step-MediumSFD.h2k to C:\H2K-CLI-Min\User\... done.

>> Copying ./BC-Step-MURB10.h2k to C:\H2K-CLI-Min\User\... done.

>> Copying ./BC-Step-MURB20.h2k to C:\H2K-CLI-Min\User\... done.

>> Copying ./BC-Step-Quad-BCH.h2k to C:\H2K-CLI-Min\User\... done.

>> Copying ./BC-Step-Quad-mkt.h2k to C:\H2K-CLI-Min\User\... done.

>> Copying ./BC-Step-rev-LargeSFD.h2k to C:\H2K-CLI-Min\User\... done.

>> Copying ./BC-Step-rev-MediumSFD.h2k to C:\H2K-CLI-Min\User\... done.

>> Copying ./BC-Step-rev-Murb1.h2k to C:\H2K-CLI-Min\User\... done.

>> Copying ./BC-Step-rev-Quad.h2k to C:\H2K-CLI-Min\User\... done.

>> Copying ./BC-Step-rev-Row.h2k to C:\H2K-CLI-Min\User\... done.

>> Copying ./BC-Step-rev-SmallSFD.h2k to C:\H2K-CLI-Min\User\... done.

>> Copying ./BC-Step-Row-11uBCH.h2k to C:\H2K-CLI-Min\User\... done.

>> Copying ./BC-Step-Row-mkt.h2k to C:\H2K-CLI-Min\User\... done.

>> Copying ./BC-Step-SmallSFD.h2k to C:\H2K-CLI-Min\User\... done.

>> Copying ./KelownaHouse.h2k to C:\H2K-CLI-Min\User\... done.

>> Copying ./PrinceGeorgeHouse.h2k to C:\H2K-CLI-Min\User\... done.

>> Copying ./codeLib.cod to C:\H2K-CLI-Min\StdLibs\... done.

>> Copying ./FuelLib16.flc to C:\H2K-CLI-Min\StdLibs\... done.

PS C:\Ruby4HTAP\Archetypes>

Note that the CopyToH2k.rb script will copy all HOT200 files and libraries from the C:\Ruby4HTAP\Archetypes folder to C:\H2K-CLI-Min\User. To add additional archetypes to the HTAP platform, you merely need to copy them into C:\Ruby4HTAP\Archetypes, and re-run the CopyToH2k.rb script

# Contents of the Ruby4HTAP directory.

HTAP consists of two parts: