

## Instruction on How to Remotely Access CAD Tools on ENCS Servers

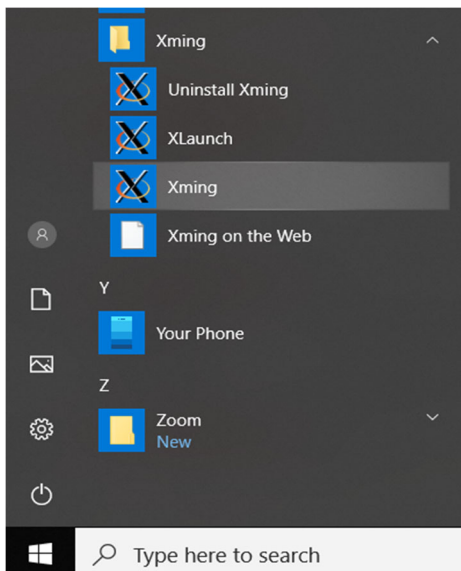
The CAD project shall be carried out on our ENCS machines on which the CAD tools Synopsys and Cadence are installed under Linux OS (not Windows).

You will need to be able to run these CAD tools remotely via a **SSH** session.

1. First, you will need to install the following applications:

- an X-Server software such as [Xming](https://sourceforge.net/projects/xming/)
  - <https://sourceforge.net/projects/xming/>
- an SSH client such as [PuTTY](https://www.chiark.greenend.org.uk/~sgtatham/putty/latest.html) ( free and open-source terminal emulator, serial console and network file transfer application)
  - <https://www.chiark.greenend.org.uk/~sgtatham/putty/latest.html>

2. Launch Xming



3. Ensure that the Xming X-Server has been launched by verifying that the **X** icon appears in the launch tray of your system's task bar.

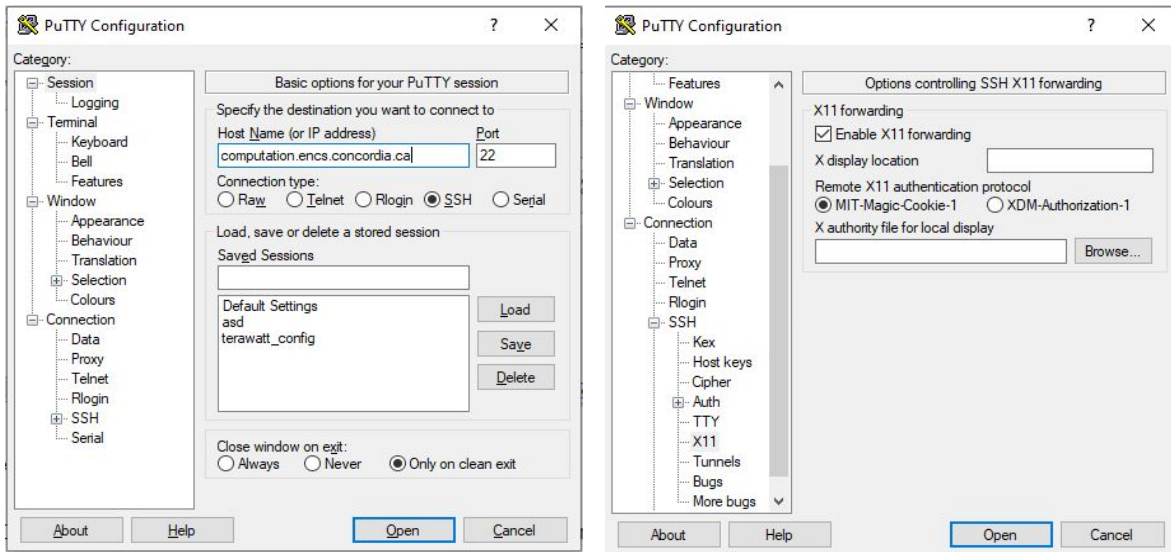


#### 4. Launch PuTTY



#### 5. In the Putty Configuration screen configure the following Session:

- Set Host Name to **computation.encs.concordia.ca**
- Activate the **SSH** radio button under Connection Type
- Under Connection > SSH > X11, check Enable X11 forwarding

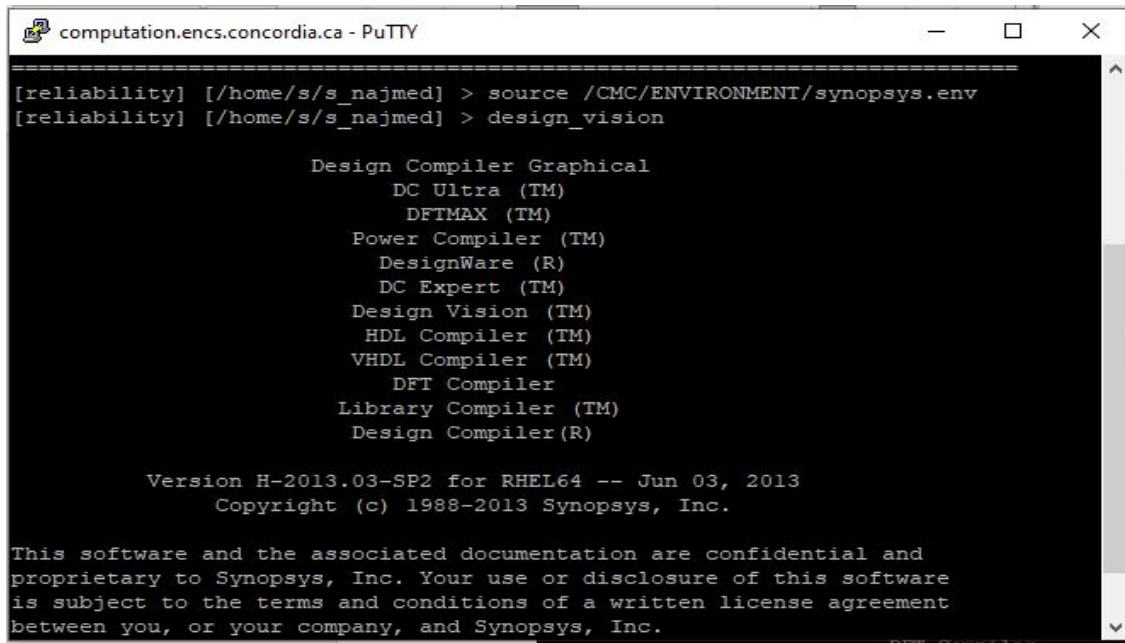


#### 6. Once you have configured your session, click the **Open** button.

#### 7. Enter your ENCS username and password when prompted, as in the shows screen:



8. Launch "Synopsys Design Compiler" tool, through:



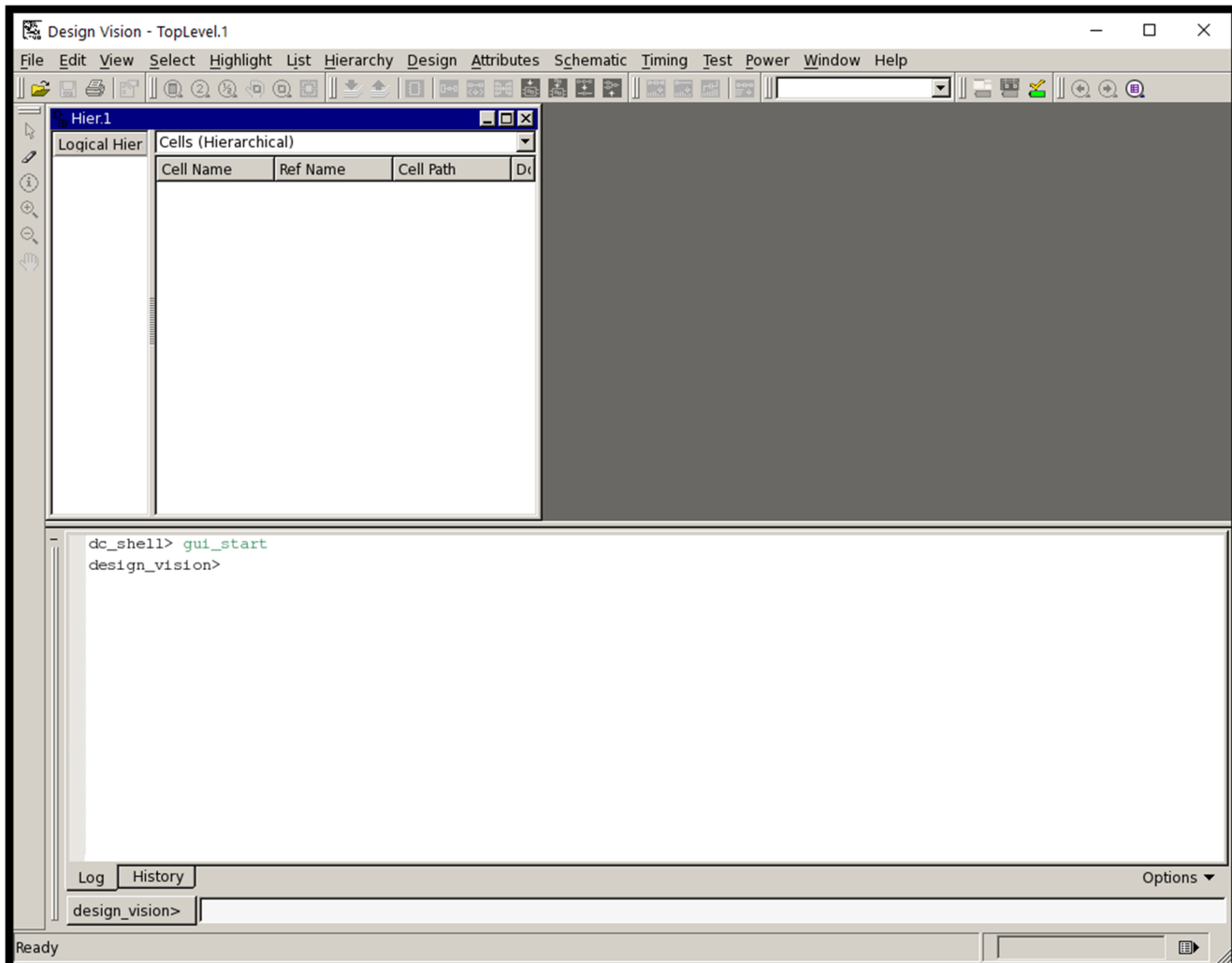
```
computation.encs.concordia.ca - PuTTY
[reliability] [/home/s/s_najmed] > source /CMC/ENVIRONMENT/synopsys.env
[reliability] [/home/s/s_najmed] > design_vision

Design Compiler Graphical
DC Ultra (TM)
DFTMAX (TM)
Power Compiler (TM)
DesignWare (R)
DC Expert (TM)
Design Vision (TM)
HDL Compiler (TM)
VHDL Compiler (TM)
DFT Compiler
Library Compiler (TM)
Design Compiler(R)

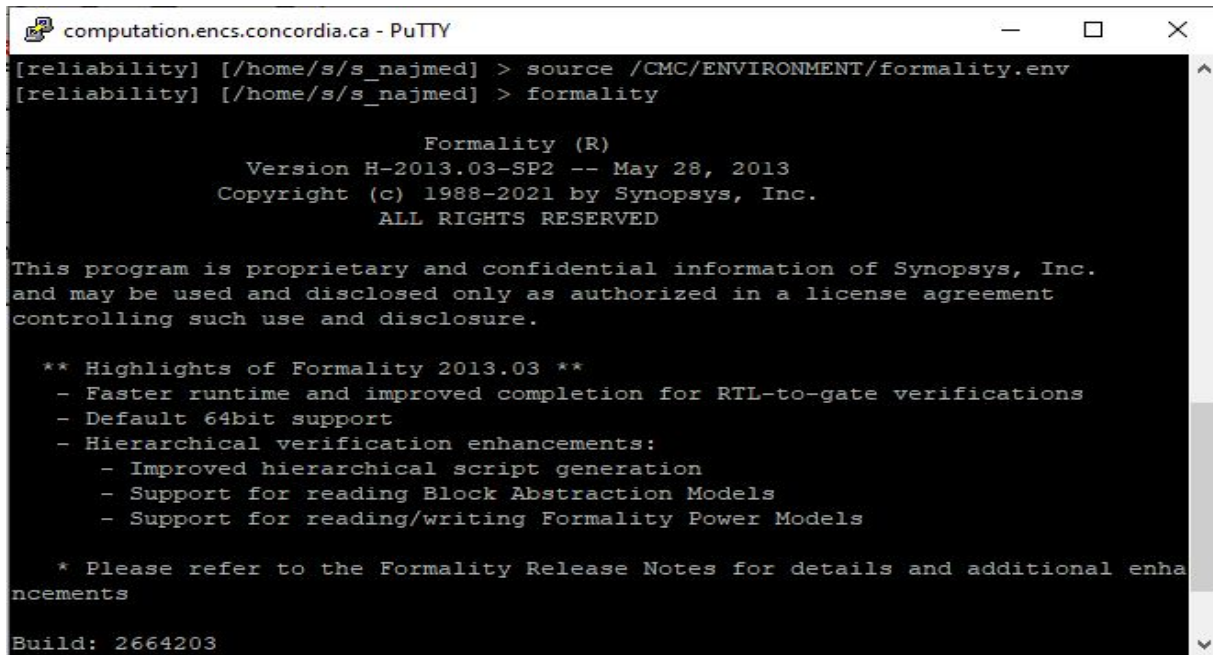
Version H-2013.03-SP2 for RHEL64 -- Jun 03, 2013
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proprietary to Synopsys, Inc. Your use or disclosure of this software
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```

Then, you will have this screen:



9. Launch “Synopsys Formality” tool, through:



```
computation.encs.concordia.ca - PuTTY
[reliability] [/home/s/s_najmed] > source /CMC/ENVIRONMENT/formality.env
[reliability] [/home/s/s_najmed] > formality

          Formality (R)
    Version H-2013.03-SP2 -- May 28, 2013
    Copyright (c) 1988-2021 by Synopsys, Inc.
          ALL RIGHTS RESERVED

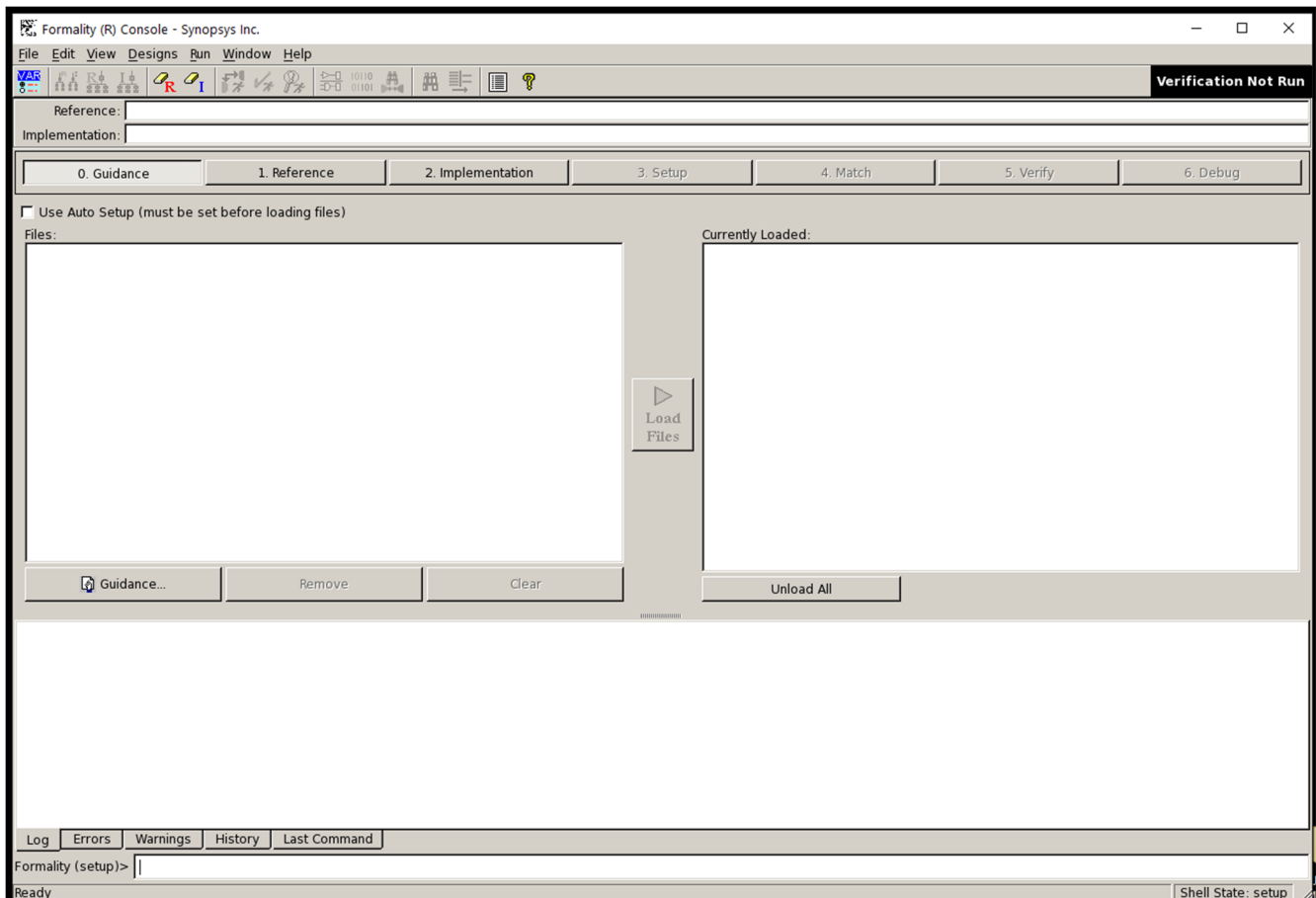
This program is proprietary and confidential information of Synopsys, Inc.
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controlling such use and disclosure.

** Highlights of Formality 2013.03 **
- Faster runtime and improved completion for RTL-to-gate verifications
- Default 64bit support
- Hierarchical verification enhancements:
  - Improved hierarchical script generation
  - Support for reading Block Abstraction Models
  - Support for reading/writing Formality Power Models

* Please refer to the Formality Release Notes for details and additional enhancements

Build: 2664203
```

Then, you will have this screen:



10. Launch “Cadence Conformal” tool, through:

```
computation.encs.concordia.ca - PuTTY
=====
[awareness] [/home/s/s_najmed] > source /CMC/ENVIRONMENT/conformal.env
[awareness] [/home/s/s_najmed] > lec -XL
                CONFORMAL (R)
                Version 10.10-s540 (26-Sep-2011) (64 bit executable)
                Copyright (c) Cadence Design Systems, Inc., 1997-2011. All Rights Reserved

This program is proprietary and confidential information belonging to
Cadence Design Systems, Inc., and may be used and disclosed only as authorized
in a license agreement controlling such use and disclosure.

// Note: Beginning with Conformal version 11.1,
//       Conformal will start in 64-bit mode by default.
//       To use the 32-bit executable, you will have to use
//       the -32 option when invoking the tool.
// Check out Conformal_Ultra 10.1 license
// Check out Conformal_Asic 10.1 license
```

Then, you will have this screen:

