

Using Mentor Veloce at PSU

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Getting Access to Mentor Veloce at PSU

You will need to be authorized by your instructor to use the Mentor Veloce system. Once authorized, you will be able to access the Veloce system using your MCECS username and password. You will also be able to access the PSU Veloce website where you can find documentation and training materials as well as training videos.

Veloce Web Site and Wiki

To get access to Veloce documentation and related materials, you can visit <http://veloce.ece.pdx.edu/>. There is also a Veloce Wiki at <https://projects.cecs.pdx.edu/~velocew/velocetrac/>. Here you'll find discussion forums on a variety of topics. Check here if you are having problems using Veloce. It's possible someone has already posted a solution to the problem you've encountered.

Both sites require a login and password. Your login is your MCECS login. Your password is your PSU ID. To use the Mentor Veloce system, website, or Wiki you'll need to either use a system on the MCECS network or use VPN if you're using your own PC.

Tools

You'll need the following tools if you plan to use Veloce from your own Windows PC. You will not need them if you're using Veloce from an MCECS Linux or Windows system.

- VNC Viewer – Remote Desktop software
You can download from <http://www.realvnc.com/products/free/4.1/download.html>
- VPN – Provides secure remote access if you're not on campus
You can download from CAT at <http://cat.pdx.edu/windows/maseeh-college-vpn.html>
- WinSCP – Used to transfer files from a home PC to MCECS if you don't use a USB flash drive.
Note: Not needed if you use VPN and samba and map your U: drive.
You can download from <http://winscp.net/eng/index.php>
- putty – needed to remote login to MCECS and/or velocesolo
You can download from <http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html>

Misc

The Veloce host system is `velocesolo`. Its full name is `velocesolo.ece.pdx.edu`. MCECS Unix systems can be accessed via `unix.ece.pdx.edu`. From an MCECS Linux or Unix system you can use `ssh` to remote login to another host. The best (secure) method to access these systems from a Windows system is `putty`. You can do this from an MCECS Windows system, or your own PC. The

putty program is already installed on MCECS Windows systems (P:\programs\tools\putty\putty.exe), but you'll need to download and install it on your own PC if you want to use it there.

When you are authorized to use the Mentor Veloce system at PSU you will have a directory on the MCECS Unix and Linux systems called /veloce/username where username is your MCECS username. This same directory is accessed on velocesolo as /u/username. This allows you to share files between the three systems. Do not change the permissions for this directory or you may be unable to use Veloce. Other users will only be able to see or read your files if they know the full pathname. They cannot read your directory.

You can also access this directory from an MCECS Windows system. If you want to be able to easily access your Unix files from a Windows PC, then type the following when logged into Unix.

```
% ln -s ~ ~/smb_files/unixhome
```

Now, whenever you are logged into an MCECS Windows system you can access any file in your MCECS Unix directory via unixhome on the U: drive (using Windows Explorer, look under "My Computer". You can even use Windows to drag and drop files from your Windows directory to your MCECS Unix directory.

If you are using your own PC instead of an MCECS system for creating and maintaining your files, you can move files from your PC to your veloce directory in several ways. You can:

- Use a USB "thumb" drive to copy them to an MCECS Linux or Windows system
- Use WinSCP (using SFTP protocol) to copy them to an MCECS Unix or Linux system
- Map your Unix or Linux directory to a drive on your own PC by following the directions below

To map Unix directory, you'll need to use VPN and (the first time) map the U: drive manually. See <http://cat.pdx.edu/windows/mapping-a-drive-to-a-unix-account.html> for details. See also: <http://cat.pdx.edu/windows/accessing-your-unix-linux-files-from-windows-using-samba.html>

Making Life Easier

To make navigation and file access easier you may find it helpful to create a symbolic link from your MCECS Unix home directory to your Veloce directory. While logged into a MCECS Unix system (e.g. nemo), type the following:

```
% ln -s /veloce/username ~/veloce
```

Now you'll be able to access your Veloce directory from within your home directory on an MCECS system.

Initial Set Up

The following instructions only need to be executed once.

Creating your environment

Connect and login to host `velocesolo` using your MCECS login and password.

To connect from an MCECS Linux or Unix system type:

```
% ssh velocesolo
```

To connect from an MCECS Windows system run:

```
P:\programs\tools\putty\putty.exe
```

To connect from your own Windows PC use `putty` after connecting to the MCECS network with VPN. You'll need to install `putty` first (see Tools above).

Now execute the following commands. This will ensure that you have all the necessary Veloce environment variables set each time you login. You will need to logout and login again for these to take effect. You only need to do this once.

```
% echo "source /pkgs/mentor/veloce/env.sh" >> ~/.bash_profile  
% logout
```

Starting and Configuring a VNC server

Login again on `velocesolo` and start a VNC server:

```
% vncserver
```

You will be prompted for a password. To make your life easy, use the same password as your MCECS account. You'll see a message like the following:

```
New 'velocesolo.ece.pdx.edu:2 (username)' desktop is velocesolo.ece.pdx.edu:2  
Starting applications specified in /u/username/.vnc/xstartup  
Log file is /u/username/.vnc/velocesolo.ece.pdx.edu:2.log
```

The 2 in the example above is the port number assigned by the VNC server. You'll need to use this later when you connect using the VNC client software.

Now edit the file `.vnc/xstartup` in your `velocesolo` home directory and uncomment the two lines containing `unset` and `exec` by removing the `#` character at the beginning of those lines.

You will not need to run `vncserver` again unless the `velocesolo` system has been rebooted since the last time you ran it. If you do need to restart the VNC server, you will only need to do that step in the instructions above.

Using Veloce

You are now ready to use the Veloce software. To use the system you must be on an MCECS computer or connected using VPN on your own PC.

If you're running on an MCECS Windows system you can run the Tight VNC Viewer which is pre-installed on the P: drive:

```
P:\Programs\TightVNC\vncviewer.exe
```

If you're running on an MCECS Linux system type:

```
vncviewer velocesolo:port
```

where `port` is the number reported by the VNC server above.

If you're running on a PC at home and you've already VPNed into the MCECS network and installed VNC, then launch your VNC Viewer using server name `velocesolo.ece.pdx.edu:port` where `port` is the number given to you when you ran `vncserver`. For example, `velocesolo.ece.pdx.edu:2` using the port from the example above.

You should see a desktop appear. Open a terminal by right clicking on the desktop screen. Launch the Veloce GUI by typing the following in the terminal window:

```
% velocegui &
```

To exit, do not logoff. Instead just close the VNC viewer window by clicking on the X in the upper right corner of the window.

If you want to see who is using the emulator type the following in a terminal window:

```
% whoison -emul velocesolo1
```