



World Community Grid

Mass Installation and Customizing Client Behavior



Mass Installation

What are some situations where members are performing mass installations of the World Community Grid Client?

- University Labs
- Corporate Desktops

What are the key considerations?

- How do I get the agent installed on all those machines?
- How do I keep from having new devices registered each time I re-image the computers?

Installation Scenario #1 – Software Distribution System

- Applicable to environments where there is a tool already in place that will push software updates to computers
- Uses a command line installation using a MSI package
- The Mass Install document provides instructions on how to tweak a standard installation
- Instructions are also available on how to create a complete custom install using a Microsoft Custom Transform
- Re-registration of devices is not usually a problem in this environment

Installation Scenario #2 – Re-imaging Systems

- Applicable to environments where there is a tool to re-image computers frequently (nightly or weekly)
- Install the BOINC Agent onto the image
 - Customize the account file to ensure it automatically attaches under the desired user id
- Protect certain files and directories from being re-imaged in order to avoid re-registering the device and losing in-progress work
 - Use the 'data_dir' option to specify where these files and directories are stored and then configure your re-imaging tool to not overwrite this directory
 - Copy these files and directories off the computer before re-imaging, and then replace them after re-imaging (you must replace them prior to the BOINC agent starting up)

Customization of Client Behavior

- There are many settings that can be adjusted to fine tune behavior of the client on the computer
- These settings can be managed via the website and all installations will pick up those settings
- The following settings can be controlled:
 - Memory Use
 - Processor Use
 - Disk Use
 - Bandwidth Use

Controlling Memory Use

- Processor use settings impact the following items:
 - The responsiveness of the computer

- The following settings can be used to limit how much RAM is used by the client:
 - Max % of physical memory while a user is using the computer
 - Max % of physical memory while a user is not using computer
 - Max % of virtual memory

Controlling Processor Use

- Processor use settings impact the following items:
 - Heat generated by the computer
 - Ability of the computer to go into 'standby' mode
 - In some cases, the responsiveness of the computer

- The following settings can be used to limit how much processor time is used by the client:
 - What % of the processor power should the research use?
 - Should research run while a user is at the computer?
 - If not, then how long after the last key press or mouse click should research start running?
 - Should research stop running when the computer is not in use? If so, how long after. (These option allows the computer to go into a standby mode)

Controlling Disk Use

- Disk use settings impact the following items:
 - Ensure sufficient disk space is available for the user

- The following settings can be used to limit how much disk space is used by the client:
 - Max % of disk that can be used by the research applications
 - Max amount of space that can be used by the research applications
 - Min amount of free disk space that must exist before the research applications can use disk space

Controlling Bandwidth Use

- Bandwidth use settings impact the following items:
 - In setting where there is limited bandwidth to the internet, these settings can be used to ensure the research applications do not prevent the user from accessing the internet

- The following settings can be used to limit how much bandwidth space is used by the client:
 - Max KB/sec used for downloading workunit files
 - Max KB/sec used for uploading result files