BOINCOS User Manual Alpha v1.1

Installation:

BOINCOS is packaged into a raw disk image format and it must be noted that the size of the uncompressed image is 8GB.

Requirements:
- An 8GB USB or greater
- A computer with a functioning operating system
- Disk imaging software (such as [Rufus](#) or [Etcher](#))
- An archival program that can extract .zip archives
- Optional: Program that can perform file hashes

Steps:
1. Download the compressed image from the official repository
2. Decompress the image file **(This file will decompress to 8GB)**
3. Optional: Perform a checksum on the file and compare with the provided hashes
4. Execute the chosen imaging software and write the decompressed image to the USB medium

Boot Options:

When the OS is booted, the user will be presented with two boot options:
1. BOINCOS - Intel and AMD GPUs
2. BOINCOS - Nvidia GPUs

Option 1:
Recommended for Intel integrated graphics and AMD graphics cards. This boot line is generic (default arguments passed to the init-image) and should perform the appropriate modesetting for the video drivers in kernel space.

Option 2:
Recommended for Nvidia graphics cards. This boot line has nomodeset added so that the "nvidia-dkms" driver can be set when the display environment is started.

References:
- Drivers compatibility:
  https://wiki.archlinux.org/index.php/Xorg#Driver_installation

Logging In:

There are two active user accounts on this version, "root" and "boincuser". Each of their passwords are a single space.

Networking:

This Version packages a network manager called "connman". To access network configuration, while at the desktop after logging in, click the icon on the bottom left of the screen and select "Run program...". When prompted type "connman-gtk" which should launch a GUI for configuring network setups.

Debugging BOINC:

If the client states that it cannot access the core client, check if BOINC is looking at a gui_rpc authentication file.

Open a terminal and type: `"touch /var/lib/boinc/gui_rpc_auth.cfg"`

Then restart the BOINC daemon: `"sudo systemctl restart boinc"`

Bundled Utilities:

Here is a summary of useful programs that are not apart of the base installation:
- boincmgr - The boinc manager software
- htop - Terminal based system monitor
- Min - Simplistic web browser
- gnome-system-monitor - A graphical and simple system monitor
- gnome-terminal - A user-friendly terminal emulator
- connman-gtk - GUI interface for configuring network settings

Reporting Issues:

In both methods of reporting it is recommended to include as much information as possible to describe the issue including:

- The full set of specifications of the computer BOINCOS is being run on.
- Steps that were taken before the issue occurred and a description of how it can be reproduced.
- Any logs that are associated with the issue.

Email a Developer:

It is advised to contact a developer if you think that the issue is trivial, you do not have enough information to back it up and require help in accessing the required information to create an issue in the GitHub repository or if the issue is major and releasing the information to the public may affect the security of the system or reveal critical flaws in the design.

Developer emails:

- boincosdelta@gmail.com - Founder and main developer

Make a Github Issue:

It is advised to make a GitHub issue on the official BOINCOS repository if the issue has information backing it or is a request for functionality and support that is not planned within the milestones of the project.

The official BOINCOS GitHub repository can be found here.