User and System Requirements (v1.2)

Please note that the settings provided below is specific for the UTS remote labs.

Operating System	Browser (tested and supported)	Applet	Screen Resolution
Windows XP, Vista, 7 Mac OS 10.6+ Linux	Mozilla Firefox 3.6+ Chrome (latest version) Internet Explorer 7+ Apple Safari	Java 6 (latest update) Adobe Flash 10+	1024x768 and above

For the purpose of using the Remote Labs Rigs, it is assumed that users have access to a workstation with properly working operating system. The current workstation must also have Internet connectivity, preferably with a bandwidth of at least 512kbps downstream.

- Operating System:
  - Windows XP, Vista, 7
  - Mac OS 10.6
  - Linux

Web Browser
Remote Labs have been tested with a number of current web browsers. Labshare recommends Firefox. The user is responsible for ensuring that the current browser version is up to date.

- Web Browser:
  - Mozilla Firefox 3.6 and above
  - Google Chrome
  - Internet Explorer 7 and above
  - Apple Safari

Note: Internet Explorer 6 is not recommended for use and Remote Labs operates in a functionality-limited mode with this browser. Earlier versions of IE will NOT function. Users are recommended to update to the latest version of Internet Explorer for your operating system.

Java Runtime Engine
A Java Runtime Engine (JRE) plugin is required to access the Remote Labs through a web browser. Java 6.0 is highly recommended with the latest updates applied. If a user is accessing the rig from his/her home PC and does not have the JRE installed, the user will be automatically asked to install it. Otherwise, the JRE can be found at: http://www.java.com/en/

Note: The rig control Java applet first loads when the user is directed to the rig and the user is asked to accept a security warning. If the user does not accept this warning, the rig control applet will not function correctly and the rig cannot be used.

Note: In many recent Linux distributions, OpenJDK is packaged as the Java version supported by the distribution package manager. OpenJDK may be successfully used as a Remote Labs compatible JRE.

Video Plugins
The following refers to Windows plugins, we will add equivalent information for MAC and Linux as time permits. We are in the process of upgrading the vision system used within UTS remote labs to improve reliability and reduce latency, we will update this document to reflect these changes once the changes have been rolled out. This is expected to happen in early 2012.

The software supports two different web browser video plugins, VLC or Windows Media Player (WMP). While the software also allows the user to view the experiment through self-refreshing JPEG images (adjustable refresh interval: every 0.25–2 seconds), it is recommended that at least one of the two plugins should be installed for a chosen browser. The plugins can be downloaded free of charge from these links:

VLC Media Player: http://www.videolan.org/vlc/

Windows Media Player: http://www.microsoft.com/windows/windowsmedia/player/versions.aspx

If the user is unsure whether any of these plugins are already installed, check the browser settings. On Internet Explorer, go to 'Tools' -> 'Manage Add-ons' and on Mozilla Firefox or Google Chrome type 'about:plugins' in the address bar and press the 'Enter' key.

NOTE: Depending on the current browser settings, a user may need to specifically allow these players to run automatically. A user should watch for confirmation dialogs (Firefox) or a yellow bar at the top of the browser window (Internet Explorer). If not, check the current plugin settings under 'Tools' in the browser menu. A user may have to manually enable the plugin for Windows or VLC Media Player.

Firewall Issues
Often, private networks (such as companies, universities and even home networks) operate through firewalls or proxies. Sahara requires the following ports to be open:
- 3389 (outbound): Remote Desktop Connection
- 7070 (outbound): Video Feed

If very restrictively configured, these may occasionally disallow data coming from the Remote Labs servers to a current browser.

When to Queue
Please check the reservation calendar for availability before queuing. Also, please note that "queuing" for a rig session may result in long wait times due to the high volume of reservations made by other students, academics and Remote Labs technical officers.

As a general note, it is recommended that users utilise the "Queue" option rather than the "Reservation" option as this results in higher efficiency for usage and allocation of rigs to more users.

When to Reserve
Reserving a rig session may be helpful for users who do not have time to queue and wait to use a rig.

Reservation can be made through the reservation calendar. Please be aware that the user must log-in within 10 minutes of your reservation period, otherwise the system will drop the user's reservation once the timer has expired to allow queuing users to access the rig. The user will not be able to return to the rig without either queuing or making another reservation.

Please be aware of the notification in red located on top of the session screen that states, "Your session will be terminated if you do not use this rig within XXX seconds".

Also, for users that have created a reservation and do not intend to be use the reservation, please be courteous to others and cancel the reservation so they may use the rig in that time period.