

Using STATA on the Citrix Server (by Mark Franklin, SPS - October 2010)

In order to avoid an open-ended commitment to purchasing more and more licenses for Researchers and Fellows using STATA and other software on their laptops, the Computing Service has come up with an alternative (they believe cheaper and in some ways better) way to access computing-intensive resources by providing these resources on a set of central servers accessible over the internet using a Windows interface. This interface runs on both Windows and Mac computers, though with the obvious disadvantage for Mac users that they need to be able to use a Windows interface. The following usage notes are intended particularly for Mac users, but Windows users may find them helpful.

Accessing the Citrix cluster is not difficult. Adequate instructions are available on the CS web page (though finding those instructions is not necessarily easy). If you Google “EUI citrix farm” you will find the top Google hit is a link to the page on the EUI website that describes access to the farm from desktop machines located at the EUI (though this notoriety is not guaranteed). The document is not very helpful if what you want is to access the facility from your laptop, but click on that link anyway. It is important to read the instructions you find there because if you want to use Citrix on your laptop it is assumed you already know how to use it on a desktop machine. In particular, be sure you understand how you are expected to access and save your data when using this resource (if you have trouble understanding the jargon, refer to the paragraph in this document with the heading “Accessing your data”). If you are a Mac user, be sure to follow the link provided in the CS documentation in the paragraph that begins “Mac/Linux users: in order to move/copy files...” If you are a Mac user you probably will first need to read the paragraph in this document with the heading “Accessing your data”, see below.

Once you have the general idea of how the Citrix Farm works, click on the link to “Heavy Computational Tasks” in the “Documentation” list at the top of the lefthand sidebar of the CS Citrix documentation. This will provide you with information on how to download a plug-in for your web browser that will permit you to use the Citrix Cluster from anywhere you may have an internet connection (you do not need a Virtual Private Network – or even to know what that is – in order to access the Citrix Cluster in this way).

You are supposed to be able to access the Citrix Cluster from any machine with an internet browser (including even an Apple iPad) and, if you change locations, you can leave your Citrix Session active by disconnecting (rather than logging out) from the cluster. When you re-connect at a later time you will find your session exactly as you left it. This can be incredibly handy if you have a task that requires a significant time to

complete, as you can be going home or using your laptop for other things while your task completes. But note that many tasks that would have taken hours on your laptop take only minutes on a Citrix machine because it is so powerful.

Accessing STATA on the Citrix cluster

From the Citrix cluster instructions page mentioned above (2nd paragraph), click on the CS Homepage link you see under “Starting a Citrix Session” on the very first page of “Using the Citrix Farm”. This does not actually take you to the CS Homepage but rather connects you to the Citrix cluster where, after you log on (using your EUI username and password just as though you were logging on to email), the first time you go there you will be asked if you want to download “the client”. The client is a plug-in for your web browser (it is supposed to work with any browser but I have only tried with Firefox and Internet Explorer). When you click the download button you are presented with a dialog box that asks you what your Browser should do with the plug-in, and you should take the default choice which (on a Mac) mounts a disk image and opens a window in which you are invited to double-click the installer icon and then follow the on-screen instructions. On a Windows machine you are asked whether you want to run or save the file, and you should click “Run”. Having done what you are told, you are presented with a (series of) screens which you move through by clicking “continue” and “agree” (to the license agreement – if you did not already check a rather obscure box on the initial download screen). You are then asked if you want to open the plug-in (on Windows whether you want to run the software) that might do all sorts of damage to your machine if it is not the plug-in you suppose it to be, and if you followed the above instructions you probably can safely do so. You then find yourself on a webpage with a window-full of applications, of which one is STATA.

On Windows you get a couple of error messages having to do with the EUI’s faulty server authentication, and these messages definitely lead you to believe that your download failed. BUT preserve and do as asked (very obscurely) on the next screen and click on the button you will see just above the big CITRIX logo at the top of the window headed “Allow ActiveX Control”. If, like me, you fail to make this work, just say “yes” when asked you if you want to try the download again (or go buy a Mac). And THEN try to click on the button that allows ActiveX control (what happens is too arcane to describe but preserve until you find an appropriate button to click). It will appear in due course above the CITRIX logo. And THEN you find yourself on a webpage with a window-full of applications of which one is STATA.

BOOKMARK THIS PAGE SO YOU CAN GO THERE WHEN YOU WANT TO RUN STATA IN FUTURE (though you can always get here by clicking the same “CS homepage” link mentioned at the start of this section).

Accessing your data

Apart from Stata, R, and other heavy computing applications available in this window, there is also (far left) an icon called “Explore Xen” which gives you access to a virtual desktop showing the files available, and permitting you to copy, rename, and delete files as though you were on a Windows machine that was all your own. If you double-click on this (as you should) you will be asked what access you want. If you are fearful about security on your machine, click on “Read access” but this leaves you with problems getting new files back to your own machine – problems that are fairly easily overcome if you are familiar with Windows, less easy if you are a Mac user who has never used Windows (suggestion: cultivate a Windows-using friend). But also click on “Always ask me” so you get the chance to change this choice later if you think better of it. You probably get the same dialog box if the first application you double-click on is Stata.

When the Explore Xen window opens you see a desktop icon, with under it “My Documents”, “My Computer” and “My Network Places”. This will look familiar to a Windows user, but both Windows and Mac users need to know that when they then click on the + sign next to My Computer the list of folders/directories available will not look at all familiar. One of them, however, is called “C\$ on ‘Client’ (V:)” That is your C drive if you are a Windows user (that you can do with what comes naturally), or your complete file store if you are a Mac user. If you are on a Mac, click on the name (not the icon) to see a folder called “Documents”, and click the + sign next to that folder to open up a sidebar listing the available folders. From that point proceed as though this was a Mac, double-clicking on folders you want to open and dragging items to folders you want to copy them to. You can also open files from your file store from within Stata. However, doing so can be quite slow because the file has to be copied across the internet to the Citrix cluster drive every time you open it.

Especially for large files it is better to keep them on your G drive, as described in the CS documentation referred to at the start of this note. If you are a Mac user or are away from the EUI, the simplest way to do this is from the Explore Xen window, dragging files or folders to your “G drive” – the topmost item under My Computer mentioned at the start of this section. If you click the + next to that and the + next to “[your_username]’s Documents”, you will find a subfolder already in place called “[your_username]’s data” which would be a good place to copy any files you wanted to access from the Citrix cluster, especially if you will be running them from home over a slow internet connection. You can also save output to this folder, and later copy it back to your own computer when you are in an EUI building connected to the EUI high-speed network. It would be a very good idea to make this directory your working directory so that it becomes the place where all your data is automatically located.

Problem-solving – session running

The biggest problem I have had with the Citrix cluster is, when I log in, having it tell me that I already have a session running and need to consult my system administrator. If this happens during office hours you can call or email the CS site office and ask them to terminate the session that is running under your name. If you get no response from the site office, you could try the CS person in charge of administering the Citrix Cluster, Giorgio Accorsi, on extension 2532 (though we are not supposed to go to him and should not do so unless the site office proves really unresponsive).

I strongly recommend that, in order to avoid the inconvenience you will suffer by being locked out in this way, you take care to access the Citrix Cluster ONLY FROM ONE LAPTOP and from no other machine. This is no more inconvenient than having STATA installed on only one laptop, but it means that if you access STATA from your laptop you probably should avoid also doing so from a desktop machine in the Badia – though by all means experiment during office hours. Giorgio tells me this should not present a problem (and the problem may occur only if the machine you are using as a laptop is an iPad). The problem clearly does not occur when you to access the cluster from different desktop machines within the EUI physical network.

A variant on the session running problem has occurred to me and one of my advisees when getting locked out only from the Xen explorer desktop. There is a work-around for this, which is to open files on your laptop from within Stata and then save them to your G Drive, and vice versa. But the only solution appears to be to get the CS to terminate the session.

PERMANENT STATA LICENSES FOR LAPTOPS

In mid-October 2010 the CS apparently negotiated a deal with the Italian distributors of Stata to permit anyone with a current license (or one that expired in the past six months) to convert this to a permanent license on payment of 100 Euros. The method for accomplishing this conversion is supposed to be announced before the end of October.