



Lab Exercise Guide

10181: Modernizing CICS applications with Java

10182: Connectivity and interoperability for CICS applications

10180: When it comes to CICS, it's all about the API

Technical Enablement Specialists

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Using the web browser, access the lab using the following URL:

<https://emitchj.github.io/WSC-CICSzVA-Registration/>

Lab Environment Connection Instructions

Open a browser window and enter URL <https://emitchj.github.io/WSC-CICSzVA-Registration/>

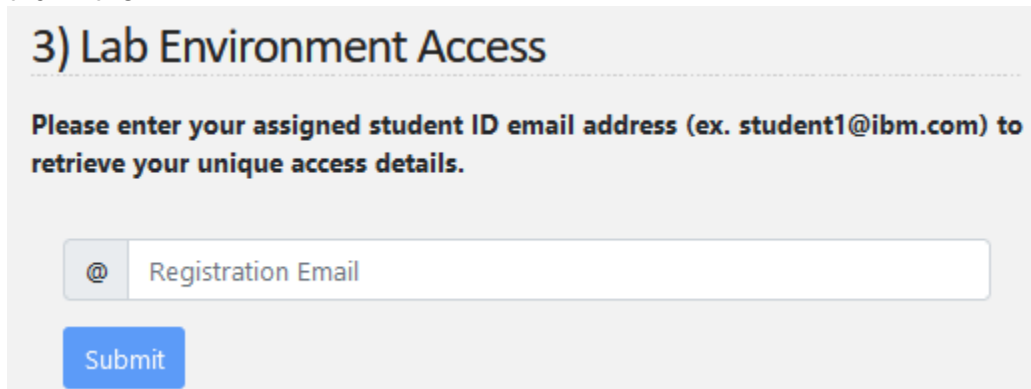
From this site you will see links to various materials.

The first link is to this document and the second link is to a document with vital information about the virtual lab environment as well as information on using a 3270 emulator in the environment.

The next section contains links to the various lab exercises. Click on the link of the exercise that you want to do and download the lab exercise workbook to your desktop. You will use this to guide you through the lab.

The last section is used to obtain credentials for your personal virtual lab environment. At your workstation located a note that identifies your student id. (i.e.. student1@ibm.com)

Under the section entitled “Accessing the hands-on lab,” enter your assigned lab student id in the form and click “Submit.”



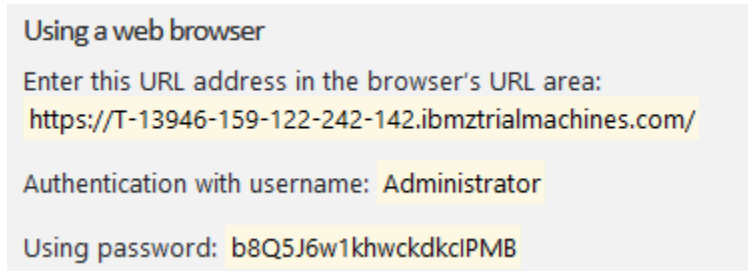
3) Lab Environment Access

Please enter your assigned student ID email address (ex. student1@ibm.com) to retrieve your unique access details.

@ Registration Email

Submit

You will see connection details that look like this:



Using a web browser

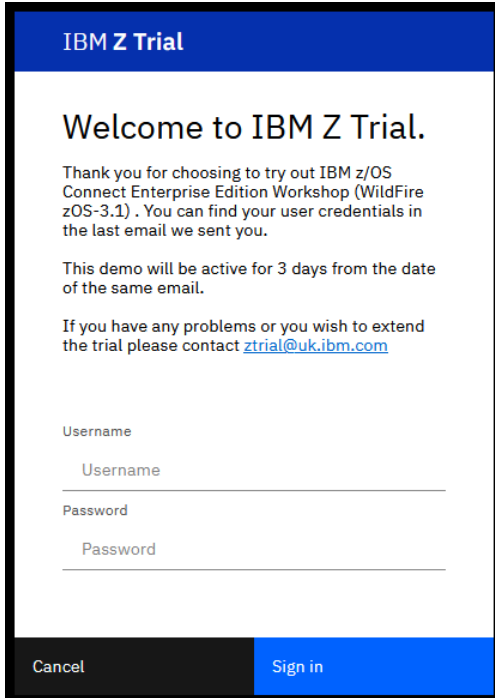
Enter this URL address in the browser's URL area:
<https://T-13946-159-122-242-142.ibmztrialmachines.com/>

Authentication with username: Administrator

Using password: b8Q5J6w1khwckdkciPMB

Here is how to use the credentials:

- Copy the address that appears beneath "URL" in the connection details and paste it into the address bar of your browser.
- The page will then present a login window. Use the username that appears under "User ID for Web browser" in the connection details and the password that appears under "Password" and click "Log in".



The screenshot shows a login window titled "IBM Z Trial". The main heading is "Welcome to IBM Z Trial." Below this, there is a paragraph of text: "Thank you for choosing to try out IBM z/OS Connect Enterprise Edition Workshop (WildFire zOS-3.1) . You can find your user credentials in the last email we sent you." This is followed by another paragraph: "This demo will be active for 3 days from the date of the same email." A third paragraph states: "If you have any problems or you wish to extend the trial please contact ztrial@uk.ibm.com". Below the text are two input fields: "Username" and "Password", each with a horizontal line for text entry. At the bottom of the window, there are two buttons: "Cancel" on the left and "Sign in" on the right.

Available Lab Exercises

10181: Modernizing CICS applications with Java

- L20 – SOAP based web services.
- L90 – JSON based web services.
- L93 – RESTful JSON with LINK to COBOL program using JSON and JAX-RS

10182: Connectivity and interoperability for CICS Applications

- L34 – How to deploy a CICS application program coded in Java using the OSGi JVM
- L72 – Java Servlet with LINK to COBOL program
- L93 – RESTful JSON with LINK to COBOL program using JSON and JAX-RS

10180: When it comes to CICS, it's all about the API

- L90 – JSON based web services.
- L93 – RESTful JSON with LINK to COBOL program using JSON and JAX-RS
- L97 – Developing RESTful APIs for a CICS Channel program

NOTE1:

Hardcopies of the labs exercise documents are available at the event. Your instructors will make them available to you.

“Softcopies” are also available. Use this URL to download PDF versions for the exercises:
<https://emitchj.github.io/WSC-CICSzVA-Registration/>

NOTE2:

To assist with entering various input fields during the lab exercises, there are copy/paste files that contain the input text for various steps in the exercise.

Use the text in these files to avoid manually typing input, especially the longer and more complex items. This will help avoid typos and other mistakes.

The copy/paste files are in the virtual image at **C:\CICSLAB\COPYPASTEFILES**.

Lab Exercise Key: **(z/OS Userids, Password, Port, etc.)**

The labs have symbols which you will need to substitute. Symbols look like this:

<zOS_userid>.CICSLAB.UTIL

You will substitute using one of these values:

- <zOS_userid> : USER1
- <zOS_Password> : USER1
- <CICS_Port : 1423 (used for all labs except Liberty labs)
- <CICS_APPLID> : CICS1
- <Servlet_JSP_Port> : 1424 (used for Liberty labs)
- <zOS_DNS_Name> : ws31.washington.ibm.com

Results:

USER1.CICSLAB.UTIL

Note: Screen shots are NOT 100% accurate. Follow the text explanations rather than what you see in the screen shot.

Personal Communications Emulator Tips

Note: The 3270-terminal sessions for TSO and OMVS screen shots in these exercises are in reverse video simply for printing purposes.

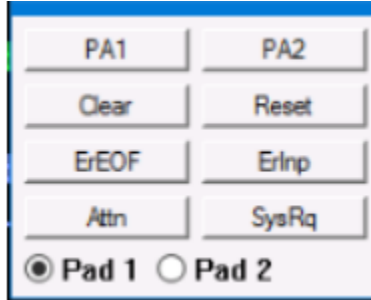
There are 3270-emulator keyboard mapping issues encountered when using a web browser to access Windows desktop. As a result, not all keyboard mappings described in this document may not work as intended.

Below is a guide to help you resolve issues if you have inconsistent or non-working 3270 keys.

Any references to the Enter key in non-3270 windows, OMVS terminal session, etc. refers to the key labeled Enter on the keyboard.

- The 3270-emulator used for this workshop (IBM Personal Communication) maps the 3270 *enter* key to the right Ctrl key (see below). If the right Ctrl key does not work, try using the key labeled Enter or Return on your keyboard.
- The 3270 *newline* key has been mapped to the Shift-Enter key sequence.

- The 3270 *clear* key has been mapped to the Cntl-Enter key sequence.
- If all else fails, select *Actions* on the 3270-emulator tool bar and then select the *Display Popup Keypad* option. This displays the popup below where you select various keys.

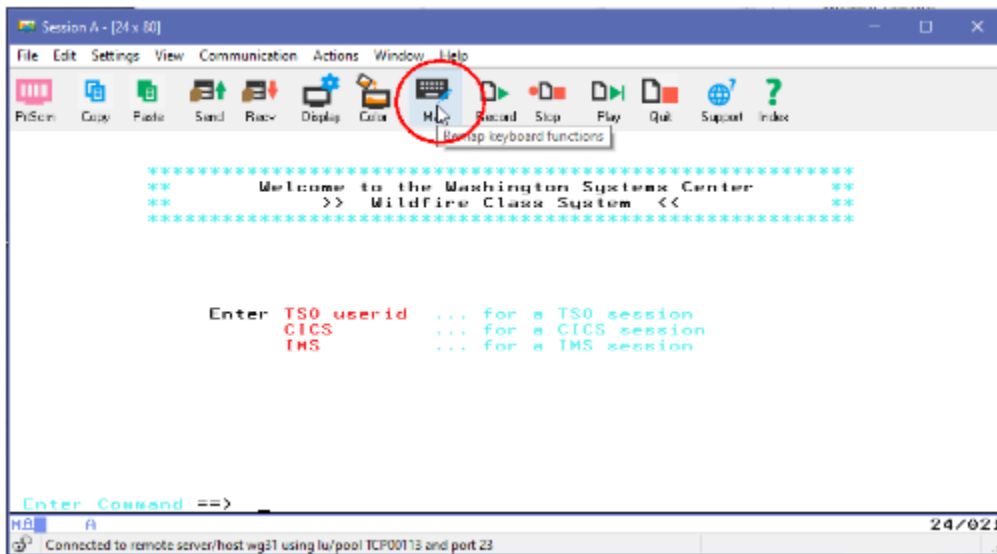


- z/OS Updates Different 3270-terminal emulators will display an icon like the 'Personal Communications' icon below at the bottom of the screen when the keyboard is locked. If this occurs use the left **Ctrl** key to reset or free the keyboard.

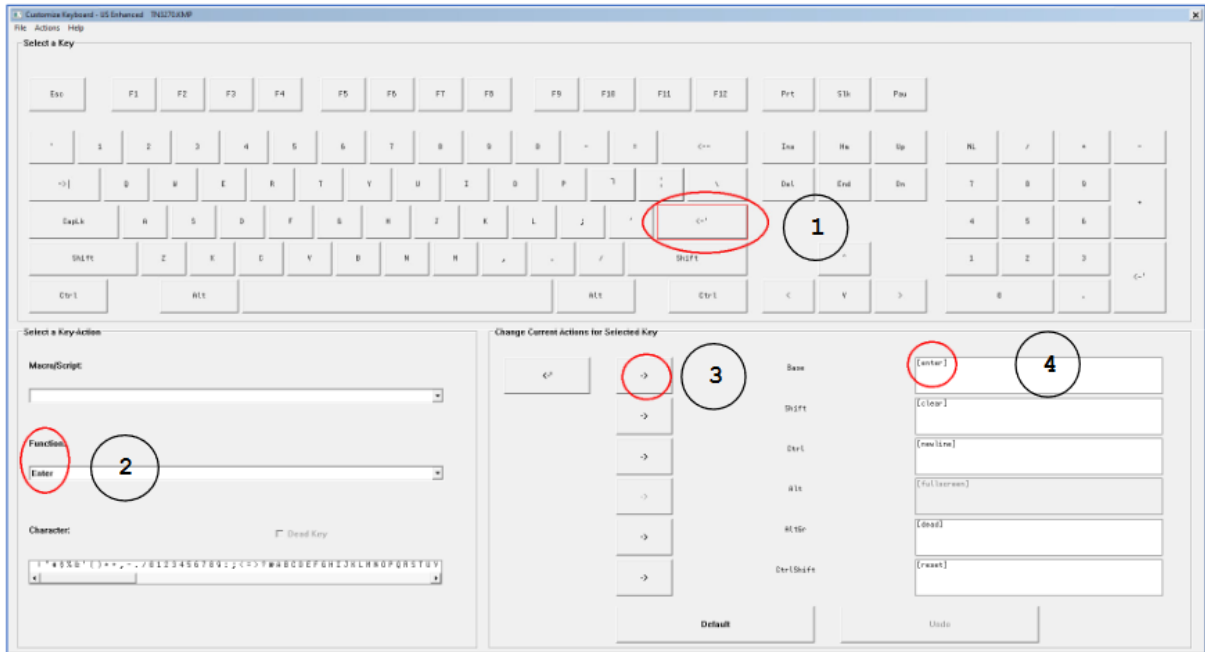


Configuring the Keyboard with Mac keyboards

- To reconfigure the IBM Personal Communications keyboard when using a Mac keyboard, click on *View* on the tool bar and select the *Tool Bar* option. Next click on the *Remap Keyboard functions* icon (see below).



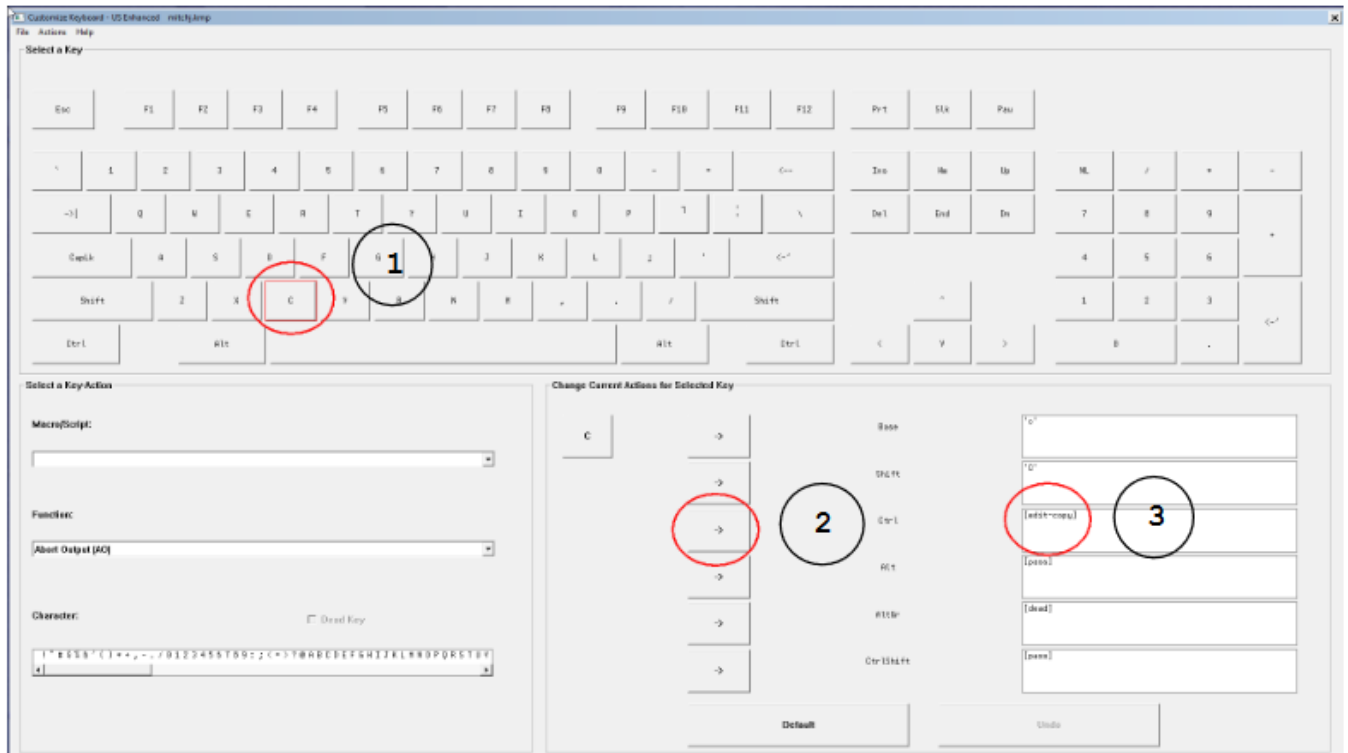
- To set the **Return** key to perform the *enter* function, click on the Return (1) key, use the pull down arrow to select *Enter* from the function list menu (2), and then in the *Change Current Actions for Selected Key* section, click on the arrow to the left of *Base* (3) to set the default function of pressing the **Return** key to [*enter*] (refer to the picture below)



- To set the **Return** key to perform the *clear* the screen function, click on the **Return** (1) key, use the pull down arrow to select *Clear Screen* from the function list menu (2), and then in the *Change Current Actions for Selected Key* section, click on the arrow to the left of *Shift* (3) to set the default function of pressing the **Shift-Return** key sequence [*clear*].
- To set the **Return** key to perform the *new line* function, click on the **Return** (1) key, use the pull down arrow to select **New Line** from the function list menu (2), and then in the *Change Current Actions for Selected Key* section, click on the arrow to the left of *Ctrl* (3) to set the default function of pressing the **Ctrl-Return** key sequence to move the cursor down a line [*newline*].
- To set the **Return** key to reset a locked keyboard, click on the **Return** (1) key, use the pull down arrow to select **Reset** from the function list menu (2), and then in the *Change Current Actions for Selected Key* section, click on the arrow to the left of *Ctrl/Shift* (3) to set the default function of pressing the **Ctrl-Shift-Return** key sequence to reset or unlock a key board [*reset*].

- When finished, your keyboard actions for the Return key should match the picture above.

- To set the **Ctrl-C** key sequence to perform the *copy* function, click on the **C** key (1) and then in the *Change Current Actions for Selected Key* section, click on the arrow to the left of *Ctrl* (2) to set the default function of pressing the **Ctrl-C** key sequence to *[edit-copy]* (3) (refer to the picture below).



- To set the **Ctrl-V** key sequence to perform the *paste* function, click on the **V** key (1) and then in the *Change Current Actions for Selected Key* section, click on the arrow to the left of *Ctrl* (2) to set the default function of pressing the **Ctrl-V** key sequence to *[edit-paste]* (3) (refer to the picture below).

