**To set up RESA server**

1. Boot from HD labeled as RESA Linux Server
2. Log in with a ‘resa’ account
   1. Open seven terminals
   2. Select ‘Set Title’ on each of the ‘Terminal’ menu and label

|  |  |  |  |
| --- | --- | --- | --- |
|  | ‘top’ (optional) | ‘hub’ | ‘incoming’ |
| ‘swar’ | ‘tech control station’ | ‘wishbone’ | ‘outgoing’ |

1. In top window (optional)
   1. Label the terminal as ‘Top’
   2. Execute <**top**> command
2. In each gamer workstation [done at remote machines]
   1. Login as resa
   2. The ws bashrc (/opt/resa/resa\_build/resabshrc) defines commands to link to simulation (e.g.)
      1. **sta11** production
      2. **sta11b** test
      3. **Sta11c** training

**To join JTTI+K federation at beginning of exercise**

1. # Create terminal windows (right click, Open Terminal) with titles as listed above
2. From ‘hub’ labeled terminal, Type in at the Linux prompt:
   1. **hubconfig 13000**
3. From ‘wishbone’ labeled terminal Type in at the Linux prompt:
   1. **gwar**
   2. **wb 13000 2 resa1** 
      1. 13000 is base address. Required, could change, but DON’T
      2. 2 is actor number.
      3. Resa1(Mitre Adaptor server name or IP address. ‘resa1’ is IP address you defined in the host table, ALSP adaptor. Resa2 for test, resa3 for training).
   3. At the system prompt, you must have a message, ‘connection completed’.
4. From ‘swar’ labeled terminal type in at Linux prompt:
   1. **Gwar**
   2. **Sinit kr15a.ini** {scenario initiation} yama73.ini etc.
   3. **gdb wgmain.run** and “**run**” or **Swar** {no debug}
5. From ‘incoming’ labeled terminal:
   1. **hub scopy .: 13810**
6. From ‘outgoing’ labeled terminal:
   1. **hub scopy .: 13820**
7. From ‘tech control station’ labeled terminal Type in at the prompt:
   1. **gwar** (changes to the “game” directory)
   2. **vsta 1 t as=1 config=cciox** (This brings up the RESA tech terminal that controls the model)

1 = workstation #

t = tech control station (could be **b**-blue , **o**-orange, **c**-control)

as=1 number of air status boards

config=cciox (not required)

* 1. you will see one information window pop up, one I/O terminal window, and map, also known as a geo-display (Geographical Display)

1. From the tech control station I/O terminal, enter the following RESA commands
   1. **GO**
   2. **RATIO 10** (enter desired ratio. Does not have to be 10)
   3. <Optional >**DEFINE CYCLE TIME 10** (10 is the current default. this slows the sampling to make it easier to see missiles)
   4. Enter **join** when approved
2. In each gamer workstation [done at remote machines]
   1. Login as resa
   2. The ws bashrc (/opt/resa/resa\_build/resabshrc) defines commands to link to simulation (e.g.)
      1. **sta11** production
      2. **sta11b** test
      3. **Sta11c** training

**To restart from federation save (stand-alone)**

Prior to restarting, identify the save file to be used.

At the system prompt, [resa@alpha1 game], type the following RESA commands.

1. IN SWAR WINDOW
   1. Find appropriate checkpoint in SWAR window (or open new window and go to gwar if needed) \*.sve
   2. Initialize
      1. **SINIT**

**RESTART ALSP <save label> <dtg>**

**Save label** needs to be any character/character string that precedes dtg

Enter **dtg** with leading 0 if needed.

e.g. to restart from 180415\_kr14\_techtest\_1\_1323\_kr18\_143hh.sve any of the following pairs will work:

kr14 011323

techtest 011323

h 011323

Do you want to change any system parameters**? NO**

Enter number of clock seconds per cycle (3-400): **6** [ratio 10]

**OR**

* + 1. **cp *<checkpoint>* NWISS\_DB**
  1. **gdb wgmain.run** and “**run**” or **Swar** {no debug}
  2. note: no need to join

1. In Wishbone window
   1. **^c** wishbone process
   2. Call ALSP manager to reset Mitre adaptor
   3. Up arrow and execute previous ‘wb’ command to restart wishbone processor
2. From tech window
   1. **Go** (when instructed by ALSP)

**To restart from federation save after RESA has been resigned from federation (usually by ALSP)**

1. In Wishbone window
   1. **^c** wishbone process
   2. Call ALSP manager to reset MITRE adaptor
   3. Up arrow and execute previous command to start ‘wb’ command
2. In swar window
   1. Initialize
      1. **SINIT**

**RESTART ALSP <save label> <dtg>**

Enter dtg with leading 0 if needed.

Do you want to change any system parameters**? NO**

Enter number of clock seconds per cycle (3-400): **6** [ratio 10]

**OR**

* + 1. **cp <checkpoint> NWISS\_DB**
  1. **gdb wgmain.run** and “**run**” or **Swar** {no debug}

1. In tech window
   1. **RESIGN** (from alsp federation) **REMOVE** (ghost units from game blackboard) **DELETE** (owned units from the federation)
   2. **GO**
   3. **JOIN**

**FEDERATION restore (adaptor is being refreshed by the federation restore process**

1. In swar window
   1. If not already done, stop the simulation
2. In Wishbone window
   1. **^c** wishbone process
   2. Call ALSP manager to reset MITRE adaptor
   3. **WAIT FOR ALSP manager to request RESA to join before proceeding**
   4. Up arrow and execute previous command to start ‘wb’ command
3. In swar window
   1. Initialize
      1. **SINIT**

**RESTART ALSP <save label> <dtg>**

Enter dtg with leading 0 if needed.

Do you want to change any system parameters**? NO**

Enter number of clock seconds per cycle (3-400): **6** [ratio 10]

**OR**

* + 1. **cp <checkpoint> NWISS\_DB**
  1. **gdb wgmain.run** and “**run**” or **Swar** {no debug}

1. In tech window
   1. **GO**

**To resign from federation**

1. In tech window
   1. **RESIGN** (from alsp federation) **REMOVE** (ghost units from game blackboard) **DELETE** (owned units from the federation)
   2. **END**

**NOTE:** Obviously if desired to keep federated objects after resigning, only enter **RESIGN** and not **REMOVE** and **DELETE**.

**Other Tech Control RESA commands**

1. define cycle time
2. resign remove delete
3. join
4. ratio
5. define (a) shoreline crossing (check) off
6. center force xxxx
7. sitrep xxx
8. disp alsp stat

**To Kill Hub Process**

Hub processes run detached from window, so exiting window will not stop hub processes. In Hub window :

1. **^c**
2. **Hubkill 13000 x**
3. **Hubconfig 13000**

**Error Messages:**

The following error message appears when attempting to initialize a work station and the server does not have permission to access the workstation.

Open a terminal on the workstation you are trying to configure and sign in as root. Enter ‘xhost +’ or ‘xhost <name of host>’

CRASH recovery and not running.

The state of all things is stored within the RESA blackboard. If a crash occurs because of an incoming order or interaction from the federation. Simply stopping and restarting RESA will normally work to resume operation. There will be a loss of the interaction or order that was being processed, but RESA will resume operation.

If RESA does not make the reconnection it can be forced out of the federation, then rejoin at an earlier checkpoint. NOTE: If restoring to a federated checkpoint, RESIGN before GO on the tech control station. RESA normally does not have so many objects as to cause any discernable issues if falling back to an earlier checkpoint. Operators should be notified as “some” rework may be necessary.

If it appears that RESA needs to ask for an advance request (i.e. the grant advance was lost). Simply stop and restart RESA. Upon sending GO an advance\_request is sent. This can be done quickly by RESA operator without requesting RESA be forcibly resigned.

If ever performing a new initialization, do not forget to resubmit the OTG file (this sets information about ships, reporting style, flag, full name). e.g. “prescript ys75\_bb2otg.cmd 1 y”