Rollback/Forward Procedures

Swapping to AWIPS I

All commands run from dx1 console (NOT from a workstation) as root unless otherwise notified. xxx is your site id.

- Reboot workstations into 32bit mode
  - for host in $LX_WORKSTATIONS $XT_WORKSTATIONS; do ssh $host “sed –i ‘s/default=1/default=0/’ /boot/grub/grub.conf”; reboot; done”

- Create current backup of databases
  - /awips/ops/bin/backup_pgdb_a2 –d hd_ob92xxx,dc_ob7xxx,hmdb,lsrdata

- Create backup of Active Table
  - cd /tmp
  - python
    - >>> import gzip
    - >>> import cPickle
    - >>> emptyList = []
    - >>> zipFile = gzip.open('emptyList.gz', 'wb')
    - >>> cPickle.dump(emptyList, zipFile)
    - >>> ctrl-D
  - /awips2/GFESuite/bin/ingestAT -s XXX -h ec -a active -f /tmp/emptyList.gz
    - Note the filename specified in the output after “Saved Pervious Active Table:”
  - scp /tmp/backup/<filename> dx4:/tmp

- Back up the GFE Fcst and ISC Databases
  - Log into dx3 as user root – substitute LLL for your localization ID
  - su - awips
  - cd /awips2/GFESuite/bin
  - ./ifpnetCDF –t –k -o /data/fxa/TEMP/LLL_Fcst_BU -d LLL_GRID__Fcst_00000000_0000

  - ./ifpnetCDF –t –k -o /data/fxa/TEMP/LLL_ISC_BU -d LLL_GRID__ISC_00000000_0000
  - exit (from awips user)
  - exit (return to dx1)

- Swap rehosted code and packages back to AWIPS 1
  - cd <AWIPS2_INSTALL_DIR>/REHOST_CODE
  - script -a -f /local/install/rehost_a1.out
  - ./rehost_awips.sh awips1
  - exit

- Restore LAPS/MSAS backup on PXs – if you do not have below backup tar ball, contact NCF for support.
  - ssh px1
  - cd <AWIPS2_INSTALL_DIR>/REHOST_CODE/gsdA2PX
  - tar xzf backupPX.tgz -C /
  - exit
  - ssh px2
  - cd <AWIPS2_INSTALL_DIR>/REHOST_CODE/gsdA2PX
  - tar xzf backupPX.tgz -C /
  - exit

- Verify the AWIPS1 packages have started
  - hb_stat
  - ssh dx3 “hb_stat”
  - ssh px1 “hb_stat”
  - (AFC/VRH) ssh px3 “hb_stat”
  - (RFC) ssh rp1 “hb_stat

- Restore AWIPS1 databases
  - /etc/init.d/shefdecode stop
  - /etc/init.d/gage_pp stop
  - (WFO) /etc/init.d/hdpdecode stop
  - ssh dx3 “hb_halt dx3apps”
  - dropdb -U postgres hd_ob92xxx
  - dropdb -U postgres dc_ob7xxx
  - dropdb -U postgres hmdb
  - dropdb -U postgres lsrdata
  - (RFC) dropdb -U postgres ob7_histdata
  - createdb -U postgres -E SQL_ASCII -D pgdata_ihfs hd_ob92xxx
  - pg_restore -U postgres -d hd_ob92xxx -Fc /data/fxa/DAILY_BACKUP/postgres/<day>/hd_ob92xxx

  - createdb -U postgres -E SQL_ASCII -D pgdata_ihfs dc_ob7xxx
  - pg_restore -U postgres -d dc_ob7xxx -Fc /data/fxa/DAILY_BACKUP/postgres/<day>/dc_ob7xxx
  - createdb -U postgres -E SQL_ASCII -D pgdata_hmdb hmdb
  - pg_restore -U postgres -d hmdb -Fc /data/fxa/DAILY_BACKUP/postgres/<day>/hmdb
  - createdb -U postgres -E SQL_ASCII lsrdata
  - pg_restore -U postgres -d lsrdata -Fc /data/fxa/DAILY_BACKUP/postgres/<day>/lsrdata
  - (RFC) createdb -U postgres -E SQL_ASCII -D pgdata_ihfs ob7_histdata
  - (RFC) pg_restore -U postgres -d ob7_histdata -Fc /data/fxa/DAILY_BACKUP/postgres/<day>/ob7_histdata
  - ssh dx3 “hb_run dx3apps”
    - **Note**: Run the previous drop/create/restore for any other non-static local database that may have been updated with running in AWIPSII mode.
  - /etc/init.d/shefdecode start
  - /etc/init.d/gage_pp start
  - (WFO) /etc/init.d/hdpdecode start
  - ssh cpsbn1 “service sbncp stop”
  - ssh cpsbn1 “service sbncp start”
  - ssh cpsbn2 “service sbncp stop”
  - ssh cpsbn2 “service sbncp start”

- Restore the Active Table, GFE Fcst and ISC Databases
  - Log into dx4 as user root
  - su - ifps
  - /awips/GFESuite/primary/bin/run/ingestAT -a /awips/GFESuite/primary/data/vtec/active.tbl -n -f /tmp/<filename>
  - cd /awips/GFESuite/primary/bin
  - ./iscMosaic -n -f /data/fxa/TEMP/LLL_Fcst_BU –d LLL_GRID__Fcst_00000000_0000
  - ./iscMosaic -n -f /data/fxa/TEMP/LLL_ISC_BU –d LLL_GRID__ISC_00000000_0000
  - exit (from user ifps)
  - exit (return to dx1)

Swapping to AWIPS II

All commands run from dx1 console (NOT from a workstation) as root unless otherwise notified. xxx is your site id.

- Reboot workstations into 32bit mode
  - for host in $LX_WORKSTATIONS $XT_WORKSTATIONS; do ssh $host "mount /dev/sda3 /tmp; sed –i 's/default=0/default=1/' /mnt/grub/grub.conf"; reboot; done"

- Create current backup of databases
  - /awips/ops/bin/backup_pgdb –d hd_ob92xxx,dc_ob7xxx,hmdb,lsrdata

- Back up the GFE Fcst and ISC Databases
  - Log into dx3 as user root
  - su - ifps
  - cd /awips/GFESuite/primary/bin
  - ./ifpnetCDF –t –k -o /data/fxa/TEMP/LLL_Fcst_BU -d LLL_GRID__Fcst_00000000_0000
  - ./ifpnetCDF –t –k -o /data/fxa/TEMP/LLL_ISC_BU -d LLL_GRID__ISC_00000000_0000
  - exit (from user ifps)
  - exit (return to dx1)

- Re-import ADAM configuration. Only necessary if the site has updated any configuration files on ADAM since they were last running AWIPS2. There are several strategies for importing the change. Care must be taken not to override anything that may have changed on the AWIPS platform. The site and NCF backline should discuss a path forward before performing any actions.

- Swap rehosted code and packages back to AWIPS 2
  - cd <AWIPS2_INSTALL_DIR>/REHOST_CODE
  - script -a -f /local/install/rehost_a2.out
  - ./rehost_awips.sh awips2
  - exit

- Reinstall A2 LAPS/MSAS on Pxs
  - ssh px1
  - cd <AWIPS2_INSTALL_DIR>/REHOST_CODE/gsdA2PX
  - su fxa -c './installA2PX.csh |& tee iA2PX1.log'
    - type install and press enter when prompted
  - exit
  - ssh px2
  - cd <AWIPS2_INSTALL_DIR>/REHOST_CODE/gsdA2PX
  - su fxa -c './installA2PX.csh |& tee iA2PX2.log'
    - type install and press enter when prompted
  - exit

- Verify the AWIPS2 packages have started
  - hb_stat
  - ssh px1 “hb_stat”

- Restore AWIPS2 databases
  - ssh dx3 “service edex_camel stop”
  - ssh dx4 “service edex_camel stop”
  - ssh px1f “hostname”
  - ssh px# “hb_halt a2px1apps” (replace # with the machine returned from command above)
  - ssh px2f “hostname”
  - ssh px# “hb_halt a2px2apps” (replace # with the machine returned from command above)
  - dropdb -U awips hd_ob92xxx
  - dropdb -U awips dc_ob7xxx
  - dropdb -U awips hmdb
  - dropdb -U awips lsrdata
  - (RFC only) dropdb -U awips ob7_histdata
  - createdb -U awips -E SQL_ASCII hd_ob92xxx
  - createdb -U awips dc_ob7xxx
  - createdb -U awips hmdb
  - createdb -U awips lsrdata
  - (RFC only) createdb -U awips ob7_histdata
  - pg_restore -U awips -d hd_ob92xxx -Fc /data/fxa/DAILY_BACKUP/postgres/<day>/hd_ob92xxx
  - pg_restore -U awips -d dc_ob7xxx -Fc /data/fxa/DAILY_BACKUP/postgres/<day>/dc_ob7xxx
  - pg_restore -U awips -d hmdb -Fc /data/fxa/DAILY_BACKUP/postgres/<day>/hmdb
  - pg_restore -U awips -d lsrdata -Fc /data/fxa/DAILY_BACKUP/postgres/<day>/lsrdata
  - (RFC only) pg_restore -U awips -d ob7_histdata -Fc /data/fxa/DAILY_BACKUP/<day>/ob7_histdata
    - **Note:** Run the following drop/create/restore for any other non-static local database that may have been updated with running in AWIPSI mode.
  - ssh dx3 “service edex_camel start”
  - ssh dx4 “service edex_camel start”
  - ssh px1 “hb_run a2px1apps”
  - ssh px2 “hb_run a2px2apps”

- Restore the Active Table
  - cp /awips/GFESuite/primary/data/vtec/active.tbl /tmp
  - gzip /tmp/active.tbl
  - /awips2/GFESuite/bin/ingestAT -s XXX -h ec -a active -n -f /tmp/active.tbl.gz”
  - psql –U awips –d metadata –c “delete from cluster_task where name like ‘Active%’;”

- Restore the GFE Fcst and ISC Databases
  - Log into dx3 as user root
  - su - awips
  - cd /awips2/GFESuite/bin
  - ./iscMosaic -n -f /data/fxa/TEMP/LLL_Fcst_BU –d LLL_GRID__Fcst_00000000_0000
  - ./iscMosaic -n -f /data/fxa/TEMP/LLL_ISC_BU –d LLL_GRID__ISC_00000000_0000
  - exit (from user awips)
  - exit (return to dx1)

- Fix A2 triggers
  - cd /data/fxa/sdc
  - ./config_awips2.sh triggers LLL

- Check the system
  - Refer to the AWIPS II Status Checklist document.
  - One common item is a lost /data_store mount. To check for this specifically, run the following and make sure each host returns a value:

    # for host in $DX_SERVERS $PX_SERVERS $LX_WORKSTATIONS $XT_WORKSTATIONS; do

    # echo $host

    # ssh $host “mount -l|grep data_store”

    # done