Release Notes: MAG v3.7.0

v3.7.0 - release June, 2015

1. Redesigned rsync scripts
2. Time limit for hung jobs
3. Optimize number of processes in mag processor poe jobs
4. Improved logging in mag processor jobs
5. Updates to conform to NCO production standards:
    a. change directory name from ecfres to ecf and include production ecFlow scripts
    b. Removed unused environment variables and code blocks
    c. Change script names to lowercase, and prefix with “ex”
    d. Removed JMAG_HURR (functionality merged into JMAG)
    e. Moved MAG_processor.pl from ush to scripts directory (and renamed to exmag_mag_processor.pl)
    f. COMIN instead of NAWIPS_ROOT
    g. COMOUT instead of GIF_ROOT
    h. Use COMROOT instead of /com
    i. Use NWROOT instead of nw${envir}
    j. HOMEmag instead of MAG_DIR
    k. FIXmag instead of MAG_TABLES
    l. Use “module load prod_util” to replace $utilscript/setup.sh
    m. use “PDY” in exmag_processor.pl instead of date)
    n. use “module load gempak” instead of $NAWIPS/environ/gemenv.sh
    o. Use WCOSS transfer method in/script (copied from a production job)
    p. Remove make_all_skewt.pl and skewt_pages.pl, no longer used.
6. Provide documented procedures to identify failed GEMPAK command and how to skip a forecast hour.
7. Update ecflow scripts to use same wall clock limits (BSUB -W) that the production scripts use.
8. Update version to 3.7.0

WCOSS output changes:

WCOSS resource info:

Web Tier code changes:

- Updated Upcoming Changes document (MAG_Planned_Updates.pdf)
- version.txt update

Implementation instructions:

1. Download mag.v3.7.0 from svn tag
https://ncosvn.ncep.noaa.gov/usvn/svn/sib-wcoss-mag/tags/mag.v3.7.0_prod/
to /nwprod/mag.v3.7.0
2. Copy /nwprod/mag.v3.7.0/ecf/scripts to ecflow server
3. Notify the MAG development team when the implementation is to occur in order to coordinate updates to the web code on the rzdm concurrent with the implementation.
3. Update /nwprod/versions/mag.ver to 3.7.0

WCOSS updates

File changed	Update #
ush/gefs_mnsprd.sh ush/hwrf_nested.sh ush/mag_cleanup.sh ush/nam_gfs_precip.sh ush/ghm_nested.sh ush/ww3.sh ush/nam_sim_radar.sh ush/make_skewt.pl ush/skewt.sh ush/sref.sh ush/hiresw.sh	5e, 5f

ush/hrrr.sh ush/rap.sh ush/hwrf_full.sh ush/nam_gfs_param.sh ush/nam_hiresw.sh ush/ghm_full.sh ush/gefs_spag.sh ush/rtma.sh ush/gurtma.sh ush/naefs_bc_gesprd.sh	
ush/set_up_gempak	5n
ush/uair.sh	5j, 5b
ush/run_and_log_script.sh	4
ush/config.sh ush/register_gif_files.sh	5b
ush/skewt_page.sh	5f, 5b
fix/MAG.xml	1
fix/MAG_sync_table.tbl	1
ecf/scripts/mag/mag_processor/gfs/mag_gfs_processor.ecf ecf/scripts/mag/mag_processor/sref/mag_sref_processor.ecf ecf/scripts/mag/mag_processor/uair/mag_uair_processor.ecf ecf/scripts/mag/mag_processor/hiresw/mag_hiresw_arw_conus_processor.ecf ecf/scripts/mag/mag_processor/hiresw/mag_hiresw_nmmb_conus_processor.ecf ecf/scripts/mag/mag_processor/hiresw/mag_hiresw_arw_ak_processor.ecf ecf/scripts/mag/mag_processor/hiresw/mag_hiresw_nmmb_ak_processor.ecf ecf/scripts/mag/mag_processor/hiresw/mag_hiresw_arw_pr_processor.ecf	1,5h, 5i, 6,7

ecf/scripts/mag/mag_processor/hiresw/mag_hiresw_nmmb_pr_processor.ecf ecf/scripts/mag/mag_processor/rap/mag_rap_processor.ecf ecf/scripts/mag/mag_processor/wave/mag_wave_processor.ecf ecf/scripts/mag/mag_processor/wave/mag_wave_enp_processor.ecf ecf/scripts/mag/mag_processor/wave/mag_wave_wna_processor.ecf ecf/scripts/mag/mag_processor/rtma/mag_rtma_processor.ecf ecf/scripts/mag/mag_processor/rtma/mag_rtma_guam_processor.ecf ecf/scripts/mag/mag_processor/gefs/mag_gefs_mnsprd_processor.ecf ecf/scripts/mag/mag_processor/gefs/mag_gefs_spag_processor.ecf ecf/scripts/mag/mag_processor/hwrf/mag_hwrf_full_processor.ecf ecf/scripts/mag/mag_processor/hwrf/mag_hwrf_nested_processor.ecf ecf/scripts/mag/mag_processor/ghm/mag_ghm_full_processor.ecf ecf/scripts/mag/mag_processor/ghm/mag_ghm_nested_processor.ecf ecf/scripts/mag/mag_processor/nam/mag_nam_hires_processor.ecf ecf/scripts/mag/mag_processor/nam/mag_nam_processor.ecf ecf/scripts/mag/mag_processor/nam/mag_nam_hires_processor.ecf ecf/scripts/mag/mag_processor/nam/mag_nam_processor.ecf ecf/scripts/mag/mag_processor/nam/mag_nam_sim_radar_processor.ecf ecf/scripts/mag/mag_processor/naefs/mag_naefs_processor.ecf ecf/scripts/mag/mag_processor/hrrr/mag_hrrr_processor.ecf ecf/scripts/mag/mag_processor/hrrr/mag_hrrrsubh_processor.ecf ecf/scripts/mag/mag_processor/polar/mag_polar_processor.ecf ecf/scripts/mag/mag_processor/skewt/mag_skewt_processor.ecf	

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ecf/scripts/mag/mag_send2web/skewt/ecmag_sync_skewt.ecf	
exmag_status_sync.sh.ecf	5o
make_all_skewt.pl skewt_pages.pl	5p
ecf/scripts/envir.h	new
scripts/exsendmag2web.sh.ecf	5c
scripts/SendMAG2Web.sh.ecf	5c, 5k
scripts/mag_processor_config	5c
ush/MAG_processor_config	5c
scripts/exmag_processor_hurr.pl	1,4,5c,5d,5k,5m
scripts/magv3-xml-library.pl	1, 5c, 3
ush/magv3-xml-library.pl	5c
scripts/exmag_processor.pl	1,4,5c,5k,5m
jobs/JSNDMAG2WEB	1,5k,5l
jobs/JMAG	5b,5g,5h, 5f, 5i, 5d
versions/mag.ver	8

Web updates

File	Update #
docs/MAG_Planned_Updates.pdf	v3.7.0 updates
version.txt	8

Known Issues

Reprocessing of Tropical model files

A situation arises with the Tropical model processing that can result in storm model data being reprocessed, so a storm would reappear on MAG after it has been purged.

The GEMPAK DM files (in /com/nawips/prod) are retained for 10 days. The MAG status files (in /com/mag/prod/status) are purged by exmag_cleanup_prod.sh.ecf after 3 days. These status files are used by the MAG_processor.pl and MAG_processor_hurr.pl to determine which cycles/forecast hours have already been processed. Since the MAG processor script will always try to process the last two cycles that exist (it doesn't check how old they are), if the GEMPAK files are still there after the status files have been purged, it will try to reprocess the last two cycles.

The easiest solution is to update the cleanup script to keep 10 days of all status files. Or only the hurricane model type status files (hwrf-full, hwrf-nested, ghm-full, and ghm-nested), since those are the only ones that are run irregularly. Or the cleanup script could access the same table used to purge the /com/nawips/prod directory to match the cleanup of the status files to the GEMPAK files.