

AWIPS APPLICATION INSTALLATION INSTRUCTION NOTE 5

(for Electronics Systems Analyst)

Maintenance, Logistics, and Acquisition Division

W/OPS12: JCS

- SUBJECT** : Interactive Forecast Preparation System (IFPS) 15.2 (**Full** and **Delta**) Installation Instructions
- PURPOSE** : To provide instructions on downloading and installing the IFPS 15.2 (**Full**) and IFPS 15.2 (**Delta**) software upgrade.
- PREINSTALLATION REQUIREMENTS** : AWIPS software release OB2.2 and IFPS 14.2 or IFPS 14.3, at minimum, must be installed prior to beginning the IFPS 15.2 (**Full**) installation.
- AWIPS software release OB2.1 and IFPS 15.1, at minimum, must be installed prior to beginning the IFPS 15.2 (**Delta**) installation.
- EFFECTIVITY** : All AWIPS Weather Forecast Office (WFO) configured (operational and non-operational) sites must install this release.
- ESTIMATED TIME REQUIRED** : Approximately 2.0 hours (**Full** install).
- Approximately 45 minutes (**Delta** install).
- EFFECT ON OTHER INSTRUCTIONS** : None.
- AUTHORIZATION** : The authority for this modification note is Request for Change AB745
- VERIFICATION STATEMENT** : The IFPS 15.2 (**Full**) installation procedures were tested and verified on NGIT's TBDW test platform, in McLean, VA.
- The IFPS 15.2 (**Delta**) installation procedures were tested and verified on OST's AWIPS test platform, in Silver Spring, MD.
- SECURITY LEVEL** : root
- TECHNICAL SUPPORT** : For questions or problems regarding these installation instructions or installing this release, please contact the National Control Facility (NCF) at (301) 713-9344.
- INSTALLATION SUPPORT** : For questions or problems regarding these installation instructions or installing this release, please contact the IFPS focal point on Site Support Team (SST) at (301) 713-9362 x325, 326, or 327.

GENERAL:

The IFPS 15.2 (**Full**) installation upgrade kit includes 1 CD (labeled "IFPS 15.2 Full") and a cover letter.

NOTE: Refer to the following Web address for IFPS 15.2 (**Full**) Installation instructions, release notes, user's guide, additional site support information, and other IFPS-related material:

<http://www.nws.noaa.gov/mdl/icwf/IFPS15.2Full/IFPS15.2Full.html>

IFPS 15.2 Delivered Functionality

- **Migrating IFPS to Preprocessor Systems (PX):** Prior to IFPS15, the four IFPS servers, along with other processes like GFE, master menu, and D2D, all executed on LINUX workstations #1 or #2 (i.e., LX1 or LX2). With the introduction of IFPS15, the IFPS servers (see table below) will execute exclusively on the PX, while processes, like the ones mentioned above, will continue to execute on LX1 or LX2.

Server Name	Server Function
ifpServer	Manages access to gridded database. This access includes the forecasters, model ingest, and ISC traffic.
ifpServerWatcher	Watches for gridded data updates so the matrices can be appropriately updated.

- **Multiple Grid Domains:** Under the previous server configuration on LX1 and LX2, the size of some OCONUS CWA grid domains were simply too large for IFPS to practically and efficiently manage. Some of the limiting factors challenging the old lx configuration were:
 1. large number of grid points contained in an OCONUS site's CWA (i.e., >> 100K grid points)
 2. little room for expansion on the LX box
 3. unique service backup requirements posed by setting up multiple grid domain scenarios

With IFPS15 and the installation of PX boxes, AFC for example, will be able to split its CWA into multiple grid domains - an ALU (an Aleutian, or western) domain and an AER (an AFC Eastern Region) domain. In so doing, AFC will create two more manageable forecast domains. AFC's backup site will have a similar PX configuration to support SvcBkup.

- **"No IGR" Option:** A new functionality, or rather, removal of functionality, has been introduced into this build: the ability to avoid the Interactive Graphical Revisor as part of routine forecast operations at the WFO. With the proper settings, the forecaster can, after editing grids in the Gridded Forecast Editor, proceed directly to the Meteorological Development Laboratory's (MDL) text and tabular formatters. This can be done through the *IFPS Master Menu* or from *GFE Products Menu* selector.

- **Sub 5-km Model Output Statistics (MOS) Ingest Support:** Most WFOs may now ingest MOS data with grid resolutions of under 5km. Since the success of the MOS ingest is related to the number of gridpoints in a WFO's domain, results may vary at offices with unusually large grid domains.
- **On/Off Switch for MOS Ingests:** WFOs may now turn on/off the various MOS ingest (NGM, AVN, MRF, HPCSTN) without having to modify the ifps cron processes. In `/awips/adapt/ifps/localbin/ifps-ccc.env`, there are environment variables for each MOS ingest (e.g., `INGEST_NGMMOS`). The default values for all are 1 (one), which is "on". To stop ingesting a particular MOS, change its ingest environment variable to 0 (zero).
- **National Weather Service Instruction (NWSI) 10-503, WFO Public Weather Forecast Products Specification:** IFPS 15.2 includes software changes that make the format of IFPS generated Public Weather Forecast products compliant with NWSI 10-503.

The products include:

- AFM
- AFP
- CCF
- PFM
- REC
- SFP
- SFT
- ZFP

Directive 10-503 addresses public weather forecast product specification changes involving:

Issuance guidelines

- Technical descriptions
 - Content
 - Updates, Amendments, and Corrections
 - Format
- **GFE:** For descriptions and details regarding GFE enhancements available in IFPS15.2, visit the GFE Enhancements section at:

http://www-md.fsl.noaa.gov/eft/ifps15doc/onlinehelp/CHANGES_BUGS_FIXES_HIGHLIGHTS.html

and GFE Release Notes section at:

<http://www-md.fsl.noaa.gov/eft/ifps15doc/onlinehelp/README.html>

- GFE enhancements are in the following areas:
 - User Interface Enhancements
 - General GFE Enhancements
 - Smart Initialization Enhancements
 - Smart Tool Enhancements
 - Daily Forecast Critique Enhancements
 - Intersite Coordination Enhancements
 - Text Product/Infrastructure Enhancements
 - ifpIMAGE Enhancements
 - ifpServer Enhancements

- GFE bug fixes are in the following areas:
 - User Interface Bug Fixes
 - General GFE Bug Fixes
 - Smart Initialization Bug Fixes
 - Smart Tool Bug Fixes
 - Daily Forecast Critique Bug Fixes
 - Intersite Coordination Bug Fixes
 - Text Product/Infrastructure Bug Fixes
 - ifpIMAGE Bug Fixes
 - ifpServer Bug Fixes

General Pre-Installation and Installation Guidelines:

- NCF upgrade support is available from 7 a.m. to 7 p.m. Eastern time, Monday through Thursday.
 - OCONUS sites requiring upgrade assistance outside the set support hours on Thursdays, must coordinate through their AWIPS regional focal point. If the NCF is not advised ahead of time, they will assume a scheduled OCONUS site will follow the set support hours.
 - All IFPS 15.2 upgrades (both **Full** and **Delta**) must be completed by January 16, 2004.

Critical Pre-installation Requirements

This section highlights actions that **MUST** be completed before beginning the IFPS15.2 (**Full** and **Delta**) installation.

- OB2.2 **MUST** be installed on the site's AWIPS platform prior to beginning the IFPS 15.2 (**Full**) install. If IFPS 15.2 (**Full**) is installed prior to the OB2.2 install, an incompatibility between IFPS and the Verification program will be created that **will not** permit Verification to be launched.
- The IFPS - Verification incompatibility was corrected at all IFPS 15.1 sites, therefore those delta upgrade sites need only have completed the OB2.1 install prior to installing IFPS 15.2 (**Delta**) upgrade.

- Refer to the following web address for the latest IFPS 15.2 (**Full**) installation instructions:
<http://www.nws.noaa.gov/mdl/icwf/IFPS15.2Full/IFPS15.2Full.html#InstallationInstructions>

Noted Problems and Workarounds

Section II of the IFPS15.2 Release Notes highlights special problems and workarounds for IFPS15.2. Review this section of Release Notes for additional news.

- **Preprocessor System (PX) Changes**

1. The contents of the `/awips/adapt/ifps/bin/hp` and `/awips/adapt/ifps/bin/linux` directories will be deleted and repopulated during the IFPS15 installation
2. PATH changes on LINUX systems, so that `/awips/ifps/primary/bin` precedes `/awips/adapt/ifps/bin/linux`
3. Directory structure changes (**Note:** These are local disks, so changes need to be placed on each PX and LX system)
 - a. `/awips/GFESuite/primary`
 - b. `/awips/GFESuite/svcbu`
 - c. `/awips/ifps/primary`
4. Servers
 - a. `ifpServer` and `ifpServerWatcher` now run on PX1 and PX3*

*Site will only have a PX3 if it runs multiple domains.

5. Crons
 - a. PX1/PX2 runs `SvcBu grid export`
 - b. PX3/PX4 runs `MOS` and product generation tasks

Noted Problems and Workarounds - Continued

- **WWAAdmin GUI Reminder**

The WWAAdmin GUI should **not** be used to change WWA recommendations. The WWAAdmin GUI may safely be used for all of its other functions.

As a workaround, use the `wwa_setup` program to change recommendations.

The WWAAdmin GUI problem manifests itself as follows:

1. Open the **WWAAdmin** program
2. Click on the *triangle* to bring up the hazard setup GUI
3. Double click on a hazard
4. Click on **Conditions for recommending this WWA** at the bottom
5. Click on **Threshold Equation** and note how far the cursor can go in the window and then click **Save**
6. Click on **Conditions for recommending this WWA** again.
7. Click on **Threshold Equation** and note how far the cursor can go in the window, and it is now one line further down. Repeating the process adds a line each time it is saved. This is reflected in the database as a new line return as well. When IFPS processes try to read this, they fail.

- **Service Backup (SvcBU) "Gotchas"**

The IFPS User's Guide contains both FAQ and Troubleshooting information related to SvcBU. Please visit the following links for more information:

http://www.nws.noaa.gov/mdl/icwf/user_guide_ifps15/faq/svc_backup_faq.htm

http://www.nws.noaa.gov/mdl/icwf/user_guide_ifps15/trouble/svc_backup_trouble.htm

- **Path Name Changes to Local Scripts**

With the installation of IFPS15, ifpServer and ifpServerWatcher will begin running on PX1 and PX3*. As a result, any locally developed script that points to LX1 and the `/awips/GFESuite/bin` path will have to be changed to reference px1 and the `/awips/GFESuite/primary/bin` path.

(***Note:** Site will only have a PX3 if it runs multiple domains)

REPORTING INSTRUCTIONS:

Report the completed modification using the Engineering Management Reporting System (EMRS) according to the instructions in NWS Instruction 30-2104, Maintenance Documentation, Part 4, Appendix F. Include the following information on the EMRS Report:

Block #	Block Type	Information
5	Description	Install IFPS version 15.2
7	Equipment Code	AWIPS
8	Serial Number	001
15	Comments	Downloaded and installed IFPS version 15.2 I.A.W. AWIPS Application Installation Instruction Note 5.
17a	Mod. No.	AS5

A sample EMRS report is provided as attachment A.

Mark S. Paese
Director, Maintenance, Logistics, and Acquisition Division

Attachment A - EMRS Report Sample

Attachment A - EMRS Report Sample

A26 Detail Form - ESCM2, SILVER SPRING, MD :: JOHN MERHI - Microsoft Internet Explorer

New A26 Commit A26 Place on Hold Copy A26 Delete A26 Detail Report Document Summary Help

GENERAL INFORMATION

NEW RECORD WFO* TOP Document No.* TOP31119001

1. Open Date 11/19/2003 Open Time 08:00 2. Op Initials WSH 3. Response Priority
 Immediate Low
 Routine Not Applicable

4. Close Date 11/19/2003 Close Time 10:00

5. Maintenance Description 458 characters left AWIPS
 IFPS 15.2 (full) Installation Instructions

EQUIPMENT INFORMATION

6. Station ID* TOP 7. Equipment Code AWIPS 8. Serial Number 001 9. TM M 10. AT M 11. How Mal 999

Alert: Time Remaining: (For Block 12 use only)

13. PARTS USAGE and CONFIGURATION MANAGEMENT REPORTING

ASN	Vendor Part No. (New Part)	Serial Number (Old Part)	Serial Number (New Part)	
				New Row
				Delete Row

14. WORKLOAD INFORMATION

a. Routine	b. Non-Routine	c. Travel	d. Misc	e. Overtime
Hours Minutes	Hours Minutes	Hours Minutes	Hours Minutes	Hours Minutes

MISCELLANEOUS INFORMATION

15. Maintenance Comments 657 characters left
 Downloaded and installed AWIPS IPFS version 15.2, I.A.W. AWIPS Application Instruction Note 5

16. Tech Initials DDM

17. SPECIAL PURPOSE REPORTING INFORMATION

a. Mod No. AS5 b. Mod Act/Deact Date 11/19/2003 c. Block C d. Trouble Ticket No. e. Block E

Commit A26 Place on Hold Copy A26 New A26 Cancel

Done Internet