

ECS Configuration Change Request

1. Originator Randy Miller	2. Log Date: 12/24/98	3. CCR #: 98-1321	4. Rev: -	5. Tel: x0400	6. Off: 2078	7. Org. Dev/CO
8. Title of Change: Deliver Pumpkin Patch (4PX.16) for 4PX to SMC for Distribution to All Sites						
9. Originator Signature <i>Randy Miller</i>	10. Date: 12/24/98	11. Class II	12. Type: CCR	13. Need Date: 12/28/98		
14. Office Manager Signature <i>Ray Sturtevant</i>	15. Date: 12/25/98	16. Date CCB Decision Needed: 12/28/98	17. Category of Change: Update Baseline	18. Priority: Emergency		
19. Documentation/Drawings Impacted: Patch Documentation Attached		20. Schedule Impact: None	21. CI(s) Affected: Various - see NCRs			
22. Release Affected: 4PX	23. Date due to Customer: 12/28/98	24. Impl. Date: 12/28/98	25. Effectivity of Change: 12/28/98	26. Est. Cost None		
27. Source Reference: <input checked="" type="checkbox"/> NCR (attach) <input type="checkbox"/> Action Item <input type="checkbox"/> GSFC CCR <input type="checkbox"/> Tech Ref. <input type="checkbox"/> Other: See attached list (60 total).						
28. Description of Change: (use additional Sheets if necessary) Numerous fixes are required to support End To End testing.						
29. Proposed Solution: (use additional sheets if necessary) Merge the required files to the 4PX (Jade) Maintenance Branch, build, run the delivery scripts, and deliver the Sun and SGI tar files to the SMC for distribution to all sites.						
30. Alternate Solution: (use additional sheets if necessary) Do not patch 4PX.						
31. Consequences if Change(s) are not approved: (use additional sheets if necessary) System will not be stable enough to complete ETE tests.						
32. Does Change Affect Any of the following (Please Explain on additional sheet): <input type="checkbox"/> Maintenance Training <input type="checkbox"/> Performance <input type="checkbox"/> Operation Training <input type="checkbox"/> Safety <input type="checkbox"/> Service <input type="checkbox"/> Support <input type="checkbox"/> Test <input type="checkbox"/> Baseline (XRP) <input type="checkbox"/> Y2K Compliance						
33. Organization(s) Affected: <input type="checkbox"/> CM <input type="checkbox"/> Clearcase SG <input type="checkbox"/> Contracts <input type="checkbox"/> Chief Eng <input type="checkbox"/> FOS <input type="checkbox"/> M&O <input type="checkbox"/> QO <input type="checkbox"/> Rel Dev <input type="checkbox"/> Procurement <input type="checkbox"/> RTSC <input type="checkbox"/> Sci. Data Eng <input type="checkbox"/> Security <input type="checkbox"/> Sys. Dev. <input type="checkbox"/> Sys. Eng. <input type="checkbox"/> Sys Verf Acpt <input type="checkbox"/> Other						
34. Site(s) Affected: <input type="checkbox"/> EDF <input checked="" type="checkbox"/> Mini-DAAC <input checked="" type="checkbox"/> VATC <input checked="" type="checkbox"/> EDC <input checked="" type="checkbox"/> GSFC <input checked="" type="checkbox"/> LaRC <input checked="" type="checkbox"/> NSIDC <input checked="" type="checkbox"/> SMC <input type="checkbox"/> AK <input type="checkbox"/> JPL <input type="checkbox"/> EOC <input type="checkbox"/> Other						
35. Board Comments: <i>[Signature]</i>				36. Work Assigned To:		
37. Release Authorized (For CM Use Only): <input type="checkbox"/> Yes <input type="checkbox"/> No			38. CM Verified/Signature and Date			
39. EDF/REL2 CCB Chair (Sign/Date): <i>[Signature]</i> 12/28/98		40. Disposition: <input checked="" type="checkbox"/> App <input type="checkbox"/> Ap/C <input type="checkbox"/> DisApproved <input type="checkbox"/> Withdraw <input type="checkbox"/> Fwd/ECS <input type="checkbox"/> Fwd/ESDIS		41. ESDIS ERB Concurrence:		
42. ECS CCB Chair (Sign/Date):		43. Disposition: App <input type="checkbox"/> A/C <input type="checkbox"/> DisApproved <input type="checkbox"/> Withdraw <input type="checkbox"/>		44. CCR Closed Date:		

4PX Patch "Pumpkin"

Purpose

The Pumpkin patch (4PX.16) provides fixes for 60 NCRs. No new capabilities are provided in this patch.

NCRs Fixed

The NCRs fixed by the Pumpkin patch are listed in an attached spreadsheet. A summary of the fixes is as follows:

- Several fixes in Data Distribution to eliminate bugs and improve performance;
- Fixes for some V0 Gateway problems that produced core dumps;
- One Data Processing fix in PRONG;
- Fixes for the AST05 and AST08 ESDTs;
- Fixes in Landsat-7 subsetting and reformatting for data version 4.1;
- Fixes for Ingest core dumps when reading from the D3 tape drive;
- Several Planning fixes;
- Numerous Science Data Server fixes; and
- Several Storage Management fixes.

Nature of Fix

The Pumpkin patch is being delivered as full file set deliveries for the Sun and SGI platforms – hence it consists of two tar files, one for the Sun and one for the SGI. No changes were made in the HP code, or in the Toolkit; therefore these tar files are not being re-delivered for the Pumpkin patch.

The Pumpkin patch does not affect every CI on the Sun and SGI platforms; therefore, specific instructions are being provided for each subsystem requiring installation. Only one subsystem, SDSRV, underwent significant configuration changes and requires the use of mkconfig. Configuration file changes in other subsystems can be made by hand, as required. Only the STMGT/DDIST and SDSRV databases require patch updates.

The Pumpkin patch has no Toolkit or Shared Mode content – no installation of these components is required.

The Pumpkin patch does make two important architectural changes in the system. The first is relevant only to EDC; it formalizes the movement of the D3 Ingest Staging Disk to the Sun Distribution Server. This configuration was put in place at EDC in December to support I&T4c testing; in the Pumpkin patch, the .sitemap and delivery files are updated so that all subsequent deliveries will support this configuration. The second change is

ORIGINAL

relevant to all sites. It allows the instantiation of multiple FtpDis servers; previous versions of the system supported only one FtpDis server. In order for the system to push data electronically (via ftp) to users on external (non-ECS/NASA) networks, it is necessary to instantiate an FtpDis server on a host with a User network connection – typically the acg01 host. This patch provides the code fixes necessary to support that configuration (NCRs 18879 and 18882) and adds the delivery of the FtpDis server to that platform. Because of these architectural changes, installation of a new .sitemap via ECS Assist is required.

Installation Instructions

Dependencies And Preconditions. The installation instructions provided below are predicated on installing the Pumpkin patch into a mode that is current through the Ochre patch (4PX.15). This is the configuration that was tested/installed by the Patch IPT. A commentary on other installation configurations is provided below, after the installation instructions.

Contents of the Patch Kit: This patch consists of only two tar files, one for the Sun and one for the SGI. Each of these tar files contains all of the ECS custom code files required on these platforms (except Toolkit). We recommend that the entire content of both tar files be staged, although many of these files are not required for the installation.

READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION.

General Instructions. These instructions are to be followed for all subsystems, **except as noted below** under Subsystem Specific Instructions:

- 1) Download and stage the files for the 4PX Pumpkin delivery from the SMC.
- 2) DO NOT perform any clean-up activities (data, databases, CDS entries, et cetera).
- 3) DO install ECS Assist from the staging directory using the setup script. PLEASE NOTE, however, that there is a problem with the file ownership and directory permissions, so this step must be performed by hand (see NCR 19821 for details).
- 4) Using ECS Assist, install the files associated with the subsystems identified below in the Subsystem Specific Instructions.
- 5) DO NOT perform an installation to SHARED Mode.
- 6) DO NOT perform a Toolkit installation.
- 5) DO perform configuration changes as specified below in the Subsystem Specific Instructions. Note that only SDSRV requires the use of mkconfig.

ORIGINAL

6) DO execute database update scripts as specified below in the Subsystem Specific Instructions. Only STMGT/DDIST and SDSRV require database updates.

7) DO re-install the ESDTs listed below.

Subsystem Specific Instructions.

CSS: Install all CSS executables and libraries. No configuration or database changes are required.

DDIST: Install all DDIST executables and libraries. Verify that the fix to NCR 19700 has already been implemented in this 4PX mode (if you are upgrading a 4PX.15 mode, it should be) – if not, edit the DDIST configuration files to incorporate this fix. No DDIST database changes are required.

DMS. Install all DMS executables and libraries. No configuration or database changes are required.

DPS. Install all DPS executables and libraries. No configuration or database changes are required.

ESDT. Install the AST05 and AST08 ESDTs. These are the only ESDTs modified by the Pumpkin patch.

Ingest. Install all Ingest executables and libraries. At EDC only, verify that the D3 ingest configuration, incorporating the fixes for NCR 19220, is consistent with the placement of the Staging Disk Server on the Sun Distribution platform. No other configuration or database changes are required.

PLS. Install all PLS executables and libraries. No configuration or database changes are required.

SDSRV. Install all SDSRV executables, libraries, and dynamic link libraries (DLLs). Although only the Landsat-7 DLLs were explicitly modified by the Pumpkin patch, it is necessary to re-install (copy over) all of the DLLs because of other changes made in the Science Data Server libraries. Execute the SDSRV mkconfig. In addition to executing the mkconfig, you must also make the hand edit to the configuration file described in NCR 19848, specifying the value of 0 (zero) for the SDSRV_AUTO_INSP_SWITCH parameter. (DO NOT configure this switch with the value 1; there is a problem/NCR related to Landsat 7 insert when running with Auto Inspect on.) Run the SDSRV database update script provided in the patch.

STMGT. Install all STMGT executables and libraries. Verify that the fix to NCR 18701 has already been implemented in this 4PX mode (if you are upgrading a 4PX.15 mode, it should be) – if not, edit the STMGT configuration files to incorporate this fix. At EDC

ORIGINAL

only, verify that the Staging Disk Server configuration on the Sun Distribution platform (NCR 19220) is correct. Verify that the configuration of the FtpDis server on the acg host (NCRs 18879 and 18882) is correct. Run the STMGT/DDIST database update script provided in the patch. PLEASE NOTE THE FOLLOWING SPECIAL WARNING:

The patch for 4PX.16 requires that you have previously applied the patch for 4PX.13 (the "Maroon" patch). Due to a previous error with the Maroon patch script, the patch script for 4PX.16 cannot distinguish between the "Lilac" patch (4PX.12) and the Maroon patch (4PX.13). If you attempt to patch a Lilac-level database directly to the Pumpkin level, without first applying the Maroon patch, it will appear to work. However, your STMGT database will be corrupted, and may require a complete reinstall.

If, for some reason, you are unsure as to whether or not your database is at the Maroon level or the Lilac level, execute the following isql command against the STMGT database:

```
SELECT COUNT(*) FROM DsStNextId
```

If the result is 7, your database is at the Lilac level, and needs to have the Maroon patch applied. If the result is 4 or 11, your database is at the Maroon level. Note that if the result is 4, you also need the workaround to correct the problem with the Maroon patch script.

Installing To Modes Containing Versions Other Than 4PX.15. Questions have already been raised about whether and how the Pumpkin patch can be applied to modes at levels other than 4PX.15. While this has not been tested, the following observations can be made:

The Ochre patch, 4PX.15, provided only a replacement of executables in the Planning subsystem. These executables are again replaced by the Pumpkin patch. Therefore, it is possible to skip installation of the Ochre patch when installing the Pumpkin patch – you can (unconditionally) upgrade directly from 4PX.14 to 4PX.16.

The Navy patch, 4PX.14, provided changes to the Landsat-7 reformatting library. It was to be installed only at EDC. The Landsat-7 reformatting library changes in the Navy patch are overwritten with additional changes in the Pumpkin patch. Therefore, it is possible to skip installation of the Navy patch when installing the Pumpkin patch – you can (unconditionally) upgrade directly from 4PX.13 to 4PX.16.

The Maroon patch, 4PX.13, provided changes to the ASTER ESDTs and a STMGT/DDIST database update. The changed ASTER ESDTs need only be installed at EDC. The DDIST database update needs to be applied to all modes containing the Lilac version, and the 4PX.16 STMGT/DDIST database patch is dependent on the Maroon database update (see SPECIAL WARNING above). Therefore modes running 4PX.12

ORIGINAL

can be upgraded to 4PX.16 as follows: stage and execute the 4PX.13 STMGT/DDIST database update script; then perform the 4PX.16 patch installation as described above. At EDC only, re-install ALL of the ASTER ESDTs, not just AST05 and AST08.

For modes at levels of ECS below 4PX.12, the safest approach is to install up to 4PX.12, and then upgrade from 4PX.12 to 4PX.16 as described above. 4PX.12 was the last complete system delivery (all five tar files, including Toolkit). NSIDC has recently had success in installing 4PX.12 from scratch, into a new mode with no pre-existing version of ECS.

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