

HDF-Java Release Procedure

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This document describes the procedures and the work needed for HDF-Java release.

1 Introduction

Each year around the end of November (usually within two weeks of HDF5 maintenance release) The HDF Group releases a new version of the HDF-Java products. A release includes bug fixes and new features. HDF-Java products include both HDF4 and HDF5 libraries. There is no separate release for HDF4 and HDF5.

Each release is identified by its release number. For details of release numbers, please read <https://thehdfgroup-import.pbworks.com/w/page/26711812/Staff-Only#HDFJavaProducts>. There are four types of releases:

- Major release: a major release has a significant change in the code base and/or end-user functionality. An application built on older version of HDF-Java products needs extensive changes to make it work for the newer version of HDF-Java products. Major releases do not happen often. There were only two main releases in the past ten years.
- Minor release: a minor release includes incremental changes in the code base and/or end-user functionality. A minor release requires some or no changes for applications built on the previous version to work on the new version.
- Maintenance release: a maintenance release typically indicates some bug fixes in the code base and/or end-user functionality. A maintenance release does not require any changes to the applications.
- Special release: a special release is either a beta release or patch release.

The next sections describe the procedures and the work needed for HDF-Java release.

2 Team and roles

The HDF-Java release is a group effort. Each member of the team has one or more specific roles during the release process. This section describes each member of the maintenance team and his/her roles and responsibilities.

1. Team Lead

The release Team Lead is ultimately responsible for the whole release cycle. The Team Lead creates schedules, plans the work, gives assignments, monitors progress, and coordinates all tasks (discussed in the next section of this document); coordinates with

leaders of other teams concerning staff availability; works closely with other teams contributing to the release.

2. Software Developers

The Software Developers work on the tasks assigned for the releases; he/she works closely with the Team Lead on task prioritization and advises the Team Lead on the technical aspects that can affect the release schedule.

3. Testers

The Software Testers works with software release candidates. A software developer can be also a software tester. Other members of The HDF Group will be assigned to test part of all the HDF-Java products before the release of the final products.

4. Daily Tests Lead

The Daily Tests Lead works with the Team Lead and HDF Software Testers on testing release candidates and building and released binary distribution.

5. Documentation Lead

The HDF Documentation Lead prepares documentation for the releases; updates the HDFView User's Guide, Java documentation, HDF-Java webpages, and release notes.

6. Release Coordinator

The Release Coordinator creates the final binary and source distributions and makes them available to HDF users (FTP, Web pages, Newsletter).

3 Release Process

This section describes tasks during the different stages of the release process.

3.1 Beta release process

1. Decide which bugs/ features should be targeted for the next release. The process usually starts around middle of August, three month before the official release. (Team Lead and Software Developers)
2. Complete Beta release testing (Software Developers)
 - a. Test HDFView GUI components based on release test list, details see /mnt/scr1/pre-release/hdf-java/release_test/HDFView_Test_Checklist.docx
 - b. Test example files related to bug fixes, release_test/testfiles/bugs
 - c. Test example files created with HDF5 1.6, release_test/testfiles/hdf5_16
 - d. Test example files created with HDF5 1.8, release_test/testfiles/hdf5_18
 - e. Test files related specific projects, release_test/testfiles/projects
 - f. Test HDF-EOS plugin
3. Go through the first round of revision of the release notes, HDFView user's guide, and web page content. Check version number and libraries versions (Software Developers).
4. Build binaries (Daily Tests Lead).
5. Build HDFView installers with InstallAnywhere (Team Lead and Software Developers).
6. Pack and upload release files, e.g. HDFView installers, binaries, source, and docs (Team Lead). Beta release should be completed a month before the official release, which is around the middle of October.
7. Send release news to specific customers, e.g. NASA, NPOES, Engistics, HUGS, etc (Team Lead) and to the forum and website (Release Coordinator).

8. Make sure daily tests are passed. (Team Lead, Software Developers, Daily Tests Lead)
9. Fix bugs reported for the beta release. (Software Developers)
10. Repeat steps 3 to 9 if more beta releases are needed.

3.2 Official release process

The official release usually starts a few days after an HDF5 release. The final release date depends on the actual release date of HDF5, the bug fixes, and sometimes the release of HDF4 library also. No new features will be added to the official release since the beta release.

Start Loop

11. Fix critical bugs (Software Developers).
12. Make sure all bug fixes are tested since the beta release (Team Lead).
13. Make sure all daily tests are passed (Team Lead, Daily Tests Lead, Software Developers).
14. Check copyright statement and change version number in source code, distribution programs, and HDFView installers (Team Lead).
15. Go through the last round of revision of the release notes, HDFView user's guide, and web page content (Team Lead, Software Developers).
16. Build binaries and pack installation program (Team Lead, Daily Tests Lead, Software Developers).
17. Test installation programs for all platforms (Software Developers).
18. Test HDFView by going through the test list (Testers).
19. Fix bugs and rebuild binaries as needed (All).
20. Upload distribution files (Team Lead, Release Coordinator)
21. Download from FTP and test source and pre-built binaries

End Loop

22. Update website (Team Lead)
23. Make a source branch for the release (Team Lead). Bug fixes and patch releases related to the release will go into the release branch. Keep the trunk for the main development. (Team Lead)
24. Go to web repository and change the external link to the current branch: "svn propedit svn:externals".
25. Prepare and send a Newsletter about the new release (Team Lead and Release Coordinator)

Revision History

November 16, 2010: Initial draft circulated for comment within The HDF Group; posted on Wiki <http://wiki.hdfgroup.org/HDF-Java-Release-procedure>