Direct Broadcast Software Packages

ITWG Technical Subgroup Report

ITSC-18 Toulouse, March 2012

Liam Gumley and Nathalie Selbach

INTERNATIONAL ATOVS WORKING GROUP

Overview

Attendees: Anna Booton, Pascale Roquet, Kathy Strabala, Graeme Martin, Ray Garcia, Geoff Cureton, Scott Mindock, Katja Hungershoefer, Gerrit Holl, and Paolo Antonelli.

This group was formed at ITSC-16 when it was recognized that the existing AAPP technical sub-group could be broadened in scope to cover other direct broadcast processing software packages including IAPP, IMAPP, and IPOPP (now CSPP). The group met at ITSC-16 and ITSC-17, and reconvened at ITSC-18. The group was asked if it was worthwhile to continue meeting, and by show of hands voted to continue to meet.

The group met on Thursday March 22 for one hour. There was one outstanding action item from ITSC-17, which was to create a list of available visualization software. This action was promoted to the Products and Software Working Group.

Topics

1. Pre-built binaries vs. compiling source code

The group discussed the merits of providing pre-built binaries to simplify installation. The AAPP team said it might require supporting too many platforms and building too many binaries. The CSPP team said they can provide advice on compiler options to ensure the best portability. Recommendation was for software developers to provide pre-built binaries where possible.

2. Continued support of IAPP

The group noted that while IAPP has been updated to support NOAA-19 and Metop-A, it does not yet support Metop-B, or Suomi NPP. DWD and CPTEC noted that continuity of IAPP products is important for their operational processing, and they would like to see CIMSS continue to support it. An action was assigned by the PSWG.

Topics

3. New features in AAPP and IMAPP

The group noted that AAPP v7 is now available and it adds support for post processing of Suomi NPP SDR (level 1) data. IMAPP has added a new suite of cryosphere products and an air quality monitoring/forecasting system.

4. FY-3 DB processing software

The group noted that a new version of FY-3 direct broadcast processing software supporting FY-3A and FY-3B was released by NSMC/CMA on January 1, 2012. The application form for obtaining permission to download the software is available at

http://satellite.cma.gov.cn/ArssEn/StaticContent/DocumentDownload.aspx

Topics

5. CSPP

The group noted that CSPP execution time was a concern. The CSPP team said it would provide a set of recommended hardware specifications and timing benchmarks with the CSPP documentation. UKMO noted in an offline discussion that it can process data at approximately 1X using dual hex-core Intel 3.0 GHz Xeon CPUs and 64GB RAM. The CSPP website is now available and users can provide feedback at

http://cimss.ssec.wisc.edu/cspp

6. Contributions from users

The group noted that DB users may develop algorithms that could be used by others in the DB community. An action was assigned by the PSWG to find ways to encourage and assist users in making this happen.

Topics

7. Status of current DB software packages

The group developed a comprehensive list of available software packages as an action from ITSC-17. An action was assigned by the PSWG to update this list.

8. EARS format for VIIRS rebroadcast

The group noted that EUMETSAT has drafted a format specification for VIIRS rebroadcast on EARS. EUMETSAT is soliciting input on how the format can retain necessary information for further downstream product generation while reducing bandwidth. For information contact Christelle.Ponsard@eumetsat.int

Topics

9. Using DB software for processing global data from archives

The group noted that some users wish to process data from global archives (e.g., use AAPP to process AVHRR data from NOAA CLASS). Software developers should maintain the ability to process either DB real-time or archived global data. A request for a NOAA AVHRR Level 1B reader was noted. NigelA has developed a reader in IDL for anyone interested.

10. Feedback from users

The group noted that it is important to listen to and solicit feedback from users. The AAPP, IMAPP, and CSPP projects all have online forums, and users should be made aware of these resources and encouraged to use them.