

OPEN NAVIGATION SURFACE WORKING GROUP

TELECONFERENCE SUMMARY

2006-01-27

Hosted by SAIC Teleconferences

DRAFT VERSION

2006-01-27

1 Introduction

This document details the result of the teleconference held at 1100EST on 2006-01-27 to follow up action items (from the teleconference on 2006-01-17) in pursuit of the Candidate Release of the Open Navigation Surface (ONS) Project, slated for 2006-02-03. The meeting was kindly hosted by Shannon Byrne using the Science Applications International Corporation's teleconference facility. The summary of all meetings and teleconferences of the Open Navigation Surface Working Group (ONSWG) can be obtained from the project's web-site, <http://www.opennavsurf.org>. For a list of participants, see section 5.

In the following, names people with action items are shown in **BOLD SMALL CAPS**; expected deadline release dates are shown **in red**. Sizes of variables are indicated by 'U' for unsigned, 'S' for signed, 'F' for floating-point, and a size in bits (e.g., U8 is an eight bit unsigned integer, F64 is a 64-bit (double precision) floating-point number). Data sizes are given in bytes (B) with the usual convention that the SI multipliers are taken to mean multiples of $2^{10}B$ (i.e., $1kB = 2^{10}B = 1024B$). The acronym 'CR' means 'Candidate Release' (i.e., a release of the library for comments) and 'FR' means 'Full Release' (i.e., release V1.0 of the library).

2 Summary of Discussion

The meeting followed the action item list (section 3 of the teleconference of 2006-01-17¹), and this summary is organized accordingly. Some new business and actions are also incorporated with the users as appropriate.

2.1 Byrne (SAIC)

2.1.1 *Build and test of RedHat Enterprise libraries*

This is proceeding as the software develops, since it is their normal development environment. No expected difficulty with completion by CR release date. Action is continued; action: **BYRNE, McDONALD**.

2.1.2 *CVS access from SAIC*

SAIC now has a method to get to the CVS server, but this is still difficult and the HTTP solution (see section 2.2.1) would be much preferred. NAVO indicated that they cannot get to CVS at all, and HTTP is still the only solution for them unless someone else builds a tarball. Action: **CALDER**.

2.1.3 *Other Unix Test Platforms*

After consultation with Moggert, it is unlikely that Seven Cs will be able to support alternative Unix builds by the CR or FR dates. All agreed that this is not a concern, since the main target platforms are still adequately covered. No action required; see also section 2.8.1.

2.2 Calder (UNH)

2.2.1 *HTTP Access for CVS Server*

Providing HTTP access that is secure and stable appears to be more difficult than first expected. Search is continuing; action: **CALDER**. Note: after teleconference, suggested to developer group that SubVersion might be better, since it was built from the group up with HTTP support; requested feedback from developer list on this topic.

2.2.2 *CVSmailer Notification Software*

Confirmed that the e-mail notification that is built into CVS is working as expected, and therefore CVSmailer is not required. No further action.

¹ See http://www.opennavsurf.org/meetings/onswg_teleconf_2006_01_17.pdf.

2.2.3 Binary Release Structure in CVS Repository

This was originally intended only for the FR, but in discussion it would now be useful to have a repository for this during the CR build. Discussed structure with the group, and confirmed that one project, 'openns-lib' with sub-directories for 'Win32', 'Win64' and 'RH_Enterprise_3' would be sufficient. Further directories could be added as different Unix systems were added, but these cover the core CR target platforms. It is not intended that the general public be given access to this directly – it is solely for developers that want to test distribution libraries, although it will be used as the source for the binary distribution for the FR. Action: **CALDER**.

2.2.4 Build and Test Signature Examples

As the library changes during CR check-ins, the examples for the digital signature part of the library will need to be re-tested. Action: **CALDER**.

2.3 Depner (NAVO)

Depner was not able to join the teleconference. Information was relayed by Fabre.

2.3.1 Build and Test Solaris Binaries

This is moving, although there are some difficulty in compiler structure which is still being worked on. This is not critical path for CR. Action is continued; action: **DEPNER**.

2.3.2 CVS Access

No IP address has been supplied, and hopefully this requirement will go away well before CR. Action is continued but optional; action: **DEPNER**.

2.4 Fabre (NAVO)

2.4.1 Build and Test Example ASCII Dumper Utility

This is still in progress, but there appears to be no difficulty with CR date. Confirmed during discussion that the original example BAG constructed for Shallow Survey 2005 is still available on the IVS FTP site, and can be downloaded for testing. Action is continued; action: **FABRE**.

2.4.2 CVS Access

No IP address has been supplied, and hopefully this requirement will go away well before CR. Action is continued but optional; action: **FABRE**.

2.5 Ladner (NAVO)

2.5.1 CVS Access

No IP address has been supplied, and hopefully this requirement will go away well before CR. Action is continued but optional; action: **LADNER**.

2.6 Lamey (CARIS)

2.6.1 Implementation of Vertical Uncertainty Meta-Data Element

This is complete in the source code modifications required and ready to check in, although making sure that this extension parses with the rest of the meta-data schema and runs through the Xerces library is still under-way. No expected delay to CR date. Action is continued; action: **LAMEY**. Check-in will require coordination with McDonald (see section 2.7.5), action: **MCDONALD**.

In discussion, Byrne requested that the anchor point precision be increased from 6 d.p. as at present to at least 8 d.p. to help with precise positioning of grids. This does not appear to be difficult, and should not impact the CR date, but needs to be checked through with the schema to ensure compliance. Action: **LAMEY**.

In discussion, it was highlighted that the previous teleconference list of Uncertainties (see section 2.4 of that document) that would be defined had a limited definition for #3 (NOAA standard product uncertainty V1.0). This was intended (Calder) as a placeholder until NOAA confirms exactly what will be required there. A meeting at NOAA Pacific Hydrographic Branch on 2006-01-30 should refine this, and this will be added before CR. Action: **RILEY, CALDER**.

The group also discussed whether the NAVOCEANO structure for uncertainty as currently supported in DBDB-V should be added. (This is a structured binary representation of uncertainty per node.) Fabre, Ladner agreed that this would be a good extra, but that it could wait until after FR.

The tracking list (see section 2.7.1) has to be linked to the meta-data somehow. All agreed that this should be in the lineage section, but exactly where needs to be formally defined. Action: **LAMEY**.

2.6.2 *Build and Test Win32 (XP) Binaries*

This is continuing as the libraries develop, but looks good so far. Action is continued; action: **LAMEY**.

2.7 **McDonald (SAIC)**

2.7.1 *Implementation of the Tracking List*

This is essentially complete as required from last teleconference, and is ready to be checked in. The implementation has one write and three read-back functions (indexed by different requirements like location, tracking reference number, etc.) and has the facility to read, sort and re-write the list if required. In discussion, the requirement for a method to extract a particular element of the list was proposed. This would allow the user to extract item M of N from the list (the N being an attribute of the tracking list's meta-data section) and therefore allow the list to be scanned in user-level code. This was adopted for implementation by CR. Action: **MCDONALD**.

In further discussion, McDonald pointed out that the entries in the tracking list for row and column of the modified node are now U16. For compatibility with the remainder of the code (q.v.), this should really be U32. Given that there are not expected to be many tracking list entries, this should not overly impact the memory or disc space required, and this suggestion was adopted for implementation by CR. Action: **MCDONALD**.

The API at present uses S32 for the type of the row and column references in all calls. Given that we cannot have negative rows, this seems inappropriate. (One potential is a use in Python-like lists (Riley) that modifies the reference point, but this is almost certainly not required here.) The adoption of U32 for all row and column references was therefore adopted for implementation by CR. Action: **PATON**.

2.7.2 *Implementation of X/Y Location Arrays API*

This is essentially complete as required and is ready to be checked in. Action: **MCDONALD**.

2.7.3 *Implementation of Error Reporting API*

This is essentially complete as required and is ready to be checked in. Action: **MCDONALD**.

2.7.4 *Build and Test Red Hat Linux Binaries*

See section 2.1.1.

2.7.5 *Update of CVS Repository*

In discussion, it appeared that the code at SAIC is probably the most up-to-date, and should be integrated into the CVS repository first. Action: **MCDONALD**. This needs to be coordinated with Lamey and Paton in order to check in their modifications (it will be simpler if these are done one at a time for this merge). Action: **MCDONALD, LAMEY, PATON**. After this, check in of IVS code should proceed (Action: **PATON**), which should then allow normal (i.e., concurrent) CVS behavior.

2.8 Moggert (Seven Cs)

2.8.1 Build and Test Alternative Unix Binaries

Given the time constraints, Seven Cs would prefer to start with a Win32 (Windows 2000) implementation and then expand to other platforms after FR. This does not impact CR or FR date, and the core target platforms are still covered. For information, the platforms tested would be Solaris and Suse Linux. No action required.

2.8.2 Test CVS Access

CVS access should work as before, but needs to be tested. Action: **MOGGERT, CALDER.**

2.9 Paton (IVS)

2.9.1 Coordination of CVS Updates

See section 2.7.5.

2.9.2 Build and Test Basic Example Code

Given development of the code-base, the example code will need to be rebuilt and checked with the new source. Action: **PATON.**

2.10 Riley (NOAA)

2.10.1 Build and Test Win32 and Win64 Code

This is proceeding as the libraries develop, and there is no expectation of a delay to CR or FR dates. Action is continued; action: **RILEY.**

2.11 Other Business

There was no other business to discuss.

3 Summary of Action Items and Dates

The following actions and dates were agreed:

Person	Actions(s)	Section	Date
Byrne	Build and test of Red Hat Enterprise libraries	2.1.1	CR
	Organize next teleconference and send details via e-mail	4	2006-02-01
Calder	Implement HTTP access to CVS, or implement Subversion	2.1.2	ASAP
	Build CVS project for binary library builds	2.2.3	CR
	Build and test Digital Signature example code	2.2.4	CR
	Confirm and define 'NOAA uncertainty' for meta-data	2.6.1	CR
Depner	Build and test Open Solaris libraries	2.3.1	CR
	Provide IP address of machine for CVS access	2.3.2	ASAP
Fabre	Example program for BAG to ASCII/ArcView with unprojection	2.4.1	CR
	Provide IP address of machine for CVS access	2.4.2	ASAP
Ladner	Provide IP address of machine for CVS access	2.5.1	ASAP
Lamey	Complete testing of parse of XML schema	2.6.1	CR
	Coordinate check-in of CARIS code to CVS with McDonald	2.6.1	ASAP
	Extend precision of anchor to 8 d.p. and verify XML schema	2.6.1	CR
	Provide meta-data slot for tracking list reference number	2.6.1	CR
	Build and test Win32 (XP) libraries	2.6.2	CR
McDonald	Add per-item select for tracking list	2.7.1	CR
	Change tracking list row/column to U32	2.7.1	CR
	Check in tracking list, location array and error reporting APIs	2.7.1-3	CR

Person	Actions(s)	Section	Date
	Update CVS repository to SAIC local version of code	2.7.3	ASAP
	Coordinate CVS update with Paton, Lamey	2.7.5	ASAP
Moggert	Test and confirm CVS access	2.8.2	ASAP
Paton	Change API to U32 for all row/column references	2.7.1	CR
	Coordinate check-in of IVS code to CVS with McDonald	2.7.5	ASAP
	Build and test example reader/writer code	2.9.2	CR
Riley	Confirm and define 'NOAA uncertainty' for meta-data	2.6.1	CR
	Build and test Windows 2000 libraries	2.10.1	CR
	Build and test Win64 libraries	2.10.1	FR

Note that the dates listed in red are expected to be critical in that they would hold up further development and possibly impede the CR date. The release dates agreed in the last teleconference appear to be stable, and were re-affirmed as:

- Candidate: 2006-02-03
- Comments: 2006-03-03
- Full: 2006-03-31

4 Next Meeting

It was agreed that there should be a further teleconference before the CR date, and that the best date was 2006-02-01 at 1400EST, 2000CET, 0500AEST+1². **BYRNE** to arrange and communicate details to the development group via the e-mail list.

5 Participants

Shannon Byrne (SAIC Newport)
 Brian Calder (CCOM/JHC)
 Dave Fabre (NAVOCEANO)
 Wade Ladner (NAVOCEANO)
 Bill Lamey (CARIS Ltd)
 Webb McDonald (SAIC Newport)
 Mark Paton (IVS Ltd)
 Jack Riley (NOAA HSTP)

² Readers should note the dedication of the participants, given the times.