OPEN NAVIGATION SURFACE WORKING GROUP

TELECONFERENCE SUMMARY

2006-02-01
Hosted by SAIC Teleconferences

DRAFT VERSION
2006-02-06

1 Introduction

This document details the result of the teleconference held at 1430EST/2030CET/0530AEST+1 on 2006-02-01 to follow up action items (from the teleconference on 2006-01-27) 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 2006-01-27[1]), 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 Red Hat Enterprise Libraries

This is on-going as the software develops, since it is SAIC's normal development environment. No current difficulties with the expected CR date. Action is continued; action **BYRNE**, **MCDONALD**.

2.1.2 Generation of Example BAG File

There will be a requirement for a smaller example BAG file; will build from the previous example for CR date. Action: **BYRNE**.

2.1.3 Definition of 'Undefined' Value for Uncertainty

There is currently no value for an 'undefined' or 'unknown' uncertainty at the node level (contrast the 'Undefined' meta-data entry described in section 2.4 of the meeting notes of 2006-01-17[2]). This is, however, required. After some discussion, agreed that this should be 0.0, since it cannot occur for any well-defined uncertainty. This needs to be added to the definitions in `bag.h`. Action: **MCDONALD**.

2.2 Calder (UNH)

2.2.1 Implementation of HTTP access for CVS

Background investigation shows that it is difficult to implement a clean HTTP front-end for CVS, and that it would be better to use SubVersion instead. After discussion, there was no objection to this, since it is possible to maintain all of the information in the CVS tree in a move to SubVersion (Paton has instructions for how to do this if required). Agreed that SubVersion should be installed and the projected moved, preferably after CR. Action: **CALDER**, **PATON**. The version of SubVersion used may be important and should be confirmed. Action: **CALDER**.

[1] See http://www.opennavsurf.org/meetings/onswg_teleconf_2006_01_27.pdf.
[2] See http://www.opennavsurf.org/meetings/onswg_teleconf_2006_01_17.pdf.

2.2.2 CVS Project for Binary Library Builds

This is complete. A new project, '`openns-libs`' has been added with sub-directories as required for '`Win32`', '`Win64`' and '`RH_Enterprise_3`'. No further action.

2.2.3 Build and Test Digital Signature Examples

This cannot be completed as yet, due to geographical location (CVS checkout won't work on an unknown remote DHCP). Will build as soon as possible after return to New Hampshire. Action is continued, action: **CALDER**.

2.2.4 Confirm and Define 'NOAA Uncertainty' for Metadata

After discussion with NOAA and CARIS, it appears that the 'NOAA Standard Product Uncertainty V1.0' value in the uncertainty metadata is defined as the greater of the 'uncertainty' and 'standard deviation' layers from the CARIS BASE Surface. The 'uncertainty' is a simple average of the vertical uncertainty of the soundings that contributed to the node (using a CUBE-like paradigm); 'standard deviation' is the estimated standard deviation of all of the soundings that contributed to the node. This should be defined in the NOAA Specification and Deliverables document directly, since it is the authoritative source, and the documentation for the BAG should refer to that directly. Therefore a note should be added to the ONS documentation to that effect, although the ONS documentation needs a major overhaul anyway. Since this would significantly delay the CR, this should be done during the comments period. Action: **CALDER**.

2.3 Depner (NAVO)

2.3.1 Build and Test Open Solaris Libraries

There is still some difficulty in convincing the compilers to work correctly on Open Solaris, and it is unlikely that a build will be possible before the CR date. This is not critical path for the CR. Action is continued; action: **DEPNER**.

2.3.2 CVS Access

This will not be required when SubVersion is implemented. No further action.

2.4 Fabre (NAVO)

2.4.1 Build and Test Example ASCII Dumper Utility

Example framework is now defined, although only currently generating a flat-file of the data, rather than ArcView ASCII. Source for this output is available, however, and will be contributed; action: **PATON**. Example code needs to have this integrated and then tested: action: **FABRE**.

2.4.2 CVS Access

This will not be required when SubVersion is implemented. No further action.

2.5 Ladner (NAVO)

2.5.1 CVS Access

This will not be required when SubVersion is implemented. No further action.

2.6 Lamey (CARIS)

2.6.1 Complete Testing of XML Schema Parsing

This is now complete, and the schema parses correctly. No further action.

2.6.2 Coordinate Check-In of Code

This is now complete, and all code in the CVS server is up to date. No further action.

2.6.3 Extend Precision of Anchor Point Representation

After investigation, it appears that there is no limit to the precision of the values of grid node anchor points in the metadata (previously was set to 6 d.p. but after discussion, it was agreed that 8 d.p. were required). Tests show write and recovery of at least 8 d.p., which was sufficient. No further action.

2.6.4 Extend Meta-Data for Tracking-List Reference Number

This is now complete. No further action.

2.6.5 Build and Test Win32 (XP) Libraries

This is on-going as the code develops, but currently works fine using Visual C++ V7 (.NET 2003). Action is continued; action: **LAMEY**.

2.7 McDonald (SAIC)

2.7.1 Add Per-Item Select for Tracking List

This is now complete. No further action.

2.7.2 Check Tracking List Row/Column to U32

This is now complete. No further action.

2.7.3 Check in Code Modifications & Coordinate with Others

This is now complete. No further action.

2.7.4 Location of 'Default Key Length' for Digital Signatures

The value of `DEFAULT_KEY_LENGTH` is used in the Digital Signature Scheme to determine the length for the cryptographic key-pair used to sign BAGs. This was originally defined in `onscrypto.c` since it was developed independently of the newer `bag_*.c` structures, but rightly belongs now in `bag.h` and needs to be moved. Action: **LAMEY**.

2.8 Moggert (Seven Cs)

2.8.1 Test and Confirm CVS Access

This is now complete, and CVS access works successfully. No further action.

2.9 Paton (IVS)

2.9.1 Change API to U32 for Row/Column References.

This is now complete. No further action.

2.9.2 Coordinate Check-In of CVS Code with Others

This is now complete. No further action.

2.9.3 Test and Build Example Reader/Writer Code

This is currently in progress as the library develops. No expected delay to the CR date at this point. Action is continued; action: **PATON**.

2.10 Riley (NOAA)

2.10.1 Confirm and Define 'NOAA Uncertainty' for Meta-Data

See section 2.2.4.

2.10.2 Build and Test Windows 2000 Libraries

This is current in progress as the library develops. No expected delay to the CR date at this point. Action is continued; action: **RILEY**.

2.10.3 Build and Test Win64 Libraries

This is continuing, but is not critical path for CR. Action is continued; action: **RILEY**.

2.11 Other Business

2.11.1 Build System and Compiler Differences

There was some discussion about the use of different (Win32) compilers, and keeping the solution and project files for these separately. Apparently, there are subtle differences between Visual C++ V6.0, Visual C .NET 2002 (V7.0), Visual C .NET 2003 (V7.1) and Visual C .NET 2005 (V8.0) that make the project files sometimes work, and sometimes not. It was agreed that we would like to support all of these, if possible, but this means significant extra work on the build system.

It is known that the system builds on VC6 (Moggert) but does not run (Paton: this is probably just that the examples are broken, and not really a VC6 issue; examples are being rebuilt). Test on VC7 (Lamey) shows that the library also builds. Issues, therefore, are with latest VC8, and should really only result in renaming appropriate files to make the distributions distinct.

It was agreed that compiler versions could be used as suffices for the project files to make the distinctions. Action: **PATON**.

2.11.2 Clean-Up of Distribution Before Release

There are a number of items in the distribution that should not be there (e.g., old binary files, residue from previous versions, etc.) It was agreed that these should be removed before being packaged to make it as clean as possible. Identifying these will be difficult, and should be reported to the development list as they are found so that a single sweep through the source should be possible. Action: **ALL**. Clean-up will be done just before packaging. Action: **CALDER**.

2.11.3 Restructuring of API Directory

The API directory now has a number of sub-directories with one or two files. This is inefficient with respect to the build system, and it was proposed (Paton) that this could be flattened without loss. This was agreed for CR; action: **PATON**.

2.11.4 Release Mechanics

It was previously agreed that the download from the website should be unrestricted, but that downloaders would be asked to fill in a form with some contact details and a comment on their use of the files before being allowed to download. This was affirmed. Action: **CALDER**.

There was some discussion of whether a single opennavsurf.zip file should be created, or if an opennavsurf.tar.gz file was also required. It appears that both files would be the preferred option, primarily for traditional reasons, since most Unix/Linux systems can now handle ZIP files directly. Action: **CALDER**.

2.11.5 Candidate Release Date

It was agreed that all outstanding items would be targeted for 2006-02-03, but that the CR would be put up on the web-site on 2006-02-06 to allow for issue with the right people being in the right geographical location at the right time. Action: **CALDER**.

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
	Build example BAG file of appropriate size	2.1.2	CR

Person	Actions(s)	Section	Date
Calder	Implement SubVersion for HTTP access to source base	2.2.1	FR
	Supply version of SubVersion environment	2.2.1	ASAP
	Build and test Digital Signature example code	2.2.3	CR
	Document Meta-data Uncertainty Values	2.2.4	FR
	Clean up distribution before release	2.11.2	CR
	Implement download information script for website	2.11.4	CR
	Build ZIP and tar/gz files for download	2.11.4	CR
	Upload release information on website	2.11.5	2006-02-06
Depner	Build and test Open Solaris libraries	2.3.1	FR
Fabre	Example program for BAG to ASCII/ArcView with unprojection	2.4.1	CR
Lamey	Build and test Win32 (XP) Libraries and Project Files	2.6.5	CR
	Add DEFAULT_KEY_LENGTH macro to bag.h	2.7.4	CR
McDonald	Add 'Undefined' per-node uncertainty definition	2.1.3	CR
Paton	Provide instructions for moving CVS to SubVersion	2.2.1	FR
	Provide ArcView ASCII grid writer for example code	2.4.1	CR
	Build and test example reader/writer code	2.9.3	CR
	Incorporate new project files for different VC versions, with name suffices for versions as required	2.11.1	CR
	Flatten the API directory hierarchy	2.11.3	CR
Riley	Build and test Win32 (Windows 2000) libraries	2.10.2	CR
	Build and test Win64 libraries	2.10.3	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 (code), 2006-02-06 (tarball)
- Comments: 2006-03-03
- Full: 2006-03-31

4 Next Meeting

There was not formal discussion of another meeting, since the candidate release date is very close and a round-up after that will probably be required. The next meeting's date will be TBD after the CR is done.

5 Participants

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