DFDL WG Call Minutes

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Meeting about Meetings\OGF

Project **DFDL 1.0**

Meeting Date 21-Jan-14 (Tues)
Meeting Time 16:00 - 17:00

Created by Steve Hanson on 09-Mar-11 Last Modified by Steve Hanson on 21-Jan-14

OGF DFDL Working Group Call, 21 January 2014

Agenda

Prepare for your meeting by describing the objectives (both immediate and long-term, if appropriate) of the meeting; and describe key planterials.

1. Daffodil Open Source Project

Status update.

2. AOB

Minutes

Meeting Minutes

Reflect on your meeting as you record all topics and issues discussed, and any tabled conversations. What went well, or what would you do differently next time? Document those so others can take advantage of your learning.

Attendees

Steve Hanson Tim Kimber Mike Beckerle Jonathan Cranford Mark Frost

Apologies

IPR Statement

"I acknowledge that participation in this meeting is subject to the OGF Intellectual Property Policy."

Minutes

1. Daffodil Open Source Project

Not discussed.

Meeting closed

16:40 UK

Next regular call Tues Jan 28th 16:00 UK

Create Action Items

Record the to-do's and individuals assigned by entering the appropriate information in the form below . Press the "Create Action Items" button to create specific to do's that can be tracked in the assignee's Work for Me views. " All Action Items will be tracked in the Action Items and Other Meeting Documents tab.

| Action Items and Other Meeting Docum | nents | | | |
|--------------------------------------|-------|---------------|---------|----------|
| Sub | ject | Document Type | Created | Modified |

Next action: 246

Actions raised at this meeting

| | No | Action |
|---|----|--------|
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Current Actions:

| No | Action |
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| 066 | Investigate format for defining test cases (All) 25/11:IBM to see if it is possible to publish its test case format. 04/12: no update |
| | 17/02: IBM is willing in principle to publish the test case format and some of the test cases . May need some time to build a 'compliance suite'? 24/03: No progress |

03/03: Discussions have been taking place on the subset of tests that will be provided.

10/03: work is progressing

17/03: work is progressing

31/03: work is progressing

14/04: And XML test case format has been defined and is being tested.

21/04. Schema for TDML defined. Need to define how this and the test cases will be made public

05/05: Work still progressing

12/05: Work still progressing

02/06: Work still progressing on technical and legal considerations

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25/08: Will chase to allow Daffodil access to test cases . The WG should define how implementation confirm that they 'conform to DFDL v1'

01/09: IBM still progressing the legal aspect. Intends to publish 100 or so tests as soon as it can, ahead of a full compliance suite.

08/09: IBM still progressing

15/09: IBM still progressing, expect tests to be available within a few weeks

22/09: IBM still progressing, expect tests to be available within a few weeks

29/09:Test cases are being prepared.

06/10: Some test cases should be available next week. Steve would like to be able to show the test case information at OGF 30.

13/10: Still progressing

10/11: Legal issues cleared, IBM in process of collecting 100 example test cases, ideally ones that fit the 'extended conformance' of NCSA Daffodil

17/11: Work is progressing on verifying the test cases. It should be possible to distribute to the WG in 2 weeks.

24/11: About half the test cases have been completed and are being reviewed internally.

01/12: Test cases should be available shortly

08/12: The test cases are in internal IBM review. Probably need a bit of reorganising before publication

Stephanie gave a brief overview of the format of the test cases.

15/12: Ruth joined the call to provide the latest status. The test cases have been updated and a draft read.me produced. Although not ready for public distribution Ruth will send them to Joe for feedback.

22/12: Test cases were sent to Joe for initial testing which found some problems in the Daffodil parser

12/01: All current tests use a default format whih Daffodil doesn't currently support. Joe suggested that there should be test that defined the same function using different definition forms. Also suggested that default formats should be provided by the WG. This had always been the intention. Action 133 raised to track.

19/01: There is currently no resource available in IBM to make more tests available . IBM to discuss how/if it can make a 'minimal compliance test suite' available.

26/01: Action kicked off within IBM. There was a brief discussion abot naming and organisation of test cases but no preferences were expressed

02/02: IBM will not have the resources to develop a full test suite in the near future. Steve suggested that we produce a list of required test cases so that anyone could supply them.

09/02: Steve had previously sent a list of areas to be tested. Please review.

23/02: Please review Steve's list of areas to be tested

02/03: Alan had reviewed Steve's list and we went through his comments. Agreed there is no need for separate tests for the infoset or for dfdl: property lists, unions etc but comment will be added that these should be exercised during property testing.

09/03: Alan updated the test document. Need more introduction and perhaps adopting the OGF template.

30/03. Ownership of test document passed to Steve. This action is merged with 112 and will cover all aspects of compliance suite.

13/04: IBM will not have time to create a compliance suite in the near future. Probably best to

make this action deferred for now.

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10/07/2012: Discussed schemes to create interchangeable tests. Ideally need a DFDL defined error code per failure, in conjunction with specific inserts.

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26/3/2013: Resurrecting deferred action.

We have got to the point where it makes sense to converge the IBM DFDL and Daffodil variations of .tdml file.

Steve to seek permission from IBM to make the list of IBM DFDL error messages available to DFDL WG.

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24/5: No further progress.

28/5: Mike summarised the status of Daffodil's tdml runner. Since IBM shared the tdml format, Daffodil has added a) bit file support with in-line comments; b) embedded schema; c) failure checking by multiple string matching. IBM has added a) some flags that map to parser API 'features' such as optional checks; b) code to handle illegal XML characters. 1200 parser test cases written for Daffodil, about 60 of the original IBM shared tests now pass in Daffodil. Steve will email OGF and ask if there is an approved process for demonstrating that multiple implementations generate the same set of test results. To progress with a shared tdml format, IBM will need to get legal approval to view the Daffodil source test cases, Steve to kick this off. Mark noted that IBM's tdml format has evolved in order to make the infoset comparison easier, Mark will see whether the shared tests use the latest version.

4/6: Steve has emailed OGF for guidance, reply received. Experience documents needed to verify conformance, but there is not a requirement to have executable tests. However, a set of executable tests is what we need ideally.

Discussed error messages and identifiers for different errors and what the granularity should be. Steve has asked for permission to send the IBM DFDL error messages to the DFDL WG, they should be used as a starting point. Need to agree what constitutes the minimum content of an error message.

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22/10: No further progress

31/10: Steve has permission to send IBM DFDL's error messages to the WG.

5/11: Error messages sent

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2/12: No further progress

14/1: Steve had started to pursue approval for IBM to be sent the Daffodil source test cases. He will resurrect this.

21/1: Noted .tdml format divergence between IBM and Daffodil, best example being error message specification.

Steve explained the IBM DFDL error message prefix CTDxnnny, where x is component (can be ignored), nnnn is unique message number, and y is E(rror), W(arning) or I(nformational). If Daffodil used the same message numbers, a .tdml runner could work with both IBM DFDL and Daffodil by looking for the message number in (say) the first 10 chars.

224 Add section for implementation defined limits (Jonathan)

3/9: Several places in the spec cite this, should be grouped. Currently partially listed in section 2.6.

Also note distinction between 'implementation defined' and 'implementation dependent'. Check spec for correct usage.

Resolve during public comment.

10/9: No progress

17/9: Jonathan sent a reference to the W3C XProc standard where the distinction is made clear. Jonathan will go through the spec and gather everything that is implementation defined/dependent. Public comment to be raised

24/9: With Jonathan to raise.

1/10: Public comment 97 raised (http://redmine.ogf.org/boards/15/topics/97)

8/10: With Jonathan to provide words.

22/10: Jonathan has defined implementation defined/dependent and started to classify. Steve and Mike had trouble with the definitions. Steve to re-word and send for comment.

31/10: Reworded version sent

5/11: Rewording approved. Jonathan proceeding with classification, will distribute for review when complete.

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21/1: Still with Jonathan

228 Review set of tutorial lessons (All)

17/9: Lesson 1 proposes a set of lessons, needs reviewing as over 2 years old.

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22/10: No progress

31/10: Becoming a focus for Tresys. Steve to send his 'Modeling Data Formats using DFDL' powerpoint.

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19/11: No further progress

26/11: Possibility of help from MITRE high-school student, and from Marisa at IBM.

21/1: No further progress

242 Public comment: dfdl:valueLength and dfdl:contentLength descriptions (Mike)

19/11: http://redmine.ogf.org/boards/15/topics/63. Agreed that the function names were ok as per errata 3.18, and that the spec is clear that they refer to the grammar regions. However the grammar regions mentioned do not fully include literal nil values. Discussed what happens when parsing - remember the length or re-parse? What about lengthUnits 'characters' when the data is binary? Also the 'Notes' that follow the table need to be reworked.

26/11: Needs wording to handle all the issues found, assigned to Mike.

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21/1: Still with Mike

Closed actions

No Action

244 Public comment: textStandardDecimalSeparator rules (Steve)

26/11: Errata 2.27 says that textStandardDecimalSeparator is not used for integer types. But what happens if textNumberPattern specifies a decimal separator? Further, it looks like ICU always accepts a decimal separator in the data even when not in the pattern and even when in strict mode. Verify ICU behaviour.

2/12: Errata 2.54 states ICU's strict behaviour when parsing numbers, established from tests performed by action 170 (closed 18/9/2012). This was done by Richard Schofield at IBM using ICU4C. Steve has re-tested with IBM DFDL Java (so ICU4J) but he does not get the same behaviour - an error occurs if decimal separator is in the data but not in the pattern. More investigation needed.

14/1: Investigation ongoing at IBM. It looks as though IBM DFDL is using the ICU DecimalFormat.setParseAsInteger() method when it is faced with errata 2.22 and 2.27, ie, a situation where the textStandardDecimalSeparator property is not applicable.

21/1: Closed. Options proposed:

1) Disallow use of '.' in pattern for integer. Allow 'E' and '@' but don't insist that textStandardDecimalSeparator is specified.

This means that a user who wants to allow 123.0 for an integer must model this as a decimal.

2) Allow use of '.' in pattern for integer. Allow 'E' and '@' also. A textStandardDecimalSeparator must be specified if the pattern implies it.

This means a user who wants to allow 123.0 for an integer can model it is an integer. Any non-zero fractional digits will cause a type conversion failure.

Decided to adopt option 2), noting that could make diagnosing certain errors harder. Resolved.

245 Public comment: Support for true unordered content. (All)

2/12: http://redmine.ogf.org/boards/17/topics/128. Current unordered support is a compromise because xs:all is not rich enough to model unordered data and preserve the 'wire' order into the

infoset. This is not sufficient for some real-world formats. The question is whether DFDL repeating choice is sufficient or DFDL needs to offer something else.

14/1: WG consider this too big a change to accommodate at this stage, and would like to defer to DFDL 2.0. Keeping action open as it is believed Jonathan has some information for next week's call.

21/1: **Closed**. Jonathan discussed with James Gariss at MITRE. OK with omitting true unordered groups from DFDL 1.0 but noted that repeating choice approach loses cardinality of elements, so post-parse check needed. **Resolved**.

Deferred actions

| Deletti | red actions | | | | |
|---------|--|--|--|--|--|
| No | Action | | | | |
| 131 | Transformation of DFDL properties to a canonical form (Joe) 08/12: Joe has produced a XSLT to transform a DFDL schema to a canonical element form. When tested it should be made available on the WG gidforge site. 15/12: Alan tested against test dfdl schema which worked correctly (after fixing some errors it the schema) 22/12: no update 12/01: Joe has some defects to fix before making available on gridforge. 19/01: There is a difficult problem to solve before Joe make the style sheet public 26/01: Working on problems 02/02: no progress 09/02: As it wasn't a simple as exoected this will be treated as a low priority action 23/02: Low priority | | | | |
| | 30/03: Deferring for now | | | | |
| 200 | Establish recommended practices for pushing changes to GitHub (Mike) 29/1: Mike will talk to Tresys who have used Git a lot. 5/2: Mike to talk to Tresys this week, Tim has sent some links. 12/2: Information sent by Mike, Steve to review 2/12: No further progress 14/1: Deferring until needed | | | | |
| 233 | Public comment: Formats with bit order reversed (Mike) 1/10: http://redmine.ogf.org/boards/15/topics/43. Mike to provide words for potential new property for review. 8/10: Words sent by Mike generated considerable discussion. Mike will update the words to make the subject more consumable, and move the bulk of the discussion to a new main section at the end of the spec (suggest between existing sections 24 & 25). 22/10: Mike wants to have a working implementation before closing on this, so marking the public comment as deferred. 31/10: Deferring for now | | | | |
| 241 | Public comment: Bi-di properties placement in precedence section (All) 7/11: This looks deliberate but the asymmetry between parsing and unparsing is unclear. Really needs Daffodil or IBM DFDL to implement these properties, which has not happened yet. Deferring this action. | | | | |

Work items:

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|-----|---|-------|------------|---------|--|--|
| No | Item | Owner | Target | Status | | |
| 045 | Resolve public comments and incorporate into spec | All | 2013-10-22 | Pending | | |