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Meeting about Meetings\OGF

ProjectDFDL 1.0Meeting Date23-Apr-13 (Tues)Meeting Time15:00 - 16:00

Created by Steve Hanson on 09-Mar-11 Last Modified by Steve Hanson on 07-May-13

OGF DFDL Working Group Call , 23 April 2013

Agenda

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

1. Daffodil Open Source Project

Status update.

2. Multiple asserts on same component

What happens when one of the asserts evaluates to false? Does the parser evaluate the others?

3. Placement of dfdl :inputValueCalc elements

Spec says that dfdl:inputValueCalc is not allowed on arrays or optional elements or on global elements. What does it mean it the property appears on an element that is the root of a choice branch?

4. Round or truncate fractional seconds

Spec says that excess fractional seconds are rounded but ICU says they are truncated.

5. DFDL occursCount properties on a global element

Spec says to give a warning but there are dangers as the properties get used for real by an element reference. Should this be a schema definition error? Should the scoping rules be different for such properties?

6. Clarify errata 2.25.

Says " When property textNumberPadCharacter is '0' which it commonly is, a value of say '00000' will get trimmed to the empty string, whereas the intent is to trim to '0'. Add a new rule that says the last remaining digit is never trimmed for text numbers regardless of its value." Does this rule apply just when pad char is '0' or when any digit or when any other value? Does it apply when the pad char is a DFDL entity such as '%#x30;'?

7. Review of open comments in latest DFDL spec draft

See action 140.

8. AOB.

Minutes

IBM TeamRoo

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 Mike Beckerle Tim Kimber

Apologies Suman Kalia

Minutes

1. Daffodil Open Source Project

MITRE are using both Daffodil and IBM DFDL. Due to the currently unsupported features of each implementation, it is easy to create a DFDL schema that can not be used by both. This will improve over time.

2. Multiple asserts on same component

Agreed that once the resolved set of asserts assembled for a component and executed as per errata 3.23, then any assert failure means that no other asserts are executed. **Errata 3.23** will be updated.

3. Placement of dfdl :inputValueCalc elements

Agreed that dfdl:inputValueCalc is not allowed on an element that is the root of a choice branch. **Errata taken**.

4. Round or truncate fractional seconds

Agreed that spec should change to say that excess fractional seconds are truncated like ICU. Errata taken.

5. DFDL occurs properties on a global element

Agreed that warning is wrong, and that to save having special scoping rules the DFDL occurs properties should behave like other properties, and so get picked up from a global element in the usual way. IBM DFDL gives an error if occurs properties found on a global element so this must change. Steve will make the change to IBM DFDL and see if any unforeseen issues arise. The problem of statically validating global elements that are not document roots was discussed. IBM DFDL validates that global elements are complete, Daffodil has an option to do this. IBM DFDL to consider such an option. New **action 210** raised.

6. Clarify errata 2.25.

Agreed that "When property textNumberPadCharacter is '0' which it commonly is, a value of say '00000' will get trimmed to the empty string, whereas the intent is to trim to '0'. Add a new rule that says the last remaining digit is never trimmed for text numbers regardless of its value ." was only intended to apply to the '0' padding character case. Noted that use of DFDL Character Entity that maps to '0' is also covered, but not use of DFDL Byte Value Entity. **Errata 2.25** will be updated.

7. Review of open comments in latest DFDL spec draft

Started to review section 9.3.1 but ran out of time. Continue on next call.

Meeting closed 16:30 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 Docume	ents			
Subje	ct	Document Type	Created	Modified

Next action: 211

Actions raised at this meeting

No	Action
	Ensure no implications to allowing occurs properties on global elements (Steve)
	23/4: Steve will change IBM DFDL to allow this and see if any unforeseen issues arise.
	IBM DFDL to consider an option to validate that global elements are complete, instead of
	always doing so, to match Daffodil.

Current Actions:

No	Action
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 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.

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	 15/06: This is on hold until Steve clears up spec issues and other workload. Steph has looked at the later lessons, and noted that they are more direct compared to the more wordy earlier lessons. 28/06: On hold.
	 29/11: Tim offered to take a look at the next outstanding tutorials. Steve / Tim to discuss 6/12: No progress
	 10/01: No progress, offer from Mike to help. First step is to make any corrections due to errata. 17/01: No progress 24/01: No update
	31/01: Daffodil project team will be working their way through the existing tutorials and reviewing
	14/02: Daffodil team to start reviewing tutorials hopefully this Friday . 21/02: Moved to this coming Friday 28/02: No update
	13/03: No progress 21/03: No progress from Daffodil team. IBMers are starting to use the tutorial and will feedback any comments.
	28/03: No change 05/04: Steve will send Alan's two draft lessons on binary & text data to Mike to complete. 17/04: No progress 8/5: No update
	 4/9: No progress: 11/9: IBM DFDL infocenter will start to reference these directly before the end of the year, so they need updating soon. 18/9: Noted that several requests have been received asking for chapters 7 to 17 as implied by chapter 1. At minimum chapter 1 needs updating to make it clear what exists today. 28/9: Steve has updated and re-issued chapters 1 to 3.
	 12/2: No further progress 19/2: Noted that tutorials need updating to reflect updated spec when it is issued. 26/2: MITRE are using DFDL heavily now and suggesting ideas for tutorials.
	23/4: No further progress
140	Spec issue : Parsing : 'missing' v 'empty', role of initiators , default values (All)
	01/06: See minutes. 08/06: Still under discussion. Tim has sent Mike a selection of data formats to guide the
	discussion. 15/06: Not discussed - an extra call has been scheduled to go through this.
	28/06: A series of extra calls are being held between Mike, Steve, Tim and Steph.
	05/07: Next extra call is Wed 6th July - Steve to send invite
	12/07: Two more calls held. Next call is Wed 13th July. 19/07: More calls held, next call is Fri 22nd July.
	26/07: More calls held, good progress
	16/08: Steve will set up next call for when Tim has returned from holiday 23/08: Two more calls scheduled for this week, remaining issues: separator suppression, empty
	strings, sparse arrays (see action 136) 30/08: Call held earlier today. Still remaining - separator suppression (matrix); sparse arrays;
	empty strings; empty value delimiter policy. Steve to summarise where we have got so far
	before remaining items are tackled. 20/09: Steve has summarised where we are with action 140, which Tim and Mike have
	reviewed. 2 hours call planned for Thursday. 27/09: Calls held, progressing the separator suppression behaviour

emptyValueDelimiterPolicy behaviour 18/10: All issues now in a single document, call held earlier today. Next call Thursday. 1/11: Extra calls still ongoing 8/11: Extra calls still going, when action 140 document complete will send to Steph for review 15/11: Mike is verifying the action 140 conclusions by writing an algorithm in SCALA which can be ultimately be used in Daffodil 22/11: Call to be held next week 29/11: Next call 30/11 6/12: Next call 7/12 13/12: Had call earlier today, making good progress. Next call first week of Jan. 10/01: Next call to be scheduled for Wed or Fri 17/01: No call last week, call tomorrow 24/01: Two calls held, next call Wed, looking at separator suppression 31/01: Separator suppression discussions ongoing, proposal to rename policy and enums. Call later this week. 14/02: Now looking at separator suppression and unparsing. Next call on Friday 21/02: Separator suppression on parsing/unparsing matrix agreed. 28/02: Two more calls this week 13/03: Call tomorrow 21/03: Two more calls held 28/03: Hopefully all issues now addressed. Steve to start folding in action 140 document comments into the body of the document. 05/04: Still with Steve. Noted that action 140 will not be in the next spec rev, likely the one after. 17/04: No further progress 8/5: Steve has started rewriting the action 140 document 23/5: Steve continuing the work on the action 140 document. Empty/missing/defaults and Arrays have been rewritten. Separators not started. Please review. 12/6: Steve will resend the latest action 140 document for review. Note use of 'missing representation' to describe zero length input data with same semantic as missing altogether. 19/6: Latest action 140 resent. Separate call on Thursday this week. 26/6: Call held, revisions need to be made before action 140 can be circulated more widely. Next call will be Tues 3rd July. 3/7: Steve not found time to update action 140 doc, call postponed to 10th July 10/7: Call held, document still being refined. Spin off action 179 to sort out use of term 'representation' in spec and grammar. 17/7: No progress on core action 140. 25/7: No progress - Steve will aim to finish refinement before Aug 16 31/7: No progress 7/8: No progress 14/8: Steve has started to create v16 of the action 140 document and will mail it to Mike & Tim this week 4/9: v16 mailed to Mike & Tim - some issues noted in the email - Steve will set up a separate call 11/9: Separate call held. Re-examining the role of minOccurs for occursCountKind 'parsed', 'expression', 'stopValue'. For these occursCountKinds, where the occurrences are extracted without reference to minOccurs, it seems more natural that a minOccurs violation is not a processing error but instead it is just a validation error. Need to evaluate the knock-on effect of this proposal - it potentially affects points of uncertainty, default values, use of terms required & optional, and separator suppression. 18/9: Tim and Steve have worked through the proposal, it looks good in principle. Steve to update action 140 document and see if anything problematic surfaces. Note that current definitions of 'required' and 'optional' retained - it's just that now a required element missing from the infoset (after defaulting applied) is not necessarily a processing error (that now depends on occursCountKind). Please review for next call.

4/10: More calls held, progressing separator suppression, sparse arrays (see action 136) and

28/9: Tim & Mike to review Steve's updated document. Other things to do before it can be incorporated into the spec:

- SMH1 comment: What do dfdl:xxxlength() functions return when rep is absent? Error or 0?

- English words for separator suppression tables

- Decide the fate of Appendix A? Perhaps replaced by tutorials?

2/10: Key to explaining all this when it is rolled into the spec is defining the different reps plus 'missing' plus concepts of 'well-formed' and 'badly-formed' in the glossary. Clearly sections 13.15, 14 and 16 are affected in a major way, but it is likely that it affects several other sections such as 9.

Discussed the dfdl:xxxLength() functions and what they should return when there is nothing in the infoset. This led to a more general discussion of whether a failure to find a path should be treated as a schema definition error or a processing error. New **action 188** raised.

16/10: Steve to take one more pass through the document in the the light of the above, and also try to put into words the separator suppression tables. In order to do this need action 187 needs resolving.

23/10: Action 187 resolved far enough to allow Steve to proceed with document pass. 30/10: Still with Steve.

5/11: Still with Steve.

12/11: Steve has updated action 140 to v018 to reflect action 187 terminology, which has made it clearer. Next step is to create readable descriptions of the separator suppression tables . 20/11: No further progress. Consider making separator suppression stuff a separate action? 27/11: No progress

4/12: Steve has started work on the separator suppression policy descriptions. Key to this is a definition of 'potentially trailing' as this is one of the criteria that allows separator suppression to take place. Steve will circulate a draft definition as it is not as obvious as it appears. Also it is important that the WG re-review action 140 v018 as Steve believes there are inconsistencies in there.

A call may be scheduled later in the week if needed.

11/12. Steve sent out a v019 of the action 140 document which corrected some mistakes from earlier updates, added comments for issues that needed resolving, and contained a rewritten section 4 on separator suppression. An extra call was held on 7/12 which addressed the comments and reviewed section 4. Actions arising were:

- Mike to reword some of the section 4 text to make clear the distinction between a potentially trailing element and actually trailing occurrences of an element.

- Steve to correct a mistake in the separator suppression tables where column headings got swapped and resend the spreadsheet

- Tim to create some introductory words to explain the motivation for the separator suppression property

8/1: v020 and v021 of the action 140 document have been circulated. Steve has spotted a possible error in always equating 'empty' representation to 'known to exist', after reading Mike's choice example email, so we need to revisit that.

Tim has created words for separator suppression introduction. Review and comment please. 15/1: Tim's separator suppression intro approved.

Discussed Mike's example of a choice with a complex element branch that evaluated to empty representation.

This is an instance of the behaviour of a required complex element when it has empty representation.

Action 140 currently says that defaults are not applied but does not say whether this is a processing error or you get a child-less element in the infoset. Steve had expected the former, but is not happy that this is appropriate for all circumstances.

Steve will think about all the instances of empty representation, taking into account initiator/terminator, lengthKind, emptyValueDelimiterPolicy, etc.

22/1: Reviewed the action 140 behaviour for all use cases of <u>empty representation</u>. Essentially there are three main cases, 1) simple element (non-string), 2) simple element (string) and 3) complex element, each of which has sub-cases for optional occurrence versus required occurrence, and there is also EVDP to take into account. Reached a proposal where all were

	that nothing is added to the infoset that causes a processing (or validation) error. 12/2: Mike has reviewed and his comments were discussed. Steve will make another revision. 19/2: Steve has sent out v023 for review. Two comments remaining. Steve to address in a new revision. Mike to start folding v023 into the spec once action 197 complete. 26/2: Steve has addressed the final two comments and sent out v024. Mike has started to fold the content into the spec, initially as Word comments. Steve will create errata v12 to contain <u>only</u> the action 140 information, in the form of a link to the action 140 document which will be tidied up and placed on Redmine as an errata addendum. Action 140 content will be folded into spec and reviewed before any of the post-v11 batch of errata. 5/3: Errata v12 created. Errata Addendum 1 created from Action 140 document. Both posted on Redmine. Next step is to complete the folding of these errata into the spec. 12/3: No further progress 19/3: Steve has folded in most of the errata for arrays (section 16 of the spec). Reviewed by Mike and Tim. Next step is for Mike to fold in the errata for separator suppression (section 14). 26/3: Mike has folded in most of the remaining errata for action 140 and sent to Steve to review.
172	 5/4: Steve has reviewed and updated the spec. Several open comments remain to be resolved, started to go through these on the call, got as far as the end of section 9.3.1. New action 209 raised to consider one specific comment. 23/4: Will continue the review on the next WG call. Clarify how a DFDL string literal is matched against the data stream (Tim)
	23/5: Non-trivial algorithm, worth stating it in the spec.
	 25/7: No progress. 31/7: Tim has been making notes but nothing written up formally. Will include treatment of %WSP*; 23/4: No further progress
199	 25/7: No progress. 31/7: Tim has been making notes but nothing written up formally. Will include treatment of %WSP*; 23/4: No further progress Review the unordered sequence rewrite -into-a-repeating-choice section (Tim) 16/1: This needs to be worded in a way that allows implementations to check for occurs violations in a manner which is consistent with the description of array processing in action 140 document, and is not overly constraining on implementers. 22/1: Tim will propose revised words as he proceeds with the IBM implementation 26/2: No progress 5/3. Tim has rewritten this and sent for review. Mike is happy with content, Steve to review. 12/3: Reviewed an updated document from Tim that includes empty representation discussion. Tim to update further.
199 200	 25/7: No progress. 31/7: Tim has been making notes but nothing written up formally. Will include treatment of %WSP*; 23/4: No further progress Review the unordered sequence rewrite -into-a-repeating-choice section (Tim) 16/1: This needs to be worded in a way that allows implementations to check for occurs violations in a manner which is consistent with the description of array processing in action 140 document, and is not overly constraining on implementers. 22/1: Tim will propose revised words as he proceeds with the IBM implementation 26/2: No progress 5/3. Tim has rewritten this and sent for review. Mike is happy with content, Steve to review. 12/3: Reviewed an updated document from Tim that includes empty representation discussion.

1	give 2013-02-04.			
	19/2: Re-opened. More info from ICU. There is more leniency than published when lax, and			
	there is also some leniency when strict. ICU will update the ticket with more details within 2			
	weeks.			
	26/2: No update from ICU yet			
	5/3: ICU working on this now			
	12/3: Seems like it is a bigger job than ICU anticipated! They are still working on it.			
	Steve has noted that IBM DFDL accepts any number of fractional seconds for 'SSS', not sure			
	whether this is ICU leniency or mis-interpretation of the spec.			
	19/3: No reply so far			
	26/3: Reply received which describes the scope of leniency and what lenient behaviour is			
	included in strict mode. Some of the information requires clarification so Steve has asked some			
	further questions in the ticket.			
	5/4: No further response yet.			
	23/4: Further reply received from ICU. Steve will assemble into a coherent form and mail to the			
	WG. IBM have proposed to ICU that they implement a 'super strict' mode where there is no			
	leniency at all. DFDL could then expose this as a new enum 'exact' (say) when it appears in an			
	ICU release. Same for text numbers.			
205	Establish XML white space rules for DFDL annotations (Suman)			
	19/2: Steve will experiment with IBM DFDL and see what XML rules are being applied by			
	default, and the effect of xml:space.			
	26/2: Using IBM DFDL, dfdl:assert has external white space (ie, outside the { }) stripped, and			
	internal white space (ie, inside the { }) normalised to a single space, for both attribute and			
	element renderings. Use of xml:space 'preserve' made no difference. Also looked at DFDL			
	properties such as dfdl:length ' 10 ' and dfdl:initiator ' abc def ' and they showed the same			
	behaviour. However enum properties like dfdl:lengthKind ' explicit ' give a schema definition			
	error. Is this deliberate? Action passed to Suman to confirm the intended behaviour.			
	5/3: IBM DFDL uses JAXP which handles white space according to type. In Suman's XSDs for			
	DFDL enums are modelled as xs:string (spaces preserved), but DFDL string literals are modelled as xs:token (spaces trimmed and collapsed). This explains the observed behavior			
	modelled as xs:token (spaces trimmed and collapsed). This explains the observed behavior. Steve will update section 6.3 to make clear the behaviour expected for the different property			
	types and send for review.			
	12/3: No progress			
	19/3: Further investigation: DFDL integer properties get leading/trailing spaces stripped. DFDL			
	string will collapse all white space, not just leading/trailing. For DFDL expressions DFDL should			
	use xs:string, but trim off leading and trailing white space, which it is safe to do. Need to see			
	how pattern facets are handled and base DFDL regular expression on that.			
	26/3: The XSD schema-for-schemas has pattern facet as xs:string, which implies DFDL should			
	do same for regexs. Also noted that the whirespace facet (an enum) is xs:NMTOKEN which			
	derives from xs:token. Does that change what we had decided about DFDL enums? Steve to			
	investigate further.			
	23/4: Still with Steve			
208	Create errata v 13 and incorporate into DFDL spec (Steve, Mike)			
	26/3: Mike to review Steve's errata v13 document.			
	5/4: Looks ok, Steve will publish on redmine.			
	23/4: Published v13 of the errata document.			
209	Parsing Algorithm - establishing representation (Mike)			
	5/4: Revise the summary words at the end of section 9.3.1 to lead on correctly from the first			
	step of establishing content length zero. Need to handle the nil logical value case for xs:string &			
	xs:hexBinary as there is a clash with the empty case when nil logical value is %ES;. Maybe we			
	don't allow this combination?			
	23/4: Mike has reorganised section 9.3.1. Agreed that when nilKind is 'logicalValue', no DFDL			
	entity syntax is supported in the List of Logical Values. That sidesteps the problem with %ES;.			
	Errata taken.			

Closed actions

No	Action

Deferred actions

No	Action
129	Press release to publicise DFDL (Steve) Steve is pulling together a press release at IBM. Want to include as many contributors and interested parties as possible.NCSA are keen to be included. Also likely that US National Archive will want to be included. Mike has indicated OCO are too. 17/11: no progress
	 08/12: Still no response from IBM press office 15/12: no progress
	09/03: No progress
	30/03: Making this action deferred until IBM is in a position to say something more concrete about any implementation.
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 in the schema)22/12: no update12/01: 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 public26/01: Working on problems02/02: no progress09/02: As it wasn't a simple as exoected this will be treated as a low priority action23/02: Low priority30/03: Deferring for now

Work items:

No	Item	Owner	Target	Status
043	Track errata list for 1.0 of the spec.	Steve	N/A	Draft 012 on Redmine.
044	Incorporate errata list into DFDL spec.	Steve/Mike	N/A	Draft merged document.