

IEEE SCC20 Diagnostic and Maintenance Control Subcommittee
05-B Meeting
Menzies Waterfront Hotel, Bath, England (UK)
April 26-28, 2005

Meeting Minutes

Approved Agenda

Tuesday, April 26, 2005

- Call to Order
- Approval of Agenda
- Reports
 - Chair's Report
 - Secretary's Report
 - Liaison Reports (CS, I&M/AES, OSA-CBM)
- AI-ESTATE Amendment
 - XML Schema Review
 - XML Service Review
 - Extensions
 - Conformance
 - Review Pre-Final Draft

Wednesday, April 27, 2005

- Test Results P1636.1 Draft
 - Discuss Use Cases
 - Approve Requirements Document
 - Information Model
 - Role of Common
 - Prepare for Ballot as Trial Use Standard
- SIMICA Discussions
- SIMICA Architecture and Document Structure/Content
 - "Closed Loop Diagnostics" Discussion
 - Data Element/Data Source Review
 - Review False Alarm Annex
 - Work on Information Model
 - Review Test
 - 1546 DTIF - Stabilization tbd

Thursday, April 28, 2005

- Final Discussions on All Topics
 - Review Old Action Items
 - Review New Action Items
 - Set Time and Location of 05-C Meeting
 - Set Agenda for 05-C Meeting
 - Adjourn

Daily Meeting Notes

Day 1: Tuesday, 26 April 2005

Attendees are shown below.

Co-Chair Mark Kaufman called the meeting to order at 9:30 am.

Immediately following the call to order, those present introduced themselves and explained their roles within the DMC.

1.1 Agenda Review

The 05B agenda was reviewed and accepted as modified.

1.2 Chair's Report

P1598 request to withdraw was accepted 20 March 2005

1522 was published 23 March 2005

PAR P1636.1 was approved 04 March 2005 until 31 December 2009

P1232 AI ESTATE dual logoed (IEC/IEEE) IEC 62243 Ed 1.0

Called for Patents

1.3 Secretary's Report

The action items and open issues were reviewed. The minutes were reviewed and approved.

1.4 Liaison Reports

Mark Kaufman (I&M Liason) discussed IEEE is establishing a Systems council (see SCC20 meeting minutes).

1.5 AI-ESTATE Amendment

John Ralph gave short presentation of his attempt to convert AI ESTATE models to XML Schemas. Reference log item for discussion.

Log Item# 397

As part of this discussion the group discovered an omission in the way “optional set” elements are treated in the XML. John R. subsequently found and repaired the known occurrences. (Reference Action Items **05B-03 & 05B-04** which are closed by this entry)

1.6 Services Review

Darryl Busch gave short presentation on three areas of concern regarding 1232:

1. High Level Services – would like to return higher-level objects, such as mixed type arrays. One example might be an array of diagnoses that correlates faults, failure rates, costs, and repair actions:
 - Examples of possible definitions of “diagnosis”

<d>				
Fault	Probability	C	Repair Action	
f1	0.35	.32	RR7	
f2	0.20	.47	RR9	
f3+f4	0.01	1.24	RR14, 15	
</d>				

An at large discussion was held regarding the services. It was generally agreed that TBD new higher order services were needed to support the needs of the users.

The “black box” approach to reasoner interface is indeed supported by current spec, but unclear when specifying which services conform to, which are required and which optional (in 6.2) as stated in 4.6. It was further agreed that harmonization between 1232 and other DM&C specifications is required, but it is also required with other ATML specifications. (See Kaufman action item #05B-01 for coordination with Steering).

XML implementation of AI-ESTATE services will likely be accomplished by including a (probably) normative annex containing transaction schemas defining the information content for each service. D. Busch suggested that Express higher-level objects be created as an interim step. The idea of binding to protocols was also discussed, including the possibility of publishing an Informative annex showing one specific example thereof.

2. Conformance (Black Box Reasoner) – Darryl and Tom want to be able to plug in a reasoner that is conformant at the service level, not at the model level. It was agreed that the requirements for conformance section needs to be clarified. Daryl is uncomfortable with, and Tim W. agreed that, application executive ability to manipulate all DCM elements directly. Also the specification declares that when claiming conformance to an enhance model exchange the specific elements shall be listed, however it does not state that if optional elements do exist in the model that interfaces must be provided to them.
3. Harmonization
 - Need to harmonize information elements that are common between ATML schemas (1232, P1636.1, 1671.x)

1.7 XML Service Review

Reference Action Items: 05B-02, 05B-03 & 05B-04

Michelle (LM) provided a Power Point presented on their example WSDL (Web Service Description Language) implementation of an AI ESTATE model service (Log Item# 399).

The WSDL file AIEstateDefinitions.WSDL file (Log Item# 400) defines the I/O.

The WSDL file AIEstateService.wsdl (Log Item# 401) is a specific application that imports the AIEstateDefinitions.
WSDL file (Log Item#) for I/O definitions.

This approach appears to be similar to Tony Alwardt's (Boeing) example described in his presentation intited "Xml Based Transactions "(Log Item# 404). A lengthy discussion ensued and it was concluded that using the WSDL standard to specify I/O would be preferred over Tony's unique code approach. Tim W. pointed out that we are already tied to the Express and XML standards, do we want to be dependent on WDL as well?. "Document literal" WSDL with schemas (for return message validation) is no more or less of a dependency than one on Express or XML.

No protocol bindings will be specified

The group seems to be at a consensus regarding an approach to specification of XML services. We will define a WSDL "document/literal wrapped" set of services (see Michelle Harris presentation from this meeting – Log 399) that correspond to the existing (and any newly defined) EXPRESS services in a one to one fashion. Each service would also have a corresponding schema (thus permitting validation of user docs). These services should be included in an informative annex so as not to preclude any other bindings to the existing EXPRESS.

This being said, Tony Alwardt was not present to rebut any arguments against the transaction approachj, An action item wzs established to reprise the discussion between meetings with Tony and DMC members.

1.8 Extensions

Consensus was achieved regarding the unified approach to EXPRESS and XML extensions within DMC. The XML approach was further presented to the TII community and accepted as the base approach for all of the ATML XML schemas. The approach begins with the conclusion of the email discussion between group members that concluded in January:

"I'll buy this. (TimD.)

TimW: I think that we can simply draw the boundaries like this:

if data belongs in the specified portions of the spec, then it *must* go there. if the spec does not provide for a representation of the information to be communicated (an edge case), then the extension mechanism will be used to create a "subschema" to represent the needed information elements. Using the extension mechanism as correctly specified will allow the consumers of the exchange file to recognize that an extension is being used and they can discard or do what they wish with the "extended information" - but, again, the rest of the exchange file must contain valid data to be considered conformant, i.e, data that can be processed correctly within the expected semantic context of the schema definition.

The only contract required is between the intended producers/consumers of the extended information regarding the *meaning* of that information. But again, *any* spec-conformant

consumer can consume the extended exchange file without error, discard or otherwise sidestep the extended data, and use the non-extended portions of the data as it is intended - again without error or loss of functionality. “

To continue

1. Extend subschemas must be accompanied by documentation sufficient to explain the need for the extension as well as the underlying semantics and relationship(s) to the base schema.
2. To clarify – attributes may not be added as extensions – EXTEND schemas are added by creating a unique EXTEND schema with its own namespace. This EXTEND schema may utilize other existing schemas by inclusion (such as ATML Common).
3. A difference in implementation between the EXPRESS method and the XML method has to do with XML document validation. New elements with EXTEND prefixes would cause documents not to validate with no reliable indication of what caused failure. The XML method is to provide EXTENSION elements throughout the schema at all elements (no base data types). A user who wishes to extend a schema would find the EXTENSION element and create an extension subschema at that point. Although ugly, this implies that extension elements are placed “everywhere” in the XML Schemas. Other rules as described above would then apply.

Tim W will write up a formal description of the approach for review and approval by both DMC and TII membership.

1.9 Review Pre-Final Draft – Tabled (not sure just what Pat provided)

Day 2: Wednesday, April 27, 2005

2.1 Test Results P1636.1 Draft (John Ralph working group chair)

2.1.1 Discuss Use Cases (Test Results)

Test Group – discussion of Test Group semantics presented by Ion Neag – see Log Item 405. The discussion revolved around Test Order, Group and Sequence.

Discussed John R’s proposal (log item 395) Additionally, some elements of test can/should be elevated up to test group (sort of a corollary to his proposal # 3: “Modify paragraph 4.4.7 to add an optional element named TestGroupLimits. This element will have a required, unbounded child element named Limits which is of type Common:Limit. In use, this element will contain a limit or set of limits which is to be applied to all tests within a test group.”

John Ralph will convene a Test Results Working Group to address the elements of his proposal and create a new draft shortly following this meeting.

Darryl Busch made the point that the information in Test Results provides an inadequate historical document of record for “what we would like” to see in TPS data collection and

storage. Tom Gaudette replied that Test Results is initially supposed to satisfy the base use case that includes legacy approaches – the data in Test Results is likely “as good as it gets”: in current ATS approaches.

This being said, the 1232 DCM was pointed out as an example of the kind of data that S/b collected during a test and diagnostic session. The DCM could be used as a starting point for developing the “next” schema after Test Results for access and archive to more ideal maintenance information.

2.1.2 Approve P1636.1 Requirements Document

Reviewed and update SIMICA P1636.1 document, see log item # 394. A motion was made by Keith Beard and seconded by Mukund Modi to accept this document. It was unanimously accepted and forwarded to the Administration committee for review.

2.2 SIMICA Discussions

SIMICA Data Collection and Categorization

Mukund and Joe provided a short introduction and presented their work to date (just completing Spiral 2) Info derived from :

- “owner data needs”
- NALCOMIS/OMS
- MAF Forms (Army Navy/USAF)

They will integrate / verify ARGCS data elements. (Action Item # 05B-09). The agreed to move forward plan is

Joe and Mukund are in Spiral 2 of data collection/categorization. At the conclusion of Spiral 3 they should have all data collected to date categorized into time line phases and redundant data elements coalesced into single data entities. At this point the committee can determine which data is of most/least interest and begin partitioning into further schemas.

In the meantime, enough MAF data has been collected that a MAF schema can be started. Tim W. took an action (Action Item 05B-10) to begin a model of this with support from Joe and Mukund. It is postulated that this may prove to be the basis for a new P1636.2 document to support Closed Loop Reasoning.

Day 3: Thursday, April 27, 2005

3.1 Administrivia

The agenda, action items, and roadmap were reviewed and updated.

3.2 1546 DTIF - Stabilization

Tim W. made a motion to Stabilize the 1546 DTIF user guide per Mukund’s recommendation, seconded by Bill G., motion passed unanimously.

Les Orledge provided description of IEEE’s and ANSI’s meaning / definition of “Stabilization” of a document and what is required to do so (reference IEEE policy clause

9.3). Reference SSC20 steering committee minutes and log item 05-3.

3.3 Mark K will send a message to the SCC20 server requesting participants that are interested in harmonizing the common information elements across ATML specifications. A DL will be created that reflects this interest group and will form the constituency for the harmonization discussion. (This as opposed to the usual method of discussion threads on Groove)

3.4 Next meeting tentatively set for July 12-14 in Boston (Mathworks) – next SCC20 Thursday afternoon through all day Saturday following Autotestcon in Orlando.

3.5 *Adjournment*

The meeting adjourned at 11:34am.

Action Item Summary

Old Action Items

Action Item 03C-2: Bill Gerstein will update his presentation on the flow of information through the diagnostic process and the role of diagnostic/diagnosability standards in that process (see 2.1 from the 03C minutes).

Status: OPEN

Action Item 04A-3: Eric Gould will explore issues of representing constraints in XML Schema and will provide a presentation on findings with a recommendation at the 04-B meeting. This review will include a closer look at the advantages and disadvantages of Part 28 for this task.

Status: OPEN, Mark to contact Eric & if needed Identify person for reassignment.

Action Item 04A-4: Mark Kaufman will put together a formal presentation on the missile diagnostic maturation use case that he presented informally at the 04-A meeting.

Status: OPEN

Action Item 04B-4: Mike Bodkin to enumerate data elements to be collected relative to observations/symptoms and maintenance metrics. See 1.8 of 04-B minutes. Due to Tim Wilmering: 5/17/04

Status: OPEN, Reassigned to Michelle Harris

Action 04C-1: Tim Davis assigned action to extract data elements from NALCOMIS to determine overlap with the SIMICA data dictionary. (Provide to Tim Wilmering)

Status: Closed OBE (ref. 04C-3), reassigned to Mukund Modi. Initial drafts in. AI ongoing.

Action 04C-2: T. Wilmering to get MOQS/NALDA data dictionary or glossary.

Status: OPEN

Action 04C-3: Joe Stanco assigned to work with Tim Wilmering in compiling SIMICA data dictionary. This needs to be completed by November 1, 2004.

Status: CLOSED OBE (Action Item 05B-17)

Action 04C-4: Mike Seavey to obtain G-ARMY data dictionary. (Provide to Tim Wilmering)

Status: OPEN

Action 04D-3: Mark Kaufman will provide a copy of the recirculation version of P1522 to Pat Kalgren and John Sheppard. John will make sure that version is posted to the private area of the web site.

Status: Closed (Published)

Action 04D-4: Pat Kalgren to add language concerning the distinction between tests, test groups, and test sequences in the amendment. Draft language can be found in 1.6.1 in the 04-D minutes.

Status: CLOSED (Revisit due to new definitions of these terms)

Action 04D-5: John Sheppard will contact QSI about them providing a prototype implementation of either the DIM or EDIM (i.e., an instance document walking through a real but small example). This example should be in XML using the XML schema generated by the committee.

Status: OPEN

Action 05A-1: Pat Kalgren to investigate whether amendments must include a clause on requirements (cf. P1232a/D0.1/C1.3).

Status: OPEN

Action 05A-2: John Ralph or Tim Davis will investigate issue of addressing the extensibility mechanism described in Clause 4.4 of IEEE Std 1232-2002.

Status: CLOSED (reference Action Item 05B-12)

Action 05A-3: Tim Davis and Pat Kalgren to develop a cross-reference between EXPRESS entities and XML entities.

Status: OPEN (will be closed by Log item tbd)

Action 05A-4: Tim Davis and John Ralph to provide a description on how the XML schemata and EXPRESS models relate, including a brief description (or pointer) of XML (Annex B).

Status: CLOSED (Log Item 397)

Action 05A-5: Tim Wilmering to provide words to accompany the cross-reference from 05A-3 describing how the XML exchange format is built on top of EXPRESS semantic models.

Status: OPEN

Action 05A-6: Subject to results of 05A-2, John Ralph to provide a description of the extension mechanism in ATML. John Sheppard to “harmonize” this description with the extension mechanism in AI-ESTATE.

Status: CLOSED OBE (reference Action Item 05B-12)

Action 05A-7: Pat Kalgren (with John Sheppard) to prepare a proposal addressing the following issues:

- The failure rate entity in the CEM lacks any way to record a value for failure rate. Three options have been suggested: 1) restore the construct from 1232.1-1997, 2) create an attribute of failure rate tied to non-time-cost, or 3) create an attribute of failure rate tied to frequency.
- Change the action_count attribute of frequency to event_count.
- Although failure rate is an attribute of diagnosis (and therefore fault and failure), and we can get to repair item through fault and failure (via func), there is no explicit relationship between a repair item's failure rate (which is not specifiable in the model) and a diagnosis's failure rate (which is). A repair item's failure rate should be an aggregate of the failure rates of its constituent faults XOR failures.

Status: OPEN

Action 05A-8: Tim Wilmering and John Sheppard to expand the P1636 conceptual model to better represent a candidate information architecture for the P1636 base standard.

Status: CLOSED (Log Item tbd see TIM)

Action Item 05A-9: Mukund Modi and Joe Stanco to complete cut at their data item list to be provided to the data owners for review by March 15.

Status: CLOSED OBE (Action Item 05B-17)

Action Item 05A-10: Data owners to review like-item groupings for correctness following receipt from Mukund Modi and Joe Stanco by April 1.

Status: CLOSED OBE (Action Item 05B-17)

Action Item 05A-11: Mukund Modi and Joe Stanco to make any necessary modifications based on review conducted in 05A-10 and circulate to committee by April 15.

Status: CLOSED OBE (Action Item 05B-17)

Action Item 05A-12: Keith Beard to meet with ARGCS data people to determine data requirements for “closed-loop diagnostics” and forward to Tim Wilmering for dissemination.

Status: OPEN

Action Item 05A-13: Keith Beard to obtain maturation data requirements for various Army programs and forward to Tim Wilmering for dissemination.

Status: OPEN

Action Item 05A-14: Michelle Harris to obtain data requirements for JSF “closed-loop diagnostics” stuff and forward to Tim Wilmering for dissemination.

Status: OPEN

Action Item 05A-15: Michelle Harris and Oscar Fandino to prototype WSDL service implementation to evaluate performance.

Status: OPEN

Action Item 05A-16: Tim Wilmering and John Ralph to draft requirements document for P1636.1.

Status: CLOSED (Log item 394)

New Action Items

Action Item 05B-01: Mark Kaufman to bring up to / discuss with SCC20 the need for SCC20 level requirements coordinator.

Status: CLOSED

Action Item 05B-02: John Ralph, replace ID/IDRef with key and keyref in all schemas

Status: OPEN

Action Item 05B-03: John Ralph, investigate use of collector elements for optional required sets in all schemas

Status: OPEN

Action Item 05B-04: John Ralph, remove “type” from complex type names (pending results from discussion) for all schemas

Status: OPEN

Action Item 05B-05: Tim W., John S. and Daryl to clean up the conformance matrix in 1232

Status: OPEN

Action Item 05B-06: Darryl to develop a proposal of higher-level services with assistance from Tim W. and John S

Status: OPEN

Action Item 05B-07: John Ralph to develop a proposal for change/update to P1636.1-D1.1

Status: CLOSED (Log Item 395)

Action Item 05B-08: Keith Beard & Scott Misha to review SIMICA data from Army prospective and provided feedback to Mukand and Joe

Status: OPEN

Action Item 05B-09: Mukund and Joe to include ARGCS data into matrix.

Status: OPEN

Action Item 05B-10: Tim W. to begin a model of MAF with support from Joe and Mukund

Status: OPEN

Action Item 05B-11: Action – John R. to modify Test Results to make the following changes:

1. Remove paragraph 4.2.1.1 and the associated key/keyref identity constraints on the TestResults element in the schema. This constraint limited an Indictment to only refer to a UUT listed as the subject of the captured TestResults instance document. This is counter to the normal result/outcome of a test, which is to indict some other UUT than the test subject.
2. Modify paragraph 4.4.7 to add an optional element named TestGroupLimits. This element will have a required, unbounded child element named Limits which is of type Common:Limit. In use, this element will contain a limit or set of limits which is to be applied to all tests within a test group. The corollary is that he will also move up other similar elements.
3. Update paragraph 4.4.7.2 to add an Extension element of type Common:Extension to the TestGroup. Make matching change to schema. This will provide enhanced extensibility and has been requested by one implementer to meet their use case.
4. Update paragraph 4.4.8.2 (type TestResult children) to make TestData Optional vs. Required. Make matching change to schema. This change will permit creation of an instance document that contains only an Outcome, which is desirable in cases where actual result data may be classified or otherwise restricted from publication (see item 5 below).
5. Update paragraph 4.4.9.1 to add a required attribute to complex type Test. This attribute is named *classification*. This attribute will be required and will indicate the classification level of the particular test. The attribute will have enumeration values of 'UNCLASSIFIED' and 'CLASSIFIED'. This attribute can be used by ATE software to determine which elements are permitted in the instance document.

Status: OPEN

Action Item 05B-12: Tim W. to write paragraphs describing the common ATML / SCC20 approach to extensibility of XML schemas to be used in all ATML related specifications

Status: OPEN

Action Item 05B-13: Tim W. to discuss WSDL vs Transaction approaches with Tony Alwardt, coordinate with Tim D., John R., Oscar (LM) & Michelle, Tom G.

Status: OPEN

Action Item 05B-14: Darryl to review XML schema versus Express and provide input to Tim D. & John R. (reference Log Item 397 for summary of XML representation of Express)

Status: OPEN

Action Item 05B-15: Tim D. to update XML Express mapping and provide to committee for review

Status: OPEN

Action Item 05B-16: Tim W. to update test results information model

Status: OPEN

Action Item 05B-17: Mukund Modi and Joe Stanco to complete P1636 Data Collection / categorization spiral 3 by July 2005

Status: OPEN

Action Item 05B-18: Action – John Ralph will convene a Test Results Working Group to address the following issues:

- Each test will have a tag that specifies the category of test (digital, analog, power, etc) – but this attribute (currently called type) may need to be renamed. The order that test results are recorded in the file s/b the order of execution – and this should be clearly stated in the specification text. It is the responsibility of the application to ensure that this order is preserved (although this admonition need not be in the text).
- The current Test Group element definition , name, semantics, etc needs to be revisited after the Test Description group has resolved their discussions in this area.
- Amend has a use case for adding enumerations to outcome. To be discussed in a splinter working group.

Status: OPEN

Current Issues

Issue 00B-1: There are no higher order services currently defined with respect to the static models. To aid in manipulation, analysis etc., of these models higher order services may be beneficial. For example the following service has been proposed by Qualtech. `get_test_outcome_from_diagnosis(diagnosis, set of test)` Qualtech: Allows user to get the test outcomes predicted from the seeding of a particular diagnosis (fault). This corresponds to a lookup of the fault in the test-diagnosis (D-matrix) matrix. Additional Notes from 00C: The question has to be addressed as to the general applicability of the services from a standardization perspective. It would be of value to consider these services in the context of the 1522. In particular an annex to 1522 of AI-ESTATE services providing analyses and calculation of metrics might be of value. Additional Note from 05-A: It is possible some of this can be addressed as SIMICA is fleshed out. The issue of where to address this needs to be decided.

Status: OPEN Medium Priority

Issue 01C-1: Testability metrics based on maintenance philosophy, such as Fault Resolution, can provide a means of validating predictive measures. At this point, the information models used to support definition of metrics in P1522 are insufficient to

address maintenance philosophy – it is hoped that this deficiency can be addressed in the future through the creation of the SIMICA information model.

Moved to SIMICA,

Status: OPEN Medium Priority.

Issue 02A-1: Log # 335 – a draft version of the False Alarm Appendix (Annex) submittal contains several sections enumerating metrics for False Alarm and Assurance Tolerance. These metrics are to be considered for later inclusion in the standard – after we have formalized the definitions of False Alarm metrics.

Moved to SIMICA,

Status: OPEN Medium Priority

Issue 03C-1: Committee will investigate ISO STEP work in the area of using XML as an exchange format based on EXPRESS information models.

Status: OPEN High Priority

Issue 03C-2: Committee will examine STEP standards to determine if/how part identification is modeled relative to system indenture identification.

Status: OPEN Medium Priority

Issue 04A-1: Create a publicity document for dissemination on the DMC website and possible circulation that discusses the committee approach to standards for diagnostic maturation.

Status: OPEN High Priority

Issue 05A-1: Need to revisit all definitions within the information models.

Status: OPEN Medium Priority

New Issues

None at 05-B

Recent Log Items

Items Logged at 04A

#352 AI-ESTATE Semantics, XML Representation Issues, T. Wilmering

#353 Draft 0 Common Element Model XML Schema, T. Davis

#354 Why Diagnostic Maturation is Hard, T. Wilmering

#355 Diagnostic Maturation Usage Scenario, J. Sheppard

#356 Draft 0 Diagnostic Inference Model XML Schema, T. Davis

#357 Draft 0 Enhanced Diagnostic Inference Model XML Schema, T. Davis

Items Logged at 04B

#358 ATML Use Cases Presentation, M. Bodkin

#359 Use Case Representation of the Environment where ATML will be utilized, M.

Bodkin

- #360 Diagnostics and Prognostics Report, Alabama A&M University, T. Nunn and C. Pendleton
- #361 DMC Standards Roadmap, W. Gerstein
- #362 AI-ESTATE XML Schema Presentation, J. Ralph
- #363 Notes on Developing CEM XML Schema, J. Ralph
- #364 Draft 1 of Common Element Model XML Schema, J. Ralph
- #365 Draft 0.1 P1232a Amendment, DMC

Items Logged at 04C

- #366 Tony Alwardt (Boeing) Services presentation.
- #367 Draft 2 of Common Element Model XML Schema, J. Ralph
- #368 Draft 1 of Fault Tree Model XML Schema, I. Neag
- #369 Steve Cmiel SIMICA Data Element Submittal
- #370 Brit Frank SIMICA Data Element Submittal
- #371 Bill Gerstein SIMICA Data Element Submittal
- #372 Tim Wilmering SIMICA Data Element Submittal (FRACAS)
- #373 SIMICA Master Data Element List
- #374 SIMICA Combined Data Element List
- #375 1232 Bayesian Model Proposal

Items Logged at 04D

- #376 Revised CEM XML Schema
- #377 Revised DCM XML Schema
- #378 Revised DIM XML Schema
- #379 Revised EDIM XML Schema
- #380 Revised FTM XML Schema

Items Logged at 05A

- #381 CS Liaison Report (J. Sheppard) (1/13/05)
- #382 Bayes XML Schema (J. Ralph) (1/13/05)
- #383 Maintenance Process Model (J. Stanco) (1/13/05)
- #384 NAVAIR SIMICA Presentation (J. Stanco/M. Modi) (1/13/05)
- #385 NAVAIR Data Collection (J. Stanco/M. Modi) (1/13/05)
- #386 Navy/Army MAFs (J. Stanco/M. Modi) (1/13/05)
- #387 Navy O-I Process (J. Stanco/M. Modi) (1/13/05)
- #388 Navy O-I Data Flow (J. Stanco/M. Modi) (1/13/05)
- #389 Maturation Data Classes (J. Stanco/M. Modi) (1/13/05)
- #390 WSDL Presentation (O. Fandino) (1/13/05)
- #391 WSDL Example (O. Fandino) (1/13/05)
- #392 JSF Data Collection (M. Harris) (1/13/05)
- #393 Top Level P1636 Conceptual Model (J. Sheppard) (1/13/05)

Items Logged at 05B

- #394 ATML Test Results Schema Requirements.doc
- #395 P1636.1_D1.1-Proposal for change.doc

#396 P1636.1-D1.2_updated_per_proposal.doc
#397 Log397 1232 XML conversion Notes.doc
#398 IEEE_P1232Amendment_draft_0.2a.doc
#399 WSDL.ppt
#400 AIEstateDefinitions.wsdl
#401 AIEstateService.wsdl
#402 CEM4-2e.xsd
#403 RequiredContext_001.xsd
#404 Xml Transaction.ppt
#405 Test Description Test Group Hierarchy - April 2005.ppt
#406 1232 Extension Approaches.ppt
#407 Log407 IEEE_P1232Amendment_draft_0.2a.doc
#408 Log408 ExtendConsensus.doc
#409 Log409 05-B P1636 SIMICA Model HTML.zip

Draft Agenda: 05-C Meeting

Tuesday, July 12, 2005

- Call to Order
- Approval of Agenda
- Reports
 - Chair's Report
 - Secretary's Report
 - Liaison Reports (CS, I&M/AES, OSA-CBM)
- **AI-ESTATE Amendment**
 - XML Schema Review
 - XML Service Review
 - Discuss higher order services
 - Service approach recommendation
 - Review Extension paragraphs and coordinate with TII
 - Review Conformance clarifications
 - Review model corrections
 - Review Pre-Final Draft

Wednesday, July 13, 2005

- Test Results P1636.1 Draft
 - Review Information Model
 - Review document and model changes (John R. proposal)
 - Prepare for Ballot as Trial Use Standard (John S. is working group chair)
- SIMICA Discussions
 - SIMICA Architecture and Document Structure/Content
 - "Closed Loop Diagnostics" Discussion (review MAF model and determine if a dot standard is appropriate).
 - Spiral 3 Data Element/Data Source Review

- Review False Alarm Annex
- Work on Information Model
- Review / harmonize common information elements between 1232 & 1636.1

Thursday, July 14, 2005

- Final Discussions on All Topics
 - Review Old Action Items
 - Review New Action Items
 - Set Time and Location of 05-D Meeting
 - Set Agenda for 05-D Meeting
 - Adjourn

Committee Roadmap

Project	Task	Due Date
1232 Amendment	Model corrections (XML & Express)	June 2005
	Higher Level Services	June 2005
	Final Draft	July 2005
	Commence Ballot	October 2005
	NBR	November 2005
	Recirculation	February 2006
	Standards Board Approval	June 2006
1636	Revised Information Model	June 2005
	Initial Architecture/Framework	July 2005
	Review/Revise False Alarm Annex	July 2005
	"Closed Loop Diagnostics" Discussion & MAF model	July 2005
	Spiral 3 Data Element/Data Source Review	July 2005
	Initial Draft	October 2005
1636.1	Revised XML-Based Exchange Format	July 2005

	Initial Service Definitions and Descriptions	July 2005
	Information Model	July 2005
	Final Information Model	October 2005
	Full Draft Standard	October 2005
	Final Service Definitions and Descriptions	October 2005
	Final XML-Based Exchange Format	October 2005
	Conformance Section	July 2005
	Final Draft Standard	October 2005
	Commence Ballot	January 2006
	NBR	February 2006
	Recirculation	June 2006
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Meeting Attendees

Name	Address	Phone/Email	T	W	Th
Keith Beard	Northrop Grumman 217 Billingsrath TurnLane Cary, NC 27519	(919) 656-1271 keith.beard@ngc.com	x	x	x
Tim Davis	NAVAIR Depot Jacksonville Code 4.8.4.4 6206 Aviation Avenue Jacksonville, FL 32221	(904) 317-1685 (904) 317-1649 Fax timothy.w.davis1@navy.mil	x	x	x
Bob Fox	NAVAIR Code 4.8.4.4 6206 Aviation Avenue Jacksonville, FL 32221	(904) 317-1713 foxrr@navair.navy.mil	x		

Tom Gaudette	The Mathworks, Inc. 3 Apple Hill Drive Natick, MA 01760	(508) 647-7759 tom.gaudette@mathworks.com	x	x	
Bill Gerstein	Hamilton Sundstrand 4747 Harrison Avenue PO Box 7002 Rockford, IL 61125- 7002	(815) 226-3879 V (860) 660-4734 Fax we.gerstein@hs.utc.com	x	x	x
Michelle Harris	Lockheed Martin (LM) STS 12506 Lake Underhill Road MP 827 Orlando, FL 32825	(407) 306-6693 michelle.l.harris@lmco.com	x	x	x
Mukund Modi	Naval Air Warfare Center ATE SW Center Bldg 551-1, Code 4.8.3.1 Lakehurst, NJ 08733	(732) 323-7002 mukund.modi@navy.mil	x	x	x
John Ralph	Northrop Grumman 7065 Samuel Morris Drive Columbia, MD 21046	(410) 953-6500 john.ralph@ngc.com	x	x	
Peter Richardson	BAE Systems Phase 2 Bldg 1-3 Crewe Road North Crewe Toll Edinburgh EH5 2XS UK	+44(0) 131 343 5828 peter.richardson4@baesystems.com	x	x	
Scott Misha	US Army – Picatinny Arsenal Building 91 Picatinng, NJ 07806	(973) 724-7564 (973) 724-5768 Fax smisha@pica.army.mil	x	x	x
Darryl Busch	Honeywell MN65-2500 3660 Technology Dr. Minneapolis, MN 55418	(612) 951-7535 (612) 951-7438 Fax darryl.busch@honeywell.com	x	x	

Mark Kaufman	NSWC Corona P.O. Box 5000 Corona, CA 92878	(951) 273-5725 mark.kaufman@navy.mil	x	x	x
Anand Jain	National Instruments 11900 N Mopae Expy Austin, Tx 78759	(512)-683-5673 amand.jain@ni.com		x	
Ion Neag	TYX Corporation 1910 Association Dr. Reston, VA 20191	(703) 264-1080 iou@tyx.com		x	
Les Orlidge	AAI Corporation PO Box 126 Hunt Valley, MD 21030	V(410) 628-6634 F (410) 628-3968 orlidge@aaicorp.com	x		x
Tim Wilmering	Boeing PO Box 516 M/C 5106-3075 St. Louis, MO 63166-0516	(314) 234-6781 timothy.j.wilmering@boeing.com	x	x	x