**MP&S WG Web-Ex – Minuts Of Meeting**

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| Meeting Date | 21/06/2018 |  | Ref | MP&S WG Web-Ex 2018\_06 MoM |
| Meeting Place | Web-Ex |  | Chairman | M. Sarkarati |
| Minute’s Date | 21/06/2018 |  | Participants | WG Members |
| Subject | CCSDS MPS WG Web-Ex 2018\_06 MoM |  | Copy | AD/Deputy AD |

**Agenda:**

* Update on the GB and BB Status
* Work on the BB
* AOB

**Review of Actions**

| **ID** | **Action** | **Actionee** | **Due Date** | **Status** | **Comment** |
| --- | --- | --- | --- | --- | --- |
| 170816-1 | Update and refine the UML diagram of the MP&S data model | RT |  | On-going | Update done but this is an ongoing action |
| 180505-01 | Draft a TN to highlight the areas where PRM structures may need extension or amendments to cover the needs of MP&S Pointing Constraint modelling | PvP/DF | 26/07/2018 |  |  |

Actions were reviewed and status updated.

**Update on the GB and BB Status**

The CCSDS CMC has approved the publication of the MP&S Green Book.

The work on the Blue Book is on-going according to the schedule, which is outlined on the CWE.

**Work on the BB: Discussions on the Information Model**

DF and PvP have analysed the recently published standard from the NAV WG, the Pointing Request Message and provided a presentation assessing if it can be used as the basis for defining Pointing Constraints in the MP&S information model.

The initial result of the assessment is:

* The structures seems to cover most of the needs of MP&S
* The PRM standard covers the aspects needed for execution of the pointing, where as in the context of the planning (e.g. at the time of the request) some of the elements of the PRM are not known and may need to be parameterised
* Further more detailed assessment is needed to judge if the structures defined in the PRM can be reused/extended and amended with e.g. conventions to cover the needs of MP&S
* PvP and DF took the action to draft a TN to outline the areas where such considerations need to be taken.
* Once a detailed comparison of the PRM structures have been performed, it can be discussed in a joint meeting with NAV WG.

RT has updated the BB Information model with the results of the discussions from the Spring Technical Meetings, and further updates have been made as a result of agreements from the previous telecon.

It was decided to keep a list of open points for later revision. It was also decided that in order to avoid cyclic discussions to better minute and document the conclusion of discussions.

The updated model is available on

<https://drive.google.com/open?id=1ydZO0h2hcgEyKjoKNJ46N1kL19Cpy0cR>

Comments on the Information Model to be captured before the next meeting in the document on the Google Drive.

<https://drive.google.com/open?id=1_U0TV54WzKDToTsoWOdYurdBEUghD33R>

The Open Issues in the latter were discussed and the following conclusions reached:

**Nomenclature**

“Constructors” shall be renamed “Details”.

The term “Updates” shall be retained.

**Conditional Constraints**

The representation of Geometric Constraints in the current model was agreed.

It is noted that Pointing Requests remain to be defined.

**Effects**

Effects will continue to be represented as a subclass of Constraints.

**Resource Types, Comparators and Operators**

It was concluded that all types should continue to be allowed, but that it should be clarified that the X axis of the resource is always Time.

**Global Constraints**

This will be considered off-line.

Renaming is OK, but it is to be considered off-line how to represent Global Constraints. Two proposals were made:

1. There should be a single Global Constraints collection to which Constraints can be added or deleted.
2. There should be a sub-type of Request to represent persistent standing orders or rules. This could contain Constraints - equivalent to the Global Constraint. It could also be used to express the instantiation of an Activity in response to an Event.

**Planning Activities**

It was proposed that a common structure should be defined that defines the Trigger (or Trigger Reference) for an Activity in the Activity Update. This may be Time-based, Position-based or a Planning Event reference. This will be considered off-line and a proposal made for discussion by the WG.

**Repetitions**

It was agreed to change to Cadence +/- Tolerance rather than Min and Max as previously agreed.

**Planning Events**

Optional Duration to be removed.

Activity Constructors shall be removed from Planning Events.  Whether the Source of an Activity can be an Event is dependent on the outcome of the Standing Order Request concept proposed under Global Constraints above.  This concept may allow for an indirect reference to the Event. Preference is that all Activities should trace back ultimately to a Request.

There is a potential requirement relating to the expression of constraints that reference related Events (e.g. AOS and LOS).  Agreed that this requires definition of related Events, as well as the instance of related Events. Will be taken off-line to consider how this should be represented.  Options: add Related Events (definitions) to Event Definition; define Event Groups that will also have Instances as a container for multiple related events.

**Planning Requests**

Definition of additional request types to be deferred until Service Operations have been better defined.

**Planning Resources**

Agreed to retain Resource Update and Profile Entry as separate elements, despite their common core attributes of Timestamp and Value, in order to avoid overhead of treating the Profile Entry as a COM Object. The Resource Update is retained to support potential service distributing live Plan Execution status (and history).

The Resource Profile Diagram will be updated to show Resource Definition and Plan objects.

CGI have been analysing the planning data products from various ESA missions and how these could be represented using the MPS Information Model. They have raised a number of issues in a document circulated to the WG, together with responses from RT. Discussion of open points in this document was commenced, but there was only time to discuss the first issue (see below). The remaining points will continue be discussed off-line and any remaining open issues will be considered at the next telecon.

*[CGI-1] The model allows constraints on Activities, but not on field values. The mission XML schemas express field value restrictions, such as limits on field length, range of values, allowed values (enumerations). This is data validation, is it part of model?*

The WG concluded that data validation on Argument values is needed. RT will propose an approach to extend the Argument Definition to support this.

It was also proposed that there should be the possibility to express constraints on the value of an Argument of a referenced object (Event or parent Activity). We do not currently have a constraint type that supports this, but this could look very similar to Resource Constraints. RT will consider and propose a solution to the WG.

**AOB**

Next Meeting is web-ex on 26.07 14:00-16 (TBD if US participation, then 15:00-17:00)