**Questions:**

1. What is the purpose of a column References in the References Registry?

*The References column is automatically generated for all the registries and therefore in the Reference registry. However we may hide it as we did with meta registries (e.g. https://sanaregistry.org/r/navigation\_standard\_normative\_annexes). This will be added in our todo list.*

2. We have gotten the impression from Peter Shames that the SANA was not going to be a place to store files, so the use of the column File is not clear.

*Yes Peter disapproved the use of files in the references registry. However we did the update of the registry before Peter's disproval. We may remove the column in the future.*

**Top Level Entry in the "References" Registry (as of 11/13/2018, there were 191 entries)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Details** | **Status** | **References** | **Type** | **Value** | **Title** | **File** | **OID** |
|  |  | - | Navigation WG | References for Navigation WG SANA Registries |  - |  - | 1.3.112.4.8.**192** |

**References "Sub-Registry" for Nav WG References**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Details** | **Status** | **References** | **Type** | **Value** | **Title (maybe "Reference" could be used here? or "Bibliographic Info"?)** | **File** | **OID** |
|  |  | - | paper | AAS 06-134 | Vallado, D., Seago, J., Seidelmann, P. (2006). Implementation Issues Surrounding the New IAU Reference Systems for Astrodynamics. 16th AAS/AIAA Space Flight Mechanics Conference |  - | 1.3.112.4.8.192.1 |
|  |  |  | text | 453-HNDK-GN | Ground Network Tracking and Acquisition Data Handbook. 453-HNDK-GN. Greenbelt, Maryland: Goddard Space Flight Center, May 2007. |  | 1.3.112.4.8.192.2 |
|  |  |  | text | ISBN 978-1881883180 | David A. Vallado. Fundamentals of Astrodynamics and Applications, 4th Ed., Microcosm Press and Springer. |  | 1.3.112.4.8.192.3 |
|  |  |  | paper | AAS 11-151 | Oltrogge, D.L, et al, “Ephemeris Requirements for Space Situational Awareness”, February 2011. |  | 1.3.112.4.8.192.4 |
|  |  |  | technical note | IERS TN32 5.11 | Full citation here... |  | 1.3.112.4.8.192.5 |
|  |  |  | technical note | IERS TN36 p.47 | Full citation here... |  | 1.3.112.4.8.192.6 |
|  |  |  | text | ISBN 978-1-4939-0802-8 | F. L. Markley and J. L. Crassidis, Fundamentals of Spacecraft Attitude Determination and Control.Springer, 2014. |  | 1.3.112.4.8.192.7 |

**Then for example in the "Celestial Body Reference Frames" Registry**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Details** | Status | Keyword Value Name | **Description** | Nomenclature | Others Have Referred to This As | Frame Type | **References** | OID |
|  |  | CIRS | **Celestial Intermediate Reference System.** Details in "References". Essentially the transformation for precession/nutation is based on the Celestial Intermediate Pole realized with the IAU2000A model rather than IAU1976/80. |  |  | Inertial | **1****5****6** | 1.3.112.4.57.2.x |

Here the "1" would be concatenated to "1.3.112.4.8.192." the OID of the reference minus the last index, to form the full OID referring back to the Nav WG "Sub-Registry" in the "References" registry (IERS TN32 5.11; IERS TN36 p. 47; and Vallado, Seago, Seidelmann). The motivation is to reduce the amount of column space allocated to OIDs.

*As your motivation behind a sub-registry is to get smaller references column, we think there is too much particularity to implement it as described in your document:*

 *- an entry in the reference registry will become a link to a sub-registry which leads to non-consistency of the data*

 *- reference column display is generic*

*Moreover, references are not displayed as OIDs but as objects (e.g. for CCSDS references: [ccsds-135.0-B-4]). Other references are displayed with the content of their "Title" column.*

*In your references sub-registry mockup, the way you enter the references will lead to really long titles displayed in the reference column. However we think this is the right way to create the references so we suggest that we use the "Value" column to be displayed instead of the "Title" column which would be more concise.*

*See below our suggested mockup:*

***References Registry***

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ***Details*** | ***Status*** | ***References*** | ***Type*** | ***Value*** | ***Title (maybe "Reference" could be used here? or "Bibliographic Info"?)*** | ***File*** | ***OID*** |
|  |  | *-* | *paper* | *AAS 06-134* | *Vallado, D., Seago, J., Seidelmann, P. (2006). Implementation Issues Surrounding the New IAU Reference Systems for Astrodynamics. 16th AAS/AIAA Space Flight Mechanics Conference* |  *-* | *1.3.112.4.8.192* |
|  |  |  | *text* | *453-HNDK-GN* | *Ground Network Tracking and Acquisition Data Handbook. 453-HNDK-GN. Greenbelt, Maryland: Goddard Space Flight Center, May 2007.* |  | *1.3.112.4.8.193* |
|  |  |  | *text* | *ISBN 978-1881883180* | *David A. Vallado. Fundamentals of Astrodynamics and Applications, 4th Ed., Microcosm Press and Springer.* |  | *1.3.112.4.8.194* |
|  |  |  | *paper* | *AAS 11-151* | *Oltrogge, D.L, et al, “Ephemeris Requirements for Space Situational Awareness”, February 2011.* |  | *1.3.112.4.8.195* |
|  |  |  | *technical note* | *IERS TN32 5.11* | *Full citation here...* |  | *1.3.112.4.8.196* |
|  |  |  | *technical note* | *IERS TN32 5.11* | *Full citation here...* |  | *1.3.112.4.8.197* |
|  |  |  | *text* | *ISBN 978-1-4939-0802-8* | *F. L. Markley and J. L. Crassidis, Fundamentals of Spacecraft Attitude Determination and Control.**Springer, 2014.* |  | *1.3.112.4.8.198* |

***Then for example in the "Celestial Body Reference Frames" Registry***

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Details*** | *Status* | *Keyword Value Name* | ***Description*** | *Nomenclature* | *Others Have Referred to This As* | *Frame Type* | ***References*** | *OID* |
|  |  | *CIRS* | ***Celestial Intermediate Reference System.*** *Details in "References". Essentially the transformation for precession/nutation is based on the Celestial Intermediate Pole realized with the IAU2000A model rather than IAU1976/80.* |  |  | *Inertial* | ***[AAS 06-134] - [IERS TN32 5.11] - [IERS TN32 5.11]*** | *1.3.112.4.57.2.x* |

I have, however, seen an alternate implementation in the registries that could accomplish a similar goal (e.g., in the "Functional Resources" registry and the "Spacecraft" registry in the current implementation of "Candidate Registries".

*If the alternate implementation you mention is the column with arrows containing some other column values, this is in fact an implementation common to all the registries automatically triggered when there is too much data to be displayed on the screen. This mainly depends on the screen resolution and columns content and is automatically computed by browsers.*

*We have some tasks in our todo list (some of them created following our meetings) that would allow the columns to be managed more precisely: hiding columns, changing order of columns, …*

*NB: there is still no public todo list, it was discussed at last CCSDS SSG meeting and is now a low priority item in this aforementioned todo list :)*