Proposal on top level of information model

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So far this is just the top level for GNSS to see if anyone likes this approach

Add to 3.1 Acronyms

GNSS Global Navigation Satellite System

GPS Global Positioning System

IRNSS Indian Regional Navigation Satellite System

PNT Position Navigation and Timing

QZSS Quasi-Zenith Satellite System

8. Control Interfaces

The information model does not have to be implemented as long as the timecard driver makes the attributes available in the data formats described in this clause.

A reserved value is for future use by the IEEE 3335 working group. It shall not be configured. If read it shall be ignored.

8.1 Timing Inputs

8.1.1 GNSS receivers

**Table 1 - GNSS receiver attributes**

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Attribute type** | **Description** |
| GNSSpresent | Read | Reports presence of at least one GNSS receiver |
| GNSSinstances | Read | Number of GNSS instances present |
| GNSSinstanceNumber | Argument | GNSS instance index |
| GNSSenable | Read, write | Configures or reports enablement of GNSS instances |
| GNSSconstellationsAvailable | Read | Reports which GNSS constellations the receiver can use in the PNT solution |
| GNSSconsellationNumber | Argument | GNSS constellation index |
| GNSSconsellationEnable | Read, write | Configures or reports enablement of GNSS Constellations withing a specific GNSS instance |

8.1.1.1 GNSSpresent

Attribute type: read

Data type: Boolean

8.1.1.2 GNSSinstances

Attribute type: read

Data type: Uint8

8.1.1.3 GNSSinstanceNumber

Attribute type: argument

Data type: Uint8

8.1.1.4 GNSSenable

Attribute type: read, write

Argument: GNSSinstanceNumber

Data type: Boolean[GNSSinstances]

8.1.1.5 GNSSconsellationsAvailable

Attribute type: read

Argument: GNSSinstanceNumber

Data type: Boolean[Uint8]

**Table 2 – GNSS constellations**

|  |  |
| --- | --- |
| **GNSSconstellationNumber** | **GNSS constellation** |
| 0 | reserved |
| 1 | GPS |
| 2 | Galileo |
| 3 | GLONASS |
| 4 | BeiDou |
| 5 | QZSS |
| 6 | IRNSS |
| 7 | Iridium |
| 8 | AtomiChron |
| 9-191 | reserved |
| 192-255 | Implementation specific |

8.1.1.6 GNSSconstellationNumber

Attribute type: argument

Data type: Uint8

8.1.1.7 GNSSconsellationEnable

Attribute type: read, write

Arguments:

1. GNSSinstanceNumber
2. GNSSconstellationNumber

Data type: Boolean[Uint8, Uint8]