GTMBA Database Object – Compass

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# Overview

With the recent “last-call” sent out by Ocean-Server for their line of digital compass projects, PMEL groups have decided to purchase a large quantity of OS4000-T compass modules to cover the next three to five years of deployments. Ocean-Server will honor their one year warranty, but PMEL will test each module within six months of delivery to assure that the complete delivery is functional.

While testing, PMEL will take the opportunity to provide basic calibration and gather parameters from each compass module. These parameters can be used to track system usage and performance over time. Therefore EDD proposes the following parameters be tracked for each compass module.

# Data Definition

## Type Definition

This document uses the following type definitions:

|  |  |  |
| --- | --- | --- |
| Type | Description |  |
| int8 | 8-bit signed integer | [ -127:127] |
| int16 | 16-bit signed integer | [-32,768: 32,768] |
| int32 | 32-bit signed integer | [-2,147,483,648: 2,147,483,648] |
| uint8 | 8-bit unsigned integer | [0:255] |
| uint16 | 16-bit unsigned integer | [0 : 65,536] |
| uint32 | 32-bit unsigned integer | [0: 4,294,967,296] |
| float | Single precision floating point | See IEEE 754 |
| double | Double precision floating point | See IEE 754 |
| bool | Boolean value | [0,1] or [False,True] |
| char | Character value | 7-bit char value |
| str | Char string | String of characters |
| date | Date string | YYYY/MM/DD HH:MM:SS |

## Data Definition – OS4000-T Compass

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| FIELD NAME | FIELD/VARIABLE DESCRIPTION | DATA TYPE | VALID VALUES/RANGE | Priority  1(low) to 5 (high) | STATIC OR VARIABLE |
| OS\_serial\_number | Serial Number | uint32 | Full range | 5 | STATIC |
| OS\_deviation | Deviation | int16 | -1800 to 1800 | 4 | VARIABLE |
| OS\_declination | Declination | int16 | -1800 to 1800 | 4 | VARIABLE |
| PMEL\_Owner | Owner | str | GTMBA,EDD,OCS,OTHER | 5 | VARIABLE |
| PMEL\_test\_date | PMEL Test Date | date |  | 5 | VARIABLE |
| PMEL\_test\_result | PMEL Test Passed? | bool | N or Y | 5 | VARIABLE |

# Update Method

On completion of testing, EDD will provide a .CSV file with the fields defined in section 2 for GTMBA to import into their database. GTMBA will be responsible for handing of this task.