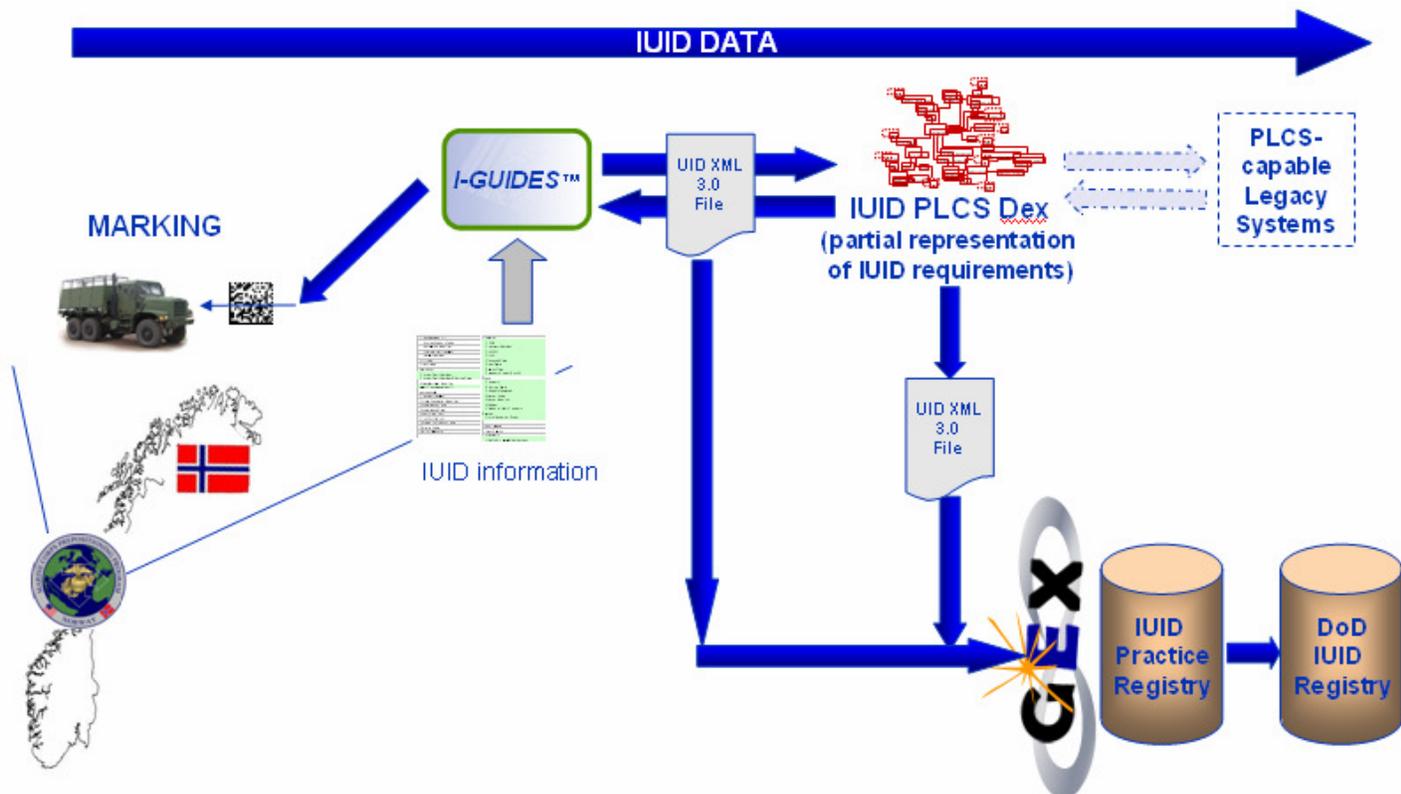




 **IUID** Item Unique Identification

# Marine Corps Prepositioning Program-Norway: Item Unique Identification and Product Life Cycle Support

## Unique Identification Policy Office Integration Project



**To improve the identification, tracking, and management of Department of Defense (DoD) assets, the Office of the Secretary of Defense has funded multiple projects, including the Marine Corps Prepositioning Program-Norway: Item Unique Identification and Product Life Cycle Support Integration Project.**



**Description**

In accordance with US DoD mandated policy, United States Marine Corps (USMC) legacy assets require Item Unique Identification (IUID). The DoD lead was the Headquarters USMC Lifecycle Management Team and the Industry Lead was Lockheed Martin. In partnership with the Norwegian Defence Logistics Organisation - Marine Expeditionary Brigade the program simulated a Program Manager’s “seek and apply” strategy for legacy IUID marking and registration. Specifically, this IUID integration project capitalized on the Marine Corps Prepositioning Program-Norway (MCPN) to assign Unique Item Identifiers (UIIs) to 41 USMC Medium Tactical Vehicle Replacement (MTVR) legacy assets. The project included the critical participation of Blount Island Command, MARCORSSYSCOM, Monode Marking, and Avery Dennison.

Following marking of the MTVR end-items, and additional embedded items (all pre-positioned in Norway), each item’s UII data was transferred, translated, and uploaded to the IUID Registry through the application of ISO Standard 10303-239, “Standard for the Exchange of Product (STEP) Model Data,” Application Protocol 239 - Product Life Cycle Support (PLCS).

Using two project-developed PLCS translators, the Norway IUID project team yielded confirmation of data development, translation, and exchange capabilities of IUID data in a PLCS environment. IUID Registry update-records in a PLCS format were developed for a meaningful subset of the IUID Registry requirements and then sent to the US DoD Practice IUID Registry for processing.

The MTVR assets within MCPN provided an excellent opportunity for military and commercial industries, as well as the governments of Norway and the United States, to work together in a cooperative effort to mark, identify, and exchange data on these assets using an ISO-based and US DoD mandated approach.

**Background**

The following tasks were assigned and completed during this project:

- ◆ Marked MTVR end items, embedded engines, and transmissions with IUID-compliant name plates.
- ◆ Transferred from the USMC all DoD and custom USMC data into the Lockheed Martin I-GUIDES application.
- ◆ Transferred the DoD and USMC IUID data from I-GUIDES in XML schema form to its PLCS form using the IUID DEX (Data EXchange Specification).
- ◆ Established measurable metrics to capture benefits of the use of Automated Identification Technology (AIT) concepts enabled by the use of IUID (see table).

<b>Business Case Metrics and Results</b>			
	<b>Manual</b>	<b>AIT</b>	<b>% Improvement</b>
<b>Capture input data from each tag</b>	<b>1.14 Minutes</b>	<b>.12 Minutes</b>	<b>86.1%</b>
<b>Linking child to parent on each tag</b>	<b>2.0 Minutes</b>	<b>.061 Minutes</b>	<b>87.8%</b>
<b>Error Correction</b>	<b>11%</b>	<b>0%</b>	<b>100%</b>

**Benefits & Achievements**

Potential benefits include improved: data quality; in-process efficiencies (e.g., accurate automation of tedious and labor-intensive tasks); inventory efficiency/accuracy (reductions in spares inventory and support equipment); and record/administration management (reduced time spent in slow and inaccurate paper-based systems).

Among the many ancillary benefits gained through this project and the overall application of IUID, specific Norway-project outcomes featured:

- ◆ The MTVRs’ rough marking surface and Chemical Agent Resistant Coating (CARC) paint required the development of a custom “peel and stick” adhesive tape by teammate Avery Dennison. This new product has simplified application over riveting or use of two-part epoxy, allowing opportunities for IUID data plate application to be simplified enough to allow for field application through a Maintenance Instruction, in addition to depot maintenance lines. The results of this element of the Norway project may have broad application to DoD-wide items that demonstrate challenging mark-surface or application environment conditions.
- ◆ The Norway project employed a new type-anodization on the data plates that is much more durable than the one in common use. This was accomplished by teammate Monode Marking Products.
- ◆ The Norway project team successfully demonstrated that IUID data could be shared into the PLCS-enabled communities and later converted back as files that could update established IUID records.
  - ❖ PLCS data can be exchanged between the MCPN local database and the IUID Registry by mapping data elements to a DEX.
- ◆ The first known USMC “in field” IUID marking and data submission to the DoD IUID Registry.
- ◆ IUID capability, training, and expertise for Norwegians.

This integration project provided the ability to assure international information data exchange. Norway provided the outstanding opportunity to mark US assets positioned in a location far from home and, as a recognized leader in the use of the PLCS capabilities, Norway presented an ideal setting for the development of a translation from the US DoD IUID data elements to their PLCS format using the IUID DEX.

**Contact**

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**IUID**

Item Unique  
Identification

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