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S. Rushing
Inmedius

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# A Uniform Resource Name (URN) Namespace for Aerospace and Defence Industries Association of Europe (ASD) Specification 1000D

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## Abstract

This document describes a Uniform Resource Name (URN) namespace for naming persistent resources defined by Aerospace and Defence Industries Association of Europe (ASD) Specification 1000D.

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## 1. Introduction

Specification 1000D [1] (S1000D) is an international specification for the procurement and production of technical publications. The current issue of the specification has been jointly produced by the Aerospace and Defence Industries Association of Europe (ASD; previously AECMA, European Association of Aerospace Industries) and the Aerospace Industries Association of America (AIA). The specification is used worldwide by a variety of commercial and government entities for the development of technical documentation.

The specification adopts ISO, Computer-Aided Acquisition and Life-Cycle Support (CALS), and W3C standards to promote document standardization in which information is generated in a neutral format. Compliant documentation generated using the specification can be processed on different, and often disparate, IT systems. It is this feature, added to the concept of modularization, that makes the specification acceptable to the wider international community.

Portions of S1000D define a resource coding system allowing resources created under the specification to be uniquely identified in global environment. To provide for the creation of a web-based resource management system, ASD would like to assign URNs [2][3][4] to resources created under the specification in order to retain unique, permanent, location-independent names for these resources, in addition to providing a framework for resolution of these resources.

For more information about ASD and S1000D, see http://www.s1000d.org.

This namespace specification is for a formal namespace.

## 2. Specification Template

Namespace ID:

To be assigned. Request the string "S1000D".

Registration information:

Version 2
Date: <2005-03-7, when submitted>

Declared registrant of the namespace:

Name:
ASD TPSMG Chairperson

Address:
Corporate Technical Services
Technical Documentation
Kentigern House
65 Brown Street
Glasgow G2 8EX
UK
Contact:
Mr. Dennis Hoyland
E-mail: adcts@techinfo.mod.uk

Declaration of structure:

The identifier has the following ABNF [5] structure.

```
;start ABNF notation

URN = "URN:" namespace NSS

namespace = "S1000D:"

NSS = dmc-nss / pmc-nss / csn-nss / icn-nss
      com-nss / ddn-nss / dml-nss

;Define the subnamespace as an subnamespace identifier
;plus a subnamespace code string
dmc-nss = "DMC-" nss-code
pmc-nss = "PMC-" nss-code
csn-nss = "CSN-" nss-code
icn-nss = "ICN-" nss-code
com-nss = "COM-" nss-code
ddn-nss = "DDN-" nss-code
dml-nss = "DML-" nss-code

;Define the subnamespace code as a string encoded to the
;format specified by the namespace identifier and an
;optional extension string indicating the resource status.
nss-code = subcode subext

;The code strings are a groups of alpha and digit characters
;separated by the dash character.  The specific code syntax
;for each subnamespace is described in ASD Specification 1000D.
subcode = 1*(DIGIT / ALPHA / "-")

;Define the encoding extension as an optional set of status
;indicators separated by the "_" character.
subext = [issue] [lang]
issue  = "_I-" 3DIGIT
```

```
lang   = "_L-" 2ALPHA

;ABNF core rules RFC 2234, listed for clarity
;ALPHA  =  %x41-5A / %x61-7A   ; A-Z / a-z
;DIGIT  =  %x30-39             ; 0-9

;end ABNF notation
```

The following subnamespaces are currently defined:

"DMC" - contains all Data Modules Codes
"PMC" - contains all Publication Module Codes
"CSN" - contains all Catalogue Sequence Numbers
"ICN" - contains all Illustration Control Numbers.
"COM" - contains all Comment Codes.
"DDN" - contains all Data Dispatch Notices.
"DML" - contains all Data Module Lists.

Example usage:

URN:S1000D:{subid}-{subcode}_{subext}

e.g., URN:S1000D:DMC-AE-A-07-05-0000-00A-040A-A_I-001_L-EN

where:
{subid} = DMC, The code is a Data Module Code
{subcode} = AE-A-07-05-0000-00A-040A-A, String in DMC syntax
{subext} = _I-001_L-EN, the first issue in English.

Relevant ancillary documentation:

ASD S1000D, Issue 2.2
Reference: Chap 7.4.1.2, "IETP - Resource resolution"
url: http://www.s1000d.org

Identifier uniqueness considerations:

Identifier uniqueness is guaranteed through processes outlined within ASD S1000D. All codes defined within the specification must begin with a Model Identifier (MI) that will be registered with the NATO Maintenance and Supply Agency (NAMSA) and is never to be reused. All project-generated codes are prefixed by the assigned MI and are required by the specification to be unique within the scope of the project. Since all project codes are prefixed by a globally unique MI, and since these codes must be unique within the project, all generated identifiers will be globally unique.

Identifier persistence considerations:

Persistence of identifiers is dependent upon suitable delegation of resolution and the fact that generated identifiers are to be persistent once published. Existing information objects can be used in new projects by referencing them through their persistent identifiers.

Process of identifier assignment:

Identifiers are assigned in the following manner. Projects are assigned a Model Identifier by the NAMSA organization. Projects then generate identifiers using the processes outlined in ASD S1000D. The codes are prefixed with the encoding identifier and possibly postfixed by the extension status identifiers.

Process for identifier resolution:

The project identified by the Model Identifier is responsible for providing a method of resource resolution. A suggested method of resolution is outlined in ASD S1000D.

Rules for Lexical Equivalence:

All generated identifiers are to be considered case-insensitive.

Conformance with URN syntax:

No special considerations.

Validation mechanism:

Identifiers must conform to ASD S1000D.

Scope:

Global.

## 3. Examples

The following examples are not guaranteed to be real and are provided for illustrative purposes only.

URN:S1000D:DMC-AE-A-07-04-0101-00A-040A-A
URN:S1000D:DMC-AE-A-07-05-0000-00A-040A-A_I-001_L-EN
URN:S1000D:ICN-AE-B-291101-M-C0419-00571-A-01-1
URN:S1000D:PMC-AE-F6117-00001-00

## 4. Security Considerations

There are no additional security considerations other than those normally associated with the use and resolution of URNs in general.

## 5. Namespace Considerations and Community Considerations

Resources will be named and maintained in accordance with the processes described in this document, in addition to the processes described in S1000D. Any organization or individual can utilize the specification to create resources described by S1000D. Resolution and/or use of created resources is unrestricted by the specification in order to promote widespread adoption of open ASD standards, although organizations creating resources may control them as they see fit.

## 6. IANA Considerations

This document describes a "S1000D" URN NID registration for the S1000D organization and has been entered into the IANA registry of URN NIDs (http://www.iana.org/assignments/urn-namespaces).

## 7. Normative References

[1] "ASD Specification 1000D", May 2005.

[2] Moats, R., "URN Syntax", RFC 2141, May 1997.

[3] Berners-Lee, T., Fielding, R., and L. Masinter, "Uniform Resource Identifier (URI): Generic Syntax", STD 66, RFC 3986, January 2005.

[4] Daigle, L., van Gulik, D., Iannella, R., and P. Faltstrom, "Uniform Resource Names (URN) Namespace Definition Mechanisms", BCP 66, RFC 3406, October 2002.

[5] Crocker, D. and P. Overell, "Augmented BNF for Syntax Specifications: ABNF", RFC 4234, October 2005.

## Author's Address

Sean Rushing
Inmedius, Inc.
2710 South Kolb Road
Tucson, AZ 85730
USA

Phone: +01 520 747 3955
EMail: srushing@inmedius.com

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