                             URN Namespace for the
           Defence Geospatial Information Working Group (DGIWG)

Abstract

   This document describes the Namespace Identifier (NID) for Uniform
   Resource Name (URN) Namespace resources published by the Defence
   Geospatial Information Working Group (DGIWG). The DGIWG defines and
   manages resources that utilize this URN name model.

   Management activities for these and other resource types are provided
   by the DGIWG Registry System (DRS).

Status of This Memo

   This document is not an Internet Standards Track specification; it is
   published for informational purposes.

   This document is a product of the Internet Engineering Task Force
   (IETF). It represents the consensus of the IETF community. It has
   received public review and has been approved for publication by the
   Internet Engineering Steering Group (IESG). Not all documents
   approved by the IESG are a candidate for any level of Internet
   Standard; see Section 2 of RFC 5741.

   Information about the current status of this document, any errata,
   and how to provide feedback on it may be obtained at
   http://www.rfc-editor.org/info/rfc6288.

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1. Introduction

   The DGIWG is a multi-national body responsible to the Defence
   organizations of member nations for coordinated advice and policy
   recommendations on standards and practices for geospatial information
   and support services. The DGIWG creates standards and recommended
   practices required to enable the provision, exchange, and
   exploitation of geospatial information. It supports the requirements
   of the North Atlantic Treaty Organization (NATO) and the other
   alliances that its member nations participate in, including
   peacekeeping sanctioned by the United Nations.

   The DGIWG has defined, and continues to define, standards, processes,
   and procedures for the use of international standards in the DGIWG
   community.

The DGIWG geospatial standards are built upon the generic and
abstract standards for geographic information defined by the
International Organization for Standardization (ISO) TC/211 technical
committee. The DGIWG makes use of the service specifications
endorsed by the Open Geospatial Consortium (OGC).

The DGIWG defines information components for use in the development
of product specifications and application schemas for military
geospatial data. The DGIWG also establishes service specifications,
encoding formats, and testing methodologies to meet military
geospatial intelligence requirements.

Some of the solutions being developed by the DGIWG need XML
namespaces that are managed so that they are unique and persistent.
To assure that the uniqueness is absolute, the registration of a
specific Namespace ID (NID) for use by the DGIWG was deemed
appropriate. Therefore, a full and complete registration will follow
the namespace specification process as defined in [RFC3406]. For the
processes that the DGIWG uses to manage this and other registries,
see the "DGIWG Terminology Register Technical Specification" document
[STD-DP-07-024-ed1.0.1].

2. URN Specification for "dgiwg" NID

   Namespace ID: dgiwg

   Registration Information:

      registration version number: 1
      registration date: August 2011

   Declared registrant of the namespace:

      Registering organization: Defence Geospatial Information Working
                                Group
      Name: The Secretary (attn: Mr. Paul Burton)
      Address: Defence Geospatial Information Working Group (DGIWG)
                 UK Hydrographic Office
                 Admiralty Way
                 TAUNTON
                 Somerset TA1 2DN
                 United Kingdom

   Designated contact:

      Role: The DGIWG Registry Services Administrator
      Email: dgiwg-urn-admin@dgiwg.org

   Declaration of syntactic structure:

      The Namespace Specific String (NSS) of all URNs that use the
      "dgiwg" NID will have the following structure:

         urn:dgiwg:{DGIWGresource}:{ResourceSpecificString}

      where the "DGIWGresource" is a US-ASCII string that conforms to
      the URN syntax requirements [RFC2141] and defines a specific class
      of resource type. Each resource type has a specific labeling
      scheme that is covered by "ResourceSpecificString", which also
      conforms to the naming requirements of [RFC2141]. The only
      exception is that the character ":" shall not be used as part of
      the "DGIWGresource" string. This is to avoid possible confusion.
      Further, "DGIWGresource" is case sensitive.

      The DGIWG maintains a naming authority, the DGIWG Registration
      System (DRS), that will manage the assignment of "DGIWGresources"
      and the specific registration values assigned for each resource
      class. Other DGIWG standards documents will define the
      "ResourceSpecificStrings" for a given "DGIWGresource".

   Relevant ancillary documentation:

      The DGIWG defines a number of specific lists of information
      elements that can be combined with the models in product
      specifications and application schema. These are maintained by
      the DGIWG. More information about the DRS, and the registration
      activities and procedures to be followed, can be found in the
      document "DGIWG Terminology Register Technical Specification"
      [STD-DP-07-024-ed1.0.1], which provides the procedures for the
      DGIWG registration of geographical items.
      https://portal.dgiwg.org/files/?artifact_id=5438&format=doc. This
      is a stable URI. Additional information may be found at
      http://www.dgiwg.org/dgiwg/htm/registers/registers.htm.

   Identifier uniqueness considerations:

      The DRS will manage resources using the "dgiwg" NID and will be
      the authority for managing the resource type identifiers and
      subsequent strings associated with them. In the associated
      procedures, the DRS will ensure the uniqueness of the strings or
      shall permit secondary responsibility for management of well-
      defined sub-trees. URNs issued by the DRS may not be reassigned.

The DGIWG may permit use of experimental type values that will not
be registered. As a consequence, multiple users may end up using
the same value for separate uses. As experimental usage is only
intended for testing purposes, this should not be a real issue.

Identifier persistence considerations:

The DRS will provide clear documentation of the registered uses of
the "dgiwg" NID. The DRS will establish a registry for
DGIWGresources. Each DGIWGresource will have a separate
description in the registry and may have its own sub-registry.

The registries and information will be published and maintained by
the DRS on its web site.

Process of identifier assignment:

As defined in the DGIWG Terminology Register Technical
Specification, the DRS will provide procedures for registration of
each type of resource that it maintains. Each such resource may
have three types of registration activities:

    1. Registered values associated with DGIWG specifications or
       services

    2. Registration of values or sub-registries to other entities

    3. Name models to be used for experimental purposes

Process for identifier resolution:

The namespace is not listed with a Resolution Discovery System
(RDS); this is not relevant.

Rules for Lexical Equivalence:

No special considerations; the rules for lexical equivalence of
[RFC2141] apply.

Conformance with URN Syntax:

No special considerations.

Validation mechanism:

None specified. URN assignment will be handled by procedures
implemented in support of DRS activities.

   Scope:

      Global

3. Examples

   The following examples are representative urns that could be assigned
   by the DRS. They may not be the actual strings that would be
   assigned.

   Example 1

      DGIWGresource "crs"
      Syntax: "urn:dgiwg:crs:<crs name>"

      ResourceSpecificString: A simple string with the name of the
      coordinate reference system (CRS) defined in a sub-registry.

      Use: Defines the urn to be used for queries to a DGIWG CRS
      registry that provides URIs for the CRS.

   Example 2

      DGIWGresource "dfdd"
      Syntax: "urn:dgiwg:fad:dfdd<fad_code>:<fad_name>"

      The DGIWG maintains a feature and attribute data (FAD) registry
      that contains registers of geographic information concepts used to
      characterize aspects of real-world phenomena for different
      information communities (https://www.dgiwg.org/FAD/registers.jsp).

         urn:dgiwg:fad:dfdd:Aerodrome:aerodrome

         urn:dgiwg:fad:dfdd:Helipad:helipad

         urn:dgiwg:fad:dfdd:AerodromeMoveAreaLighting:aerodrome
              movement-area-lighting

4. Namespace Considerations

   The Defence Geospatial Information Working Group is developing a
   variety of applications and services. Some of these services require
   that supporting information (e.g., data descriptions, attributes,
   etc.) be fully specified. For proper operation, descriptions of the
   needed supporting information must exist and be available in a
   unique, reliable, and persistent manner. These dependencies provide
   the basis of need for namespaces, in one form or another.

As the work is ongoing and the Defence Geospatial Information Working
Group covers many technical areas, the possibility of binding to
various other namespace repositories has been deemed impractical.
Each object or description, as defined by the DGIWG, could possibly
be related to multiple different other namespaces, so further
conflicts of association could occur. Thus, the intent is to utilize
the Defence Geospatial Information Working Group Registration System,
operated by the DGIWG, as the naming authority for DGIWG-defined
objects and descriptions.

5. Community Considerations

The objects and descriptions required for registration services
defined by the DGIWG are publicly available for use by other
organizations. The DGIWG will provide public access and support for
name requests by other organizations. This support can be enabled in
a timely and responsive fashion as new objects and descriptions are
produced. These will be enabled in a fashion similar to current IANA
processes. A description of the DGIWG collaboration process is
available on the DGIWG website: http://www.dgiwg.org/dgiwg/.

Due to DGIWG coordination with other standards organizations and the
use of standards from other standards organizations, there is a need
to avoid duplicate or replicated names, such as those for coordinate
reference systems. In order to coordinate the consistent use of
names and namespaces, the DGIWG has formal relationships with both
the OGC and with ISO. As long as having consistent names and
namespaces across these organizations does have security implications
for certain classes of applications (see below), then shared names
and namespaces will be used.

6. Security Considerations

For many applications that use DGIWG standards and terminology, there
are no additional security considerations other than those normally
associated with the use and resolution of URNs in general (which are
described in [RFC1737], [RFC2141], and [RFC3406]). However, for a
certain class of applications related to war fighter and peacekeeping
operations, there is a high level of importance for having secure
methods to access locations once the URN resolution has taken place
(i.e., after the name-to-location resolution). In these cases,
agreed-upon military command and control (C2) security, including
authentication and authorization, shall be considered. However, the
majority of communications in a military environment, just as in any
environment, are low-level un-secure or minimally secure information.
The Internet is well used, and a URN is necessary for compatible web
services.

7. IANA Considerations

   This document registers with IANA a new formal URN Namespace ID,
   "dgiwg", following the procedures as defined in RFC 3406 [RFC3406].
   The completed registration template is in Section 2 of this document.
   The "Uniform Resource Names (URN) Namespaces" registry is available
   from the IANA website: http://www.iana.org.

8. References

8.1. Normative References

   [RFC2141]   Moats, R., "URN Syntax", RFC 2141, May 1997.

   [RFC3406]   Daigle, L., van Gulik, D., Iannella, R., and P.
                Faltstrom, "Uniform Resource Names (URN) Namespace
                Definition Mechanisms", BCP 66, RFC 3406, October 2002.

8.2. Informative References

   [RFC1737]   Sollins, K. and L. Masinter, "Functional Requirements for
                Uniform Resource Names", RFC 1737, December 1994.

   [STD-DP-07-024-ed1.0.1]
                DGIWG Terminology Register Technical Specification,
                June 2008.

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