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Guide to Schematron Rules and Patterns

IC-ID Schematron Guide

Version 1

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Chapter 1 - Introduction

1.1 - Purpose

(U) The following documentation is informative. The actual Schematron files are the normative record. This documentation is generated from the Schematron files via XSLT it may be missing some file or pieces of a file but whatever is here other than titles came from the original file.

(U) It is envisioned that this will be a useful resource to search and read but for questions and debates the source files should be consulted.

(U) Rules identifiers are all of the format IC-ID-ID-XXXXX, with rule files named IC-ID_ID_XXXXX.sch. Any other heading indicates a supporting file that may strongly influence a rule but is not actually a numbered rule.

Chapter 2 - Rules

There are no numbered Rules currently defined for IC-ID.

Chapter 3 - Abstract Patterns

All of the Abstract Patterns for IC-ID are listed in this section. These patterns may depend strongly on variables defined in the Schematron Schema section.

3.1 - ./Lib/ICIdentifierRestrictions.sch

Rule Description: ICIdentifierRestrictions

Code Description: A valid IC-Identifier must meet the following criteria: (1) The id must begin with 'guide:/' (2) The prefix for the id is an integer up to 16 digits with no leading zeros allowed (3) The suffix is an alphanumeric string limited to 36 characters of the set that includes A-Z, a-z, 0-9, underscore, hyphen, and period (4) There are no additional characters proceeding the ID. In order to determine the provided IC-Identifier meets these criteria, the value parameter is matched against the following regex: `^guide://([1-9][0-9]{0,15}|0)/[A-Za-z0-9_-\.\.]{1,36}$`.

Schematron Code:

```
<sch:pattern abstract="true" id="ICIdentifierRestrictions">
    <sch:rule context="$context">
        <sch:let name="icidRegEx"
            value="'^guide://([1-9][0-9]{0,15}|0)/[A-Za-z0-9_-\.\.]{1,36}$'"/>
        <sch:assert test="matches(string($value),$icidRegEx)"
            flag="error">
            <sch:value-of select="$errorMessage"/>
        </sch:assert>
    </sch:rule>
</sch:pattern>
```

Chapter 4 - Schematron Schema

The top level Schematron file for IC-ID is in this section. This file imports all of the others and also defines many global variables they are all dependent on.

4.1 - ./IC-ID_XML.sch

Rule Description:

Code Description:

Schematron Code:

```
<?ICEA master?><!-- UNCLASSIFIED --><!-- Notices - Distribution Notice:
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    to Federal, State, Local, Tribal, and Foreign Partners and
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    any further distribution must be coordinated via the Intelligence
Community Chief Information
    Officer, Mission Engagement Division at standardssupport@dni.gov--
><!-- WARNING:
    Once compiled into an XSLT the result will
    be the aggregate classification of all the CVES
    and included .sch files
-->
<sch:schema xmlns:xsl="http://www.w3.org/1999/XSL/Transform"
queryBinding="xslt2">
    <sch:ns uri="urn:us:gov:ic:id" prefix="icid"/>
    <sch:ns uri="urn:us:gov:ic:edh:xsl:util" prefix="util"/>
    <sch:ns uri="http://www.w3.org/2001/XMLSchema" prefix="xs"/>
    <sch:ns uri="http://www.functx.com" prefix="functx"/>

    <sch:include href="Lib/ICIdentifierRestrictions.sch"/>
    <!--=====-->
    <!-- (U) Universal Lets -->
    <!--=====-->

    <!-- ***** -->
    <!-- * Abstract Rule and Pattern Includes * -->
    <!-- ***** -->

    <!--*****-->
    <!-- (U) Custom XSLT function -->
    <!--*****-->

    <!--*****-->
    <!-- (U) IC-EDH ID Rules -->
    <!--*****-->

    <!--*****-->
    <!-- (U) IC-ID ID Rules -->
    <!--*****-->

    <!--*****-->
    <!-- (U) IC-ID ID Rules -->
```

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Chapter 5 - Removed Rules

There are no rules that have been removed for IC-ID.