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# **Guide to Schematron Rules and Patterns**

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## **USAgency Schematron Guide**

### **Version 1**

6 September 2013

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## Table of Contents

|                                               |   |
|-----------------------------------------------|---|
| Chapter 1 - Introduction .....                | 1 |
| 1.1 - Purpose .....                           | 1 |
| Chapter 2 - Rules .....                       | 2 |
| Chapter 3 - Abstract Patterns .....           | 3 |
| 3.1 - ../Lib/AllowableUSAgencyValue.sch ..... | 4 |
| Chapter 4 - Schematron Schema .....           | 5 |
| 4.1 - ../USAgency_XML.sch .....               | 6 |
| Chapter 5 - Removed Rules .....               | 7 |

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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 USAgency-ID-XXXXX, with rule files named USAgency\_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 USAgency.

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## Chapter 3 - Abstract Patterns

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

### 3.1 - ../Lib/AllowableUSAgencyValue.sch

Rule Description: AllowableUSAgencyValues

Code Description: This abstract pattern checks to see if a value exists in the US Agency Acronym List. The following parameters are used by this pattern: \$context := the context in which the searchValue exists. \$searchTerm := the value which you want to verify is in the list. \$errMsg := the error message text to display when the assertion fails.

Schematron Code:

```
<sch:pattern abstract="true" id="AllowableUSAgencyValues">
  <sch:rule context="$context">
    <sch:let name="USAgencyAcronymList"
      value="document(' ../../CVE/USAgency/
CVEnumUSAgencyAcronym.xml')//cve:CVE/cve:Enumeration/cve:Term/cve:Value"/>
    <sch:assert test="some $token in $USAgencyAcronymList
satisfies      $token = $searchTerm or      matches($searchTerm,
concat('^',$token,$'))"
      flag="error">
      <sch:value-of select="$errMsg"/>
    </sch:assert>
  </sch:rule>
</sch:pattern>
```

---

## Chapter 4 - Schematron Schema

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



## 4.1 - ./USAgency\_XML.sch

Rule Description:

Code Description:

Schematron Code:

```

<?ICEA master?><!-- UNCLASSIFIED --><!-- Notices - Distribution Notice:
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><!-- 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:usagency" prefix="usagency"/>
    <sch:ns uri="urn:us:gov:ic:edh:xsl:util" prefix="util"/>
    <sch:ns uri="http://www.w3.org/2001/XMLSchema" prefix="xs"/>

    <!--=====-->
    <!-- (U) Universal Lets -->
    <!--=====-->

    <!-- ***** -->
    <!-- * Abstract Rule and Pattern Includes * -->
    <!-- ***** -->
    <sch:include href="Lib/AllowableUSAgencyValue.sch"/>

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

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

</sch:schema>

```

## **Chapter 5 - Removed Rules**

There are no rules that have been removed for USAgency.