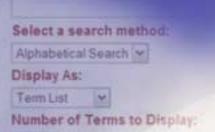
# CST Web Service Project Enter a term or a Select a search method: Alphabetical Search Display As: Term List Number of Terms to Display: Submit Resot AA Arts, Mosir, Literature **Government of Canada CST Web Service Project** EN Language and Literature MPS // sewer.nr3.010/2001/XNSSchillassuffice -



# **Government of Canada Core Subject Thesaurus (CST)**

- Available online at: <a href="http://thesaurus.gc.ca/">http://thesaurus.gc.ca/</a>
- Authorized source of standardized terminology for the indexing and retrieval of GoC online information resources.
- TBITS 39.2

http://www.cio-dpi.gc.ca/its-nit/standards/tbits39/crit392 e.asp

 "Default" vocabulary for populating "dc.subject" in GOL Metadata Scheme (Dublin Core)

> Public Works and Government Services Canada Gay.Lepkey@pwgsc.gc.ca 23-09-2004

# Select a search method:

Display As: Term List

Number of Terms

Submit Resot

## Background

- Based on the Depository Services Program (DSP) Subject Thesaurus.
- Compliant with ISO standards ISO 2788-1986 and ISO 5964-1985
- Does not include specialized terminology used in specific and limited disciplines.
- DSP has custodial and editorial authority for the CST
- Further development based on
  - extraction of terminology used to identify departmental business lines and mission statements
  - requests submitted by persons responsible for departmental GOL metadata

Public Works and Government Services Canada Gay.Lepkey@pwgsc.gc.ca 23-09-2004

Select a search method:
Alphabetical Search M
Display As:

#### Governance

Number of Terms to Display:

Term List

 Thesaurus Sub-Group of the GOL Metadata Working Group

http://www.wis.inig/28047300.5choma#utring/

Main Task:

"To explore the feasibility, requirements, options, value and value-added, process and method for implementing a government wide thesaurus/thesauri to support GOL requirements for improved information exchange, retrieval, and management of Government of Canada information."

Public Works and Government Services Canada Gay.Lepkey@pwgsc.gc.ca

23-09-2004



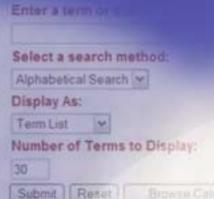
#### Reasons for Web service

- CST is continually evolving.
- Web service enables dynamic, machine to machine communication

http://www.wii.nig/2001/XWLSchoma#utring/

 Result = Current version is always available to indexers and searchers.

23-09-2004



#### DSP – EC – LAC Partnership

Consulting services contracted by LAC

http://www.w3.mig/28047XMLSchome#utring/

- Paid for by the DSP under an existing service contract with LAC
- EC agreed to be technical leads, provide testing environment and technical support

Public Works and Government Services Canada Gay.Lepkey@pwgsc.gc.ca 23-09-2004

# Select a search method:

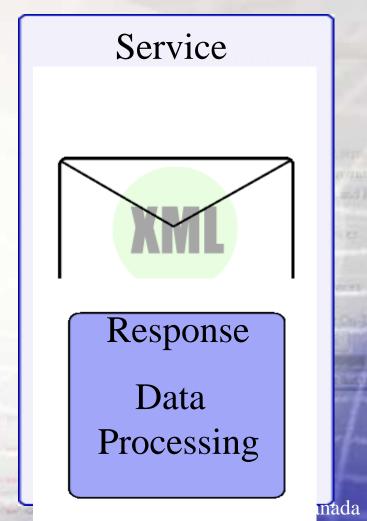
#### What is a web service?

- Display As:
- A standardized way for machines to exchange data
  - Allows many applications to use the same data source in different ways
  - Based on requests and responses
  - Communication uses eXtensible Markup Language (XML)
  - XML data encoded using Simple Object Access Protocol (SOAP)
  - Public interfaces of the service described using Web Service Description Language (WSDL)

http://www.w3.ing/2004/XMLSchome#utring



#### What is a web service?



# Select a search method: Alphabetical Search Display As:

#### The CST Web Service

- Another interface for accessing terms from the CST
- The existing website is a good way for users to find and use CST terms (i.e. search, copy and paste) but the process depends on the user
- The web service allows developers to dynamically use CST terms in their applications while minimizing user dependence and the margin for error

Term List

Submit Resot

Number of Terms to Display:

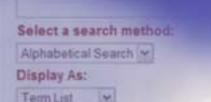
# Enter a term or Select a search method: Alphabetical Search W Display As: Term List Number of Terms to Display: EN Language and Literature

#### The CST Web Service

- Provides three methods for accessing information:
  - Alphabetical Search
  - String Search
  - Classified Search

MPS (/ sewer.nr.3.0/q / 2001 / XNESchinnawatening

5 - http://www.ncs.mig.r28047x105.5choma@atring.....

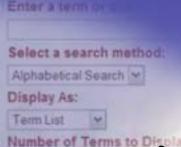


#### **CST Web Service Methods**

- Alphabetical and String Searches
  - Both take four parameters
    - Language
    - Search String
    - Response Type
    - Number of Terms
  - Alphabetical matches text from the beginning
  - String matches the text anywhere in a term

(2 sewer ar 3 of q / 2001 / XML Schools # string

"http://www.sc3.ing/2004/XMLSchoma#atring.....

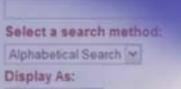


#### **CST Web Service Methods**

Alphabetical and String Searches (cont.)

http://www.w3.ing/28047306.5chema#utring

- Three response types
  - Term List
    - List of terms with minimal information
  - Term Records
    - List of terms with detailed information for each match
  - Term Hierarchy
    - List of terms with attention to where each term fits into the hierarchy of terms



#### **CST Web Service Methods**

Term List 💌

Classified Search (Browsing)

- Submit | Reset | B
- Two parameters
  - Language
  - Category Code
- If the category code is empty a list of categories is returned
- If the category code is present then a list of terms for that category is returned

http://www.w3.ing/28047XMLSchome#utring/

# Select a search method: Alphabetical Search Display As:

#### **CST Web Service Client**

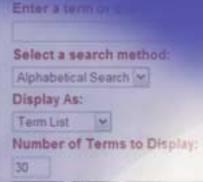
Term List 

Number of Terms to Disp

Submit Resot

- Developed to demonstrate the service
- Fulfills Environment Canada's immediate needs for the service
- Designed as a reusable component that can be easily integrated into existing web applications
- Goal is to facilitate using the CST to fill in a form on a web page

http://www.w3.ing/280473MLSchome#utring



#### **CST Web Service Client**

- No knowledge of XML or web services
- Requires a container to forward requests to the client and include a response into itself
- Requires some JavaScript to process information from the client and use it to change the form
- Returns preferred terms where applicable

Select a search method:
Alphabetical Search

# CST Web Service Project - Agenda -

Number of Terms to Display:

Submit Reset

Term List

Enter a term or

- AG Aground of Four
- B) form Sessional Property St. Service and Property Service and Property
- HE HARDS and Safety HE HARDS and Art Safety BY Sefermation and Com-
- EB Catour EN Language and Lityrus
- M Military ME History and Courses
- PR Processors SO Society and

- How it works
- Testing & performance
- Application
  - Client interface
  - Web service
- Governance Questions

FF NEWS NO. OF QUELLERS SCHOOLS AND STATES

http://www.w3.mg720047XMLSchome#utring.-

- Next Steps
- Advantages

Select a search method: **CST Web Service Project** Alphabetical Search W - How it works-Display Term Lis Number Users connect to local content Submit management system or Users connect application thru web Dynamically **Browse CST** browse / search Cut and paste using standard data client interface Pick and choose EST Web Site - Magma -**CST Web Service** - Environment Canada -

23-09-2004



# CST Web Service Project - Testing & Performance -

#### **Load testing Parameters**

- What should be load testing parameters?
  - Number of concurrent users?
- Based on what architecture ?
  - Central vs decentralised?
- Based on who's infrastructure ?

#### **Current Performance issues**

Children was made and the school white and the school of t

- Slow
  - Multi tier, Network
  - Magma server
    - o Obsolete Db software not robust

Environment Canada Charles.St-Pierre@ec.gc.ca 23-09-2004

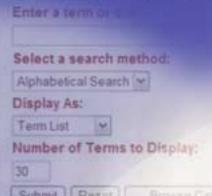


CST Web Service Project
- Application -

#### Client interface

- How many should exist?
- Who can access?
- Documentation
- Local vs central User support

Unity: 77 www. st3.ting.72804.73305.5chomic#utring



# CST Web Service Project - Application -

#### **CST Web Service**

- Where should it sit?
- How critical is it?
- Who can access?
  - Federal government
  - Provincial government
- Documentation
- Local vs central support

\$670 [[ sewer.nr.3.6/0 ] 2001 [XNLSchinna#ultring

1 - http://www.sc3.mig/2004/XML5choma@utring.....

Environment Canada Charles.St-Pierre@ec.gc.ca 23-09-2004

# Select a search method: Alphabetical Search

# **CST Web Service Project**- Governance Questions -

- Longer term resource, funding, etc
  - Security concerns, user permissions etc
  - Use of the Web service by organisations external to GOC particularly provincial governments (exclusion of private sector organisations assumed)
  - Where should the Web Service sit?
  - Longer term server hosting for the Web Service that would support use by organisations external to EC



# Project Service Web (CST) - Advantages -

- Facilitates access to all users
- Standardize:
  - CMS and application connectivity
  - GOC Single client interface

\$670 (7) sewer art old (2001/XMLSchillagetill)

Phttp://www.w3.mg/2004/XMLSchome#utring

- Content selection and formatting
- Programmatically support policies
  - (CLF, OLA, ...)
- Minimal user training
- In line with Service Oriented Architecture (SOA) approach
- Very cost effective

Environment Canada Charles.St-Pierre@ec.gc.ca 23-09-2004

Select a search method:

Alphabetical Search |

Display As:

Term List |

Number of Terms to Display:

30

Submit | Reset | Brown Cit

CST Web Service Project
- Next Steps -

- Who Stakeholders
  - Users
  - Technical support
  - Governors
  - Funding org
- What
  - Additional new technology
- When
  - Now
  - Soon
  - Later
- Where

Environment Canada Charles.St-Pierre@ec.gc.ca

23-09-2004

#### CST Web Service Project Enter a term or s Select a search method: Alphabetical Search Display As: Term List Number of Terms to Display: Submit Resot AA Arts, Music, Uterature - Questions -EN Language and Literative NE Manage and Law (vv **Environment Canada** parts (7 mmm.m2.6/q) 2001/XMSSchauperdrug -Charles.St-Pierre@ec.gc.ca Children was significant scheme surring on the scheme surring on the scheme surring of t IM Day 2004 23-09-2004