

Paper for Consideration by S-100WG

Proposal for Enhancing Multilingual Support in the S-100 XML Components

Submitted by:	Canadian Coast Guard/Canadian Hydrographic Service
Executive Summary:	This paper seeks an in-principal approval to carry out the work need to add multilingual support to S-100 support components, mainly various XML catalogues, required by MS and user communities.
Related Documents:	S-100
Related Projects:	Any S-100 Product Specifications

Introduction / Background

Canada has a requirement to encode all geospatial resources and any underlying support components required to render and make use of them, using both national languages: English and French. The underlying support components, in this context, include sections of feature, portrayal, interoperability, and alerts XML catalogues that might be visible to the end user. Other Member States have similar requirements and have expressed a desire to use their national languages, in addition to English, to encode some of the Feature Catalogue elements to improve data usability within their national user communities.

Equally, the S-100 community and OEMs require clear implementation guidance to ensure consistent encoding and implementation of S-100 XML support components.

This proposal aims to solicit support to address both requirements.

Analysis/Discussion

The recent multilingual support changes proposed for the S-100 Exchange Set Catalogue highlighted MS' interest in having similar enhancements included in other parts of the S-100 standard. There are many S-100 components that could benefit from such enhancements with the various XML catalogues being the most prominent use case. Similar to the ISO 19115 localization framework, which provides the necessary structure to consistently communicate the key language characteristics that was used to add support for multiple languages in the metadata records, XML provides its own localization framework and a set of best practices that could be integrated into S-100. This integration, however, requires a sizable amount of effort to:

- identify all support components that require multilingual support enhancements,
- determine the most optimal approach of applying XML localization best practices,
- identify any changes to the underlying S-100 models and schemas while aiming to minimize them as much as possible,
- draft Implementation Guidance document.

For this reason, this proposal does not provide any specific change recommendations but rather seeks an in-principal agreement to carry out such work and have it integrated into S-100 upon completion.

Conclusions

The multilingual provisions introduced by ISO 19115-1:2014 have already been largely integrated into S-100 on the metadata level. This makes it possible to accommodate MS requirements for multilingual metadata support and it is highly desirable to enhance other parts of S-100 using a very similar approach and provide greatly improved language localization support to the end user.

Justification and Impacts

Implementing the proposed changes will enable encoding of XML support components using multiple languages as required by the Member States. It will also add value and enhance S-100 usability within data user communities where English is not the primary language.

The impact of this proposal should be relatively minimal as the relevant components of S-100 are currently undergoing major revisions so the proposed changes will only be a part of a larger update initiative already in progress. Additionally, the change recommendations will aim to minimize changes to the existing models and schemas of XML support components.

Action Required of S-100 WG

The S-100 WG is invited to:

- a. Review the content of this proposal and
- b. Consider endorsing the general scope of the proposed changes and approving in principle its implementation once all the required details are worked out.