



Project no. 018340

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Instrument: Network of Excellence

Thematic Priority: Sub-Priority 1.1.6.3: "Global Change and Ecosystems"

C5.118 Pilot implementation of a CDM Library functionality for the output of structured descriptive content in structured and textual form

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Dissemination Level		
PU	Public	X
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

INTRODUCTION

Taxon descriptions and other factual data are an essential component of taxonomic output. Up to now, the CDM programming library supports such data only in unstructured (textual) form. Structured descriptive data has to be integrated into the CDM and the library has to support its output. Creating an editor to input this type of data is not attempted within the EDIT project, largely because fully functional tools are available for this purpose. Instead, importing files following the international standard SDD (Structured Descriptive Data) format is made possible. This allows integrating descriptive data from other sources (such as Xper² or Lucid knowledge bases), benefitting from the richness of these tools as explained in a previous document (see use cases in C.5.081).

This report illustrates the realisation of a tool allowing an import and a basic HTML display of the descriptive content of the CDM, using classes and methods from the CDM Java libraries (services and IO).

The principle, as shown in fig.1, is a web page where the taxonomist can upload an SDD file to a distant server. Here an executable achieves the import of this file by creating a new CDM base or updating an existing one. At the same time, the web page allows the user to consult all taxa present in a given CDM database. Then a pilot output in HTML format is provided for one taxon or for the entire set of taxa of the base.

The import of data coming from descriptive tools (in the SDD format) then their simple display in HTML show the possibility of integration of these tools with the CDM (**M5.38**), with the use of some functionalities (still existing or new) from CDM libraries.

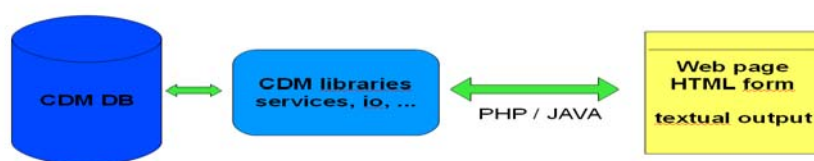


Fig.1: Functioning of the HTML interface with CDM libraries and database.

PRESENTATION

The tool consists of an HTML page including a form and a program in PHP processing the input information. The PHP code calls JAVA functions that interact with some CDM classes.

Two treatments are provided (see the screenshot in fig.2)

1. SDD import: the user can upload the SDD file to be imported, and choose a name for the new CDM data store or the name of the database to be updated. After validation, the user is informed if the import has been successful.
2. Output: Users are asked to select one of the CDM data stores present on the server. Then they can choose to display the entire descriptive content of the base or only the description of a single taxon. Fig.3 depicts the result of the output. This is a list of descriptive features with associated description elements.

The system has been created in a local environment (easyPHP) but can be easily moved to a server and adapted to a different context.

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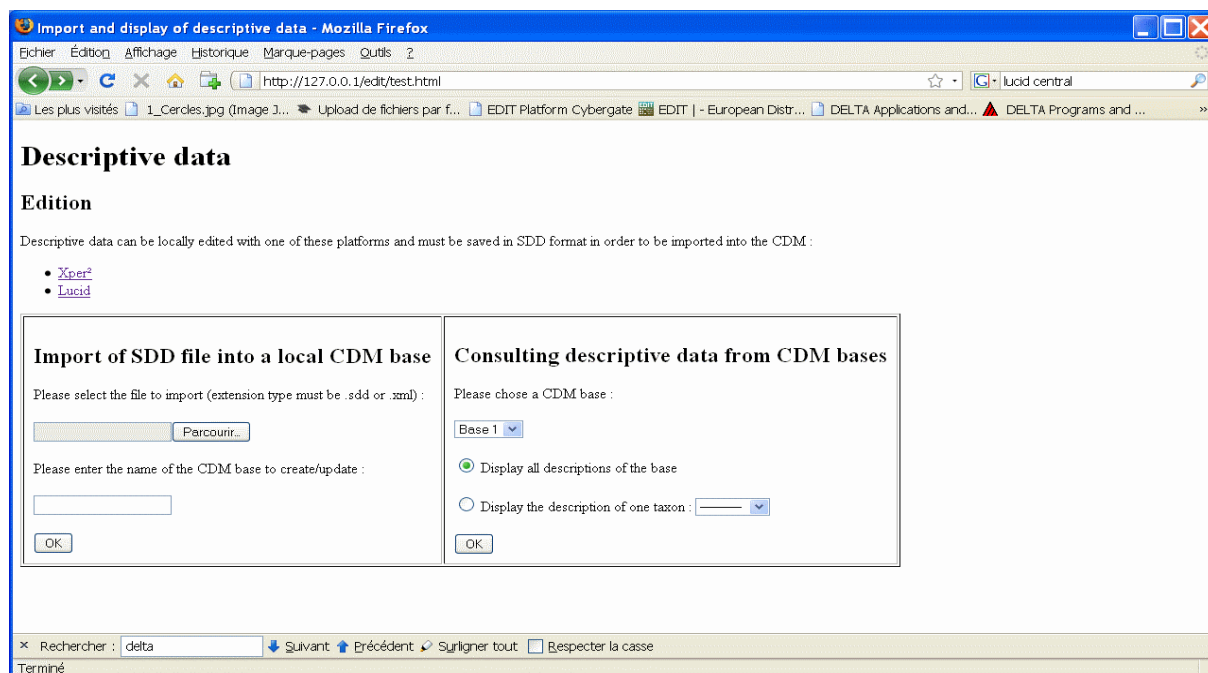


Fig.2 : Screenshot of the HTML form.

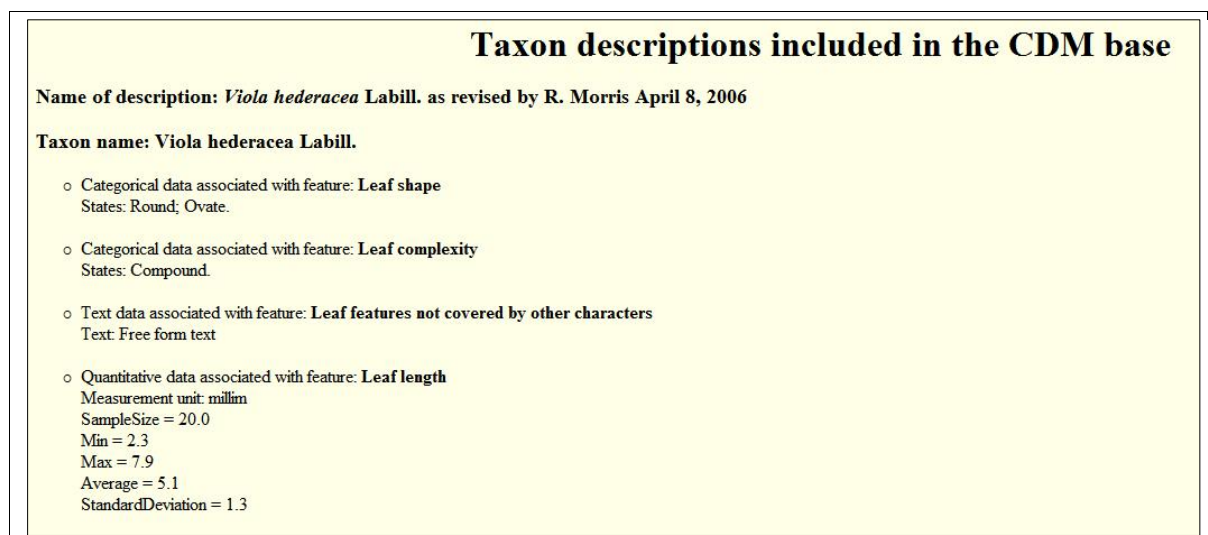


Fig.3: result of the output.

CONCLUSION

The created web page illustrates how a tool dealing with descriptive data can be integrated to the CDM (M5.38). The automation of the SDD import makes it easy to use for the taxonomist.

This is the first time we can visualize descriptive data from the CDM. Even in a basic way, this output is essential to check the correctness of the SDD import, and to figure out the descriptive content of any CDM data store. The display represents only a preliminary implementation of the interface but it can be used by taxonomists to test the content of descriptive data in the CDM. This is only the very first step of a more flexible and complex implementation envisioned (see C5.117).

This implementation continues and materializes the considerations presented in documents C.5.081 and C.5.117. It provides a tool that can easily be improved and adjusted to existing online structures.