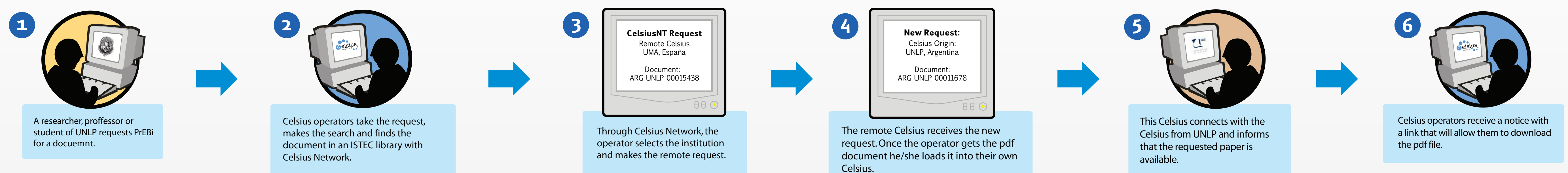


Celsius Network

Interconnection between Reference Portals through Webservices



The Library Linkage Project (Proyecto de Enlace de Bibliotecas – PrEBi) of La Plata National University (UNLP) is part of Library Linkage initiative (LL) of Ibero American Science and Technology Education Consortium (ISTEC) which the UNLP belongs to. The main objective of PrEBi is to provide technical and scientific information required for Researchers, Teachers and Students from UNLP, as well as to provide to member institutions that are part of the project of documentations available in libraries in the dependencies of each University.

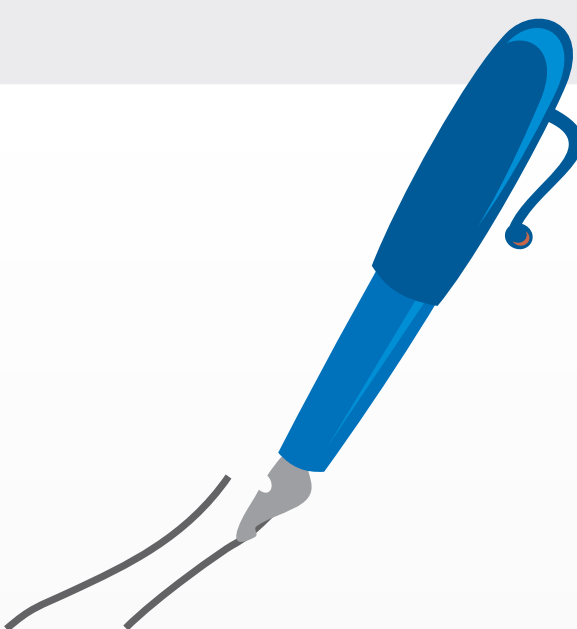
In order to manage all bibliographic resources required by PrEBi users (journal articles, book chapters, congress proceedings, theses and patents) and to manage the requests of Universities participating in the project, it has been developed in UNLP the Celsius Software, which has evolved to Celsius Network platform. This platform permits interconnection among all instances of Celsius, installed in servers of each of more than 30 Institutions that participate in the project distributed in 9

countries of America and Spain. Through this interconnection of instances, many tasks are automated such as remote request creation, request administration and file sending between Institutions. In addition to this, counting with a network of Celsius instances, Institutions are allowed and encouraged to share historical information about searches between each other, constantly improving the service and minimizing response times. This network potentially permits to offer a great variety of services and facilities.

Celsius Network interacts with a unique module named Celsius Directory, also developed in PrEBi UNLP, in which it is centralized information referring to Celsius NT instances network and to the hierarchical structure of entities participating in the project; in turn this directory regulates interconnection between Celsius Instances and generates global statistics centralizing distributed calculations on each instance.

Celsius Imago

For the digitalization of handwritten text



Research subjects related to digitalization tasks start from different needs: - In relation to documentation material sheltered in libraries and archives, the need of preserving and spreading information forces to work on the areas of digital topology and morphology, in order to optimize some image processing operations that will improve the digitalization result.

- The existence of documents already digitalized, but in really poor conditions: gray images, diffuse borders, spots; represents a similar challenge.
- The existence, also, of a large amount of handwritten documents prone to be subject of complex recognition processes in order to be stored in places with easy access from multiple users.

Celsius Imago will be a scalable software that has started improving problems from already existing documents: spots, borders, centralization, specially related with

digital topology and it is expected to be added new functions linked with the research subjects above mentioned.

Huge Information Volumes: indexing, cataloging and storage

The open Internet resources, the harvesting processes using OAI protocol that allows to obtain a big amount of information allocated in OAI remote servers (for example DSPACE or SeDiCI reservoirs) don't present special difficulties in some cases the efficient storage might be and would be necessary to analyze different compression methods, but specially the efficient management of this set of records in order to be able to take as much benefits as possible, organizing, making complex searches and minimize processing and access time is a task that presents new challenges.

Celsius Bloodhound



Heterogenous background search engine for Bibliographic Resources

The Celsius BloodHound search engine is an application that will allow to search bibliographic references around the world. This automatic searches will allow to speed up the tasks of bibliographic provision of the Library Linkage Project (PrEBi), integrated to the Library Linkage Net of the Iberoamerican Science and Technology Education Consortium; serving not only the users from UNLP, but also professors, researchers and students from over 60 universities that are part of the Net.

This application to be developed will contemplate the different technological variants in a diversity of available catalogs to allow to maximize the search universe and therefore the possible users that will be able to benefit from the software.

Some Celsius Bloodhound goals are:

1. It should be able to connect with different servers, catalogs, libraries, etc., (from

now on just catalogs) taking into account that they can use Standard technologies (Z39.50, SRU, SRW) or their own technologies (web services, cgi, HTML only).

2. Search in the catalogs, recover the data they send and show them.
3. Allow consults from different origins: a web interface, a ¿? application, an existing software (like Celsius), some other server or catalog, etc.
4. Search in background.
5. Allow the existence of a dynamic list of catalogs: delete catalogs (offline servers) or add new catalogs with the URL or IP address in order to have access to them, to the technologies in use and the required information for each technology in special.
6. Scalable development: a starting version and new modules: new technologies of new catalogs, new searching criteria.