

SICol-M – A Management System for Microbial Collections

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Abstract:

The Brazilian Ministry of Science and Technology (MCT) is currently funding the implementation of a quality management program in selected microbial collections that are candidates to acquire the status of Biological Resource Centers (BRC). This effort is being complemented by the development and installation of SICol-management, a software to support the documentation and traceability of processes and products in service microbial collections. SICol-M, the management system for microbial collections is being developed to support the digital documentation of processes associated with day-to-day management of microbial collections, including methods and procedures for strain authentication, preservation techniques, stock control, quality management procedures, and distribution of strains. The software was conceived in a modular framework, as generic as possible to be useful to different collections and taxonomic groups (bacteria, filamentous fungi, yeasts and protozoa). The software can be installed in a number of computational environments as operating systems (fully tested for MS-Windows and Linux) using different database engines. Its goal is to provide a user-friendly environment to help collections in documenting their holdings and procedures envisioning the publication of online catalogues as well as data exchange through global networks by providing built-in international standard mechanisms for data exchange. The current version has the taxonomic and strain basic information module implemented as well as tools to document strain deposits and orders, quality control, and preservation methods, including stock maps. The software is being developed based on international guidelines and standards, taking into account the feedback provided by the twelve collections where it is currently installed.

Key words: management system, documentation, database, microorganisms, culture collections