

## GNM - DMS

Germanisches National Museum  
Document Management System

### Basic Document Management System

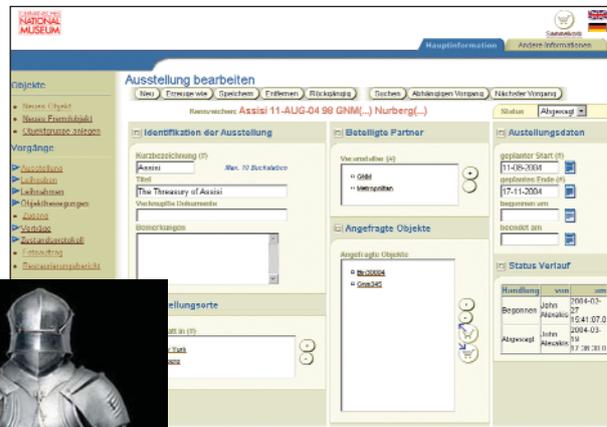
The GNM (Germanisches National Museum) basic documentation system is designed to assist the documentation process of the museum objects. The documentation of a museum object includes the handling of the administrative information performed by the Registration office and the handling of the scholarly information and administrative information performed by the department curator staff. This information includes the basic card information, inventory information, accession records, contracts, publications etc.



### Administrational information handling

The system provides two levels of control the administrational information handling (inventarization procedure): the Registration office level and the curator of collection department level, which are different in user interfaces and functionality:

- *Registration office:* The system provides an interface to guide the Registration office users (R.O. users) to initiate the inventory documents for the accessed objects. There is also an interface that allows to the R.O. users to search over inventory documents, which are under-construction, to edit these documents in order to add all the necessary administrative information, which is exclusively managed by the R.O. The system uses an appropriate read-only mode for the scientific information in order to avoid confusions or accidental damage of information.
- *Department curator:* The department curators are also involved in some kind of management phase for the inventory documents before they can reach the scientific documentation step. In details the curator needs to accept or reject the initialized documents from the R.O. In some cases like the transcription of paper-documentation the curator itself initializes the inventarization procedure. The following functions are available in the Curator interface for the handling of the inventarization procedure.



### Object documentation

The documentation phase of the inventarization procedure is based on a scientific recognition process that provides basic knowledge about the object. Inventory documents structures are designed (XML documents) to hold all information derived from this scientific process. The knowledge included in inventory documents is used to prepare catalog projects. The system provides a user interface that guides and simplifies the documentation process by eliminating unnecessary user actions.

The system also provides the XML editor configured in such a way that it allows to the user to write, aggregate and review content directly in XML, without being confronted with complex details of XML.

### Documentation monitoring and search mechanism

The system provides to the curator simple monitoring functions through the search interface. Since this interface includes search on administrative and "metadata" information the curator is able to monitor the inventarization procedure.

### System Administrator Interface

System administrators have full control on the document repository and master catalogue. All of the above functionality is provided, as well as all unconstrained functionality provided through iFS Web Interface. The system is able to permit authorized staff to overcome and repair any kind of system malfunction. It also enables authorized staff to delete inventory numbers and inventory documents in cases of corrupted data, double entries or other unforeseen inconsistencies and update coherently the master catalogue.

The GNM basic documentation is a Web application system that consists of three tiers: the storage management, the functional components and the user interface. Documents are stored on a central document repository and users from each collection department and the Registration office interacts with it from their workstation connected through the network. Users of different roles share accessibility over documents. A versioning mechanism protects documents from alternating modifications from different users.

The inventory document format is XML and the documents are edited with XMetaL.

- *XML document format.* XML is the accepted format for information interchange over the Web. It is a standardized document format that enables the document creator to label the information using custom tags that describe the structure and meaning of the content. The presentation of XML documents is controlled by style-sheets, thus content creators can concentrate on collecting, writing and approving content, while designers control how each document is formatted for different delivery channels. Furthermore, XML allows the categorization and search for documents, and information within documents, more effectively than any other Web deliverable format.

- *XMetaL document editor.* XMetaL is an editor for XML documents, which is highly configurable and can be tailored for specific end-users. The documentation process in the museum is performed by people (curators) who are experts in their own disciplines. This editor is configured in such way that allows these people not familiar with XML to write, aggregate, and review content directly in XML, without being confronted with complex details of XML.

### Extended Document Management System

The Administration System (GNM-DMS Xtended) is an autonomous web application that is designed to work complementary to a basic Document Management System (GNM-DMS) that was developed to support the basic and administrative functions in the object documentation process of the museum.

As the functionality of the basic GNM-DMS covers the scientific documentation of the museum objects at GNM and the access to its knowledge, the Xtended System aims at the registration of administrative processes about museum objects and the management of related documents as well.

The notion of administrative information includes events (or procedures) such as:

- *Exhibitions* taking place in foreign museums (so called External Exhibitions).
- *Temporary Loan-Out* events, taking place in the context of an exhibition.
- *Object Moves.* These can be a) internal and b) external. In both cases documentation is important in order to keep track of objects' location history.

- *Contractual agreements* with a) Insurance Companies, b) Transport Agencies and c) Borrowers.
- *Condition Checks* in the context of another procedure.
- *Photo Orders.* These may be triggered a) in or even b) out of the context of another event.

The documentation functionality of this system is based on the ability to:

- co-relate an event (procedure) to more than one objects,
- support the notion of the status of a procedure,
- co-relate events (procedures) each other, considering that a procedure may take place in the context of another procedure,
- co-relate procedures each other accordingly to their previous-next sequence.

Objects are distinguished into:

- *Inventoried* objects. These are all objects which can be documented scientifically through GNM-DMS.
- *Ghost* (i.e. non-inventoried) objects. These are objects which have not been registered yet, but they participate into procedures such as Condition Checks and Moves before they become inventoried. Some of them may never get an inventory number. For example this may take place in case of third-party photo orders.

Objects can be organized into group hierarchies of unrestricted depth. Object groups may be defined considering scientific criteria.

Procedure documenting requires documentation of side-data such as:

- *Locations.* Locations may be a) Strictly identified storage places inside the museum, b) In house spaces of the museum or even c) External Addresses.
- *Persons.* Persons may be a) Museum Staff, b) Foreign Individuals or c) Organizations

The system provides navigational functionality through the documented entities. User may plan many alternative navigational paths through entities (procedures, objects, locations, persons). Procedures, especially, are represented by smart, short and representative identifiers, which concentrate the most of their basic characteristics.

Through navigation, objects taking part into procedures or belonging to groups can be selected and added to a cart. An object cart mechanism helps user to construct a "working" group of objects. This group of objects can be reused in order to save time from repeated searches.

A search mechanism is provided in order to form multi-valued queries over objects, procedures and side-data.

### Further Information

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