



CASE STUDY: THE NATIONAL GALLERY OF ART

Application Development: From Database Design to Implementation

[Exclusive Ore Inc.](#)¹

Exclusive Ore® designed, developed and implemented an Enterprise level Collections Management System for the National Gallery of Art (NGA). This mission critical system automates and supports the art related operations of the NGA. More than 125 users in 35 departments use it regularly.

A multi-year development project, the Collection System has a complex database structure that integrates the data and functionality in such major subsystems as:

- ? **Cataloguing:** maintaining massive scholarly information about objects and artists, including support for special collections.
- ? **Movement:** tracking and recording each and every object move, including incoming, outgoing, internal and external moves as well as shipment planning.
- ? **Acquisition:** assist the registrar in accessioning objects acquired by the National Gallery of Art.
- ? **Exhibitions:** end-to-end planning for multi-venue exhibitions.
- ? **Loans:** ability to manage both loans to the collection and loans to other institutions, including the Extended Loan program to US government locations.
- ? **Insurance:** Project and maintain worldwide art insurance requirements.

The database, implemented in IBM's DB2, consists of more than 150 tables and 410 indexes tuned for efficient retrieval, processing and reporting. There are 300 views for querying, reporting and support of business process. The system includes approximately 150 screens for data access and update and in excess of 200 reports.

More than just a data repository, the Collection System also manages inter-departmental work-flow throughout the gallery. For example, a planned exhibition spawns the generation of loan documents in the Loans Office, the planning of shipments by the Registrar's Office, and arrangements for appropriate insurance in the Insurance Office. When an Exhibition closes, related curatorial records are appropriately updated.

Security is integrated throughout and enforced at the both functional (subsystem, menu) and data (record and field) levels.

The data from the Collection System not only provides essential information to its users, but provides the core data for other National Gallery of Art systems, including its website (<http://www.nga.gov>) and interactive visitor inquiry systems.

¹ To find out more about Exclusive Ore Inc., and its custom solutions to data warehouse, database and data mining problems, please go to www.exclusiveore.com or click [here](#).