



IC Manage GDP - Global Design Platform

IC Manage GDP: Efficient, Scalable, Reliable Multi-Site Design Management

IC Manage GDP (Global Design Platform) is a next generation design management system that efficiently manages, locates, and assembles components and delivers reuse across the enterprise. Its transaction-based architecture and streaming network implementation provide scalability, reliability and performance up to 100 times that of conventional data management systems based on 1980's RCS technology.

IC Manage GDP offers design assembly, derivative management, real-time worldwide content delivery, high performance revision control, configuration management and multi-site collaboration capabilities. It also includes IT integration for global scalability, storage management, high availability, disaster recovery, and back-up integration.

Industrial Strength: Capacity, Performance, Reliability

IC Manage GDP has the highest capacity and scalability in the industry. It can handle multiple terabyte data sets, hundreds of millions of files, and unlimited revisions without performance degradation. Its unparalleled technology foundation includes:

- Transaction-based for near real-time worldwide delivery.
- Message queuing architecture with atomic transactions for performance and data reliability.
- Streaming TCP for speedy data transfers across long latency networks.

IC Manage GDP delivers performance approaching wire speed via its streaming architecture. Its transaction-based architecture

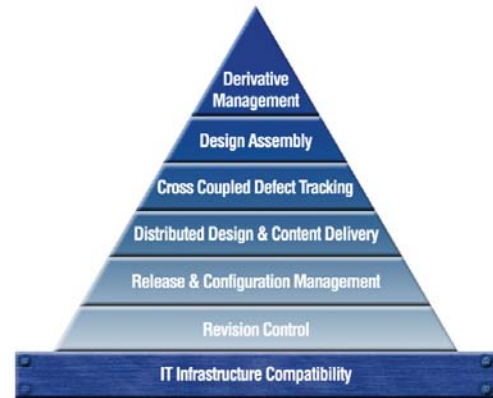
"We have over a hundred users using IC Manage across multiple sites. We have taped out well over 100 chips with them! We have not had any data integrity issues, and we are not required to shutdown during backups. Our end user cell checkout and check-in times are only a fraction of a second."
— Ajay Chandna, NVIDIA Corp.

which tracks configurations, versions, and other information makes sure only the incremental data is transferred. These combined features deliver performance 10 to 100 times faster than conventional RCS based systems using NFS or HTTP based architec-

tures. Operations that can take hours on traditional systems will only take a few seconds with IC Manage GDP.

GDP is ACID compliant (Atomicity, Consistency, Isolation, Durability), guaranteeing the database transactions are processed reliably. In this context, a single logical operation on the data is called a transaction.

- Atomicity - The database guarantees that either all of the tasks of a transaction are performed or none are, preventing data corruption from network glitches and guaranteeing data integrity.
- Consistency - The database is in a legal state when the transaction begins and when it ends. This means that a transaction can't break the rules of the database. For example, if an integrity constraint states that all files must have verified checksums, then any transaction violating this rule will be aborted.
- Isolation - The application makes operations in a transaction appear isolated from all other operations. No operation outside the transaction can ever see the data in an intermediate state.



IC Manage GDP Capabilities

- Durability - Once the user has been notified of success, the transaction is guaranteed to persist, and not be undone. The transaction will survive system failure, and the database system has checked the integrity constraints and won't need to abort the transaction.

IC Manage GDP Key Features

Derivative Management

Managing multiple designs in parallel

IC Manage GDP allows design managers to track component usage across both revision space and derivative space. When designers create new derivatives, IC Manage GDP tracks the bi-directional relationships between 'parent and child.' IC Manage GDP easily propagates changes of an object through all the designs that utilize the object. In contrast to conventional RCS-style branching, with IC manage GDP there is no need to diff, or manually update all the locations where the object was reused.

Design Assembly

Faster time to market with reuse

Making an organization's intellectual property available for reuse by all its design teams is critical for competitiveness. IC Manage GDP's component-based model allows project managers to easily mix, match and reuse components and IP blocks developed at any design site with no scripting. Designers have real-time access to design data and can easily view the design data history, select appropriate components, and create designs from any of the enterprise's IP.

