

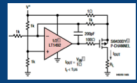


Global Design Platform

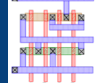
Digital

wire A_in;
reg B_out;

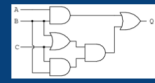
Analog



Layout



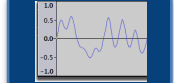
Gate-level



Firmware

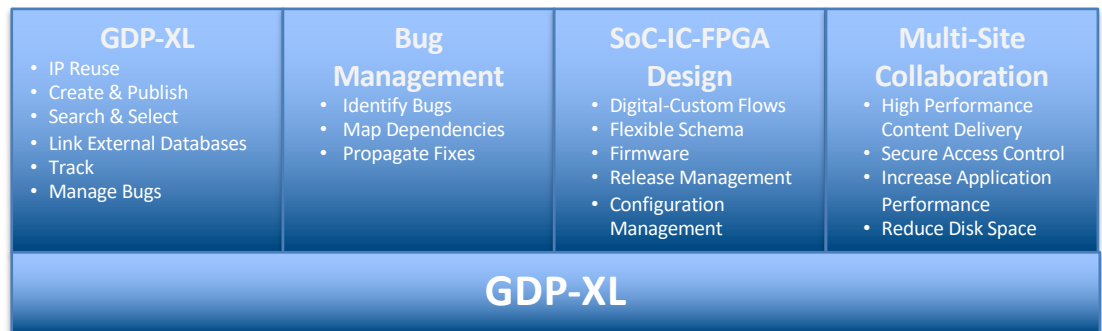
MOV A,B

Stimulus



The IC Manage Global Design Platform (GDP) lets designers track, control, and distribute design, configuration, and IP property data. It enables swift and accurate derivations from existing IP, empowering your team to reuse existing assets across many concurrent projects.

IC Manage GDP stores and maintains your global organization's design, stimulus, results, bug tracking and documentation data - spanning digital, firmware and custom flows - in one common repository. All data that is authorized for sharing is rapidly accessible worldwide and secure.



GDP-XL – Latest Generation of Global Design Platform

- Develop, verify, publish internal or 3rd party IP
- Flexible IP import – 3rd party, revision control systems, corporate DB
- Flexible repository schema and design mapping to any file structure
- Bidirectional traceability of IP revisions and project usage
- Configurable properties to capture IP design intent
- Full property inheritance for hierarchical datasets
- Release management ensures traceability and repeatability
- Reduce IP cost - development, verification, integration, maintenance

GDP-XL publishes and tracks IP in 4 dimensions

- State - what is the state of an IP version?
- Time - how does IP change over time?
- Space - which versions used on which products or customers?
- Quality - which problems were found/fixed in which versions?

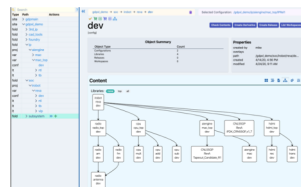
Bug Management, Data Management and Verification Linked

- Bug management links design data and defect states
- Atomic, change based architecture ensures exact datasets for bug resolution and fix verification
- IP version and project traceability enables all bug instances to be found and fixed
- Feature enhancements automatically propagated to active projects
- Greatly reduces risk of releasing known bugs into production
- Scalable repository enables global IP, SoC and FPGA collaboration

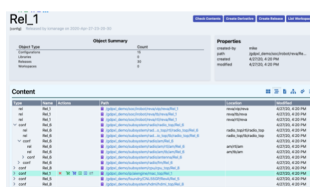
GDP links critical steps to find and eliminate IP bugs

- Verification failures link bugs to project or IP version
- Automatic bug/fix notification of IP owners, project managers
- Maintains bug state vs. all versions of IP, projects and variants
- TrueVariant™ enables precise fix propagation to all affected occurrences

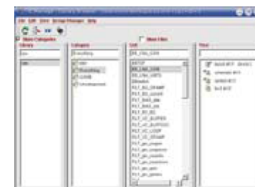
Configuration Management



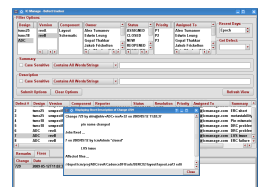
Release Management



EDA Integration



Bug Management



Global Design Platform

Complete platform solution for IC/SoC/FPGA design data Development and Assembly

IP Reuse

Complete design data platform solution for IP Development and Publishing

Tracks IP releases across projects and customer deliverables

IP Lifecycle

Import
Package
Publish
Find
Collaborate

Data Management

Revision Control
Configuration Management
Import any repository/data source

Bug Management

Find
Trace
Eliminate

Enterprise Scale

High availability
Disaster recovery
Automated content delivery
Load Balancing
Distributed, versioned file system

Save Time

Find IP and design data faster
Fast dataset population
Fast checkins
Low administration overhead

Reduce Cost

Save storage
Increase application performance
No downtime

Improve Quality

Checklist driven
Role-based control
Secure access & distribution



IP Development and Reuse

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System Requirements

Client Software

Linux
Windows
MacOS

Server

Linux
Hardware configuration
dependent on user population
and data under management

Cloud Enabled

AWS, Azure, GCP

Configuration and Release Management

- Easy to use – intuitive GUI or command line interface
- Create configurations and releases to manage complex design datasets
- Web UI and REST API eases integration with Web services and Cloud
- Integrates all data types (RTL source, scripts, schematic, layout, GDSII)
- High performance – tag-free architecture ensures fast operation
- Flexible release management enables concurrent development
- Incremental releases reduce data storage and delivers updates rapidly
- Hierarchical configurations and graph database enable flexible design reuse
- Atomic change architecture enables “what if” exploration and rollbacks

Revision Control

- Fastest revision control for all data types – analog, digital, firmware
- Easy to use, customized GUI's tailored for specific user roles
- Powerful. Unix-like command line interface

Collaboration and Insulation

- Producer-consumer insulation prevents workspace corruption
- Role-based security enables authorized operations and data access
- Design assets delivered globally with 100% consistent data
- Data status is continuously updated to ensure up to date design data

Data Source Integration and Analysis

- Provides unified state of all project related data in a single system
- Integrates multiple data sources
 - External databases (corporate SQL DB's, ERP/M)
 - External source code repositories
 - Web content
- Flexible analytics interface provides
 - Current IP, project status
 - Historical trends
 - Risk assessment/product quality trending analysis
 - IP reuse efficiency

Enterprise Data Delivery

- High availability servers provide 24x7 operation
- Disaster recovery servers business continuity
- Proxy and SuperProxy Caches reduce bandwidth and latency impact
- Load-balancing provides high-throughput for 1000's of users, build farms
- Sync Engine propagates targeted data when and where it is needed
- PeerCache reduces storage cost, improves application performance
- Hybrid Cloud bursting through PeerCache Holodeck technology

Key Capability	Unique Benefit
Configuration Management	Very fast, tag-free configuration and release management that efficiently creates datasets to enable reliable handoffs, engineering collaboration and integration of mixed data types
Cadence Virtuoso, Synopsys Custom Compiler	Familiar, look and feel of existing design tools with intuitive revision functionality and status updates to maximize productivity or circuit designs and minimizes learning curve
IP Sharing	IP composite datasets can be created without tags and flexibly grouped using configurations and releases, searched with regular expressions and selected for project use and population into project work areas
IP Delivery and Traceability	IP is delivered to users or customers - all derivations and modifications are tracked such that changes and improvements can be bi-directionally propagated to any IP or project on any design branch
IP Analysis and Import	3 rd party IP can be analyzed and mapped into GDP-XL for distribution to design teams. Incremental updates can be analyzed for differences and changes imported & propagated incrementally
Process-driven Flow	Allows IP, project staging and enforces status and promotion checks to prevent wasted time and process errors
Bug Traceability Across Projects	Individual bugs can affect many projects – GDP-XL enables fast and reliable identification of design dependencies, bugs and projects at risk
Guarantee Data Consistency	Eliminates risk of working on stale data or assembling incorrect datasets
Derivatives without Copying	Saves disk space while providing isolation and traceability at IP and project level so that design changes or bug fixes can be precisely propagated between variants
High Speed Data Transfers	Higher productivity for end users, maximum collaboration efficiency and fast delivery/update of datasets globally – check-ins, check-outs, workspace updates
Seamless, Multiple Repository/Depot Client Support	Allows global teams to gain performance benefit of local data management and transparent access to remote repository data
Minimize Bandwidth & Latency	Advanced caching and replication enables targeted data to be propagated as it changes around the clock and around the globe leveraging available bandwidth 24x7
IP Security	Prevents security breaches and unintentional data modification through role-based security which controls visibility and manipulation of data at all levels of repository across groups, users