



serena

**Protecting Your Software
Throughout the Development
Lifecycle (and During Migration)**

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Migration Perspectives

- It's your primary application that's migrating
- Many HPe3000 applications are “home grown”
- ISVs may not have good migration solutions
- Re-training may be needed on target platform
- **HPe3000 migration is complex and change intensive!**
 - ✓ Applications must be co-managed, on both the HPe3000 and target platforms simultaneously
 - ✓ Software assets may continue to reside on the HPe3000 indefinitely

- **Do you have a Software Change Management solution?**
 - ✓ SCM is essential for managing source code
 - ✓ SCM is essential for ensuring safe transition during and post-migration

HPe3000 Application Scenarios

- **Retire**
- **Continue using HPe3000**
- **Rewrite (SCM essential!)**
- **Replace**
- **Migrate (SCM essential!)**

SCM is Essential for “Rewrite”

- **Break the application up into “layers”;** separate the business rules from the presentation and data layers
 - ✓ Impact analysis keeps focus on the essentials
- **Manage third party products**
 - ✓ Inoperability on target platform forces rewrite
 - ✓ Validate and test
- **SCM enables concurrent development, compare/merge, deployment onto target**

SCM is Essential Throughout the Migration Lifecycle

- **Migration is a cross-platform, distributed development, change management challenge**
- **Planning is required**
 - ✓ Most code should migrate to other platforms
 - ✓ ISVs may not have good strategy to move their code
 - ✓ Multiple parties involved
 - ✓ SCM enforces strategy and repeatable processes
 - ✓ Inventory of critical components

SCM is Essential Throughout the Migration Lifecycle

- **Avoid lengthy application freezes**
 - ✓ Frequent changes often accelerate migration time table
- **Establish coordinated change control between HPe3000 and target platform**
 - ✓ Application improvement
 - ✓ Application consolidation/combination

SCM is Essential Throughout the Migration Lifecycle

- **Testing is a critical**
 - ✓ SCM enables parallel testing and ensure implemented code is what you tested
- **Look ahead - Future changes or requests are constantly coming in**
 - ✓ An SCM system will manage those changes and set priorities.
 - ✓ Change won't wait long for you to resolve your technical challenges!

Serena SCM Solution was Built for HPe3000

- **Over 10 years experience on HPe3000**
 - ✓ Doc3K “green-screen” for HPe3000
 - ✓ Diamond CM
 - ✓ Serena™ ChangeMan™ DS
- **Serena™ ChangeMan™ DS is a comprehensive SCM solution offering native support for MPE/iX, UNIX (HP-UX), Windows, Linux**

***"It is not necessary to change.
Survival is not mandatory."
- W. Edwards Deming***

CHANGE

Maintenance

- Bug Fixes
- Content Updates



Enhancements

- User Interface
- Navigation
- New features

Strategic

- Competitive Response (new prices/promotions)
- Merger or Acquisition
- New Product Introduction
- Management Information
- e-Business Transformation

Mandates

- Convert to Euro
- 9 Digit Zip Code
- Phone Number or Office Move
- Regulatory Change
- **Platform Migration**

...yet Application Change Is Not Well Managed

- Only 24% of projects are completed on time and under budget
 - 84% of mission-critical projects do not work as required and planned
 - Poor quality causes up to 45% of system downtime
- 

Dramatically Reduce High Profile Outage Risk by Re-Engineering Change Process

- **Hershey Foods**

September 1999: system failures during application rollout

Cost: delayed shipments; 12% decrease in 3Q99 sales; 19% drop in net income from 3Q98

- **Charles Schwab & Co.**

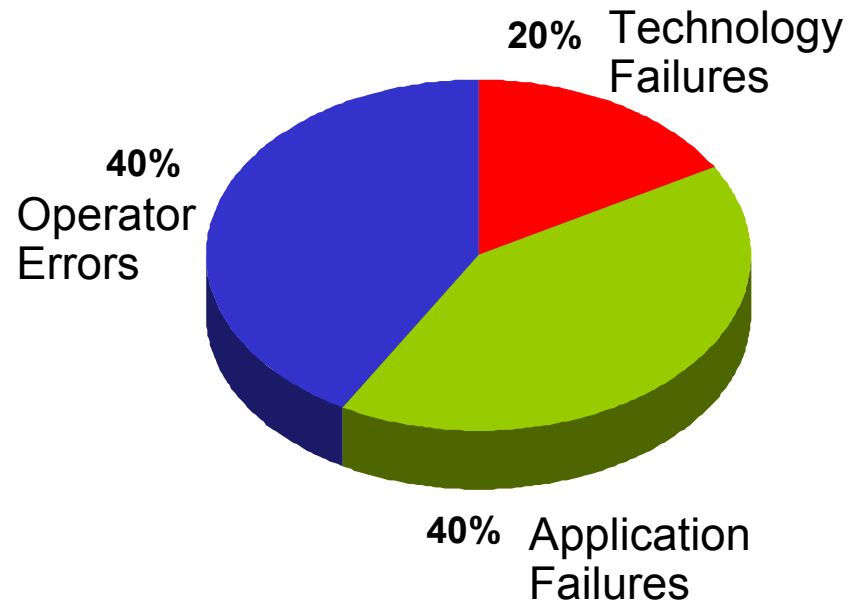
24 February to 21 April, 1999: 16+ hours of outage in 4 incidents
Afterward, made a new, \$70 million infrastructure investment.

- **United Airlines**

31 January 2001: Wrong price posted to web site allows 143 to purchase fantastically discounted tickets to Paris.

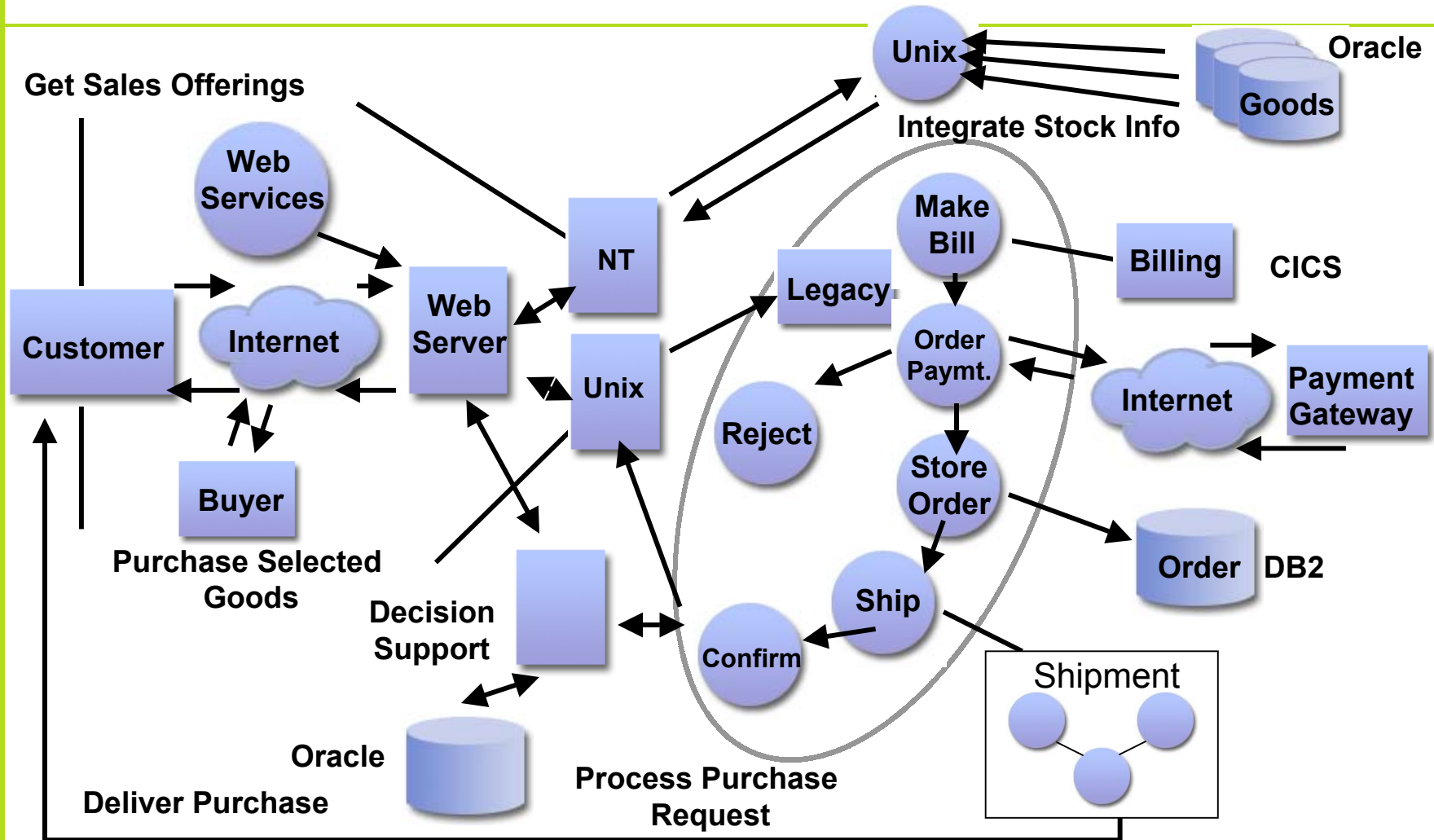
Cost: Public embarrassment
After public outcry, United agreed to honor the lower fares.

Causes of Unplanned Application Downtime



Managing Complexity Is Critical Issue

When there is a Problem, What Changed?



Managing Change Manually is Risky Business

- **Inconsistent and unenforced processes increase business risk**
- **Manual tasks and manual processes are error-prone**
- **Change is coordinated by lengthy meetings, e-mail, phone calls and other inefficient means**



Even More Important Today...

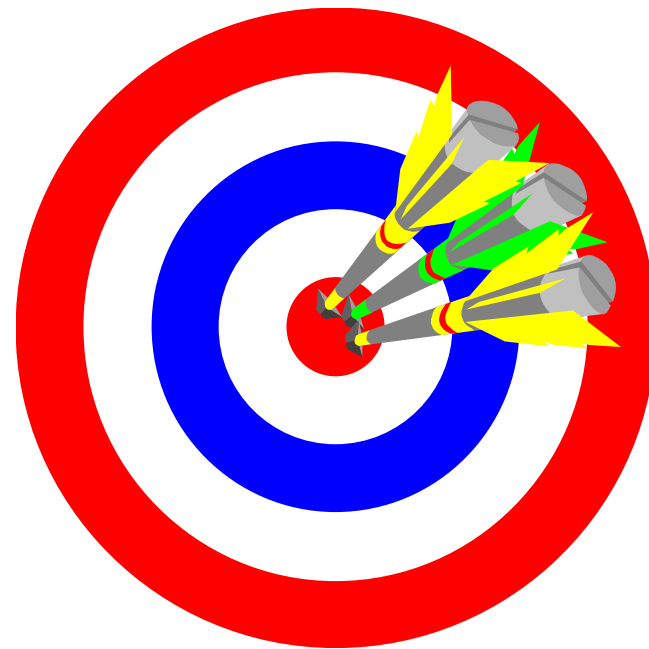
“In light of recent events, all enterprises should conduct an immediate review of their software change management methodologies.”

September 19, 2001

Distributed Change Management

Value to Developers

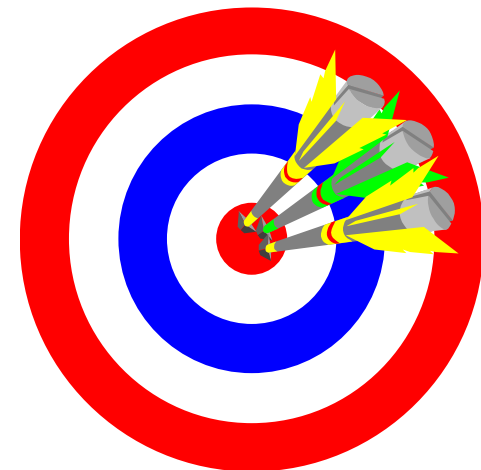
- Use IDE of choice
- Concurrent development
- Productivity tools
- Eliminate re-work
- Minimize errors
- No restrictions
- No loss of control



Distributed Change Management

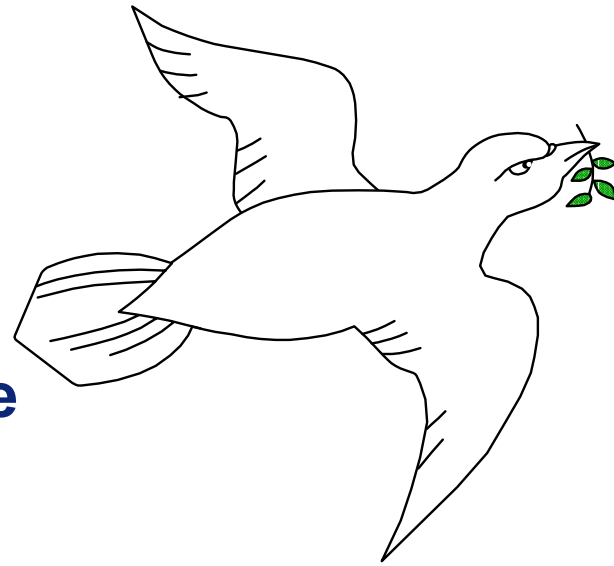
Value to Managers

- **Visibility**
 - ✓ Changes coordinated together, managed across the enterprise
 - ✓ Impact of change easily understood, all constituents notified
 - ✓ Audit history
- **Productivity**
 - ✓ Accelerated development
 - ✓ Distributed teams coordinated



Evolution of Change Management

- **File Management**
 - ✓ Management and tracking with paper or database
- **Version Control**
 - ✓ Check out/in
 - ✓ Linear process flow
 - ✓ Single platform
 - ✓ Workgroup oriented
- **Change Management for the Development Lifecycle**
 - ✓ Enterprise scalability
 - ✓ Real time, synchronized information
 - ✓ Process based



Serena™ ChangeMan™ DS

Software Change Manager for Distributed Systems

- **Comprehensive SCM solution for MPE/iX, UNIX (HP-UX), Windows, Linux, OS/400, web**
- **Adapts and enforces your process**
- **Designed for use across Internet**
 - ✓ Low network bandwidth; distributed team support
- **Ease of implementation, use, administration**
- **Broad compatibility with development tools**
- **True cross platform management; same product on all platforms**

Comprehensive Version Control Development to Deployment

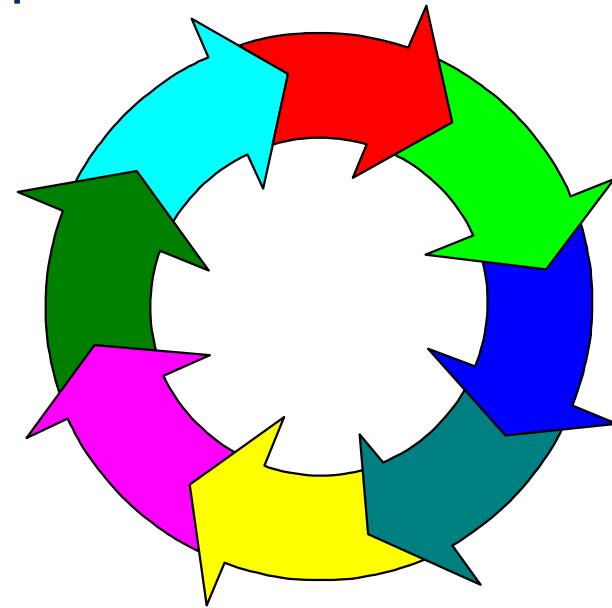
- **Parallel Development**

- ✓ Concurrent File Check Out/In
- ✓ Compare and Merge
- ✓ File Tree
- ✓ Audit Trails
- ✓ Impact Analysis

- **Build Automation**

- **Release Management**

- **Software Deployment**

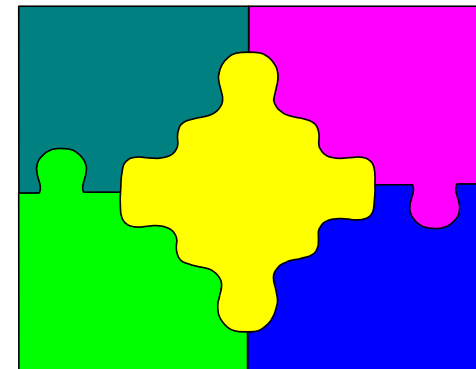


Serena™ ChangeMan™ DS File and Version Management

Serena™ ChangeMan™ DS Integration with Leading IDE

Component Deployment: Cross Platform Build and Release Mgt.

- **Build process easily automated and managed**
 - ✓ Imports or uses existing make files
 - ✓ Configures cross platform build procedures
 - ✓ Captures and manages a centralized bill of materials
- **Builds organized into Releases**
 - ✓ Individual releases easily managed
 - ✓ Maintenance of multiple releases fully supported

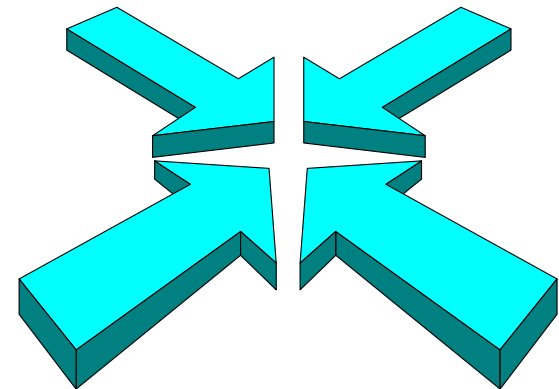


Process Oriented - Create and Enforce Your Strategy

- **Life Cycle automation reduces errors, improves productivity**
 - ✓ Overlay on existing processes for consistent code migration
 - ✓ Managed transitions from a single interface. Online approvals
 - ✓ Repeatable processes prevent costly rework and development lags
- **GUI interface eliminates scripting**
- **Flexible and customizable**
 - ✓ Customize by application
 - ✓ Secure project promotion models
 - ✓ Secure areas with unique authorizations, approvals, and scripts

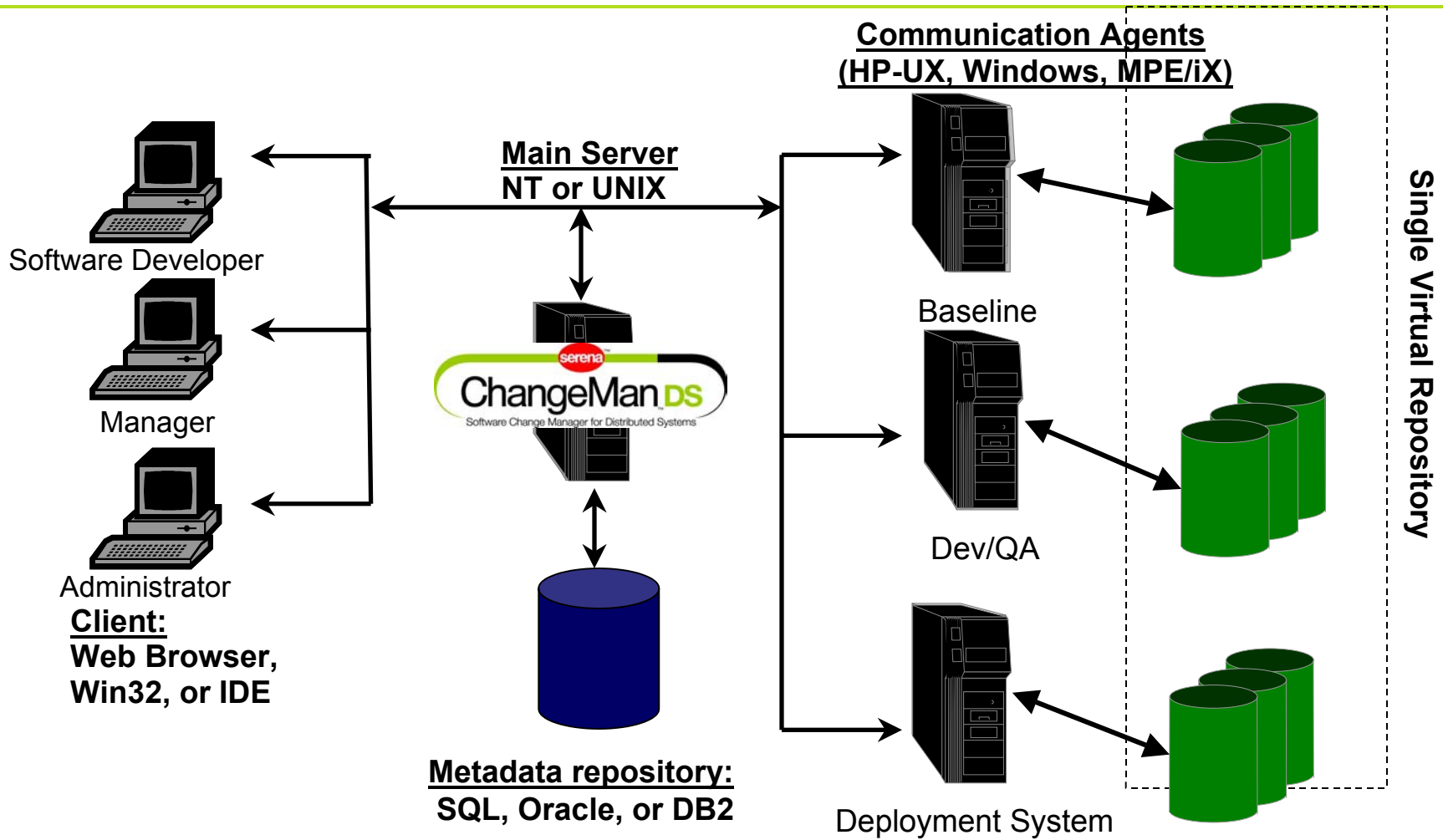
True Cross-Platform Development

- **Architecture seamlessly overlays onto existing file and network schemas**
 - ✓ Source code remains on machine of choice
 - ✓ Supplements network security
 - ✓ Views and acts on any component on any platform from any client
- **Broad platform and database choices**
 - ✓ “Native” platform interfaces
 - ✓ Choice of Oracle, SQL, or DB2
Metadata repositories
- **Cross platform impact analysis**
- **Cross platform build capability**
- **Direct IDE integration**



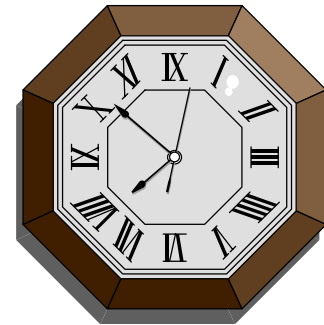
Serena™ ChangeMan™ DS

Components & communication model



Real-Time, Multi-Site Distributed Development

- **Architecture with excellent network performance**
 - ✓ Low bandwidth communication - sockets level TCP/IP
 - ✓ Client-server processing. Local file storage
 - ✓ Central metadata repository
- **Productivity capabilities**
 - ✓ Process enforcement coordinates distributed teams
 - ✓ Web client enables remote work and management approvals
 - ✓ Multiple versions; file change history; compare/merge
- **SCM eliminates need to manually copy files back and forth, identify who has the file, or establish multiple levels of security and management**



Distributed SCM using Serena™ ChangeMan™ DS

- Comprehensive version control
- Process based
- Cross-platform development
- Real time, multi-site distributed development

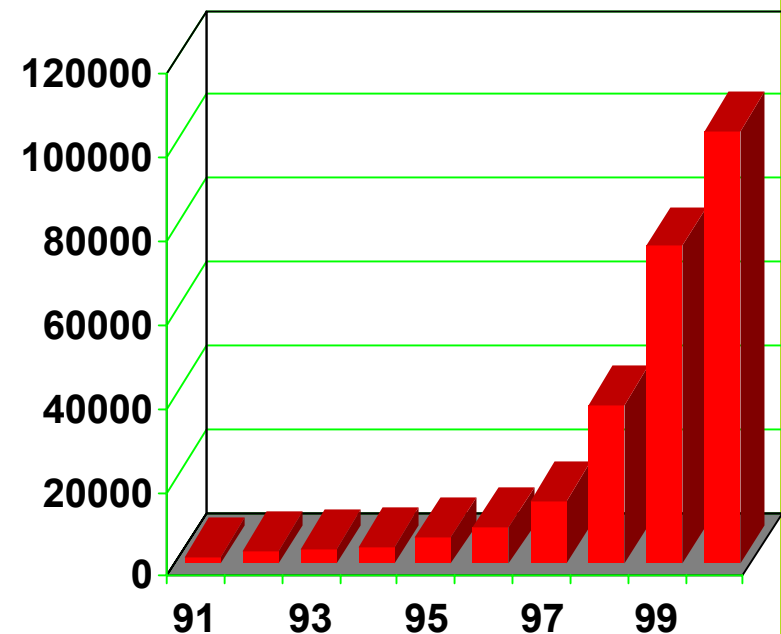
- Result: Accelerated development of high quality applications. Maximum developer productivity!

SerenaTM Software

Built to Last

- **Founded 1980; publicly traded**
- **Strong R&D Heritage**
 - ✓ All major product authors are still with the company
- **2,750+ customer sites**
- **Global Presence**
- **Financially solid; profitable; \$140M+ in cash**

Revenue In \$000's



Blue Chip Customer Base

SERENA installed in 43 of the Fortune 50

Bank of America.



We bring good things to life.



Enterprise Change Management

The Serena™ Software Vision, Strategy, & Framework

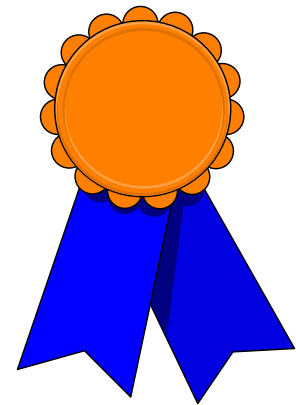
- **A single point of control to manage change to enterprise code and content throughout the application life cycle**
 - ✓ Best practices consulting ensures sound process
 - ✓ Deliver integrated multi-platform solutions
 - ✓ Automate change process for software and Web content
 - ✓ Effective partnerships for end-to-end solution

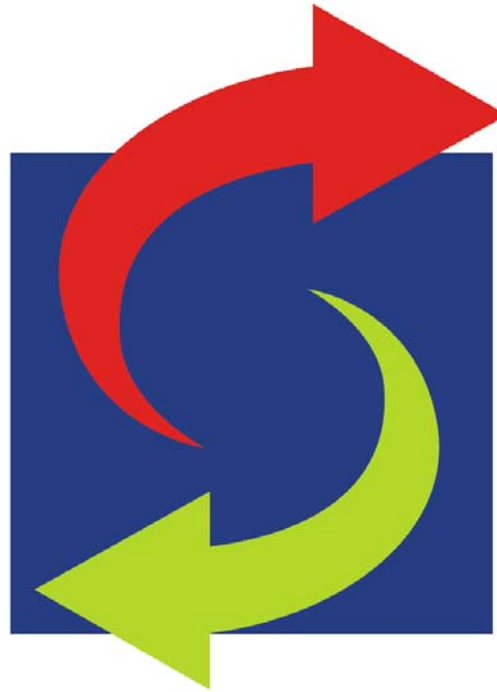


A *complete* infrastructure to manage change to enterprise applications for quality, speed, and cost advantage

Software Change Management is Essential for Migration

- Improved collaboration accelerates application time to market
- Elevated productivity streamlines multi-platform development
- Consistent processes improves application quality and reliability
- ***Serena™ ChangeMan™ DS is the only SCM solution available natively managing change on HP-UX, Windows and MPE/iX***





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