



Build M12\_01242002 Pre-release 1 January 24, 2002

Lotus software  
**Notes 6** Pre-release 1

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Lotus software  
**Domino Administrator 6** Pre-release 1

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**Domino Designer 6** Pre-release 1

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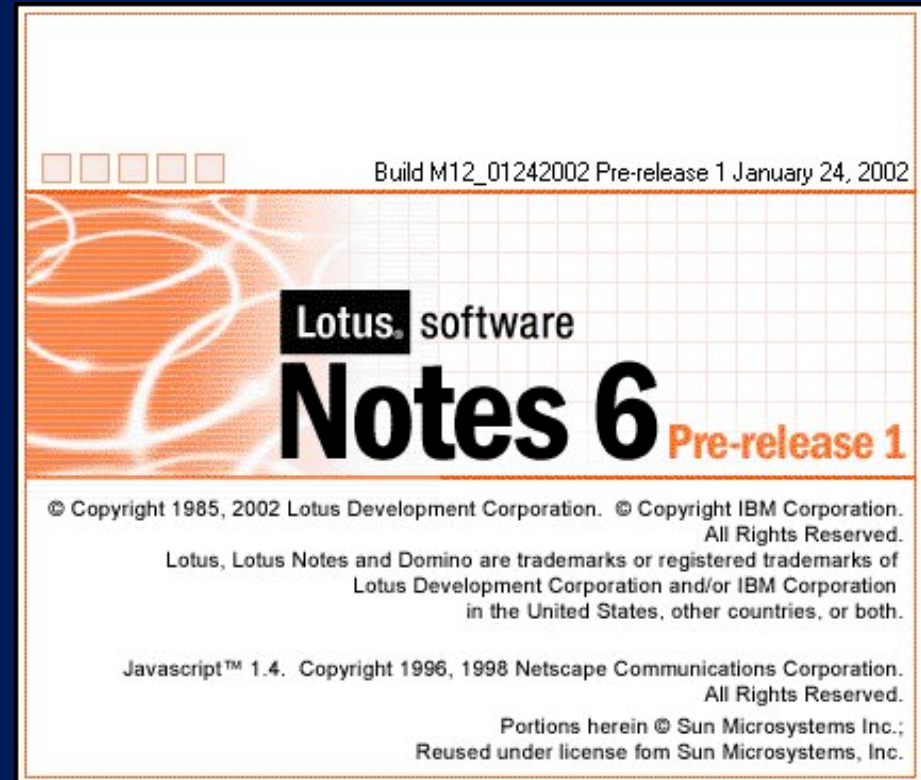
Technical Overview

Craig Hart

hartc@au1.ibm.com

# Notes Release 6

## Technical Overview



# Notes Release 6 Design Goals

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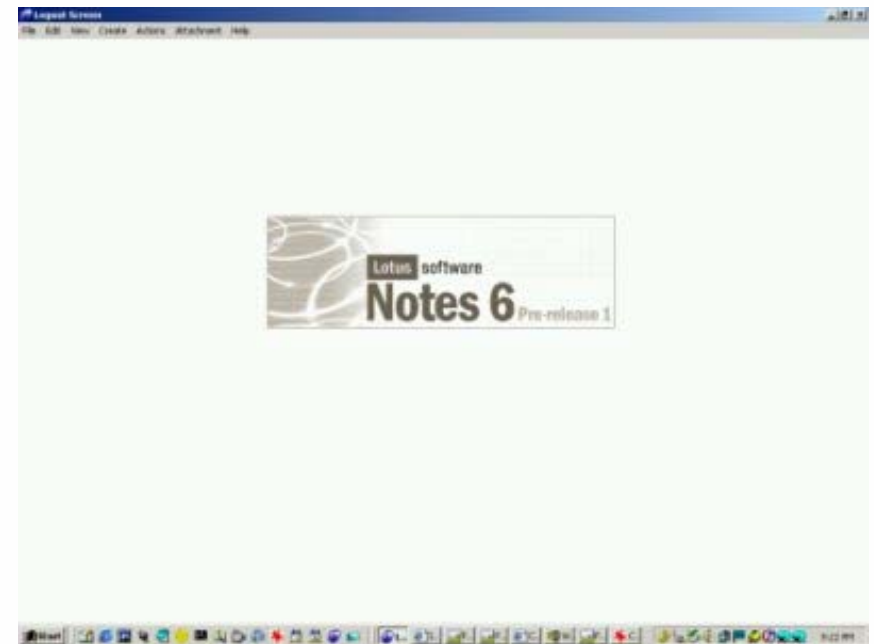
- **Improve ease of use**
- **Remain the premier mail, calendaring & scheduling and task management client**
- **Strengthen replication and mobile features**
- **Continue to focus on collaboration**
- **Enhance performance**
- **Streamline deployment and administration**

# Ease of use

## ■ User Login

- ▶ Support for Multiple Users
- ▶ Support for Multiple Locations

## ■ User Logout





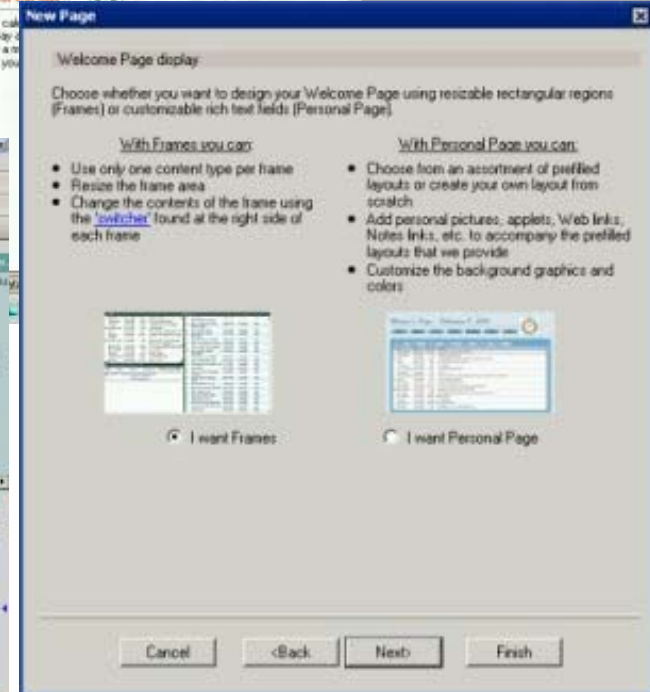
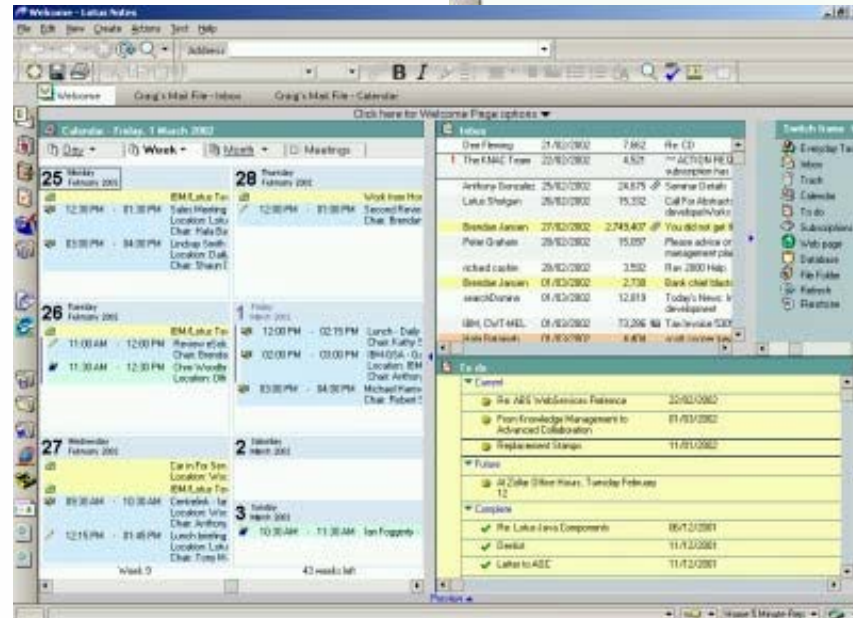
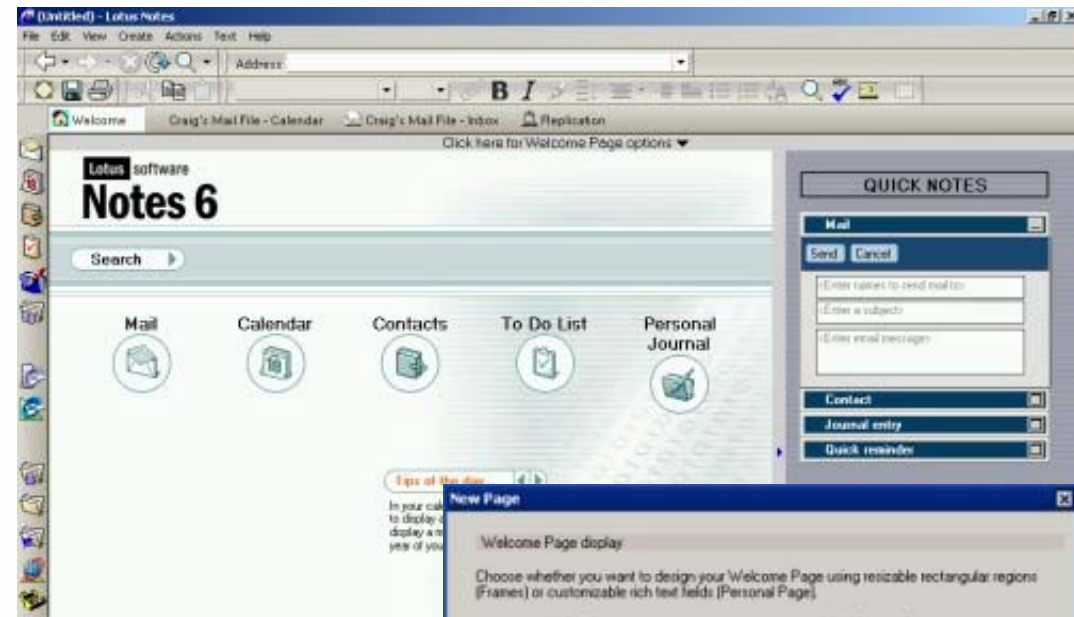
# Ease of use

## ■ Welcome Screen

- ▶ Very Customisable
- ▶ Tips of the Day
- ▶ Preview Pane
- ▶ Launch Pad
- ▶ Quick Notes

## ■ UI Enhancements

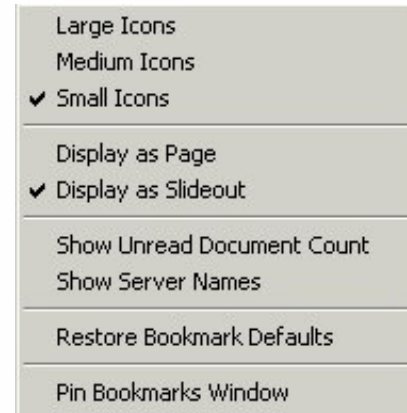
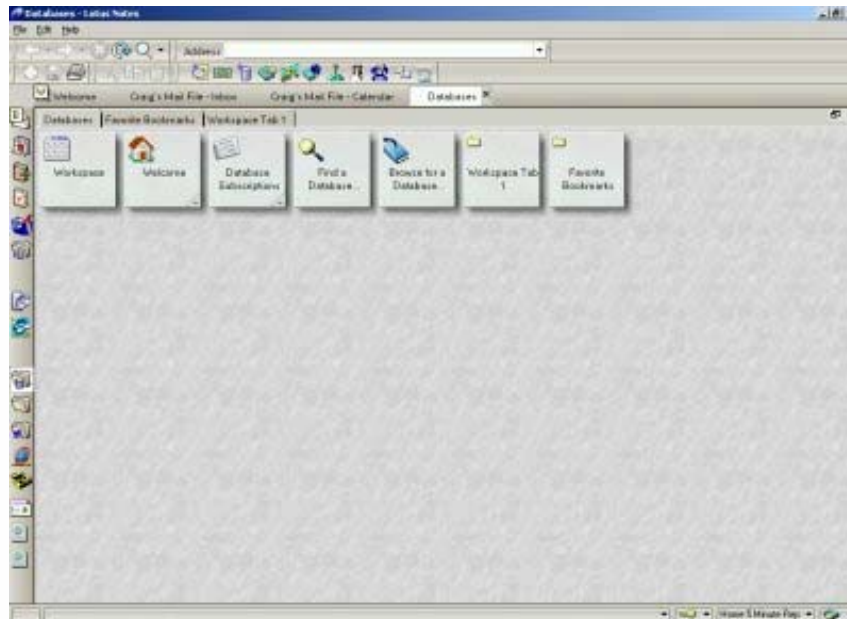
- ▶ Customisable Status Bar
- ▶ Resizable Dialog Boxes



# Ease of use

## ■ Bookmarks

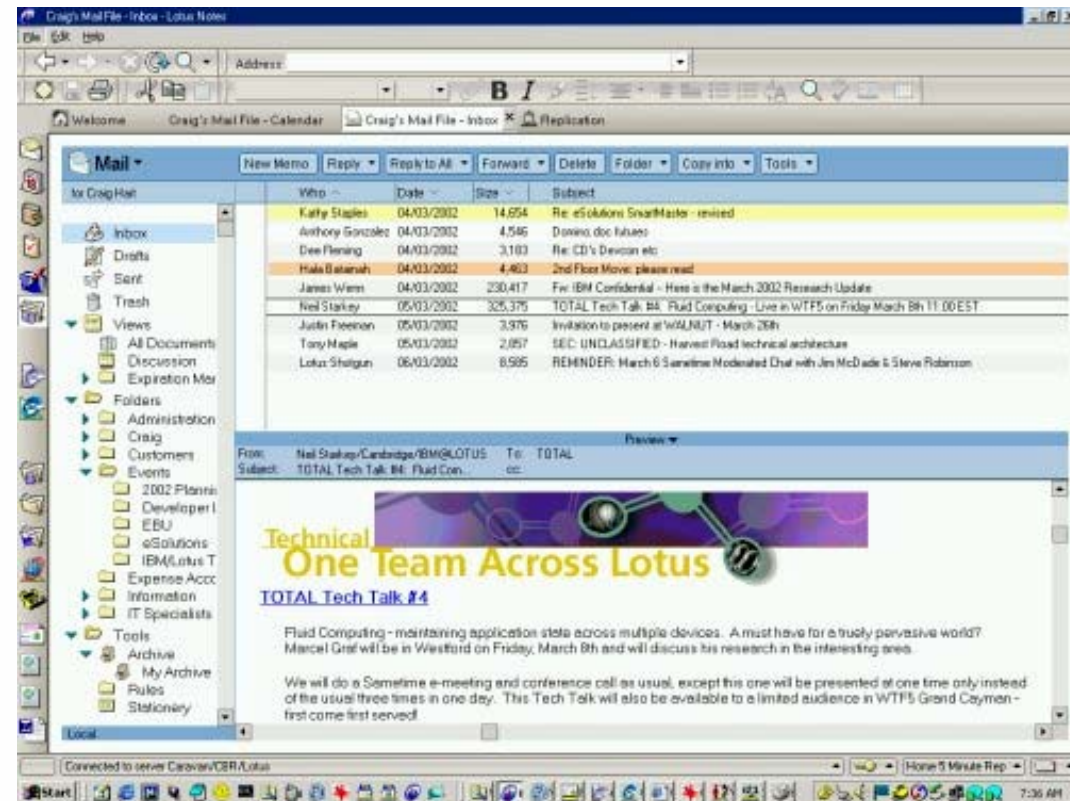
- ▶ Startup Folder
- ▶ History
- ▶ Drag-n-Drop
- ▶ Sorting
- ▶ Folders - Workspace Page



# Notes Mail

## ■ New Mail Template Features

- ▶ Unread and Total Document counts
- ▶ Reorder columns
- ▶ Colour Schemes
- ▶ Attachment Control
  - for Replies & Forwards
  - Drag-n-Drop
  - Detaching (non modal)

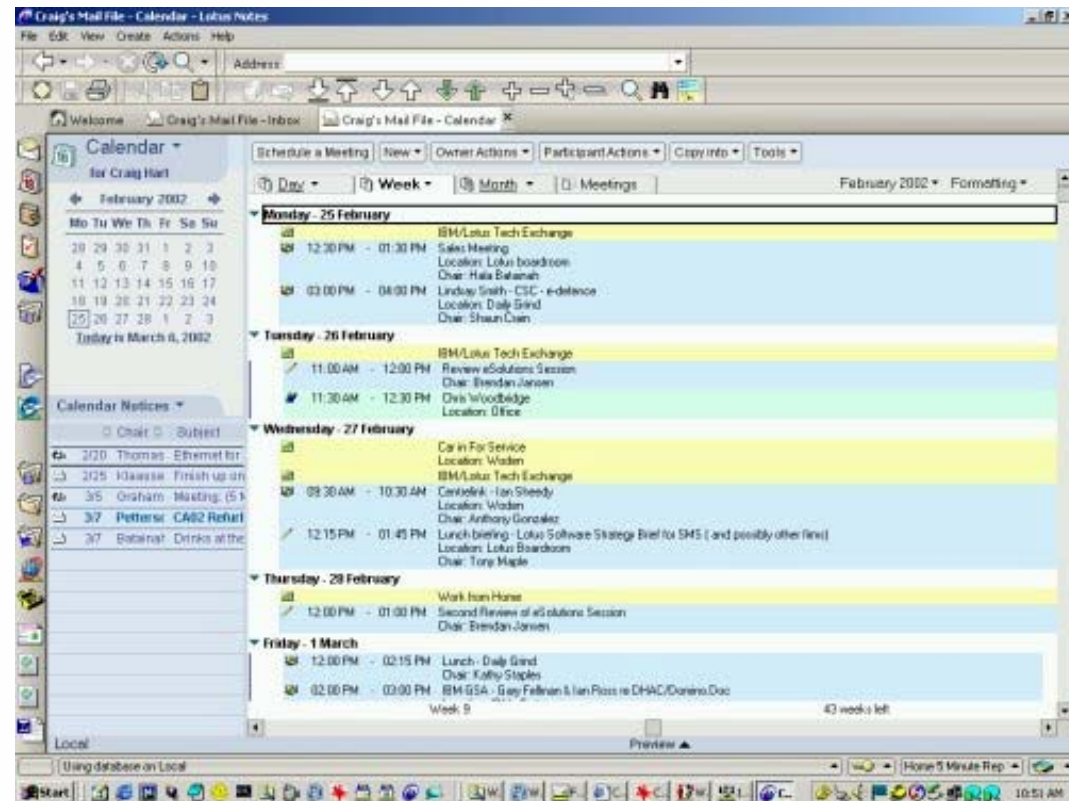
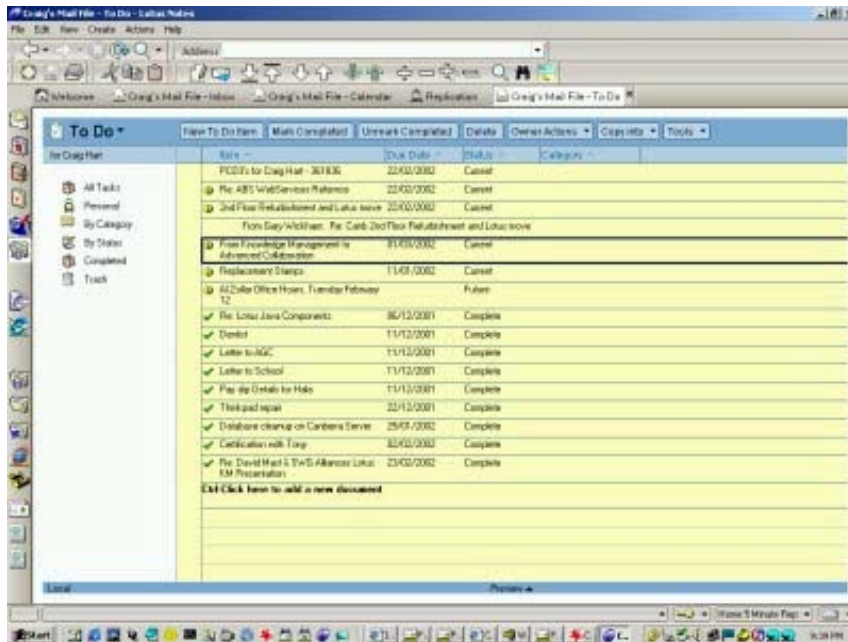




# Notes Calendaring & Scheduling

## ■ Redesigned

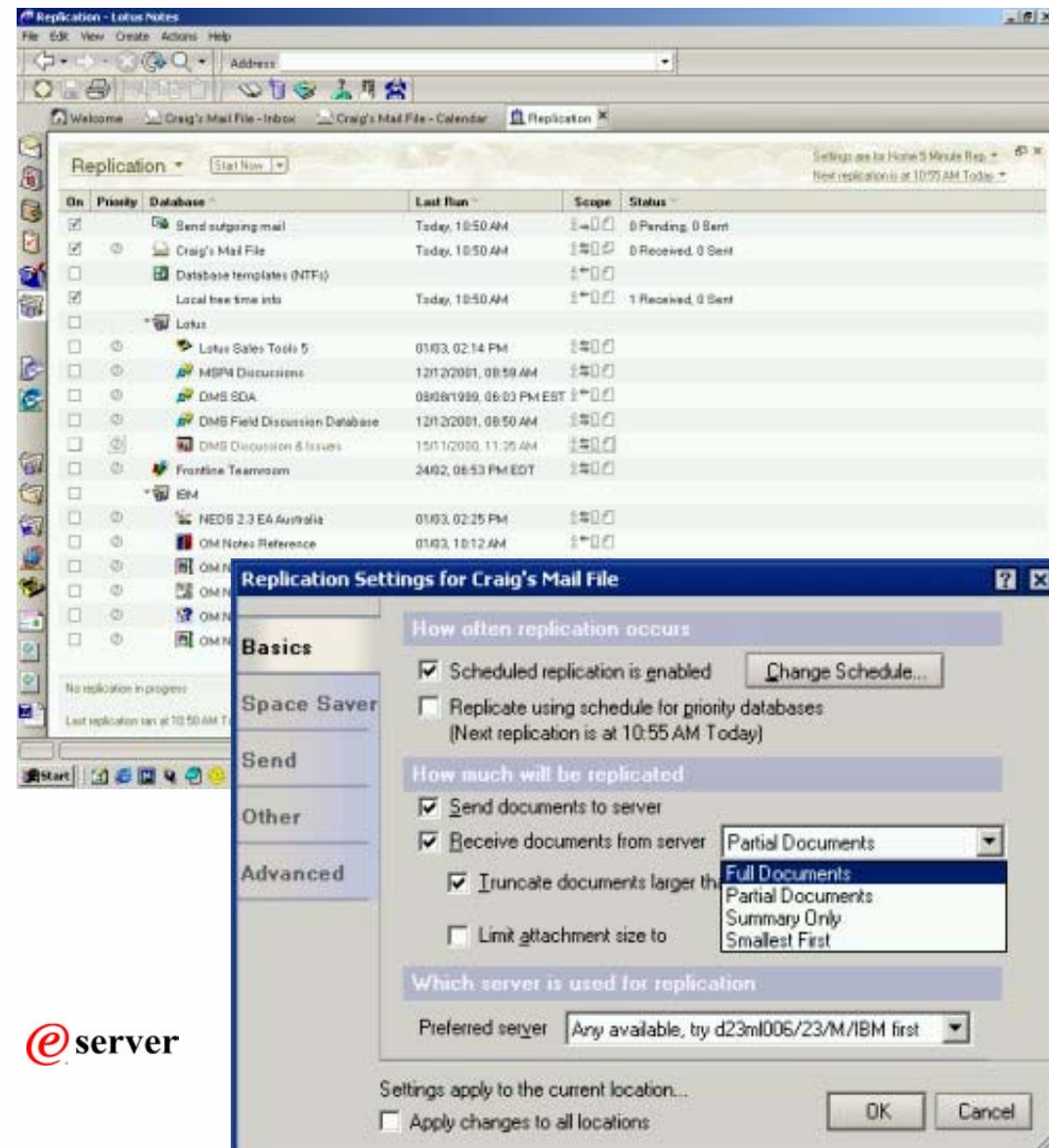
- ▶ More Tools on the one form
- ▶ Colour Coding
- ▶ Time Zones
- ▶ Improved Delegation
- ▶ iCalendar and vCard support
- ▶ New To-Do views





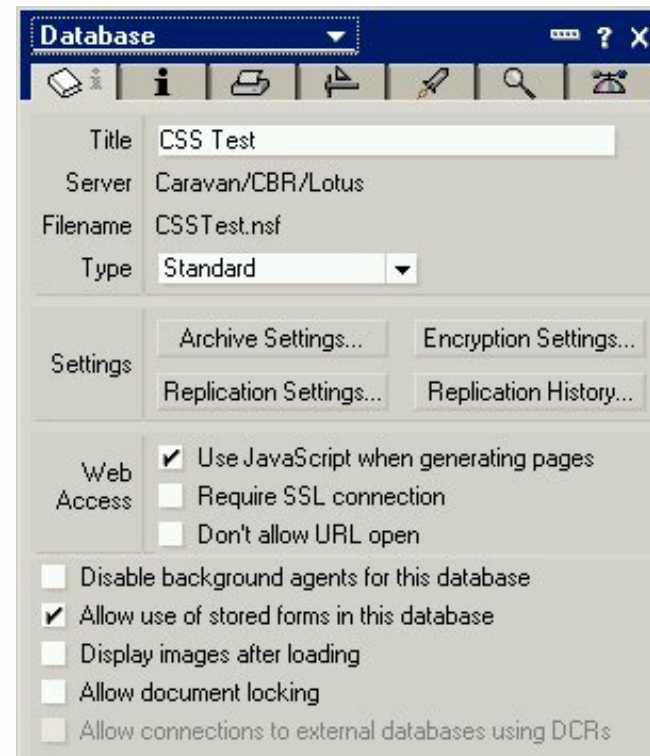
# Replication and Mobility

- Many Monitoring Tools on the Replicator page
- Dynamic Sorting and Grouping
- Create replicas by Drag-n-Drop
- New Replication settings
  - ▶ for mail
  - ▶ for standard databases
- Roaming User
  - ▶ your PC follows you!
    - ID file, bookmarks
    - Welcome page
    - Address Book
    - Preferences
- Multi User
  - ▶ Reorganised Client File System



# Collaboration

- Lock and Unlock Documents
- Works Across Replica Servers



# Performance

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- Many new areas using multitasking

- ▶ New Mail Polling
- ▶ Detaching Files
- ▶ Replicating
- ▶ Printing
- ▶ Alarm Monitoring
- ▶ Agents
- ▶ Replace Designs
- ▶ Database Copy Functions

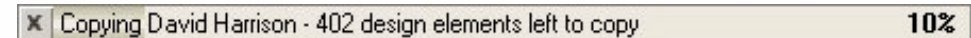
- Reduced Memory usage in some areas

- New Compression algorithm for NRPC data transfers

- Better control over selective replication



Taskbar progress bar: Saving C:\LDS-for-eSol.v3.zip 54%



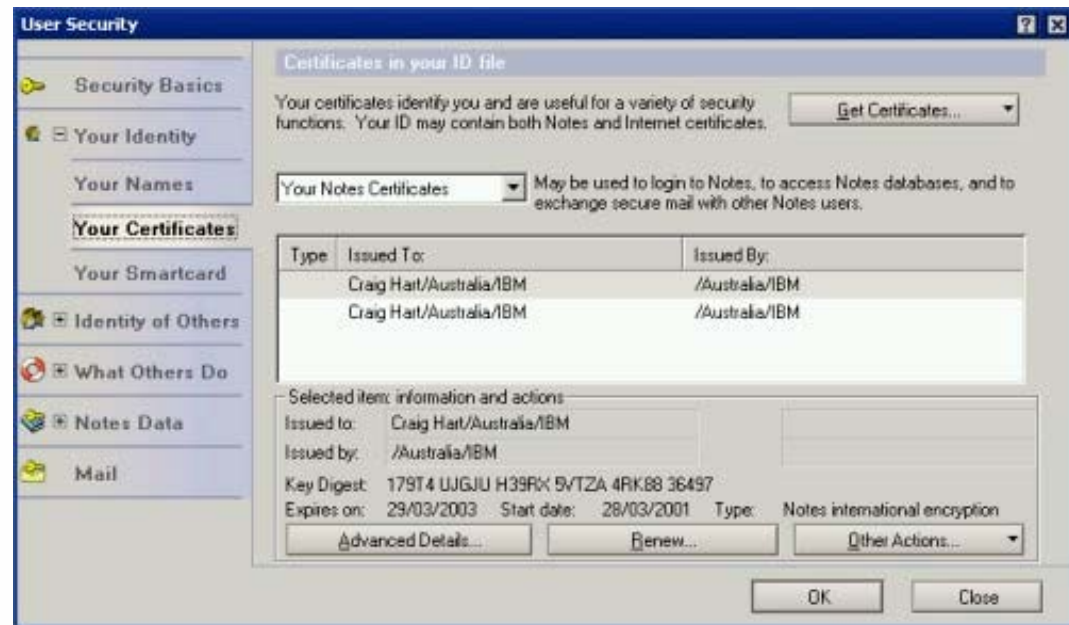
Taskbar progress bar: Copying David Harrison - 402 design elements left to copy 10%



Taskbar progress bar: Save completed - C:\Transfer\WW 670 - RNAD WebDa... x Replicating 3 databases - (3) Local free time info 75%

# Administration

- Welcome Page deployment options
- Policy Documents
  - ▶ enforcing standards and configurations across groups, departments or the entire organisation
- New Tools to manage roaming and mobile users
- New Release deployment via Smart Update feature
- All Security options in one dialog box!





# Domino Release 6

## Technical Overview



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Lotus software  
**Domino Administrator 6** Pre-release 1

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# Key Design Goals

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- **Server Scalability and Performance**
- **Improvements in Administration**
- **Web Server Enhancements**
- **Changes to Directories**
- **Domino Hosting Features**
- **New Security Features**
- **Messaging Enhancements**

# Server Scalabilty and Performance

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## ▪ Startup and Server Performance

- ▶ Transaction logging of key views
- ▶ Log information about the "availability index"
- ▶ Optimisation or Agent Manager startup
  - no longer has to search each database
- ▶ Optimisation of Schedule Manager
  - reduces server overhead
- ▶ Inclusion of persistent directory manager cache
- ▶ Enhanced Cluster support, including automatic detection of software failures and automatic fault recovery, available across all platforms

# Server Scalabilty and Performance

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## ■ Replication

### ▶ Streaming Replication

- involves a single server request, which then pulls in all the data (Notes documents and their attachments) into the database.
- much improves replication efficiency
- views are populated with individual documents as replicatiing

## ■ Client Server Interactions

- ▶ Open and Save operations are far more efficient
- ▶ Less network traffic in many areas

## ■ Network Compression

- ▶ improves data transfer rate by ~50%
- ▶ WANs and XPC's will see the most benefit



# Server Scalability and Performance

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## ■ Full-Text Search

- ▶ Most data is updated in place
- ▶ Better memory and I/O management between NSF and FT
- ▶ Significantly fast processing, especially for Boolean queries

## ■ Formula Engine

- ▶ roughly 200% computation improvement
- ▶ adds performance improvements to many areas where used, such as view refreshes, agents and form rendering

## ■ IMAP Server

- ▶ no longer a layered approach
- ▶ core NSF includes native IMAP semantics
- ▶ multi threaded server task

# Improvements in Administration

## ■ Policy Based Management

- ▶ Standard settings and configurations
- ▶ Supports policy hierarchy
  - Policies, sub policies, inheritance
  - Policy Synopsis

## ■ Used for

- ▶ Registration policies
- ▶ Setup and Desktop policies
- ▶ Archiving policies
- ▶ Security policies

The screenshot displays the 'Policy Administration' interface for a policy named '/Demo Corporation'. The interface is divided into two tabs: 'Basics' and 'Administration'. The 'Basics' tab is active, showing the following configuration details:

- Policy name:** /Demo Corporation (with a 'Create Child' button)
- Policy type:** Explicit (dropdown menu)
- Description:** Demo Corporation Policy

Below these details is a table with columns 'Setting Type' and 'Setting Name', listing various settings and their current values:

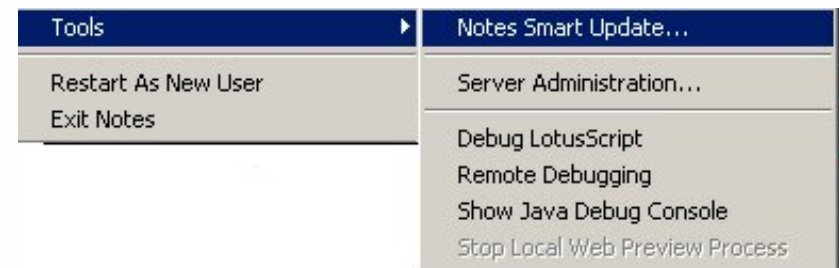
Setting Type	Setting Name	Action
Registration:	Demo Corporation Master Registration Settings	New...
Setup:	Demo Corporation Master Setup Settings	New...
Archiving:		New...
Desktop:		New...
Security:		New...

# Improvements in Administration

---

## ■ Automatic Client Upgrades with Smart Update

- ▶ at a push of a button!
- ▶ When users connect to their home server they are prompted for the upgrade, if they say OK
  - new software is downloaded from the server
  - client is shutdown,
  - then upgraded,
  - and finally restarted



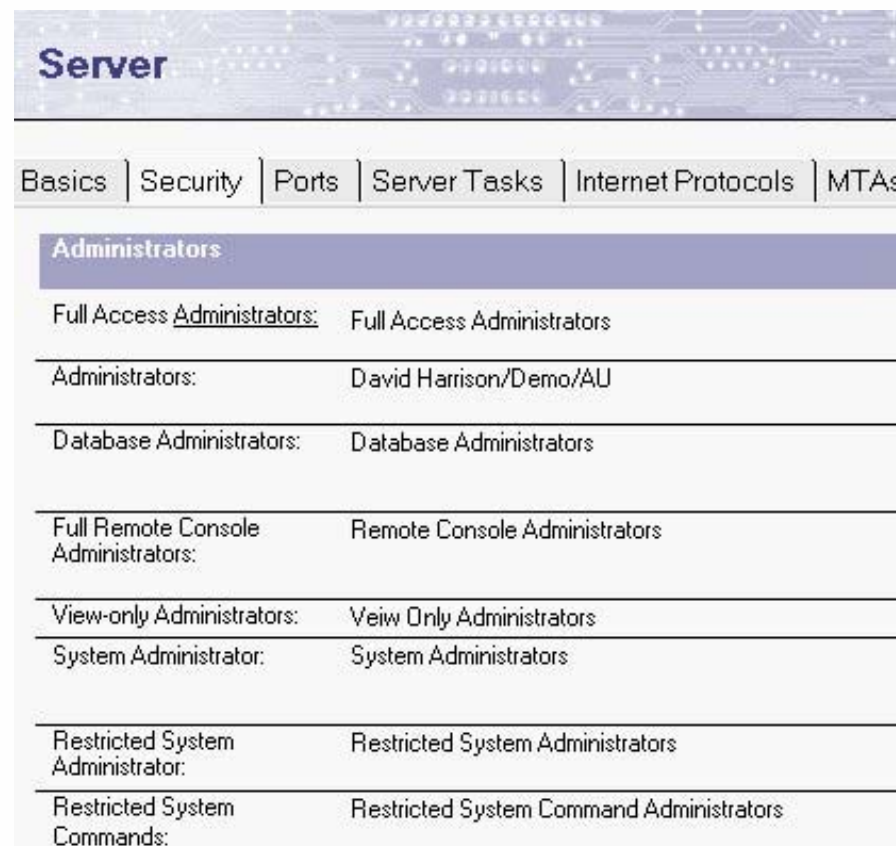
# Improvements in Administration

## ▪Roaming User Support

- ▶ User ID, prefs, Welcome page, Bookmarks etc. is replicated from server to workstation upon connection

## ▪Delegation of Server Administration

- ▶ Multi level policies eg.
  - Database operations
  - Server Console operations
  - Replica & Database Deployment
  - User Creation
  - Directory Management



The screenshot shows the '@server' administration interface. At the top, there is a 'Server' header with a decorative background. Below it is a navigation menu with tabs for 'Basics', 'Security', 'Ports', 'Server Tasks', 'Internet Protocols', and 'MTAs'. The 'Administrators' section is highlighted in a purple bar. Below this, there is a list of administrator roles and their corresponding names:

Full Access Administrators:	Full Access Administrators
Administrators:	David Harrison/Demo/AU
Database Administrators:	Database Administrators
Full Remote Console Administrators:	Remote Console Administrators
View-only Administrators:	View Only Administrators
System Administrator:	System Administrators
Restricted System Administrator:	Restricted System Administrators
Restricted System Commands:	Restricted System Command Administrators



# Improvements in Administration

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## ■ ASP Administration

- ▶ Easy to create and manage hosted user communities
- ▶ Generate Usage Reports
- ▶ Billing Capabilities
- ▶ for NRPC and HTTP Requests

## ■ Deployment of Corporate Welcome page

- ▶ via standard template and policies

## ■ Notes Client Reporting

- ▶ Automatically updates directory with client version, OS etc.

Notes client license:	Lotus Notes
Notes client machine:	
Notes client platform:	
Notes client build:	
Network account name:	
Change request:	None
Policy:	

# Improvements in Administration

## ■ Console Innovations

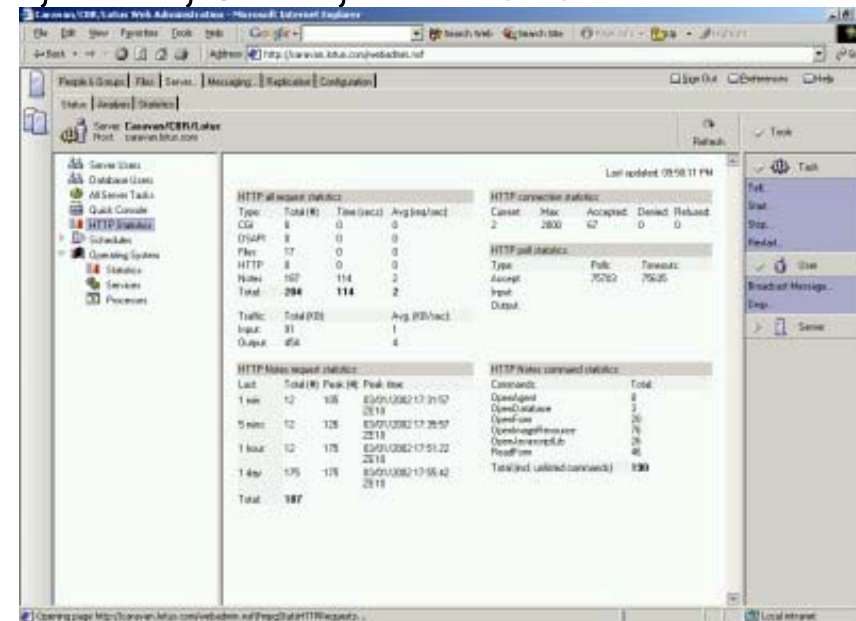
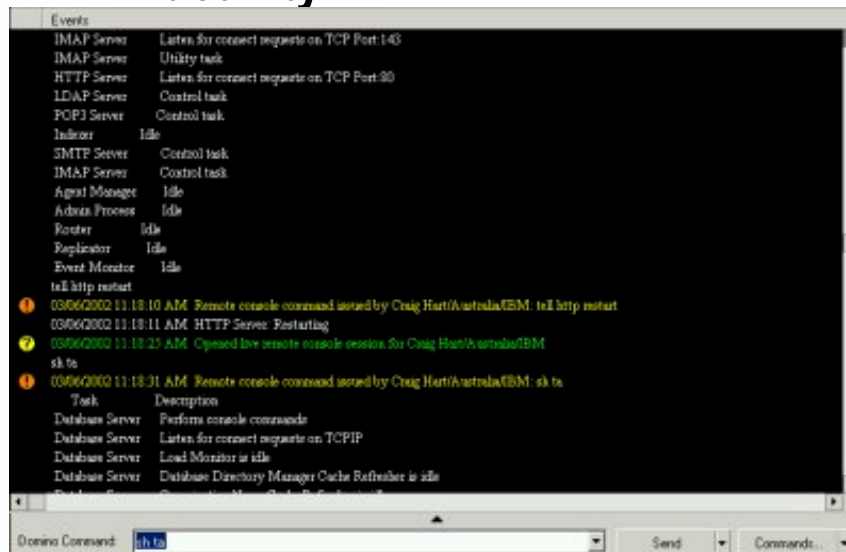
- ▶ Separate Java Console, so direct connection to server not required
- ▶ Web Admin client has look and feel of the Win 32 client

## ■ Statistics monitoring and Analysis have been improved to allow for individual servers as well as server groups and the entire domain

## ■ New Server Health Monitoring and Activity Trend analysis

- ▶ reports, charts

## ■ New Server activity logging for POP3, IMAP, HTTP, SMTP, NNTP and LDAP activity



# Web Server Enhancements

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- Geared towards enhancing performance, scalability and expanding the capabilities for Web application development and deployment
- Fully Supports HTTP 1.1 - persistent connections, improved session handling, better denial of service attack handling etc.
- WebDAV support  
(Web Distributed Authoring and Version)
  - ▶ Standard way of doing collaborative application development
    - NSF is the storage facility
    - CheckIn/CheckOut functionality
- Domino Custom Tag Library
  - ▶ provided for developers building J2EE applications in 3rd party tools



files on  
caravan.lotus.  
com via  
WebDav

# Changes To Directories

- **Easier to integrate into a multi-directory environment**

- ▶ **Distributed Directory model**

- full names.nsf on every server

- ▶ **Centralised Directory model**

- 1 or 2 servers centrally with full names.nsf

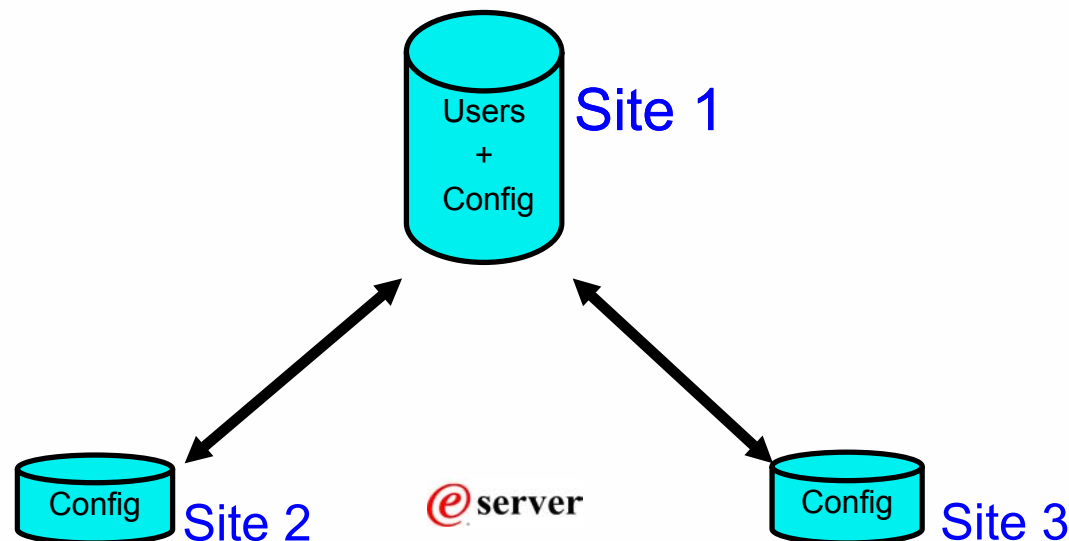
- smaller names.nsf's on other servers

- **Improved LDAP Capabilities**

- ▶ **Schema can be extended**

- ▶ **migrate users from LDAP directories into the Domino Directory**

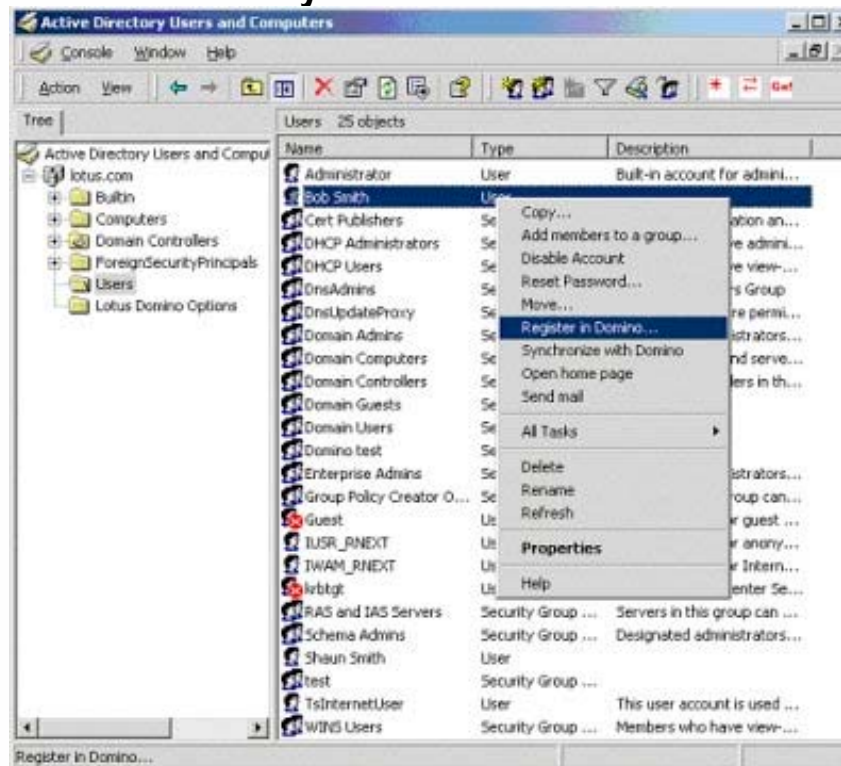
- ▶ **Authentication now possible for all web services with secondary directories (Domino or LDAP)**





# Changes To Directories

- **Multi Organisation Directories**
  - ▶ Securely segmented per organisation
- **Improved name lookup, around 95% faster**
- **Synchronisation with Active Directory**
  - ▶ register, sync properties and passwords, rename and delete users when you perform those operations in Active Directory



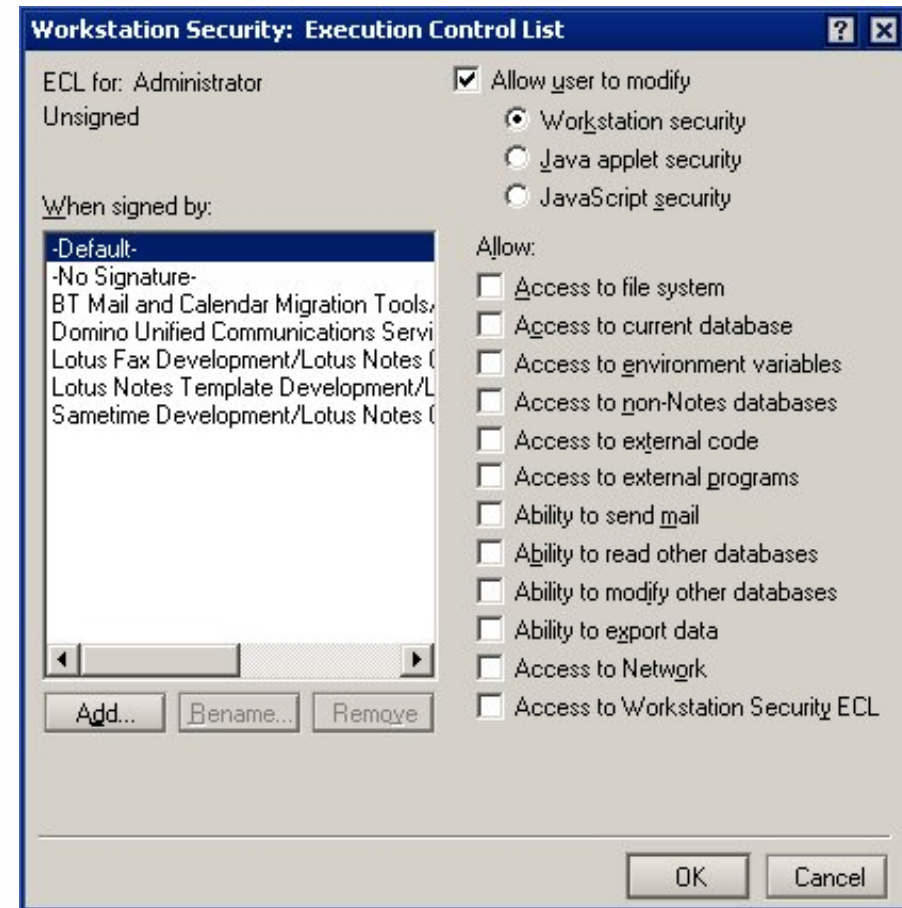
# Domino Hosting Features

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- **Multi Organisations transparently hosted in a single logical Domino server**
  - ▶ ASP Configuration is a Domain wide setting
  - ▶ Separate Addressing formats and standards
  - ▶ Security features for multiple organisations using same databases (xACL's)
  - ▶ Protocols supported, IMAP, POP3, HTTP, NNTP, LDAP, SSL and IIOp
  - ▶ Granular Activity logging and Billing

# New Security Features

- Support for PKCS#11 standard for Smartcards
- Support for S/MIME v3
- New Certificate authority incorporates both Notes and Internet Certificates
- Admin ECL's
  - ▶ These can be pushed dynamically



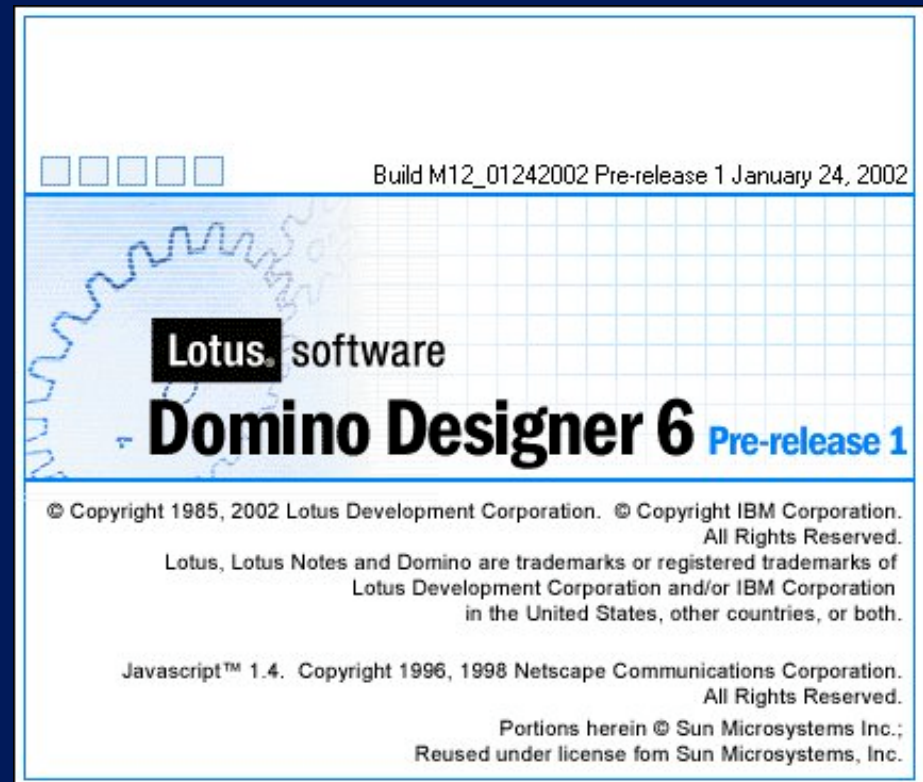
# Messaging

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- **System Rules on Email Messages**
  - ▶ can be filtered on content to prevent SPAM through routers etc.
- **Better Quota management for mail users**
  - ▶ hold mail for a user while they clean up their act!
- **IMAP server supports Namespace extension**
  - ▶ an IMAP user can now see folders in another users mail file etc.
- **Realtime Blacklist site management**

# Domino Designer 6

## Technical Overview





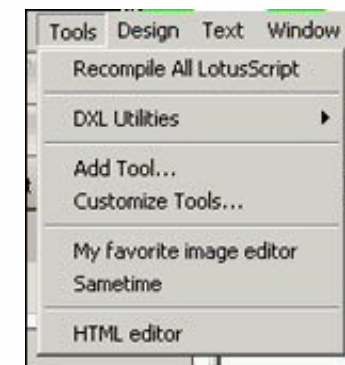
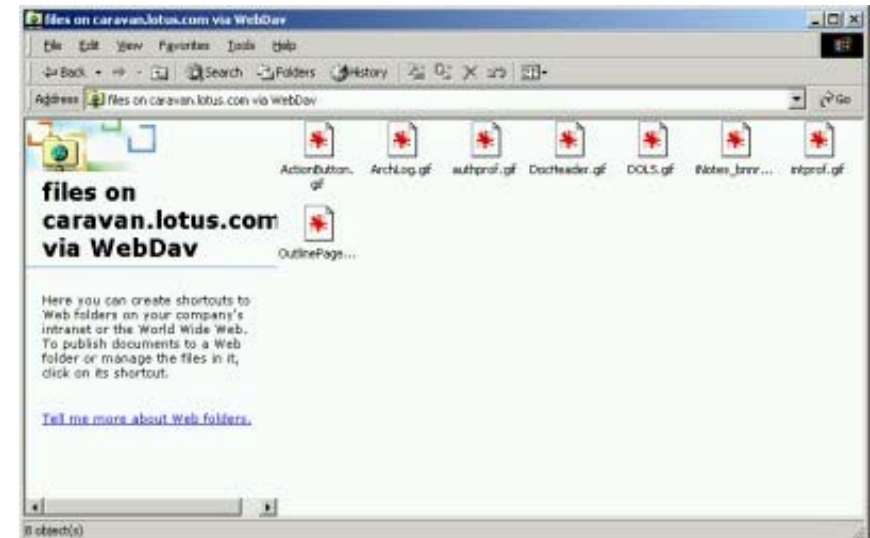
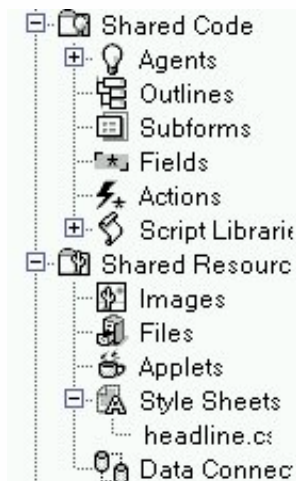
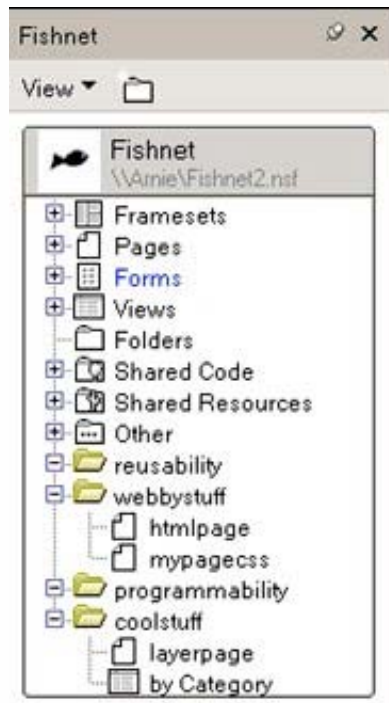
# Key Focus Areas

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- **Managing complex applications**
- **Reusability**
- **Presentation development**
- **Database development**
- **Agent design and management**

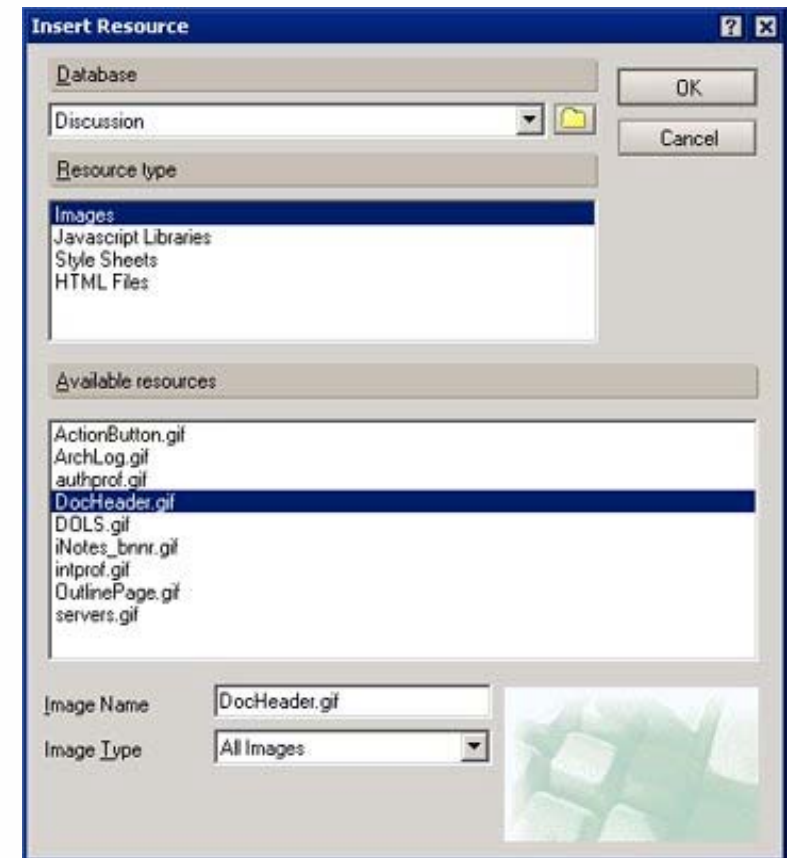
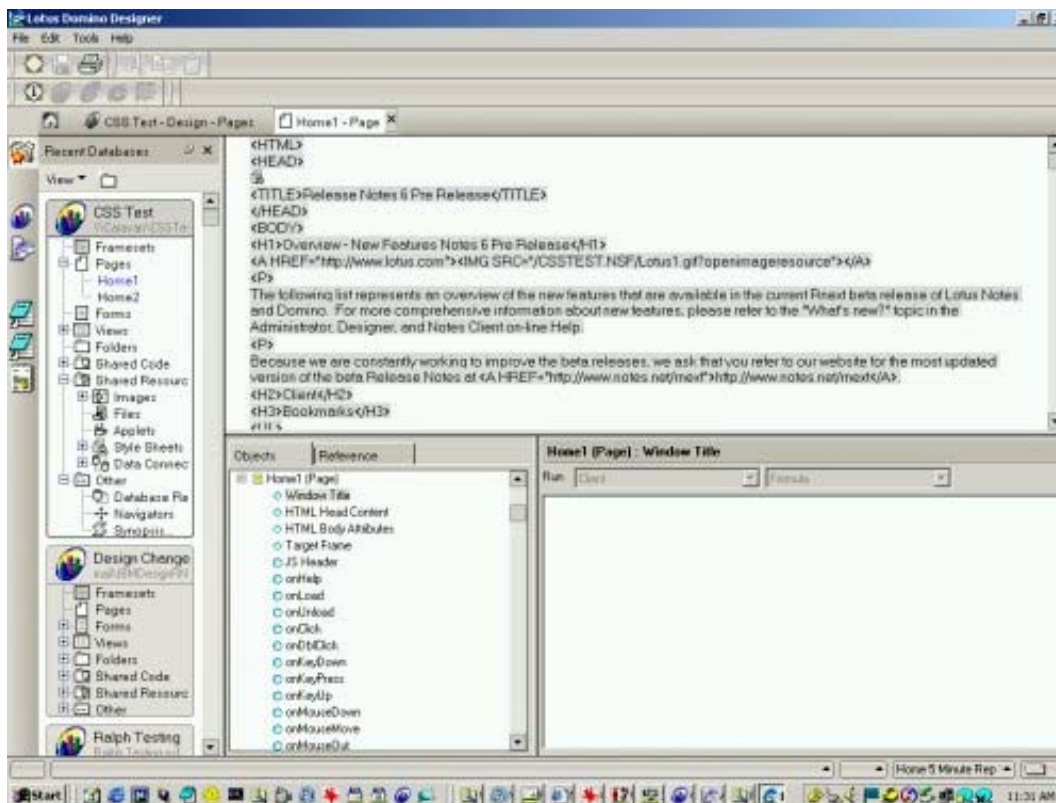
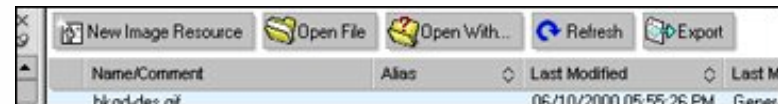
# Managing Complex Applications

- Better support for applications that span multiple databases
- Support for non traditional "NSF" elements
- Support for Design element locking
- Support for 3rd Party Tools



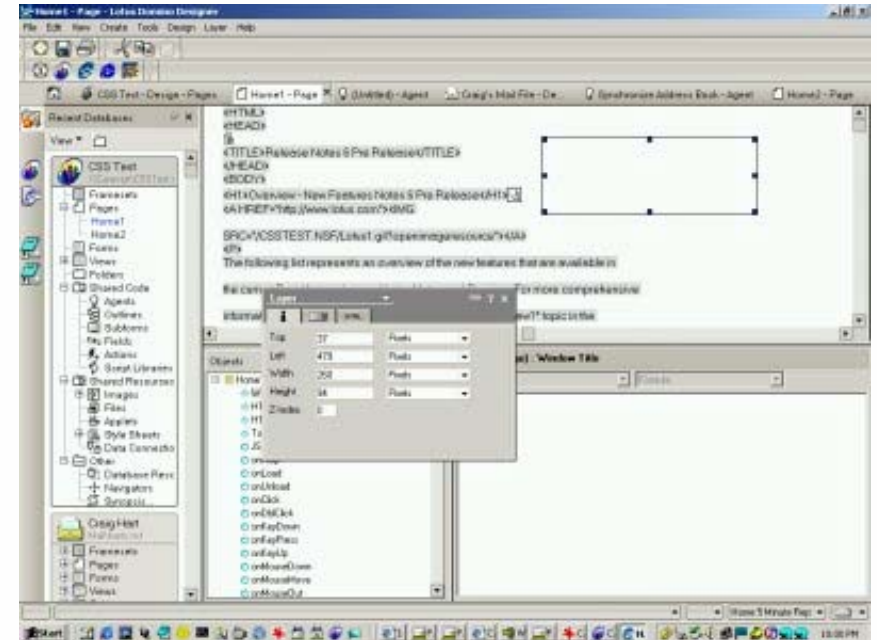
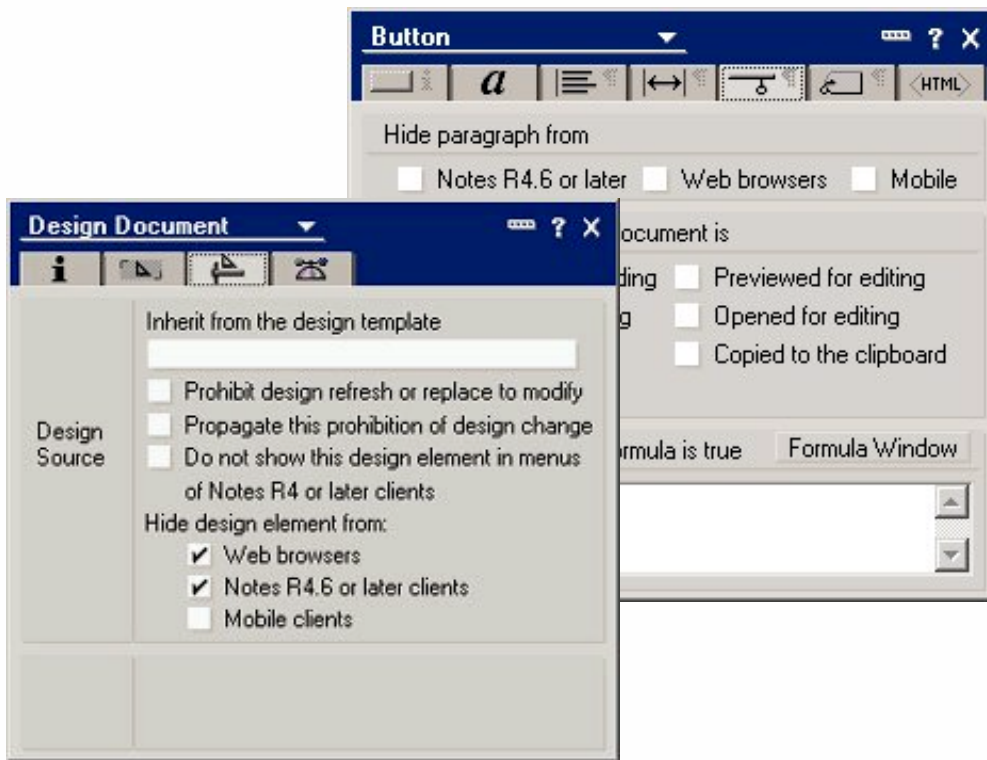
# Improved Reusability

- As Domino Applications become larger and more sophisticated, more code can be reused



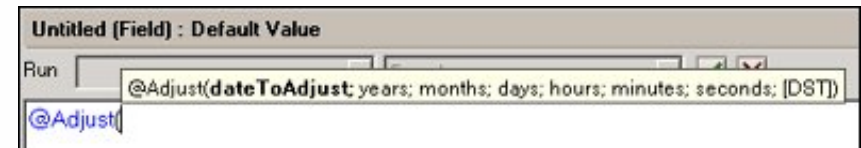
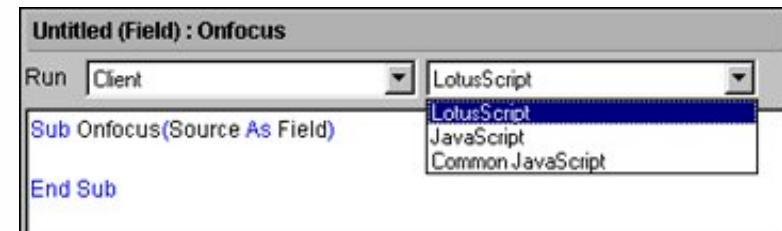
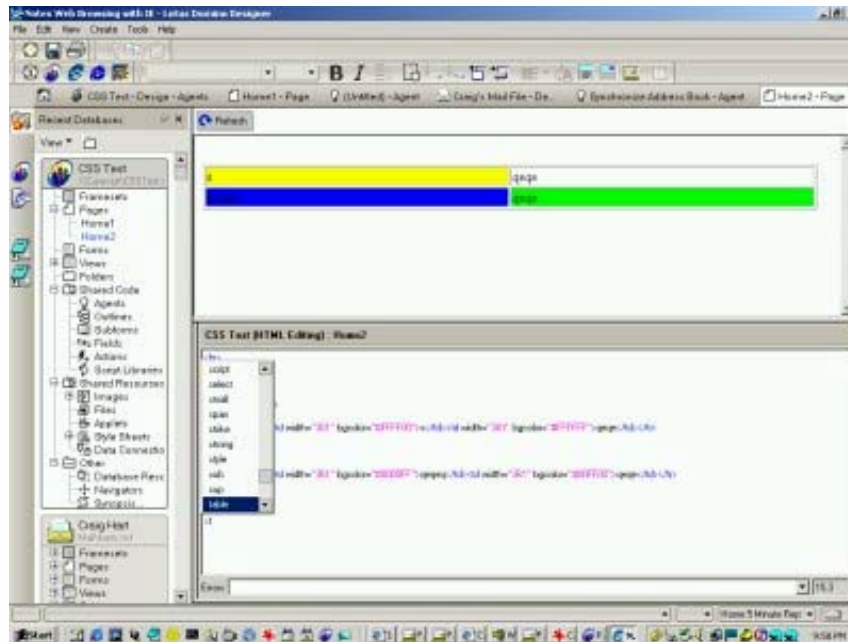
# Presentation Design

- Inclusion of many "Web" design elements within the IDE
  - layers, style sheets etc. (external editors)
- Edit HTML as text or in WYSIWYG
- Client Options, Notes, Web, Mobile



# Database Development

- Type ahead for @functions, HTML & LotusScript in the Programmers Pane
- Better event handling (Web/Notes)





# Database Development

## External data Connections (DECS)

**Database**

Title: Data Connection  
Server: Arnie/TestWeb  
Filename: DataConn.nsf  
Type: Personal Journal

Settings: Archive Settings... Encryption Settings...  
Replication Settings... Replication History...

Web Access:  Use JavaScript when generating pages  
 Require SSL connection  
 Don't allow URL open

Disable background agents for this database  
 Allow use of stored forms in this database  
 Display images after loading  
 Allow document locking  
 Allow connections to external databases

**Data Connection**

Name: DB2 - Employee  
Alias:  
Comment:

Class: RDBMS  
Type: ODBC

Connectivity: User name: Mark Howard  
Password: password  
Data Source: Northwinds

Object:  Table  View  
Owner:  
Name:  
Search: Browse metadata

**Field**

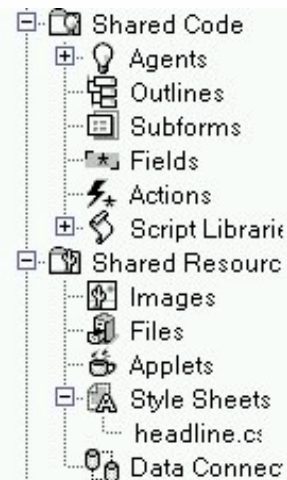
Name: EmployeeID  
Type: Number Editable  
 Allow multiple values  
 Compute after validation  
 External data source

Style:  Notes style  Native OS style  
 Align control's with paragraph's baseline

Size: Width: 1.000" Fixed (Size)  
Height: 0.250" Fixed

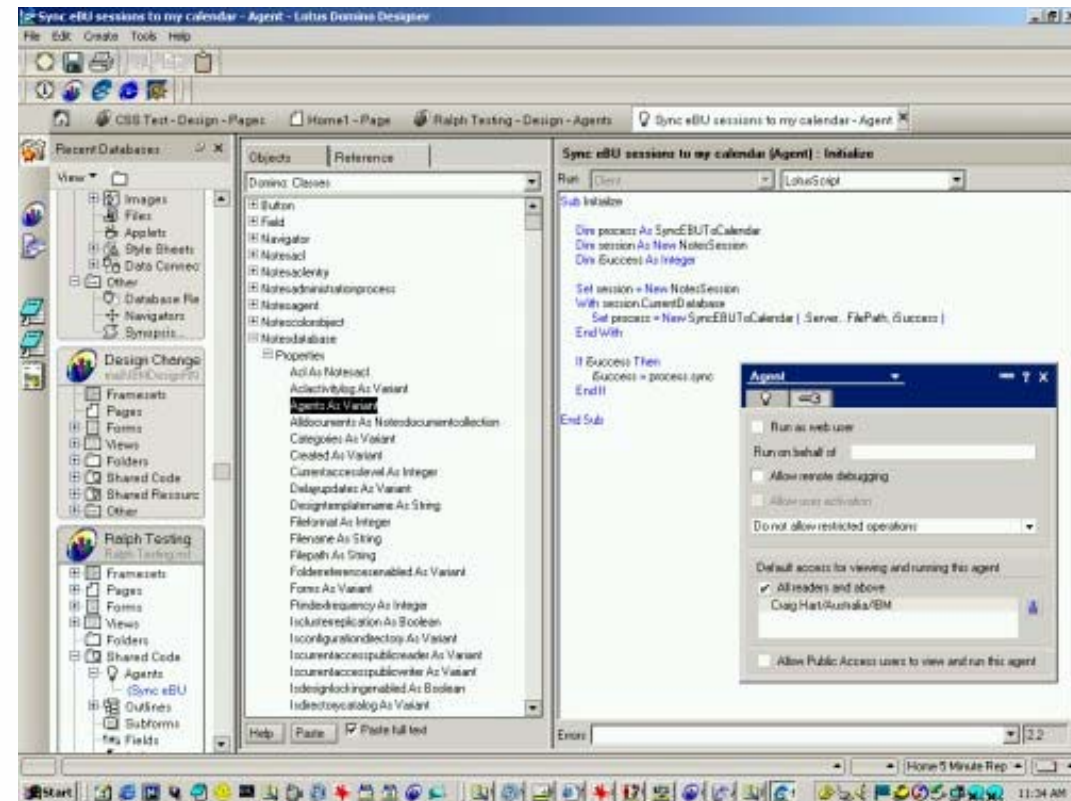
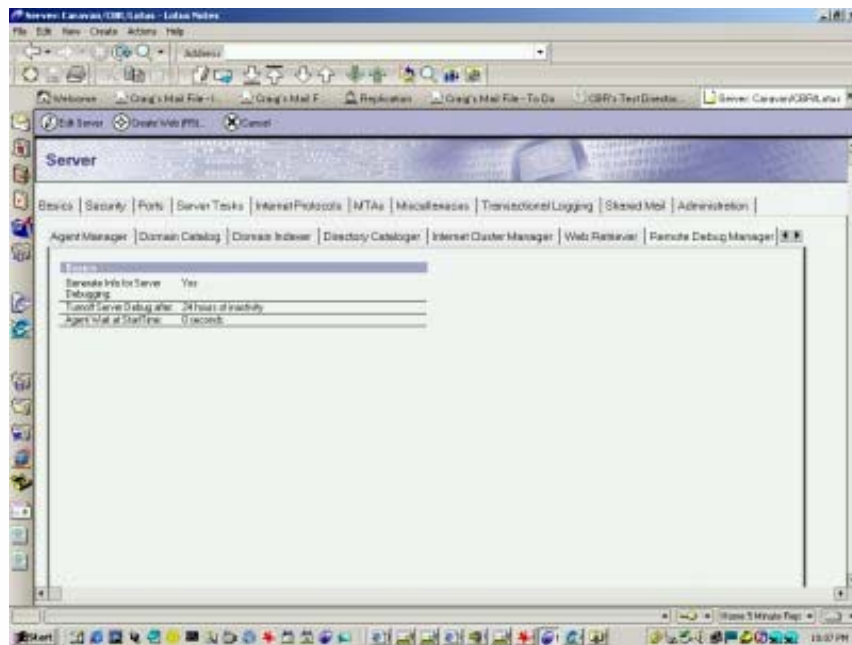
Tab Key: Position in tab order: 0  
 Give field initial (default) focus

Data Source Options: Browse  
External field name: Employee  
Metadata object name: Employees  
Data connection resource: Northwinds  
 Key field  Data field



# Agent Design Improvements

- New Interface for design
- Ability do debug server side agents





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## Technical Overview

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