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## Lotus Notes/Domino 7 Course Materials

### Administrations/Developers

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## Course Description

### DB2 for Domino 7 Administrators and Developers

#### Description

One of the most dramatic features of Domino 7 is its ability to use DB2 as an alternate data store. While this opens up expansive vistas for both Domino and DB2 shops, it requires Domino administrators and developers not only to learn how to work with DB2 but how it works with Domino 7.

During this course you will learn the essentials of DB2 installation, configuration, and security. You will learn how to interact with the DB2 server using the DB2 Control Center and query DB2 tables using the Command Editor and SQL Assist. The course then turns to implementing DB2 as the Domino 7 data store. You will create DB2 Access Views that give external SQL applications access to Domino data and create Query Views that give Notes 7 access to DB2 data.

#### Course goals

In this course, you will learn how to:

- Build a test/development environment that demonstrates the full capabilities of Domino 7 and DB2 integration.
- Install the DB2 server and monitor its status and health using various administration tools.
- Use the DB2 Control Center to configure the server and the License Center to apply a license file.
- Create a sample DB2 database and use graphical tools to open and query the database using SQL.
- Configure Domino 7 to use DB2 as its data store.
- Install and configure the DB2 Access Server and create several DB2 Access Views to make Domino data available to external SQL applications.
- Create Query Views to give Notes 7 access to DB2 data.

#### Audience

This course is designed for individuals who are new to DB2, relational databases, and SQL but who have experience programming Notes applications using Domino Designer 7 and experience administering Domino using Domino Administrator 7.

This course provides enough DB2, relational database, and SQL knowledge to set up a test/development environment in which you can begin to work with DB2 databases and Domino 7. This course does not, however, fully prepare you to become a DB2 administrator.

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## **Course design**

This is a lecture/lab course that follows a task-oriented approach. During the many exercises you will create a working test/development environment where you will work with the all aspects of the Domino 7/DB2 integration.

## **Outline**

### **Topic 1: Domino and DB2 Overview**

- A history of Domino data storage
- A thumbnail perspective of DB2
- The present and future of Domino data storage
- How Domino data is stored in DB2
- Notes and DB2
- Local or remote connection
- Benefits to Domino shops
- Benefits to DB2 shops
- Build a test/development environment
- DB2 resources

### **Topic 2: Install DB2 Server**

- Server platform requirements
- External authentication directory requirement
- Obtain DB2 software
- Extract DB2 server installation package
- Instructor Demonstration: Install DB2 server product
- DB2 Control Center
- Object View tab
- Instructor Demonstration: Add/Confirm license
- Instructor Demonstration: Create SAMPLE database
- Command Line Tools
- Instructor Demonstration: Command Line Tools

### **Topic 3: Administer DB2**

- Administration Client platform requirements
- Exercise: Install DB2 Administration Client
- DB2 Security
- Assign system administrators
- DB2 security and NSFDB2s
- Database object right-click actions
- Database status
- Database backup and recovery
- Health Center
- Configuration files
- Send alerts to administrative contact(s)
- Activity Monitor
- Journal



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#### **Topic 4: Define Table**

- Table columns
- Alter table
- Columns tab
- Add predefined column
- DB2 limits
- Keys tab
- Check Constraints tab
- Table tab

#### **Topic 5: Open Table**

- View table data
- Open Table window actions
- Modify table data
- Exercise: Add a row
- Filter rows
- WHERE clause operators
- Logical expressions
- Exercise: Apply a filter

#### **Topic 6: Query from the Command Editor**

- Open Table window versus the Command Editor
- SQL queries
- SQL language rules and conventions
- SQL built-in functions
- Qualified and correlation names
- Execute SQL query from the Command Editor
- Exercise: Execute SQL query
- Build a query using the SQL Assist
- Exercise: SQL Assist
- GROUP BY
- Multiple table queries
- Three table join
- Alternate join syntax
- Join tables using SQL Assist
- Outer join types
- Optional exercise: Perform additional queries

#### **Topic 7: Install DB2 Run-Time Client**

- Procedure 1\Instructor: Create Domino accounts on DB2 server
- Procedure 2\Instructor: Give DB2DOM group SYSCTRL rights in DB2
- Procedure 3\Everyone: Install Run-Time client on Domino computer
- Procedure 4\Instructor: Display DB2 communication parameters
- Connect to DB2
- Procedure 5\Everyone: Catalog the TCP/IP node from the DB2 client
- Procedure 6\Everyone: Attach to the TCP/IP node from the DB2 client
- Procedure 7\Everyone: Catalog the database from the DB2 client
- Procedure 8\Everyone: Connect to a database from the DB2 client
- Procedure 9\Everyone: Issue SQL command from the DB2 client

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### **Topic 8: Configure Domino 7 to use DB2**

Procedure 1\Everyone: Enable transaction logging on Domino 7  
Procedure 2\Everyone: Run the Enable Server for DB2 tool  
Change 1: Domino 7 startup messages  
Change 2: NOTES.INI  
Change 3: Services file  
Change 4: Server document  
Change 5: DB2 name and password added to Server ID file  
Change 6: TCPIP node added for DB2 server and attached  
Change 7: DB2 container database created and cataloged  
Exercise: Explore container database in the DB2 Control Center  
Set DB2 log file size  
Exercise: Create new NSFDB2  
Day-to-day administration of NSFDB2s

### **Topic 9: Install DB2 Access Server**

DB2 Access for Lotus Domino  
Procedures to install the DB2 Access Server  
Procedure 1\Instructor: Create a Domino server ID for the DB2 server  
Procedure 2\Instructor: Install DB2 Access Server on DB2  
Procedure 3\Everyone: Edit your Servers Server document  
Procedure 4\Everyone: Run DB2 ACCESS SET console command  
Procedure 5\Everyone: Verify configuration of DB2 Access Server  
DAV security overview  
How to map DB2 to Domino 7 user names  
Validate DB2 User Names tool  
Set DB2 Username tool  
Procedure 6\Instructor: Map DB2 to Domino 7 user names  
Allowing anonymous access to Notes data

### **Topic 10: Create DB2 Access Views**

DB2 Access Views overview  
Domino data translation  
Procedures to create a DAV  
Procedure 1: Create the DAV  
Procedure 2: Choose or insert fields  
Procedure 3: Set DB2 Access View properties  
Procedure 4: Save and validate the DAV  
Procedure 5: Create/Update the table in DB2  
Procedure 6: Populate in DB2  
Exercise: Design DAV  
Procedure 7: Grant access to the DB2 view  
Exercise: Add new DAV user  
Uninstall DB2 Access Server

### **Topic 11: Create Query Views**

Query Views overview  
Create a QV  
SQL Query formula

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Exercise: Create QV of one DAV

Limit number of rows returned by QVs

QV of two DAVs

Exercise: JOIN two DAVs

Data source federation

Procedure 1\Instructor: Federate DB2 instance

Procedure 2\Everyone: Create data source wrapper

Procedure 3\Everyone: Create server definition

Server definition object folders

Procedure 4\Everyone: Create nickname to external table/view

Exercise: QV of the EMPLOYEE table

Using QVs in Notes applications

Exercise: QV to JOIN DAV and EMPLOYEE table



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## **Course Description**

# **Lotus Domino Designer 7: Basic Notes Applications**

### **Description**

In this course you will use Domino Designer 7 to create an application used by Notes clients to create and read documents. You will develop your application using most of the design elements available in Domino Designer.

At the beginning of the course you will create a new database, and as the course progresses, numerous exercises will give you the opportunity to add features to the application.

When you finish developing the application, you will learn the proper steps to put it into production, as well as how to maintain the data and design of the database.

### **Course goals**

This course will teach you how to:

- decide which applications are appropriate for Notes and how Notes applications can be structured to accomplish their objectives
- use Domino Designer 7 to build a basic application that runs on a Domino server and is used by Notes clients
- design applications using Pages, Forms, Fields, Views, Framesets, Outlines, Actions, and Agents
- work with the formula language, LotusScript, and JavaScript languages
- establish relationships between documents through data inheritance and a Response Document hierarchy
- secure the application by assigning user rights and roles in the Database, Form, and View Access Control Lists
- embellish the appearance of Forms and Pages using style sheets and add general and context-sensitive help
- create standard and calendar Views that display document data
- make it easy for users to navigate and control the application
- use shared design elements, including Shared Resources, Files, and Code
- use Templates to create new databases using your design and Master Templates to centralize your code changes
- rollout a new application into a production environment
- maintain the database data and design
- describe the different ways to exchange data with other database systems.

### **Audience**

This course is designed for individuals new to Domino Designer but who have:

- significant experience using the Notes 7 client

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- experience with another programming language, or with any worksheet or word processor macro language.
- This course relies on the WYSIWYG tools in Domino Designer and only introduces the programming languages used in Domino Designer, so a programming background is not required.

## **Duration**

This course is sold as a 5-day course, but it is unlikely that you can finish all the topics in four days. To finish in four days, it is recommended that you defer the last few topics for self-study.

## **Course design**

This is a lecture/lab course that follows a task-oriented approach. During the many course exercises you will create a working application from the ground up. As you learn about various aspects of Domino Designer, you will immediately apply the concepts and techniques as you work on your application.

## **Outline**

### **1 Getting Started with Domino Designer**

#### **Notes Databases**

Notes database structure  
Designer experience  
Programming languages  
Start Domino Designer  
Store database on Local drive or on Domino  
Create new database  
Exercise: Create new database

#### **Domino Designer Quick Tour**

Domino Designer quick tour  
Database properties  
Design locking  
Exercise: Set Database properties  
Database Access Control List  
Exercise: Database ACL  
How/where applications are executed  
Backward compatibility with previous versions

#### **Optional Designer Tools**

Designer Bookmarks  
Add tools to Domino Designer

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Adjunct programming tools  
WebDAV

## **2 Forms to Create Documents**

### **Form Basics**

- What is a Form?
- Form is not the document
- Form designer concerns
- Design Form
- Form design panes
- Form name
- Showing the Form on menus
- Cascaded Form names
- Accelerator key assignment
- Default database form
- Form background
- Save the design element
- Form Design List
- Test the Form
- Exercise: Create and test new Form

### **Fields on the Form**

- Purpose of Fields
- Field versus Item
- Add Field
- Edit existing Field
- Copy and paste Fields
- Text properties
- Field properties
- Common Field names
- Internal Field names
- Reserved Field names
- Example of reserved Field name: SaveOptions
- Example reserved Field: Form
- Data types and Field types
- Control tab
- Advanced tab
- Exercise: Add Fields to Product Form
- Rich Text Fields
- Rich Text Lite Fields

### **Default and Computed Field Formulas**

- Field type and its events
- Example Default Value formulas
- Formula language function syntax
- Auto-completion
- Programmers Pane properties
- Search and replace
- What Field formulas can contain
- Programming rules
- Exercise: Add Default Value formulas
- Computed formulas

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Exercise: Add Computed formulas  
Debugging Field formulas  
Form evaluation sequence  
What you see is not always what you get

### **3 Views of Documents**

#### **Create New View**

View characteristics  
Create new View  
Save and Customize  
Exercise: Create a View

#### **View Column Formulas**

Add View columns  
Column properties Info tab  
Understand the data  
Column restrictions  
Column Value  
Example formulas  
Exercise: Column Values  
Special View-only functions  
Document statistics

#### **View Column Properties**

Open Column properties  
Format tabs  
Exercise: Advanced Format for columns  
Display values as icons  
Exercise: Display values as icons  
Sorted columns  
Exercise: Sorted column  
Categorized column  
Exercise: Categorize column  
Column totals  
Exercise: Column totals  
Use value as color  
Exercise: Use value as color  
Advanced tab: Hide column  
Exercise: Hide column  
Advanced tab: Programmatic Name

#### **View Selection**

Two View Selection options  
Simple Search  
Conditions options  
Select by Formula  
Time-based selections  
Select by document property  
Selection by exclusion  
Fuzzy selections  
Exercise: Out of Stock View  
Private Views and select by user name  
Normalizing user names

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Exercise: Sales Rep Private View  
Change the design of a Private View

### **View Properties**

View name and alias  
View style  
Options tab  
Style tab  
Advanced tab  
Exercise: View properties  
View size  
View index refresh

### **Folders**

Purpose of Folders  
Shared versus private Folders  
Special design considerations  
Delete document error  
Exercise: Create shared Folder

## **4 Application Layout and Navigation**

### **Application Structure**

Developer decisions  
Application purpose  
Applications NOT right for Notes  
Applications right for Notes  
Application structure options  
Default structure  
Increasing detail  
Linear progression  
Random access

### **Actions**

Inherent Notes client capabilities  
Types of Actions  
Action Pane  
Working in the Action Pane  
Create Action  
Action with Sub Action  
System Actions  
Simple Actions  
Coding the Action  
Action Bar properties  
Hidden Actions  
Hide When  
Exercise: Form navigation using Actions  
Using @Commands  
Syntax guidelines  
@Command evaluation sequence  
View Actions  
Exercise: View Action  
Example Hide When formulas



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Hide When and the Evaluate actions View property  
Exercise: Context-sensitive View Action

### **Pages**

What is a Page?  
Create Page  
Page name  
Exercise: Create container Page  
Hotspot button  
Exercise: Welcome Page with a button  
Computed Text  
Exercise: Page with Computed Text

### **Outline Control**

History of the Notes window  
Outline Control features  
Create an Outline  
Step 1: Create Outline and Outline Entries  
Exercise: Create Outline and Outline Entries  
Step 2: Embed the Outline  
Example Outlines  
Exercise: Embed the Outline on a Page  
Special Entries  
Image Resources  
Image Resource properties  
Rollover images and image wells  
Exercise: Add Image Resources  
Exercise: Add Image Resources to Outline Entries

### **Framesets**

Frames and Framesets  
Create Frameset  
What usually goes into Frames  
Assign Frame content  
Special Frame names and document preview  
Self-framing design elements  
Targeting content to Frames  
Special target names  
Notes-only Frame features  
Exercise: Create Frameset

### **Database Launch Options**

Default database launch property  
Control database launch options  
Database Postopen event for Notes clients  
Exercise: Database launch  
Exercise: Fix a small glitch

## **5 Accurate Data Entry**

### **Editable Field Translation and Validation**

Input Translation event  
Input Validation event  
Triggering validation from the Save Action  
Exercise: Add Editable Field formulas  
Field onBlur event

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- Field onBlur using Javascript
- Language choice for Field operations
- Form flow
- Automatically refresh fields

### **List Fields**

- Where the choices come from
- Enter choices
- Keyword synonyms
- Exercise: Keyword synonyms
- Use formula for choices
- Use Address dialog or Access Control List for choices
- Use View dialog for choices
- Exercise: Use View dialog for choices
- Checkbox and radio button options
- Refresh on change
- Allow multiple values in Fields
- Multiple value items and Views
- Edit versus Read mode display

## **6 Response Forms and Views**

### **Formulas Inherit Values**

- Why inherit data?
- Configuring inheritance
- Using inheritance
- Inheriting data across databases
- Document Universal Note ID (UNID) and NoteID
- Exercise: Inherit data
- Inherit entire selected document into Rich Text Field

### **Response Documents**

- Three types of documents
- From response to document and back again
- Design response Form
- @Commands to create response documents
- Response with reference
- View Response documents
- Design a hierarchical View
- Select response documents in a View
- Common columns
- Responses only column
- Responses only column formula
- Indicating response documents in a View
- View column totals
- Exercise: Response documents

## **7 More Views of Documents**

### **Embedded Views**

- Embedded View
- How to embed a View
- Single category View
- Exercise: Single category View

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View Filter  
Embedded Editor

### **Calendar Views**

Calendar features  
Create a Calendar View  
Style tab  
Font tab  
Calendar format  
Two types of entries  
Defining just the required columns  
Defining all the columns  
Exercise: Create Calendar View  
Exercise: Show out of stock products  
Optional Exercise: Calendar View Events  
Embedded Date Picker

### **Grid-Style Views**

View properties  
View-level edit caveats  
Enabling cell edits  
Column programmatic name  
Inviewedit event code  
NEWENTRY\_REQUEST  
Cycling through allowable values  
Exercise: Alter All Products View to be Grid-style

## **8 Security At All Levels**

### **Authenticated User Names**

Security model  
Register Notes users  
Authentication process  
Anonymous users  
Hierarchical names  
Authenticated name  
Alternate name  
Domino Administrator responsibilities  
Developer responsibilities

### **Database Access Control List**

Access Control List  
ACL Entries  
Add users to the ACL  
Acceptable ACL Entries  
Standard settings  
User Type  
Conflicting/overlapping access  
Explicit versus Effective Access  
Maximum Internet name & password access  
Access privileges  
Roles  
Create and assign a role  
Exercise: Define ACL and roles

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- Set Administration Server
- Local ACL enforcement
- Enforce Consistent ACL

### **Form, View, and Document Security**

- Form security
- Anonymous Form
- View security
- Name storage
- @UserName and data type
- Authors Fields
- Exercise: Design element access and Authors Field
- Authors Fields you should always include
- Readers Fields
- Implied readership
- Readers/Authors Fields interaction
- Author access and replication
- @Name
- Determining user access
- @Author
- Determining user role membership
- Signed documents

### **Controlled Access Sections**

- Sections
- Controlled Access Sections refine authorship
- Define Controlled Access Section
- Controlled Access Sections and true document security
- Controlled Access Sections and signed Fields

### **Field Security**

- Editor access to update
- Example: Editor access to update
- Input Enabled event for Fields
- Exercise: Input Enabled event
- Field encryption
- Task 1: Create a Secret Key
- Task 2: Distribute the key
- Task 3: Enable the Field(s) for encryption
- Task 4: Associate the key
- Exercise: Encrypt pricing details
- Encryption caveats
- Changing/ removing document encryption

## **9 Embellishing the User Interface**

### **Form Design and Layout**

- Non-scrolling header
- Layers
- Tables
- Create table
- Nested tables
- Exercise: Tabbed and nested tables
- Cascading Style Sheets

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- CSS attributes of objects
- Add a style sheet
- Exercise: Add a style sheet
- Pictures

### **Helping the User**

- On Open Form properties
- Window Titles
- Exercise: Add Window Title
- Default printout header and footer
- Database Icon
- Exercise: Database/Bookmark Icon
- About/Using This Database
- onHelp and HelpRequest events
- Field-level help
- Text popup
- Formula popup
- Hotspots
- Link Hotspot
- Action Hotspot
- Removing a Hotspot
- Image maps
- Document Links

## **10 Application Rollout and Maintenance**

### **Database Rollout**

- Rollout checklist
- Basic tab in Database properties
- Info tab in Database properties
- Design tab in Database properties
- Advanced tab in Database properties
- Notes client ECLs and signatures
- Re-sign the design
- Manually change the ECL
- Enforcing standard ECLs
- Mail-In Database document
- Testing cycles
- Mitigate performance problems
- Create archive of design
- Design Synopsis
- Verify ACL
- Server and Domain-wide ACL management
- Exercise: Database Catalog
- Verify Server document
- Copy database to Domino Server
- Create replicas
- Encrypt databases
- Full Text/Domain Search Indexes
- Database Library
- Librarians
- Create Database Library

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Exercise: Publish application  
Notify Users  
Monitor database use

### **Update Agents**

Agent categories  
Four components of every Agent  
Create new Agent  
Agents and security  
How formulas operate in update Agents  
Trigger: Running the Agent from the menu  
Trigger: Running an Agent from the browser  
Search: SELECT statements  
Search: Full text search  
Search: Cannot select response documents  
Action: FIELD statement  
Examples: Field and document-related Actions  
Exercise: Review ConvertInStock Agent

### **Shared Code**

Subforms  
Subform examples  
Create Subform  
Exercise: Create and insert Subform  
Computed Subforms  
Example: Computed Subform  
Insert a Computed Subform  
Shared Subform caveat  
Shared Fields  
Add Shared Field to Form  
Work with Shared Fields  
Shared View Columns  
Insert Shared Column  
Find Views where a Shared Column has been used  
Shared Actions  
Shared Code and performance  
Sharing design elements from other databases  
Shared design element caveats

### **Templates**

Templates versus Master Templates  
Create a new database using a Template  
Create a Template  
Second use for a Template  
Default ACL settings in Template  
Exercise: Templates  
Design maintenance  
Create a Master Template  
Inherit the design of a Master Template  
Entire database design refresh  
Specific design element refresh  
Blocking design element refresh/replace  
Copy and paste design elements

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- Exercise: Master Templates
- Database properties that are replaced/refreshed
- Master Template strategies
- One-to-many
- Example: One-to-many
- One-to-one
- Many-to-one
- Hide design
- Single Copy Template
- SCT facts
- Configure Single Copy Template
- Where to do your design work
- Template auditing

### **Data Exchange**

- Requirements
- Built-in access from the inside out
- Programmatic access to Notes data
- Drivers and services for Notes/Domino to access external data
- Drivers used by external applications to access Notes data
- Web access to Notes data
- Off-the-shelf applications that access Notes data



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## **Course Description**

# **Lotus Domino Designer 7: Special Notes Features**

### **Description**

Developers often overlook the many special features integrated into Notes either because they are not aware of them or assume wrongly that they can only be used in the standard applications, such as Mail. In fact these special features can be added to all applications, and often require only an additional amount of work to support. This course shows how users configure and use a particular feature and then describe in detail what the developer must do to support the feature.

### **Course goals**

This course will teach you how to:

- Display unread marks in Folders and Views, display the total number of unread documents in Bookmarks and in Outline Entries for Folders, and filter Folders and Views to display only unread documents.
- Describe how replication works down to the Field-level, and to employ the various design techniques that can be used to prevent replication conflicts.
- Expand the utility of private documents to include extended document authorship and limited readership and to ensure that even private documents replicate to all servers.
- Provide users with the ability to undelete deleted documents by adding soft deletion support.
- Categorize documents at the View or document level using a special dialog box.
- Develop alternate Forms for display, printing, and workflow applications.
- Mail-enable applications to allow asynchronous inter-database messaging.
- Enable users to discover which Folders a document has been filed in.
- Add calendar and scheduling capabilities that tie into the domain-wide user busytime system.
- Integrate Sametime presence awareness, instant messaging, and instant contacts.
- Create an appropriate full text index and save advanced searches that users can run.
- Let users use Quicksearch feature to quickly find matching documents in Views and allow users to customize shared Views and Folders to suit their needs.
- Create a custom subscription Form that allows users to monitor your custom applications for new documents that meet their search criteria.
- Describe how to provide a better user interface to database archiving and selective replication.

### **Audience**

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This course is designed for Notes programmers well versed in using Domino Designer 7. It assumes that you have:

- extensive experience using Notes 7
- thorough knowledge of the Domino Designer 7 development environment, including Form and View design
- mastered the Topics covered in Domino Designer 7: Basic Notes Application.

## **Duration**

This course is sold as a 3-day course.

## **Course design**

This is a lecture/lab course that follows a task-oriented approach. During the many course exercises you will create a working application from the ground up. As you learn about various aspects of Domino Designer, you will immediately apply the concepts and techniques as you work on your application.

## **Outline**

### **Topic 1: Unread Marks**

Display the number of unread documents  
Display unread count in Outline and unread marks in Views  
Mark all read/unread warning  
Scanning for unread documents  
Designing for unread marks  
View unread filter  
Exercise: Display unread marks

### **Topic 2: Conflict Documents**

Replication defined  
Database Replica ID and Document UNID  
Server-to-server replication  
Item modification record  
Single source item update  
Deleted documents  
Document replication conflicts  
Save conflicts are already prevented  
Preventing replication conflicts  
Strategy 1: Proper ACL settings  
Strategy 2: Document locking  
Enable document locking  
Document locks and mobile users  
Strategy 3: Document versioning  
Strategy 4: Automatically merge replication conflicts  
Strategy 5: Hide conflict documents

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Strategy 6: Programmatically resolve conflict documents

Strategy 7: Manually reconcile conflict documents

Exercise: Replication conflicts and document locking

### **Topic 3: Private Documents**

Mark Private Action button

Mark Public Action button

Recover a private document

Expand the idea of Private documents

Replicate Private documents

Exercise: User control over readership

Pseudo document security

### **Topic 4: Soft Document Deletions**

Designing for soft deletions

Step 1: Set Database soft deletions property

Step 2: Create Soft Deletions View

Step 3: Create Outline Entry for Soft Deletions View

Step 4: Create the Restore and Purge Agents

Step 5: Create the Actions in the Soft Deletions View

Exercise: Soft Deletion support

Forcing a hard delete

Soft deletions and security

Instantly move to trash on Delete

Programmatically prevent orphan documents

### **Topic 5: Categories Field**

Requirements

Handling (Not Categorized) documents

Exercise: All Products by\Department View

### **Topic 6: Alternate Forms**

Review: Form versus document

Forms for different purposes

User can manually change Forms

Potential user confusion

Programmatically select alternate Forms

Order of precedence

Examples of programmatic control over Forms

Preventing user mis-saves

Exercise: Alternate Form for printing report from View

Exercise: Alternate Form for printing Document

### **Topic 7: Mail-Enabled Applications**

Advantages of mail-enabled applications

Mail mechanisms

SendTo value

Mail triggers

@MailSend with parameters

Exercise: @MailSend with parameters

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@MailSend without parameters

Exercise: @MailSend without parameters

Send the form with the message

Strategy 1: Copy the Form to the user Mail

Strategy 2: Store form in document Form property

Strategy 3: Store Form only in copy of document that is mailed

General interaction with user Mail

Mail-in databases

### **Topic 8: Discover Folders**

Requirements

Exercise: Add Discover Folders feature

### **Topic 9: Calendars and Scheduling**

Open any users Calendar

Open (\$Calendar) View in current database

Mail custom Appointment documents to users

Exercise: Analyze how to send a reminder to a user

Embedded Scheduler architecture

Using an Embedded Scheduler

Add Embedded Scheduler and set properties

Required Fields and Field association

Exercise: Embedded Scheduler

Simpler approach to scheduling

### **Topic 10: Integrated Sametime**

Prerequisites

Online awareness in a Form

Online awareness in Views

Embedding an Instant Messaging Contact List

Formula language functions

Exercise: Enable Sametime

### **Topic 11: Full Text Search**

Built-in full text search bar

Create the full text index

Full text index options

Full text search index properties

Exercise: Create full text index

Limitations of full text search

Exercise: Search for information

Search results

Valid search operators

Improve your results

More options

Save searches

Enable multi-database search

Searching multi-database indexes

Server configuration for Domain Search

Programming full text search

### **Topic 12: View/Folder Tools**

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Built-in View/Folders tools

Starts with

Exercise: Test Starts with

Private Views/Folders

User-customizable Views/Folders

Pick Inbox Style

### **Topic 13: Subscriptions**

Typical ways to find new documents

Monitor databases with subscriptions

Subscribe to a database

Document selection options

Work with subscription results

Subscription Options View

Select documents that match the selected criteria

Configure Notes to monitor headlines

Subscriptions and Domino security

Subscriptions and database security

Database property to allow headline monitoring

Custom Subscription Form

Exercise: Configure and test subscriptions

### **Topic 14: Archiving and Selective Replication**

Archiving

Selective Replication

Drag and drop selective replication



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## **Course Description**

# **Lotus Domino Designer 7: Basic Browser Applications**

### **Description**

The Lotus Domino Server is a powerful and flexible application server. What distinguishes it from other application servers is that it supports both Lotus Notes and browser clients. The same database can have two user interfaces!

This course leads you through the essential steps to adapt a simple Notes developed for Notes so that it can be used by browsers. You will see how Domino Designer 7 is uniquely suited to building powerful and versatile applications for Notes and browser clients.

### **Course goals**

This course will teach you how to:

- distinguish the responsibilities of the Domino Web Engine and the Domino HTTP server task in serving browser requests
- describe the various configuration documents necessary for Domino to host powerful and secure Web sites and applications available to users
- describe the conversion capabilities of the Domino Web Engine as well as its limitations
- adapt an application so that it can be used by both Notes and browsers and utilize the various mechanisms to create distinct experiences for both clients
- use both pass-thru HTML and WYSIWYG Form and Page development techniques
- understand how the Domino Web Engine renders Fields
- compare various mechanisms to translate and validate Field values
- refresh, interim save, or save and close new or edited documents
- redirect users after saving a document to a specific location in the application
- adapt Views for browsers and use embedded Views in creative ways
- provide browsers with easy-to-use tools to navigate around an application and to have functional parity with Notes
- establish document-response relationships and inherit Field data into new documents
- use Cascading Style Sheets to format text
- explain several ways that Domino authenticates users and then employ the full range of database and document security mechanisms based on authenticated user names
- interpret the cause of HTTP and Domino Web Engine errors seen by browsers and develop custom error Forms to improve the quality of recovery information provided to users
- compare the application processing model of Notes and browsers and then use that knowledge to maximize application performance for browsers.

### **Audience**

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This course is designed for Notes programmers well versed in using Domino Designer 7. It assumes that you have:

- thorough knowledge of the Domino Designer 7 development environment, including Form and View design, as well as how to use properties boxes, and how to set the ACL
- mastered the Topics covered in Domino Designer 7: Basic Notes Applications
- knowledge of Web technologies, including servers, browsers, HTML, Cascading Style Sheets, and some basic JavaScript.

### **Duration**

This course is sold as a 2-day course.

### **Course design**

This is a lecture/lab course that follows a task-oriented approach. During the many course exercises you will adapt a working Notes application to work in browsers. As you expand your knowledge about Domino Designer, you will immediately apply the concepts and techniques as you work on your application.

### **Outline**

#### **Topic 1: Domino Web Engine and the HTTP Server**

Browser access to Domino services and objects  
Server configuration  
Incoming URL parsing  
Serving file system resources  
Serving database resources  
URLs to Domino database resources  
Domino Web Engine conversion  
Conversion of @Commands and application navigation  
What the Domino Web Engine cannot convert

#### **Topic 2: Coding for Notes and Browsers**

Domino Designer  
Notes and browser capabilities  
Design considerations  
Conditional coding  
Exercise: Create project application and open it from a browser

#### **Topic 3: Forms**

HTML or WYSIWYG Form development  
Add HTML to a Form or Page  
HTML Pane and pass through HTML  
Fields

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- <Input> widths
- Rich Text Field properties
- Interoperability warning
- Exercise: Set Field properties
- Exercise: Pick a department
- Generate HTML for all fields
- Exercise: Generate HTML for all fields
- Address book lookup dialog box
- Attach files
- Detach attached files
- Delete attached files
- Exercise: Attachments
- Display image attachment in browser

#### **Topic 4: Field Formulas and Form Submit**

- Form processing for browsers
- WebQueryOpen event Agent
- Trigger a refresh or save
- Exercise: Field Input Translation event formulas
- Input Validation using formula language
- Possible Form caching issue
- Exercise: Field validation error page
- Redirect user after saving a document
- Exercise: \$\$Return
- Open a Page or Form after the save
- Useful @Functions
- WebQuerySave event Agent
- CGI variable Fields

#### **Topic 5: Views**

- Purpose of Views
- View limitations for browsers
- Standard View format options
- Exercise: Enable View Java applet
- Embed Views in a Page or Form
- Exercise: \$\$ViewTemplate for AllProductsByDateCreated Page

#### **Topic 6: Navigation**

- Problem: Invalid Outline Entries
- Exercise: Hide invalid Outline Entries
- General @Commands
- View-level @Commands
- Non-working Action buttons
- Problem: Delete Action button in Form
- Exercise: Redirect user after deleting an open document
- Problem: Inventory Adjustment
- Create response document
- Inheritance
- Exercise: Inventory Adjustment
- Future work on Inventory Adjustment

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Problem: Cancel Action Button navigation  
Exercise: Cancel Action button  
Problem: Action buttons and Outline control are HTML  
Exercise: Use Java Applet for Action Bar  
Problem: Deleting documents from a View  
Exercise: Delete documents from a View  
Exercise: Hide Form elements from browsers

### **Topic 7: Application Security**

Domino network and server security  
Login name versus authenticated name  
Force authentication  
Security handoff  
Anonymous users  
Maximum Internet name and password  
Exercise: Define ACL and roles  
Database encryption  
Two design changes to prevent URL hacking  
Require SSL connection  
Recommended reading

### **Topic 8: Cascading Style Sheets**

Add STYLE attribute to an HTML element  
Styles in Domino Designer elements  
New container tags  
External style sheets  
The CSS file  
Pseudo-class and pseudo-element selectors  
Pseudo-element selector  
Descendant selectors  
Conflicting style declarations  
Adding a Style Sheet Shared Resource  
Embed or link to Style Sheet Shared Resource  
Link to multiple style files  
Exercise: Cascading Style Sheet

### **Topic 9: Browser Errors**

Browser response codes  
Common HTTP server response codes  
Browser display of error messages  
Form and other design errors  
Domino Server Log messages  
Custom error Forms  
Server and Site-wide custom error Forms

### **Topic 10: Performance**

Notes versus browser application processing  
Optimize applications for both clients  
Optimize applications for browsers

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Improve server performance

Domino as an IIS ISAPI Extension

Run IIS and Domino HTTP server task at same time

Front-ending the Domino Web Engine

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## **Course Description**

# **Lotus Domino Designer 7: Web Agents and WebServices**

### **Description**

The Domino HTTP server task is extremely versatile. In addition to its HTML rendering tasks, it also executes several types of design elements coded in Java or LotusScript:

- Agents run by a Form's WebQueryOpen and WebQuerySave events.
- Agents run by the ?OpenAgent URL command.
- Web Services that run in response to a SOAP request message.

This course covers the development and security of these design elements. You will also learn debugging and run time error handling techniques.

This course also takes a close look at Web Service client requirements and teaches you how to code a simple Web Service client using a SOAP toolkit.

### **Course goals**

This course will teach you how to:

- Describe the differences and application of Agents run from a Form's WebQueryOpen and WebQuerySave events and those run from the ?OpenAgent URL command.
- Code Agents run by the Form's WebQueryOpen event to work within the document context as well as perform lookups to other databases.
- Conditionally run WebQueryOpen Agents depending on document state.
- Define the server, database, and Agent security measures and ensure that Agents are run in the proper context.
- Code Agents run by the Form's WebQuerySave event to translate and validate user entries and provide useful feedback to users and redirect them to natural landing points in the application.
- Code Agents run by the ?OpenAgent URL command to perform powerful actions and produce reports from Domino data, and learn different ways that a browser can run the ?OpenAgent command.
- Debug Agent code and add run time error handling routines as well as how to analyze Agent-specific browser errors.
- Define the key components and protocols of Web Services technology.
- Use Web Services Explorer to perform basic testing of a Web Service.
- Describe the differences between the various Web Services programming models and SOAP message formats as they apply to Web Services design element properties.
- Code Web Services using LotusScript that accept simple and complex data types as parameters.
- Code a simple Web Services client that runs from a browser and uses a SOAP toolkit.



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- Debug Web Services provider and client code and handle runtime code errors as well as SOAP faults.
- Employ the Remote Debugging, Agent Logging, Profiling, and DDM Probe features to fully analyze Agent and Web Service operation and performance.

## **Audience**

This course is designed for experienced programmers well versed in using Domino Designer 7. It assumes that you have:

- thorough knowledge of the Domino Designer 7 development environment, including Form and View design, as well as how to use properties boxes, and how to set the ACL
- mastered the Topics covered in these courses:
- Domino Designer 7: Basic Notes Applications
- Domino Designer 7: Basic Browser Applications
- knowledge of Web technologies, including servers, browsers, HTML, Cascading Style Sheets, and some basic JavaScript.

While mastery is not expected, you should have a working understanding of LotusScript and the various Notes product objects.

Domino Designer 7: Basic Notes Applications provides the base knowledge for this additional training:

### **Client Track**

- Configure Domino to use DB2 as a database engine and build applications that access relational data, DB2 for Domino 7 Administrators and Developers.
- Specialize in programming Notes applications to respond to built-in user interface features, Domino Designer 7: Special Notes Features.
- Convert an application written for Notes clients to be used in browsers, Domino Designer 7: Basic Browser Applications.
- Provide data to cutting-edge Web applications, Domino Designer 7: Web Agents and Web Services.

### **Language Track. These languages apply to both Notes and browser clients:**

- Learn sophisticated application techniques that fully exploit the formula language in Domino Designer 7: Formula Language.
- Develop sophisticated applications and Agents with LotusScript in Domino Designer 7: LotusScript.
- Add powerful client-side scripting to browser applications in Domino Designer 7: JavaScript.

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## **Duration**

This course is sold as a 3-day course.

## **Course design**

This is a lecture/lab course in which you will closely examine demonstration code and either modify or create additional Agent and Web Services code. You will immediately apply the concepts and techniques as you work in your own project database.

## **Outline**

### **Topic 1: Introduction**

- Agents
- Web Services
- What follows
- Exercise: Create demonstration database

### **Topic 2: WebQueryOpen Event Agents**

- Form computation sequence
- Step 1: Create the Agent and set its properties
- Step 2: Code the Agent
- Step 3: Call the Agent from the WebQueryOpen event
- Agent authority
- Step 4: Set the Agent properties Security tab options
- Who can run the Agent
- Database ACL
- Exercise: Set default email address in Review form
- Agents and document access Fields
- Prevent Agents from being run out of context
- Exercise: Prevent Agents from being run out of context

### **Topic 3: WebQuerySave Event Agents**

- Form computation sequence
- \$\$Return or WebQuerySave event?
- Create WebQuerySave Agent
- Print statements
- When Print statements are ignored
- Prevent document from being saved
- Exercise: Part Form validation

### **Topic 4: Web Agents**

- Create a Web Agent
- Call a Web Agent
- Pass argument(s) to a Web Agent
- Agent context versus document context
- Parse URL arguments
- Programming the Agent

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@Command([RunAgent])

Exercise: Browser-based reporting

Examples: Using @Command([RunAgent])

Example: Download view in Excel Web Agent

### **Topic 5: Web Agent Error Handling**

WebQueryOpen event Agents

WebQueryClose event Agents and Web Agents

Runtime error handling

Web server response codes

Common 4xx and 5xx response codes

Agent-specific browser errors

HTTP server performance and Agents run by browsers

### **Topic 6: Web Services Concepts**

Web Services basics

Definitions

Domino 7 and Web Services

What Web Services are publicly available?

Testing a Web Service

Exercise: Web Services Explorer

SOAP programming models and formats

Exercise: Multiple, detailed stock quotes

Web Services versus Web Agents

Web Services clients

### **Topic 7: Web Service Properties**

Domino-based Web Service from Web Services Explorer

Create Web Service design element

Import WSDL file

Web Service properties and the WSDL

Show WSDL

Basics tab

Advanced tab

Security tab

Get Domino Web Service information from a browser

Domino-based Web Service from browser

### **Topic 8: Web Service Programmers Pane**

Code the operations

Web Service context

Resulting WSDL

WSDL from the client perspective

Greeting Web Service code

Simple data types for request and response parameters

Explicit data type conversion

Multiple request parameters

Complex data types

Web Service accepts an array as parameter

Web Service responds with array



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**Topic 9: Consume Web Services**

- PocketSOAP Examples page
- VBScript
- PocketSOAP
- Greetings from Domino button
- Send array to Web Service
- Receive array from Web Service
- Exercise: Find Group members
- Class objects
- Exercise: Save changes to a Part
- LotusScript and PocketSOAP

**Topic 10: Web Service Error Handling**

- SOAP faults
- SOAP Fault Example page
- Web Service-side error handling
- Client-side error handling of VBScript errors
- Web Service system-generated SOAP faults
- Web Service developer-defined SOAP faults
- Client-side error handling of a SOAP fault

**Topic 11: Remote Debugging, Logging, and Profiling**

- Remote LotusScript Debugger
- Java debugger support
- Domino Server Log
- Private Agent log
- Custom Agent Log
- Agent performance and Agent Profiling
- DDM Application Probes



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## **Course Description**

### **Lotus Domino Designer 7: Formula Language**

#### **Description**

During this course you will extend your knowledge of the formula language used in Domino applications for both Notes and Web browser clients.

This course doesn't simply regurgitate the Help--it shows you how to do some really interesting and important things in Notes/Domino that just happen to use the formula language. It is not, therefore, a detailed compendium of formula language calls and syntax. Instead, this course focuses on the strategy of using @Functions and @Commands to solve the pivotal issues faced by Domino developers.

#### **Course goals**

This course will:

- extend your knowledge of the formula language
- build your understanding of data validation and error trapping
- provide extensive programming and debugging experience to ensure mastery of key @Functions and @Commands
- use @Functions to operate on multi-value variables and Fields
- describe how to conditionally execute code based on document state and user identity
- explain data inheritance and inter-document relationships
- show how to use well-known locations to store configuration information
- show how to interact with users with prompts and dialog boxes
- use mail to send documents between databases.

#### **Audience**

This course is designed for Notes programmers well versed in using Domino Designer 7. It assumes that you have:

- thorough knowledge of the Domino Designer development environment, including Form and View design, as well as how to use properties boxes, and how to set the ACL
- mastered the topics covered in Domino Designer 7: Basic Notes Applications.

Though not required, experience in any computer programming or application scripting language (including spreadsheet formulas) is helpful in understanding how to maximize the use of the formula language.

Domino Designer 7: Basic Notes Applications provides the base knowledge for this additional training:

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## Client Track

- Configure Domino to use DB2 as a database engine and build applications that access relational data, DB2 for Domino 7 Administrators and Developers.
- Specialize in programming Notes applications to respond to built-in user interface features, Domino Designer 7: Special Notes Features.
- Convert an application written for Notes clients to be used in browsers, Domino Designer 7: Basic Browser Applications.
- Provide data to cutting-edge Web applications, Domino Designer 7: Web Agents and Web Services.

## Language Track. These languages apply to both Notes and browser clients:

- Learn sophisticated application techniques that fully exploit the formula language in Domino Designer 7: Formula Language.
- Develop sophisticated applications and Agents with LotusScript in Domino Designer 7: LotusScript.
- Add powerful client-side scripting to browser applications in Domino Designer 7: JavaScript.

## Duration

This course is sold as a 3-day course.

## Course design

This lecture-lab course involves significant hands-on coding experience using the formula language. It only peripherally explores the principles of programming and does not attempt to cover every option of every function.

The course takes a task-oriented approach, during which you will increase your understanding of how Domino applications operate.

## Outline

### Topic 1: Using the Formula Language

Programming languages used in Domino  
Advantages of the formula language  
Object model programming  
Where to use the formula language  
Event code interplay  
Formula results  
Ancillary event triggers  
Exercise: Create non-replica copy of DDFL7 Demo

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Exercise: Formula return values quiz  
Exercise: Printer-friendly display I

## **Topic 2: Variable and Field Assignment**

Valid variable and Field names  
Temporary variables  
Self-referential Field events  
@ThisName and @GetField  
Exercise: @ThisName and @GetField  
Set Field values  
Appending temporary variable and Field values  
Formula context  
Exercise: Formula context  
Reserved and internal Field names  
Exercise: Printer-friendly display II

## **Topic 3: Formula Toolbox**

Matching and equivalence  
String matching  
String parsing  
String replacement  
Random number  
Time/date functions  
Data type conversion  
Exercise: Data type conversion  
Data testing  
DEFAULT keyword

## **Topic 4: Multi-Value Variables and Fields**

What is a multi-value list?  
Multi-value operations and functions  
Converting single-value list to multi-value list  
Converting a multi-value list to a single-value list  
Element count  
Selecting a value from the list  
Exercise: @Subset and @Implode  
Pair-wise and Permutation operators  
Determining if a value is in the list  
Replacing an item in the list  
Minimum and maximum value  
Compare ASCII values  
Sort a list  
Sum a list of numbers  
Exercise: Sum a list of numbers  
Date range  
Dynamic tables  
Looping functions  
@For loop  
Reuse temporary variables  
@While loop

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- Exercise: @While
- @DoWhile loop
- @Transform
- @Nothing
- @Select and @Word

### **Topic 5: Conditional Evaluation**

- Single @If with multiple conditions
- @Select
- Multiple actions using @Do
- Aborting execution with @Return
- Multiple @If statements
- Conditional save and close
- Conditional evaluation based on document state
- Exercise: Document state
- Conditional evaluation based on user identity
- Exercise: User rights

### **Topic 6: Data Inheritance**

- Configure inheritance
- Inheritance caveats
- Conditional inheritance
- Exercise: Inheritance
- Require inheritance
- Disallow pasted documents
- Inherit Rich Text
- "Inheritance" across databases

### **Topic 7: Database Lookup**

- @NameLookup
- @Db function overview
- Where to use lookup functions
- Lookups and security
- @DbColumn Function
- Static Field lists
- External Field lists
- Exercise: @DbColumn
- @DbLookup function
- @DbLookup parameters using Notes
- Error trapping
- Exercise: @DbLookup
- Creating unique keys
- Multiple return values
- Document refresh issue
- Limiting lookups
- Overcoming the size limits
- General lookup performance tips

### **Topic 8: Document Relationships**

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- When to use Response documents
- Design Response document Form
- Create Response document
- Response document internals
- Creating the response hierarchy after the fact
- ComposeWithReference
- ComposeWithReference flags
- Another way to relate documents
- Primary key relationship
- Field reference by document UNID
- Exercise: Document ID relationship
- Lookup versus direct Field reference
- One-to-many relationships
- Updating related documents
- "Doclink" to parent

### **Topic 9: Well-Known Locations**

- Well-known location mechanisms
- Local NOTES.INI access
- Environment function syntax
- Environment restrictions
- Environment read/set sequence
- Exercise: Environment variable
- Reading the Windows Registry
- Lookups
- Profile documents
- Profile documents and security
- Create Profile document
- Read from Profile document Fields
- [NoPersist] option
- Exercise: Profile document

### **Topic 10: User Prompts**

- @StatusBar
- Where you can prompt users
- Using the data from prompts and picklists
- @Prompt syntax
- Password prompt
- Directories
- File prompts
- Exercise: @Prompt
- @PickList syntax
- Exercise: Picklist
- Limitations of prompts and picklists
- Execution by temporary variables
- Preview pane caveat
- Where to call @Dialogbox from
- @DialogBox syntax
- @Dialogbox caveats
- Exercise: Dialog box

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Optional dialog box keywords  
Button type  
Which dialog box to use?

### **Topic 11: Mail Documents**

Copying versus mailing documents to other databases  
Mail mechanisms  
SendTo value  
Mailing to a person in your Domino Domain  
Mailing to a person in another Domino Domain  
Mailing to Internet addresses  
Mailing to a group  
Mailing to a Mail-In Database  
Name spoofing  
Mail triggers  
Trigger 1: Form property  
Trigger 2: MailOptions Field  
Trigger 3: @Command([MailSend])  
Trigger 4: @MailSend without parameters  
Exercise: @MailSend without parameters  
@MailSend and scheduled Agents  
Trigger 5: @MailSend with parameters  
Mail-related reserved/system Fields  
SaveOptions Field  
\$AssistMail Field  
Fields added by the system  
Exercise: @MailSend with parameters  
User Mail functions  
User Mail commands  
Ensure documents are mailed only once  
Mail-in database programming  
Store Form in document property  
Three mail-enabled application models  
Resolve duplicate documents



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## **Course Description**

### **Lotus Domino Designer 7: LotusScript**

#### **Description**

LotusScript is a BASIC derivative that uses many of the same statements and function names, so most developers will find it easy to understand and use without too much relearning.

While this course teaches the basics of LotusScript, its primary emphasis is not on the language itself, but rather on how to use it to operate on Notes database, view, document, field, and ACL objects. With this knowledge, you will be able to develop powerful custom applications and to extend the standard templates such as Mail or Discussion.

#### **Course goals**

This course will teach you how to:

- use fundamental LotusScript language elements as you program and debug applications using Domino Designer
- use LotusScript in various Notes events to operate on objects in the Domino Object Model
- configure client, server, database, and document security mechanisms to allow LotusScript to operate
- reconcile LotusScript and Notes data types and validate user input
- design error handling routines to gracefully recover from runtime errors
- operate on new and existing documents as well as on collections of documents
- use messaging to send email, documents, and newsletters
- operate on the database ACL and develop an alternative user interface so users can more easily administer database security
- interact with users with both the primitive LotusScript and sophisticated Notes dialog boxes
- use Profile documents to store application and user-specific configuration settings
- develop custom procedures and classes and use Script Libraries to store and share commonly used procedures across design elements and applications
- develop server-based Agents that use LotusScript and Notes objects to process documents
- debug Agents using the Remote LotusScript Debugger, report errors to a log file, profile Agent performance, and work with your server administrator to develop application probes to monitor ongoing Agent performance
- operate on file system based text files
- generate MIME content that can be used to send formatted emails with intact HTML
- parse XML files to extract element data and attributes
- run procedures stored in Windows, Notes, and other product DLLs

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- instantiate objects from other products such as Office applications, Windows Script Host, and Windows Management Instrumentation via COM to use their properties and methods.

## **Audience**

This course is designed for Notes programmers well versed in using Domino Designer 7. It assumes that you have:

- extensive experience using Notes 7
- thorough knowledge of the Domino Designer 7 development environment, including Form and View design
- mastered the concepts covered in the Domino Designer 7: Basic Notes Applications course.

The course does not review any aspects of the non-LotusScript specific development environment such as how to design forms or views.

Though not required, experience in any event-driven or structured programming language is helpful in understanding LotusScript. If you have used LotusScript in other Lotus applications or have built applications using Microsoft® Visual Basic™, you will find that this course won't be repetitive as it focuses mostly on Notes objects.

Domino Designer 7: Basic Notes Applications provides the base knowledge for this additional training:

### Client Track

- Configure Domino to use DB2 as a database engine and build applications that access relational data, DB2 for Domino 7 Administrators and Developers.
- Specialize in programming Notes applications to respond to built-in user interface features, Domino Designer 7: Special Notes Features.
- Convert an application written for Notes clients to be used in browsers, Domino Designer 7: Basic Browser Applications.
- Provide data to cutting-edge Web applications, Domino Designer 7: Web Agents and Web Services.

Language Track. These languages apply to both Notes and browser clients:

- Learn sophisticated application techniques that fully exploit the formula language in Domino Designer 7: Formula Language.
- Develop sophisticated applications and Agents with LotusScript in Domino Designer 7: LotusScript.
- Add powerful client-side scripting to browser applications in Domino Designer 7: JavaScript.



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## **Duration**

This course is sold as a 5-day course, but it is unlikely that you can finish all the topics in four days. To finish in four days, it is recommended that you defer the last few topics for self-study. Many training centers allocate five days to cover this material.

## **Course design**

This is a lecture/lab course in which you will closely examine demonstration code and create additional code. You will immediately apply the concepts and techniques as you work in your own project database.

This is not an introductory programming course. Its emphasis is on how to use LotusScript to manipulate Notes objects. All major concepts are reinforced with examples and exercises, during which you will code and debug LotusScript. From this experience you will have the necessary skills to build sophisticated applications.

All code fragments are labeled to make talking about them and reusing them in exercises easier. The intent in labeling them is also to help build a sense of modularity, purpose, and a way of "thinking" about LotusScript.

## **Outline**

### **Topic 1: The Place of LotusScript in Notes and Domino**

- What is LotusScript?
- Advantages of LotusScript for Notes/Domino
- When to use LotusScript
- Where the code runs
- LotusScript respects security
- What LotusScript can NOT do
- Limits and performance
- Other resources

### **Topic 2: Events**

- Event-driven language
- Enter LotusScript code
- Automatic code completion
- Programmers Pane properties
- Print code
- Syntax errors
- Compile and test the code
- Exercise: Create Button event script
- What is the sequence of events?
- Exercise: Experience the event model
- What happened? Create document events
- Query what? Post what?
- Recalculate document event

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- Save document event
- Close document event
- Switch modes events
- Read document events
- Agent events
- Database events
- View events
- Field events

### **Topic 3: Debugging**

- Script errors
- Remark code
- Script Debugger
- Find errors
- Debugger Buttons
- Debugger tabs
- Exercise: Use the Debugger
- Exercise: Break points
- Persistent breakpoints
- Debugging with MsgBox and Print

### **Topic 4: Language Fundamentals**

- Basic language rules
- MessageBox parameters and return values
- InputBox
- Variables
- Declare variables
- Advantages of explicit declaration
- Public variables
- Exercise: Public variables
- Constants
- User-defined data type
- Statements and functions
- Exercise: Experience LotusScript functions
- String functions
- Math functions
- Date functions
- Data type conversion
- Boolean operators
- How Designer Help helps
- Platform considerations

### **Topic 5: Program Control Structures**

- Program structure
- Experience control structures
- Branching structures
- Exercise: Branching structures
- Looping structures
- Looping performance
- Code benchmarking

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Exercise: Looping  
How to exit a structure  
Breaking out of an endless loop  
Exercise: Exit a structure

### **Topic 6: User Input Validation and Error Handling**

Check for empty variable  
Failure to exit loop  
Check data type  
Other data type tests  
Exercise: User input validation  
Error handler  
Resume after error  
Goto after error  
Specific error handling  
Reverse engineer Err codes  
Error cases  
Exercise: Error handling  
Multiple error handlers

### **Topic 7: Domino Object Model**

What is an object?  
Object class properties and methods  
Domino Object Model  
Back-end vs. Front-end classes  
Back-end object classes  
Front-end object classes  
How Designer Help helps

### **Topic 8: Notes Object Instantiation**

Object instantiation steps  
How to instantiate an object  
Container objects  
Object reference variables  
Best practice: Use generic object names  
Access current database using back-end methods  
Best practice: Use constants  
Use Domino Designer 7 Help  
Exercise: Object containers  
Access other databases using back-end methods  
Access other database on server  
Exercise: Instantiate object in another database  
Best practice: Public declarations of Notes objects  
Notes object properties  
Read object property  
Set object property  
Chain/pipe references  
"With" statement  
Notes object methods  
Run Notes object methods

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Three types of methods  
Exercise: Open method  
LotusScript is not a keystroke macro language  
Interact with users via front-end methods  
Exercise: Open database for user  
Delete object reference

### **Topic 9: NotesSession Object Operations**

Session properties  
NotesName object class  
NOTES.INI access  
Data type assignment from environment  
Exercise: Set environment

### **Topic 10: NotesDatabase Object Operations**

Paths to instantiate NotesDatabase  
Select and open database  
Ways to create a new NotesDatabase object  
Is the database really open?  
Open database on servers  
Exercise: Database Info  
Hunting for a database  
NotesReplication class  
Exercise: NotesReplication class  
Open database for user in UI  
Open a database by property  
Error handling when opening databases  
Exercise: Find database  
Create non-replica database copy  
Who can create a database?  
Copy documents to new database  
Exercise: Database Copy  
Error handler review  
Create replica copy  
New database from template  
ACL of new database from using template  
Delete database  
Case Study

### **Topic 11: New Document Object Operations**

New document (back-end)  
Security issues with back-end methods  
Document properties  
Exercise: Create Document (back-end)  
New document using Form (front-end)  
Security issues with front-end methods  
Exercise: Create NotesUIDocument object

### **Topic 12: NotesItem Object Operations**

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- Create a new item Option 1: Extended class syntax
- Data type of a new item
- Create a new item Option 2: NotesItem object New method
- Item properties you can set
- Create a new item Option 3: Document object method
- Create a new item Option 4: AppendItemValue method
- Read item values Option 1: Extended class syntax
- Read item values Option 2: NotesItem object Values property
- Read item values Option 3: Use GetItemValue method
- Modify existing item values
- Best practice: Be sure an item exists before using it
- System fields
- Read all items
- Remove item
- Exercise: Manipulate NotesItem objects
- Challenge Exercise I: System Inventory
- Objects required for Challenge Exercise
- Pseudocode for Challenge Exercise

### **Topic 13: UI Object Classes**

- NotesUIWorkspace object
- Close method
- NotesUIDocument object
- Instantiating the current UI document object
- Front-end UI methods
- Back-end to front-end interaction
- Example of back-end to front-end interaction
- NotesUIDocument limitations
- Using the "Source" object reference variable
- Instantiating container object
- Exercise: Flip-Flop via back-end methods
- Exercise: Flip-Flop via front-end methods
- NotesUIView object
- Refresh a View

### **Topic 14: Notes Data Validation**

- Form translation and validation
- Check empty object
- Example: Check empty object
- Check for empty item (Field)
- Example: Check for empty item (Field entry)
- Accessing fields in a Form
- Field focus
- Simple Field validation
- Exercise: Item validation
- Compute with Form
- Continue constant
- Example: Stop a Form from closing
- Stop users from deleting documents in folders
- Stop users from pasting documents

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### **Topic 15: Multi-Value Items and Arrays**

- Array basics
- How to declare an array
- Assign values to an array
- Split
- Join/Implode
- Read single array element value
- Iteratively read array elements
- Find an array element
- Replace values in an array
- Replace
- Determine the number of elements in an array
- Remove blank elements
- ArrayUnique
- Sort array
- Dynamically sized array
- Create copy of an array
- Erase array values
- Exercise: Dynamic array
- Append one array to another array
- Multi- dimension arrays
- Items and multi-value Fields
- Variable assignment
- Testing equivalence
- Read an array of strings or array of objects?
- Get multi-value Field in current document
- Set multi-value Field in current document
- Append to existing multi-value Field
- Exercise: Translate a multi-value Field
- More on "Item" versus "Field"
- Challenge Exercise II: System inventory
- Arrays and performance
- Lists

### **Topic 16: Date-Time Operations**

- How time is stored
- Date and time in LotusScript
- NotesDateTime object
- Date/Time parameter format
- NotesInternational object

### **Topic 17: RichTextItem Object Operations**

- Rich Text programmatic issues
- Instantiate NotesRichTextItem object
- Accessing existing NotesRichTextItem objects
- Objects you can add to Rich Text item
- Append text
- Append spacing
- Append style

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- Best practice: Style arrays and subs
- Append doclink
- Exercise: Formatted Rich Text
- Append attachment
- Detach attachment
- Append another NotesRichTextItem
- Abstract text
- Navigate through the elements in a Rich Text item
- Insert object into existing Rich Text
- Example: Append and populate table
- Reload document to show Rich Text
- Validate Rich Text
- Challenge Exercise III: System inventory
- RTF versus MIME

### **Topic 18: Collections of Document Objects**

- Work on existing document(s)
- NotesDocumentCollection object
- Security issue
- GetNextDocument requirements
- Exercise: Loop through NotesDocumentCollection
- Solution: Loop through NotesDocumentCollection
- Add or remove documents from a collection
- Two collection tricks
- Bulk changes to document collections
- Security issues with StampAll and RemoveAll
- Other collections of document objects
- Sort a collection
- Collections and performance

### **Topic 19: NotesView Document Object Collections**

- NotesView object
- Exercise: Loop through NotesView
- Solution: Loop through NotesView
- NotesDocument object ColumnValues property
- Primary key and View concerns
- Get a document or document collection by View key
- Example: Build a collection by View key
- Process descendent documents
- Iterate all levels of a document hierarchy
- Sibling documents
- Access a documents parent document
- View.EntryCount property
- NotesViewEntryCollection object
- NotesViewEntry and NotesDocument objects
- Exercise: Status summary
- Solution: Status summary
- NotesViewNavigator object

### **Topic 20: Criteria-Based Document Collections**

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- Collection from GetModifiedDocuments method
- Collection by Full Text Search
- The query
- Search items using [FIELD]
- Search on special items
- Full Text Search options
- Use the results
- About the accuracy of Full Text Search
- Refine an existing collection
- Exercise: FTSearch Summary
- Solution: FTSearch summary
- Collection by Search
- Change a View Selection Formula
- Search method performance
- Exercise: Search summary
- Solution: Search summary
- Switch search methods on-the-fly
- Domain Search
- Code the FTDomainSearch method

### **Topic 21: Unprocessed Documents**

- Unprocessed documents and user interaction
- Efficient processing by Agents
- Unprocessed flag and Agents
- Unprocessed search accuracy
- Exercise: Unprocessed documents

### **Topic 22: Existing Document Object Operations**

- Make a copy of the current document
- Delete a document
- Security issues
- Exercise: Archive selected documents
- Delete open document
- Test for locked document
- Lock document
- Does the document really need to be saved?
- IsDeleted and soft deletes
- IsValid document? IsDeleted document?
- Is document open in the UI?
- Open user-selected document
- Put document in Folder
- Put document in Folder (the easy way)
- Exercise: Put documents in Folder
- Remove document(s) from Folder
- Remove Folders
- Make Response document

### **Topic 23: Newsletter Object**

- NotesNewsletter object
- Create newsletter object

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Exercise: Newsletter report  
Case study: Custom search Form  
Optional exercise: Order report  
FormatDocument method

#### **Topic 24: Messaging**

Send document  
Example Agent  
Send method parameters  
Source database  
Change the apparent sender name from Notes  
Change the apparent sender name from an Agent  
Prevent Agent mail "ping-pong"  
Exercise: Send message  
Optional properties and Fields  
Exercise: Status Checker Agent  
Solution: Status Checker Agent  
Challenge Exercise IV: System inventory  
Programmatically send Sametime instant messages

#### **Topic 25: Evaluate @Functions**

Which @Functions cannot be used?  
Why evaluate @Functions in LotusScript?  
Evaluate syntax  
Sum two Fields  
String functions  
Uppercase Field  
@Functions outside of object context  
Sum an array  
Lookups  
Exercise: Using @Functions  
Performance implications

#### **Topic 26: Dialog Boxes**

OpenFileDialog  
SaveFileDialog  
Prompt  
Choose Database dialog box  
PickListCollection  
PickListStrings  
Exercise: PickListStrings  
Free Time dialogs  
Folder dialog  
DialogBox  
From where you can call the DialogBox method  
Status information  
Case study: Bring the data here

#### **Topic 27: Database Access Control List**

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- Minimum access requirements
- Best practices
- Find a known ACL entry level
- Name storage in the ACL
- ACL level constants
- Iterate ACL entries
- Other ACL permissions
- Resolve group or Organization wildcard name
- Why control the ACL with LotusScript?
- Add an ACL entry
- When to save ACL changes
- Default- special handling
- Exercise: Set ACL
- Change the level of an entry
- Rename an entry
- Delete an entry
- Exercise: ACL control
- Set permissions
- Set entry type
- Add a Role
- Associate an entry with a Role
- Role resolution
- Disassociate entry from Role
- Rename Role
- Remove a Role
- ACL and replication

### **Topic 28: Profile Documents**

- What Profile documents are used for
- The nature of Profile documents
- Create Profile document
- Back-end method to access Profile document
- Read profile Fields
- List Profile documents
- Delete Profile document

### **Topic 29: Procedures and Script Libraries**

- Advantages of using procedures
- How/where to define procedures
- Function procedures
- Call a function
- Single function argument
- Pass an array as an argument
- Multiple function arguments
- Example: ConvertTemp function
- Example: ReplaceSubstring function
- Exercise: Value translation
- Exit a procedure
- Sub procedures
- Example: Sub procedure

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- Pass argument by reference
- Pass argument by value
- Script Libraries
- Use "LibraryName" statement in Options
- Exercise: Use a Script Library
- Resource strings
- Script Library tips
- Recursion example: Process all child documents
- Recursion example: Find root parent document
- Recompile all LotusScript
- %Include LSS file

### **Topic 30: Custom Classes**

- Custom classes
- Derived classes (inheritance)
- Memory management
- Example: Custom helper class
- Advantages of object-oriented programming
- Learn more about custom classes
- .LSO files
- .LSX files

### **Topic 31: Server-Based Agents**

- Create new Agent
- Trigger
- Target
- Document selection "event"
- Unprocessed documents
- Before New Mail Arrives trigger
- Agent security
- Handling UI method errors in Agents
- DelayUpdates property for Agents
- Pass arguments at run time
- Work queues
- Usage guidelines

### **Topic 32: Agent Debugging, Logging, and Profiling**

- Remote LotusScript Debugger
- Domino Server Log
- Private Agent log
- Custom Agent Log
- Agent performance and Agent Profiling
- DDM Application Probes

### **Topic 33: Text File Operations**

- Write to a text file (Output)
- Read lines from a text file (Input)
- Read performance
- Delete a file

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- Example: List Databases to File
- Exercise: Append to text file
- Export records to text file
- Easy comma delimited export
- Import records from text file
- NotesStream class
- Open, write to, and close NotesStream object
- List databases example
- MIME in email messages
- Agents and MIME/HTML

### **Topic 34: XML Processing**

- What wont be covered
- NotesDOMParser and NotesDOMDocumentNode classes
- Example XML file
- Walk DOM Tree
- Exercise: Correlate XML file to walkTree report
- Create Notes documents from XML
- Open a NotesStream to a URL

### **Topic 35: Call DLL Procedures**

- Declare DLL procedure
- Call the DLL Procedure
- Caveats and tips
- Win API: GetFolderName
- Win API: Read/Write INI file
- Win API: Get registry value
- Notes API: Close any Notes window
- Notes API: Run file from Notes
- Other DLL examples
- Resources

### **Topic 36: Use Other Product Objects**

- Component Object Model (COM)
- Instantiate product object
- Start and stop an application
- Object hierarchy
- Access the object methods and properties
- Where to find object data files
- Example 1: Create Excel object from file
- Example 2: Create new Excel object and set formula
- Example 3: Create new Excel chart object
- Example 4: Export View to Excel
- Example 5: Create new Word object
- Example 6: Create new Word object (labels)
- Compound Document Container
- Example 7: Work with embedded object
- Example 8: Create object in PostOpen event
- Troubleshoot OLE problems
- Example 9: Operate on attachment

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Windows Script Host (WSH)

Windows Management Instrumentation (WMI)

COM access to Notes objects



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## **Course Description**

### **Lotus Domino Designer 7: JavaScript**

#### **Description**

During this course you will use Domino Designer 7 to add JavaScript to Domino applications that are accessed by browsers. The course covers the basic language elements of JavaScript, how to add scripts using Domino Designer, and how to exploit the various browser and language object event handlers. There is a strong emphasis on the browser object model and how it relates to the Domino object model. The course also touches on how to incorporate Dynamic HTML, Java Applets, LiveConnect, ActiveX controls, and AJAX into web-based applications.

#### **Course goals**

This course will:

- build a fundamental knowledge of JavaScript as it is applied in Domino applications used by modern browsers
- provide practical programming and debugging experience to ensure a foundation of JavaScript skills
- understand the relationship between JavaScript and Domino data types
- clarify the use of the various object models, including the Domino Object Model, the original browser Document Object Model, JavaScript language objects, and the newer W3C Level 1 Document Object Model
- use JavaScript to code the Field, Button, and Form event handlers
- build a practical understanding of data validation and error trapping
- use DHTML to create interactive web pages
- control Java applets using LiveConnect
- remotely access Domino objects via CORBA
- script ActiveX objects
- use AJAX to request and process Domino-generated XML
- develop practical ways to detect which browser is being used and how to code appropriately.

#### **Audience**

This course assumes that you have:

- thorough knowledge of the Domino Designer 7 development environment, including Form, Page, View, Frameset, and Agent design, as well as how to set properties and set the ACL
- knowledge of Web technologies, including servers, browsers, HTML, Cascading Style Sheets, and some basic JavaScript (or other browser scripting language) and awareness of browser object properties and methods
- basic understanding of LotusScript and the various Notes product objects

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- because this course does not review any aspects of the non-JavaScript aspects of developing applications with Domino Designer, mastery of the topics covered in these courses:
  - Lotus Domino Designer 7: Basic Notes Applications
  - Lotus Domino Designer 7: Basic Browser Applications courses.

### **Client Track**

- Configure Domino to use DB2 as a database engine and build applications that access relational data, DB2 for Domino 7 Administrators and Developers.
- Specialize in programming Notes applications to respond to built-in user interface features, Domino Designer 7: Special Notes Features.
- Convert an application written for Notes clients to be used in browsers, Domino Designer 7: Basic Browser Applications.
- Provide data to cutting-edge Web applications, Domino Designer 7: Web Agents and Web Services.

### **Language Track. These languages apply to both Notes and browser clients:**

- Learn sophisticated application techniques that fully exploit the formula language in Domino Designer 7: Formula Language.
- Develop sophisticated applications and Agents with LotusScript in Domino Designer 7: LotusScript.
- Add powerful client-side scripting to browser applications in Domino Designer 7: JavaScript.

### **Duration**

This course is sold as a 4-day course, but there is much more material than can be covered in that duration.

### **Course design**

The course takes a task-oriented approach, during which you will work with JavaScript code that will have immediate application to your Domino applications. Because this course instructs you how JavaScript works with respect to Domino, you will be able to leverage the many JavaScript resources available to you as a developer.

### **Outline**

#### **Topic 1: Browser Objects and JavaScript**

Preview of the Domino/browser exchange  
Programming challenge  
The history of client-side scripting

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- Brief history of browser object models
- Browser Object Model (DOM Level 0)
- JavaScript vis-a-vis browser objects
- Mozillas DOM and JavaScript object Inspector
- Domino as a Web server
- The Domino "Web Server"
- Third-party Web server plug-ins
- Exercise: Create project databases

## **Topic 2: Coding JavaScript in Domino Designer**

- HTML page structure
- Code your own HTML
- Other sources of HTML
- Getting JavaScript into the HEAD tag
- Exercise: JavaScript function
- Getting JavaScript onto an HTML page
- Exercise: Create a button
- Troubleshooting button problems
- JavaScript libraries
- JS files on Pages
- JavaScript library security
- Syntax checking
- Runtime error reporting
- Microsoft Script Debugger
- Mozilla and Netscape JavaScript Debugger
- Home grown debugging

## **Topic 3: Basic Language Elements**

- Walkthrough: Basic elements
- Simple data types
- Built-in functions
- var keyword and variable scope
- Simple dialog boxes
- Commented code
- Exercise: Dialog boxes
- try/catch statement
- throw statement
- Custom error object
- Garbage collection

## **Topic 4: Branching and Looping Structures**

- If structure
- Exercise: If structure
- Boolean operators
- Exercise: Boolean operator
- Simple if using ?
- Switch
- While structure
- Do while structure
- For structure

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Break  
Continue  
Exercise: Looping structures

### **Topic 5: Custom Functions**

Function statement  
Function arguments  
How to call a function  
Where to call a function  
Return a value from a function  
Exercise: Function to test number  
Passing argument by value  
Recursive functions  
Conversion of @Commands to JavaScript functions  
Libraries of custom functions

### **Topic 6: JavaScript Objects**

Date object  
Browser or Domino Server time?  
Create date object  
Domino-acceptable date entry  
Exercise: Date object  
Math object  
Number object  
String object  
String object parsing methods  
Regular expressions  
Simple examples  
Valid number  
Intermediate example: Replace  
Advanced example: Patterns and literals  
Exercise: Fix URL function  
RegExp (regular expression) object  
Screen object  
Custom objects  
forin statement  
with statement  
delete operator  
Custom object prototyping  
Example: Custom class  
Example: Add method to JavaScript object  
Enumerator object  
Image object

### **Topic 7: Arrays**

Array attributes  
How to declare an array  
Create array from @DbColumn  
Number of elements  
Append elements

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- Read one element
- Read all elements
- Out-of-bound errors
- Copy entire array
- Array object methods
- Delete element
- Find values in an array
- "Multi-dimension" arrays
- Associative arrays
- Compound data type
- Exercise: Parse URL command string
- Parse URL command string using formula
- Unique array elements

### **Topic 8: Browser Object Model**

- Browser object hierarchy
- Browser object browser
- Table of browser objects
- Traverse the hierarchy
- Example: Access Form object
- Example: Access Field object
- Chaining object references
- this keyword
- self keyword
- Help with the Browser Object Model
- Exercise: Accessing a Field object
- Browser object and Domino object interaction
- Example: Form processing
- Browser object to Domino object limitations

### **Topic 9: Browser Event Handlers**

- Possible events
- Event handler basics
- Commonly-coded events
- Walkthrough: Investigate event handlers
- Capture key presses
- Example 1: Capture key presses
- Example 2: Capture ESC and double-click
- Event handler registration
- this keyword
- Object event default actions
- Coding the javascript: pseudo-protocol
- Coding javascript: in a formula

### **Topic 10: Field Access**

- HTML field data type
- Text field access
- with statement
- JavaScript access to Computed/Hidden Fields in Edit mode
- <INPUT> tag and Fields
- JavaScript access to Computed/Hidden Fields in Read mode

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- Parsing a multi-value Field into an array
- <SELECT> field access
- Select an option
- Add new option to a select list
- Remove option
- Radio Button
- Checkbox
- Select all check boxes
- Exercise: Accessing fields
- Exercise: Searching from a Page
- Rich text values

### **Topic 11: Field Input Translation and Validation**

- Field-level help
- Field translation
- Field validation
- Test data type
- Validate for number
- Test for NaN
- Test for "null" and "undefined" and ""
- Validate for file attachment name
- onblur, alert, and focus interactions
- Select field validation
- Radio and check box validation
- String format validation
- Date validation with JavaScript
- Handling leap years
- Forcing valid date entries
- Field computation
- When you must use Server-side input translation/validation
- Example: Server-side input validation
- Date validation via @Functions
- Exercise: Recalc using JavaScript

### **Topic 12: Form Validation**

- Field-level event handler caveats
- "Object is not defined" error
- onsubmit event handler
- Keep the <FORM> tag compact
- Conditionally call form.submit()
- Exercise: Form validation
- Hybrid Form validation
- Ensure just one submission
- window.onerror event handler

### **Topic 13: Window Object**

- Open window using HTML
- Open window using JavaScript
- Hybrid HTML Link/JavaScript link
- Window features

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- Referring to windows
- Cross-domain script security restriction
- Focus on window
- Print window
- Write to window
- Resize, move window
- Close window
- Window opener property
- Exercise: Help window
- Custom dialog boxes
- Simulating @Picklist using standard window.open
- Simulating @Dialogbox with a modal dialog box
- Address book lookup dialog box
- setTimeout method
- window.find
- clipboardData object

#### **Topic 14: Frame Object**

- Frames are windows
- Frameset basics
- Support browsers that don't support Frames
- Example frameset
- Targeting frame content using HTML
- Dynamic frames from JavaScript
- Call a function from another frame
- Exercise: Help frame
- Example: On-Form help frame
- IFrame Object

#### **Topic 15: Location Object**

- Location is where you are
- Database properties
- Location properties
- Location object versus CGI variable
- Set location to the current database
- URL encoding
- Setting the location
- Replacing the location
- Example: ESC and Double-click
- Refresh/Reload a window
- Working with frame locations
- Redirection
- Redirection to user mail
- Redirect to SSL connection
- Manual redirection: "Menu Options"
- Menu Option 1: Select with button
- Menu Option 2: Select w/o button
- Exercise: Page chooser
- Prevent from being framed
- Frame your pages
- Invalid URLs and buffer overflows

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### **Topic 16: Browser State**

- Who is the user?
- What is a cookie?
- Privacy issues
- Set cookie using META tag
- Read cookie using CGI variable
- Weaknesses of HTTP/HTML methods
- Set cookie using JavaScript
- Example: Set cookie
- Get cookie using JavaScript
- Set cookie using formula
- Parse cookie values
- Delete cookie
- Exercise: Default Field values using cookie
- Profile documents
- Profile documents and security
- Create Profile document
- Read from Profile document Fields
- Example: Profile document
- Behaviors and data persistence
- Userdata and IE security
- Example: Userdata

### **Topic 17: Dynamic HTML**

- DOM Level 1 enhancements
- DOM Level 1 hierarchy
- Element nodes
- Browsing the node hierarchy
- Mozillas DOM and JavaScript object Inspector
- Instantiate a node object
- Example: Instantiate Subject Field
- Get and set Field value
- Set Field style properties
- Element object shortcut
- TextNode objects
- Node event handlers
- DHTML examples
- Change style sheets on Form load
- Change style sheets on the fly
- Example: Reset style on elements
- Example: Hide When
- Example: Expand all sections
- Example: Disable element
- Exercise: Disable element
- Tables
- Element positioning
- Date picker
- Field input mask behavior



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### **Topic 18: JavaScript and Java Applets**

- Java and Domino
- Import/embed single file Java applet
- Embed applet with parameters
- Import/embed multiple file applet with parameters
- Applet parameters
- Shared Applet Resource
- LiveConnect
- Applet access to JavaScript objects
- Date picker Java applet
- Domino applets
- Exercise: Editor Java applet
- lotus.domino.AppletBase applet
- How the lotus.domino.AppletBase applet works
- Domino Server settings
- Client settings
- How to embed the lotus.domino.AppletBase applet
- Accessing Domino objects via JavaScript
- Java Console
- Common errors with lotus.domino.AppletBase

### **Topic 19: Domino Views**

- \$\$ViewTemplateDefault as redirector
- JavaScript function calls in column formulas
- Exercise: JavaScript in column formula
- HTML check boxes in Views
- Document processing in applet View
- Alphabetic index
- Search from View

### **Topic 20: JavaScript and ActiveX Controls**

- ActiveX and security
- Example 1: Shockwave not scripted
- Example 2: Flash - scripted
- Example 3: Windows Media Player
- Example 4: Calendar control
- Example 5: FileSystemObject
- Example 6: Windows Script Host
- Example 7: OLE automation
- Office OLE identifiers

### **Topic 21: Asynchronous JavaScript and XML**

- AJAX rediscovered
- Domino examples
- GET or POST data to Domino 7
- XMLHttpRequest object example
- XMLHttpRequest and security
- JavaScript AJAX function libraries



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XML document transformation  
Other examples of using Domino XML output

### **Topic 22: Browser Compatibility**

What browsers are being used?  
The issues  
Code strategies  
Server-side branching with @BrowserInfo  
@GetHTTPHeader  
Client-side browser type/version detection  
Detect browser type/version using CGI variable  
Hide JavaScript from non-compliant browsers  
JavaScript version detection  
Client-side object detection  
Case Study: "Layers"  
Programmatic access to "layers"  
Cross-browser coding  
The problem with either type of browser detection with JavaScript

### **Topic 23: JavaScript Resources**

JavaScript references and tutorials  
JScript reference  
ECMAScript-262 reference  
Browser object models (DOM)  
JavaScript examples  
DHTML examples  
Java applets  
ActiveX controls  
AJAX



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## **Course Description**

### **Lotus Domino 7 Administration Basics**

#### **Description**

During this course you will install and configure the Lotus Domino Server and Domino Administrator. When you finish the course, the Server will be ready to serve Domino databases to Notes clients and browsers and to delivery mail within a single Domino Domain.

This course places special emphasis on security and replication, two core features of Domino.

#### **Course Goals**

In this course, you will learn how to:

- install, set up, and configure a Domino Server and Domino Administrator
- register a user with basic settings
- create a new database using a standard template
- define groups to manage server and database security
- understand and configure server and database security
- configure the Administration Process to automate administrator tasks
- cross certify other organizations to use your Domino Server
- register a new Server and reconfigure your Server to join an existing Domino Domain
- configure a Remote Primary Directory Server to provide centralized directory services
- replicate databases and schedule automated replication between Domino Servers
- create a Domain Catalog and configure Domain Search
- learn how the Domino Web Server provides database access to browsers
- learn how electronic mail transfer and delivery work in a single Domino Domain using the Notes routing protocol.

#### **Audience**

This course is part of a series of Domino administration training courses

Courses later in the series assume that you have mastered the content of earlier courses.

This course is designed for network/database administrators who are responsible for supporting Lotus Domino Servers and Notes clients and who:

- have never administered a Domino Server
- are proficient Lotus Notes 7 users.

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You will find this course most useful if prior to this course you have:

- studied the principles and operation of personal computer networking using TCP/IP in LAN/WAN/Internet environments
- installed and supported the operating system used in this course (Windows 2000 Server and Professional) as well as applications used by those systems
- installed, administered, and supported network operating system server and workstation software.

You will find the course especially rewarding if you have already installed a Domino Server and a handful of Notes Clients and have had some experience designing Domino databases.

### **Duration**

This course is sold as a 4-day course.

### **Outline**

#### **Topic 1: The Services of a Domino Server**

What Domino is  
What Domino is NOT  
Major administrator task areas

#### **Topic 2: Install a Domino Server**

Domino Server platforms  
Hardware requirements  
Operating system licensing requirements  
Pre-installation: OS optimization  
Pre-installation: Install ODBC/RDBMS drivers  
Pre-installation: Lock down server access  
Pre-installation: Network connectivity  
CD versions  
Install Server from a network drive  
Install Domino software  
Page 1: Welcome  
Page 2: Program Files Directory/Partitioned Server  
Page 3: Data files directory  
Page 4: Server choice  
Page Summary  
Reboot server  
Results  
Exercise: Install Domino 7 Server  
Custom installations  
Reinstallation/Uninstallation  
QMR/QMU updates

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### **Topic 3: Setup Pre-Planning**

To centralize or distribute?  
Domino Domain  
Multiple Domino Domains  
Domino Named Networks  
Organization structure  
Domino Server names  
Exercise: Setup pre-planning

### **Topic 4: Setup First Server**

Exercise: Server Setup  
Start Setup  
Step 1: Start as Windows service prompt  
Step 2: Welcome  
Step 3: Server choice  
Step 4: Server name and title  
Step 5: Organization Certifier  
Customize button: Advanced Organization Settings  
Step 6: Domain name  
Step 7: Administrator name and password  
Step 8: Server tasks  
Customize button: Advanced Domino Services  
Step 9: Network settings  
Customize button: Advanced Network Settings  
Step 10: Security defaults  
Step 11: Review  
Results of the Server Setup  
Remote Server Setup  
Silent setup

### **Topic 5: Start Server**

Start the Domino Server  
Startup  
Server tasks  
Turn off unnecessary server tasks  
Other ways to start tasks  
Start Domino as a Windows Service  
Exercise: Rename ID files

### **Topic 6: Server Console**

Running Notes on a Domino Server  
Server Console commands  
Useful Server Console commands  
Downing a server  
Lock Server Console  
Server Console Message ID and Severity

### **Topic 7: Install and Configure Domino Administrator**

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- Minimum platform requirements
- Connection requirements
- NotesCONNECT
- Exercise: Install and configure Notes/Domino Administrator
- Step 1: Uninstall previous installations
- Step 2: Start installer
- Step 3: Choose directories
- Step 4: Client choice
- Program features options
- Step 5: Ready and set default email client
- Step 6: Reboot computer
- Results of the installation
- Exercise: Notes configuration

### **Topic 8: Tour of Domino Administrator**

- Start Domino Administrator
- User interface
- Sequence to use Domino Administrator
- Get Administrator Help
- Exercise: Domino Administrator interface
- Remote Server Console
- Remote Console properties
- Remote Server Console display watch
- Customize the Send button
- Customize the Command button
- Administration Preferences
- Change to another location
- Start Domino Administrator to Local
- Server Console properties
- Server Console filters
- Run pieces of Domino Administrator

### **Topic 9: Configuration Settings Documents**

- Configuration Settings
- Directory Profile document
- Configuration Settings document
- Multiple Configuration Settings documents
- NOTES.INI
- Console command to edit the NOTES.INI
- Configuration Settings document to change NOTES.INI
- Exercise: Change NOTES.INI with Configuration Settings

### **Topic 10: Security Overview**

- Security model
- General observations about the security model diagram
- Levels of effort
- Basic network security
- Port access lists
- Network data encryption
- Firewall network
- Small shop solutions

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Domino firewall domain  
Domino administrator responsibilities  
Developer responsibilities  
Resources

### **Topic 11: User Authentication and Names**

IDs created during first server setup  
Contents of Server and User IDs  
Validation and authentication  
Increasing authentication security  
Hierarchy of Organizational Unit Certifiers  
Registering users and servers with an OU Certifier ID  
Authentication and Organizational Certifiers  
Advantages of Organizational Units  
Authenticated name for Notes users  
Authenticated name for browser users  
Failure to authenticate  
Debugging authentication

### **Topic 12: Notes User Registration and Groups**

What is Notes user registration?  
Exercise: Basic Notes user registration  
Why use Groups  
Standard groups  
Create Group document  
Exercise: Create groups  
Group views  
Find Group Member  
Manage Groups  
Rename Group  
Delete Group  
Find Groups  
Organizational wildcards

### **Topic 13: Server Access Lists**

Domino Directory administration  
Security tab in the Server document  
Recommended Server Access practices  
Exercise: Limiting access  
Server access for browsers

### **Topic 14: Administrator Rights**

General user access to the server  
Default administrator access  
What being listed as an administrator gets you  
Delegating administrative duties  
Administrator use of Domino Administrator  
Full Access administrator mode  
Domino Console Server access fields



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Administrator access to the Domino Directory  
Administrator access to system databases

### **Topic 15: Databases**

Add Domino database  
Exercise: Create database  
Internal tools  
External tools  
Files function tab  
Files display preferences  
Folder tools  
Database tools  
Database white space  
Compact  
Other ways to free disk space  
Database rollout  
Exercise: Database tools

### **Topic 16: Database Security**

Folder Access (Directory Link)  
Directory Links caveats  
Database Access Control List  
ACL Entries  
Add users to the ACL  
Acceptable ACL Entries  
Standard settings  
User Type  
Conflicting/overlapping access  
Explicit versus Effective Access  
Maximum Internet name & password access  
Entry privileges  
Roles  
Create and assign a role  
Exercise: Define ACL and roles  
Set Administration Server  
Manage Multiple ACLs tool  
Copy and Paste entire ACLs  
Local ACL enforcement  
Enforce Consistent ACL  
Server and Domain-wide ACL reporting  
Exercise: Database Catalog  
System database ACLs  
Encrypt Server databases  
Exercise: Encrypt server database

### **Topic 17: Administration Process**

Administration Process workflow  
Major areas of work  
Security requirements  
Configure AdminP

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- Administration Requests database
- Critical views to monitor
- One Administrative Server or many?
- When tasks are performed
- Server console commands
- Domino Administrator Tell Task tool
- Exercise: AdminP in action
- Debugging AdminP

### **Topic 18: Cross Certification**

- Exercise: Test access to another Organizations server
- Locating Cross Certificate documents
- Purpose of cross certification
- Three methods to cross certify
- Exercise: On-demand cross certification
- What level to cross certify?
- Safe Copy cross certification
- Verbally cross certify key
- Revoke authentication from cross certification
- Allow Anonymous access to Notes
- Organizations and Domino Domains

### **Topic 19: Adding Servers to the Domain**

- Register server
- Administrative requirements to register server
- Server name guidelines
- Additional server registration
- Exercise: Remove server configuration
- Exercise: Register additional server
- Start server and run the Server Setup program
- Protocol access
- Server security requirements
- Additional Server Setup
- Exercise: Server Setup on additional server
- Exercise: Register new administrator
- Exercise: Reconfigure Notes/Domino Administrator

### **Topic 20: Primary and Configuration Directories**

- Distributed directory architecture
- Centralized directory architecture
- Pros and cons
- Hybrid directory architecture
- Directory Type settings
- "Show Xdir" console command
- Change the directory type

### **Topic 21: Replication Fundamentals**

- What replication is NOT
- What replication IS
- Cluster Replication
- Why replicate databases

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- Database Replica ID and Document UNID
- Server-to-server replication
- Item modification record
- Single source item update
- Dual source field update
- Deleted documents
- Design/ACL replication
- What is NOT replicated

### **Topic 22: Create a Replica Database**

- Prepare source of replica
- Who can create a replica on a server
- Rule: Only one replica on a server
- Immediately create one replica database
- Exercise: Create replica database
- Create replicas using AdminP
- Transporting large replica databases

### **Topic 23: Replicate Databases**

- Force replication
- Exercise: Replicate from Notes
- Replicate from the Server Console
- Exercise: Replicate from the Server Console
- Verify replication
- Exercise: Replication results

### **Topic 24: Replication Settings**

- General perspective
- Sequence of conditions
- Connection document
- ACL settings
- Differential access via ACL
- Document Reader Access List
- Replication Settings
- Exercise: Selective Replication
- Replication of unread marks

### **Topic 25: Replication Topology**

- Replication topology
- Connection topology and selective replication
- How often should you replicate?
- Replication Type
- Scheduling guidelines
- Deterministic replication
- Example three-tier topology
- Example schedule
- Cluster Replicator

### **Topic 26: Replication Connections**

- Connection documents
- Required replication connections

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- Connection topology
- Create Connection document
- Replication schedule grid
- Exercise: Connection documents
- Multiple Replicator tasks

**Topic 27: Troubleshoot Replication**

- Replication history and cutoff dates
- Clear the replication history
- Deletion stub purge
- Replication conflict handling
- Replication conflicts in Domino Directory
- Preventing replication conflicts
- Document locking
- Enable document locking
- Document locks and mobile users
- Exercise: Replication conflicts and document locking
- Phantom documents
- General troubleshooting
- Replication stops if ACLs are different
- Domino Server Log
- Replication logging
- Note ID
- Connection trace
- Replication monitoring tools

**Topic 28: Domain Catalog and Domain Search**

- Database Catalog versus Domain Catalog
- Database Catalog replication
- Full Text Search versus Domain Search
- Full text index settings
- Configuration overview
- Configuration procedures
- Procedure 1: Enable Domain Catalog and Indexer server tasks
- Procedure 2: Include Domino databases in multi-database indexing
- Procedure 3: Include other files in index
- Procedure 4: Restart server
- Notes client configuration
- Search using Notes client
- Search using Browser
- Exercise: Domain Search
- Domain Search and security
- Design considerations
- Delete Domain Index
- Indexer tuning
- Other search products

**Topic 29: Browser Access to Databases**

- Domino Web Server
- Incoming URL parsing
- Serving file system resources

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- Serving Domino databases
- User authentication
- Increase the strength of Internet Passwords
- Other means to authenticate users
- Login name versus authenticated name
- Server Access Lists and HTTP
- Anonymous users of the server
- Database security
- Maximum Internet name and password
- Database encryption
- Exercise: Open Marketing Discussion from browser
- Domino Web Administrator
- Additional server configuration

### **Topic 30: Message Transfer and Delivery**

- Message flow in Notes mail
- Choosing a mail client
- Choosing a mail protocol
- Think Domino
- Domino Domain
- Domino Named Networks
- One Domino Named Network
- Multiple Domino Named Networks
- One WAN, multiple Domino Named Networks
- Multiple protocol/NIC Servers
- Notes mail architecture
- Notes configuration
- Create a Memo
- Submit mail to recipient
- Deliver mail to user
- Read mail
- User registration and mail
- Exercise: Test mail delivery
- Mail Users view in Domino Administrator
- Router task
- Exercise: Test mail delivery
- Message document internals



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## **Course Description**

# **Lotus Domino 7 Monitoring and Maintenance**

### **Description**

This course covers all aspects of monitoring and maintaining a Domino Server. Domino's self-monitoring capabilities have expanded with each revision, the latest being Domino Domain Monitoring added to Domino 7.

With this knowledge you will better understand the recommendations on how to increase server reliability and improve server and database performance.

### **Course Goals**

In this course, you will learn how to:

- Use the Domino Server Log to focus on specific operational areas, adjust various logging levels, apply log filters, and use the Log Analysis tool to identify particular server events over time.
- View statistical counters related to server performance and capacity, collect statistics from multiple servers, chart specific statistics in real time, and chart past statistics to get a sense of emerging trends.
- Use several methods to view database and server activity including the granular server and database activity data provided by the Activity Trends Collector Server, which can be reported as current observations and historical trends.
- Monitor overall server and individual task status and health.
- Define Event Generators to keep watch on many aspects of how Domino is running, and define Event Handlers to respond to the events.
- Configure Domino Domain Monitoring to automate problem analysis and provide possible solutions and corrective actions to quickly resolve issues.
- Start Domino under the Domino Controller and then use the Domino Console to remotely control the server as well as issue operating system shell commands on the remote server computer.
- Configure Domino to automatically restart after a crash and how to collect diagnostic files following a crash in a central repository for further analysis.
- Perform routine maintenance on the server and to recover from database corruption using various database utilities.
- Run server tasks, including database utilities, on a schedule using Program documents.
- Determine which anti-virus and backup software packages are available for Domino.
- Learn how to use the Server.Load utility to stress a server so that you can monitor its performance as you fine tune its settings, optimize applications, balance workload between servers, optimize the Domino Directory, and enable network compression.
- Determine when to upgrade the server hardware and understand which changes affect different aspects of performance.



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- Decide when to cluster servers to benefit from automatic failover and load balancing.
- Configure servers to assume specialized roles, such as mail routing or replication hub, mail, directory, remote office, etc.

## **Audience**

This course is part of a series of Domino administration training courses.

Courses later in the series assume that you have mastered the content of earlier courses.

This course is designed for network/database administrators who are responsible for supporting Lotus Domino Servers and Notes clients. It assumes that you have:

- extensive experience using Notes 7
- experience using Domino Administrator 7 to manage Domino servers
- mastered the Topics covered in Lotus Domino 7 Administration Basics.

You will find the course especially rewarding if you have already installed a Domino Server and a handful of Notes clients and have had some experience designing Domino databases.

## **Duration**

This course is sold as a 3-day course.

## **Outline**

### **Topic 1: Domino Server Log**

View the Domino Server Log  
Log filters  
Logging levels  
Keeping the Domino Server Log file small  
Exercise: Domino Server Log  
Analyze\Log Document tool  
Log Analysis tool  
Exercise: Log Analysis tool  
Write DEBUG messages to text file

### **Topic 2: Server Statistics**

Show Statistic command  
Configuration information  
Performance statistics  
Memory statistics  
Disk statistics

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- Network statistics
- Replication statistics
- Platform statistics
- Reset statistics
- Statistics graphical interface
- Exercise: Statistics
- Collect statistics in Monitoring Results
- Exercise: Collect statistics and read reports
- Configure Domino Administrator to collect statistics
- Exercise: Local statistic collection
- Realtime statistics chart
- Chart options
- Exercise: Realtime statistic chart
- Historical chart
- Exercise: Historical chart
- Windows Performance Monitor

### **Topic 3: Database and Server Activity**

- Method 1: Basic database activity
- Method 2: Database and user activity in the Domino Server Log
- Method 3: Database Catalog
- Exercise: Update Database Catalog
- Method 4: Activity logging
- Exercise: Enable activity logging
- Run Analyze\Activity tool
- Exercise: Run Analyze\Activity tool
- Method 5: Database analysis
- Method 6: Activity Trends
- Configure Activity Trends

### **Topic 4: Server Status and Monitoring**

- Server Status
- Server Monitoring
- Start monitoring
- Change list of servers to monitor
- Save server list to profile
- Monitoring window
- Column sorting
- Switch tabs to find details
- Two monitoring views
- Add tasks to monitor
- Add statistics to monitor
- Monitoring preferences
- Polling time recommendations
- Exercise: Server Monitoring
- Server Health Monitor
- Enable Server Health Monitoring
- View health metrics
- Recommendations to restore health
- Exercise: Server Health Monitoring

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### **Topic 5: Event Generators and Handlers**

- Server tasks
- Event Generators overview
- Event Generator: Statistics
- Recommended replication threshold
- Event Handlers overview
- Event Handler for a specific Statistics event
- Pre-configured generic Event Handler

### **Topic 6: Non-Statistics Events**

- Event Generator: Database
- Exercise: Monitor ACL changes
- Exercise: Monitor replication failure
- Event Generator: Domino Server Response
- Event Generator: Mail Routing
- Event Generator: Task Status
- Event Generator: TCP Server Response
- Handling events and simple events by type and severity
- Create generic Event Handler by event type and severity
- Monitoring Configuration Setup Wizards
- Server Monitoring Configuration Troubleshooting Wizard
- Create Event Handler from Remote Server Console
- Create Event Handler from Domino Server Log

### **Topic 7: Domino Domain Monitoring**

- Review of Event Generator probes
- DDM objectives
- Compatibility and platforms
- Key elements of DDM
- Probe areas
- DDM probe views
- Create DDM probe
- Exercise: Define DDM probes
- Scheduled probes chart
- Probe results in the Domino Domain Monitor database
- Domino Domain Monitor ACL
- Domino Domain Monitor interface
- DDM Event document
- Exercise: Read DDM events
- Manually run a DDM probe
- DDM Server Collection Hierarchy
- Create a DDM Server Collection Hierarchy
- DDM replication
- DDM data collection failure
- DDM Filters
- Tivoli Enterprise Console Server settings

### **Topic 8: Domino Controller and Console**

- Advantages of the Domino Console
- Advantages of the Domino Controller

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- Installation and configuration
- Operate the Domino Controller and Console
- Commands
- Issue command to multiple servers
- Periodic commands
- Server access fields

### **Topic 9: Server Recovery and Diagnostic Collection**

- Automatic Server Recovery
- Caveats
- Configure Automatic Server Recovery and diagnostic collection
- Diagnostic collection
- What to do with diagnostic files
- Third-party recovery tools

### **Topic 10: Server and Database Maintenance**

- Recommended maintenance schedule
- Corrupt documents
- Database utilities
- FIXUP
- FIXUP NOTES.INI options
- Corrupt view indexes
- UPDALL
- UPDALL logging options
- COMPACT
- If all else fails
- Indirect (.IND) and < files
- Program documents
- Exercise: Run FIXUP from a Program document
- System-level maintenance
- Anti-virus software
- Server backup options
- Backup software
- What directories to back up
- Open files
- Exit a Server automatically
- Backup frequency
- Restore a deleted document

### **Topic 11: Server and Database Performance**

- Server.Load utility
- Interpret Server.Load results
- Performance-enhancing options
- Option 1: Server performance tuning
- Option 2: Application performance tuning
- Option 3: Server workload balancing
- Option 4: Domino Directory optimization
- Option 5: Network compression
- Option 6: Hardware upgrade
- Option 7: Server clustering

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Option 8: Dedicated Domino Servers  
Performance resources

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## **Course Description**

### **Lotus Notes 7 Administration**

#### **Description**

During this course you will use Domino Administrator as you learn to perform Notes-specific administration tasks such as registering users and controlling Notes configuration using policies.

#### **Course Goals**

In this course, you will learn how to:

- describe the primary administration concepts of Notes and Domino, including Domino Domain, Organization, Organizational Units, Domino Named Networks, Domino Directory, Registration Server, Home/ Mail Server, Administration Process, and Administration Server
- set up Domino Administrator, configure Administration Preferences, and use Domino Administrator to manage Notes users
- perform a basic Notes user registration to understand the outcomes of the process
- create an Organizational Unit Certifier hierarchy
- configure a Certifier ID to include contact information, ID/Password Recovery Information, multiple passwords, and support for alternate languages and names
- implement the Certificate Authority process, migrate Certifier IDs to the Certificate Authority, and give administrators CAA and/or RA rights
- define explicit and organizational policies with Registration, Setup, Desktop, Archiving, Security, and Mail Settings
- register Notes users using all the options, including ID/Password Recovery Information, the CA Process, and Registration Settings
- define Security Settings to set ECLs, encrypt local replicas, and set Mail security options, and enforce client security settings
- use the Administration Process to automate user identity changes and to recertify expired certificates
- lock out unauthorized users from servers and databases
- enforce passwords and password changes and institute a custom password policy
- recover a lost User ID or forgotten password
- deploy local replica databases, a Mobile Directory Catalog, custom Welcome Pages, Bookmarks, and custom tips of the day
- upgrade Notes software using Upgrade By Mail and Notes Smart Upgrade
- define a policy to control user Mail preferences
- define policy hierarchies that inherit or enforce settings
- track active Notes and other client users to ensure license compliance.

#### **Audience**

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This course is designed for administrators responsible for managing Notes clients.

Whereas the Lotus Domino 7 Administration Basics course covers general Domino Server installation and configuration, this course focuses on the administration of Notes clients.

This course is also distinguished from the Lotus Notes 7 Support course, which is designed for help desk personnel who do not have Domino Administrator or administrative rights to the Domino Server but who are responsible for installing, setting up, and supporting Notes clients. Depending on your responsibilities, you may need the additional knowledge presented in this course to learn the administrator side of supporting Notes clients.

### Notes Administration

- Back-office administration work
- Little direct user interaction, but have Notes focus
- Full or limited control over *Domino Directory*
- Access to O or OU Certifier IDs (or listed as RA)
- Register users, make user changes
- Define Policies and Settings
- Add members to *Group* documents
- Work in concert with Domino administrators

### Notes Support

- Help Desk and PC Support
- Direct user interaction
- Focus on how to use Notes
- No control over *Domino Directory*
- Install software and run Setup Wizard

While ideally you will have completed the Domino 7 Administration Basics course before taking this course, doing so is not required. The first Topic in this course reviews the necessary concepts of Notes administration and how to use Domino Administrator.

This course is part of a series of Domino administration training courses.

Courses later in the series assume that you have mastered the content of earlier courses.

This course is designed for administrators who are responsible for supporting Lotus Notes clients and who:

- may have never administered a Domino Server
- are proficient Lotus Notes 7 users.

You will find this course most useful if prior to this course you have:

- studied the principles and operation of personal computer networking using TCP/IP in LAN/WAN/Internet environments
- installed and supported the operating system used in this course (Windows 2000 Server and Professional), as well as applications used by those systems

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- installed, administered, and supported network operating system server and workstation software.

You will find the course especially rewarding if you have already installed a Domino Server and a handful of Notes clients and have had some experience designing Domino databases.

## **Duration**

This course is sold as a 4-day course.

## **Outline**

### **Topic 1: Domino Administrator**

Important definitions  
Start Domino Administrator  
Exercise: Set up Domino Administrator  
User interface  
Administration Preferences Basics tab  
Sequence to use Domino Administrator  
Get Administrator Help  
Exercise: Domino Administrator interface  
Remote Server Console  
Administrator use of Domino Administrator  
Full Access administrator mode  
Administrator access to the Domino Directory  
Administrator access to system databases  
Group administration duties

### **Topic 2: Basic Notes User Registration**

What is Notes user registration?  
The role of a Person document  
Incidental results of user registration  
No user count limitations  
Results of first server setup  
Review of administrative rights required to register a user  
Exercise: Basic Notes user registration

### **Topic 3: Organizational Units**

Hierarchy of Certifiers  
Advantages of Organizational Units  
Disadvantages of Organizational Units  
Register users with Organization Certifier  
Create OU Certifier from Organization Certifier  
Create OU Certifier from OU Certifier  
Exercise: Create Organizational Unit Certifier

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Exercise: Register user under Organizational Unit  
Certifier ID file security  
Organizational Unit Administrators  
Extended ACL  
Enable xACL  
Define the xACL  
Extended Administration Server

#### **Topic 4: Prepare Certifiers**

Task 1: Add Contact information to the Certifier document  
Task 2: Add ID/password recovery information to the Certifier ID  
Exercise: Add recovery information  
Task 3: Add multiple passwords to the Certifier ID  
Task 4: Add support for alternate languages to a Certifier ID

#### **Topic 5: Certificate Authority Process**

Certificate IDs versus CA Process  
Advantages of using the CA Process  
Prerequisites to configure the CA Process  
CA Process configuration  
Step 1: Migrate the Organization Certifier ID to the CA Process  
Step 2: Unlock or activate the Certifier  
Step 3: Migrate any OU Certifier IDs to CA Process  
Step 4: Add or delete CAAs or RAs  
Step 5: Register users with CA Process  
Exercise: Migrate OU Certifier to CA Process

#### **Topic 6: Prepare Policies and Settings**

Policy defined  
Settings documents  
Policy type  
Choosing between Explicit and Organizational policy types  
Exercise: Create Policy and Settings documents  
Assign policies to users  
Assignment Method 1: Set default policy for registrations  
Assignment Method 2: Assign policy during registration  
Assignment Method 3: Change Person document  
What you cannot control with policies  
Lock down settings

#### **Topic 7: Prepare to Register Users**

Task 1: Ensure that new users have unique names  
Task 2: Add user to appropriate group(s)  
Task 3: Define Registration Settings policy  
Exercise: Registration Settings  
Task 4: Set Administration Preferences  
Exercise: Set Administration Preferences  
Task 5: Define Setup Settings policies  
Exercise: Setup Settings



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### **Topic 8: Notes User Registration**

- Register tool
- Basics tab
- Mail tab
- Address tab
- ID Info tab
- Groups tab
- Roaming tab
- Other tab
- Exercise: Register user
- Registration Queue
- Other sources for user names and settings
- Register users from a text file
- Import text file contents
- Windows directory integration
- Exercise: Set up Notes user

### **Topic 9: Security Policies**

- Execution Control Lists and Design signatures
- Administrator control over ECLs
- Administration ECL
- Refresh client ECL with Administration ECL
- Admin ECL in the Security Settings policy document
- Exercise: Security Settings policy
- Encrypt replica databases on laptops
- Replica encryption in the Desktop Settings policy document
- Notes mail security
- Force encryption of all incoming mail at the server
- Mail Security in the Desktop Settings policy document
- Exercise: Desktop Settings policy
- Security settings in User Preferences
- Security settings in Location document
- Automatic logout policy

### **Topic 10: User ID Changes**

- Administrator access requirements
- Procedure 1: Rename user (Administrator initiated)
- Exercise: Rename user
- Revert user rename change if timed out or rejected
- Rename Web-only users
- Find Users
- Procedure 2: Rename user (User initiated via Notes Mail)
- Procedure 3: Move user to another Organizational Unit
- Procedure 4: Recertify expiring User ID (Administrator initiated)
- Exercise: Recertify User ID
- Procedure 5: Recertify expiring User ID (User initiated)
- Procedure 6: Recertify expired User ID
- Procedure 7: Update users Private and Public Keys
- Procedure 8: Delete user

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- Procedure 9: Lock out user from servers
- Procedure 10: Rename or delete group
- Procedure 11: Re-register user
- Procedure 12: Set recovery information after registration

### **Topic 11: Password Control**

- User ID responsibilities
- Default password behavior
- Password strength
- Custom password policy
- Increase password security with password verification
- Enable password verification and set expiration
- How password verification and expiration work
- Password verification and expiration anomalies
- Lock out User ID
- Compare Public Keys
- Minimum and maximum client level
- Internet password synchronization with Notes ID password
- User override of Internet password synchronization
- Windows Server password synchronization

### **Topic 12: User ID and Password Recovery**

- Problem 1: Lost User ID
- Problem 2: User ID file is deleted by the user
- Exercise: Recover ID file
- Problems with password recovery
- Problem 3: User forgets ID password
- Problem 4: User ID password is compromised

### **Topic 13: Desktop Policies**

- Deploy replica databases
- Deploy Mobile Directory Catalog
- Deploy Bookmarks
- Deploy custom Welcome Pages
- Working in Advanced Mode to create new Welcome Pages
- Deploy My Work as Welcome Page
- Deploy custom tips of the day
- Notes System Diagnostic
- Automatic Diagnostic Collection
- Configure Automatic Diagnostic Collection
- Location document and NOTES.INI variables

### **Topic 14: Notes Software Update**

- Notes software installation
- Notes upgrade installation
- Determine existing version
- Upgrade by (Notes) Mail
- Notes Smart Upgrade from 6.x to 6.x forward
- Smart Upgrade Governor
- SUCACHE Server Console commands

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- Smart Upgrade failover
- Smart Upgrade Tracking reports
- Smart Upgrade debugging
- Seamless Mail Upgrade
- Upgrade Mail templates using CONVERT
- Upgrade ODS using COMPACT

**Topic 15: Mail Policies**

- Mail Settings document
- Differences from other types of policies
- Tell AdminP to process Mail Settings

**Topic 16: Policy Hierarchies and Inheritance**

- Policy hierarchies
- Create policy hierarchy
- Inherit settings assignment
- Policy Viewer
- Inherit and enforce specific settings in a policy hierarchy
- Policy Synopsis tool
- Exception policies

**Topic 17: Notes License Compliance**

- Certification Log
- Client Access Licenses (CALs)
- Server\Licenses view
- License tracking
- Notes version tracking



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## **Course Description**

### **Lotus Domino 7 Mail Administration**

#### **Description**

During this course you will configure traditional Notes Mail as well as standards-based SMTP mail transfer and delivery. You will set up several mail clients, including Notes, Internet mail (POP/Outlook Express), Domino Access for Microsoft Outlook, and a browser for WebMail and Domino Web Access.

This course stresses the role of directories, including the Domino Directory, Directory Catalog, Mobile Directory Catalog, and Extended Directory Catalog, and how to make them available via Directory Assistance. It also covers the configuration of Domino to support LDAP requests.

This course also covers mail security for both Notes and Internet mail clients, including the use of X.509 certificates for digital signing and encryption.

#### **Course Goals**

In this course, you will learn how to:

- configure intranet and Internet mail routing using the NRPC and SMTP protocols
- set up Notes to send and receive mail, set up an Internet mail client to send mail via SMTP and retrieve mail via POP3 or IMAP4 protocols, use a browser to access mail via WebMail or Domino Web Access, and configure Domino Access for Microsoft Outlook
- utilize the various directory types for mail addressing as well as for mail transfer and delivery
- configure the Domino Server to support name and address book lookups by Internet mail clients using LDAP
- configure the NRPC and SMTP Router controls and restrictions to improve routing performance and reduce unsolicited email
- utilize Notes Mail security features and serve as your own Internet Certificate Authority, create server and client X.509 digital IDs, enable SSL, and digitally sign and encrypt mail sent to Internet mail clients
- support Notes Calendar and scheduling, including inter-domain resource reservations
- configure Notes Mail to use a Shared Object Store
- reduce Mail database size through server-based archiving and by applying a Single Copy Template
- manage Notes Mail files using the Administration Process
- utilize mail monitoring, tracking, and journaling features
- monitor and troubleshoot mail transfer and delivery.



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## **Audience**

Courses later in the series assume that you have mastered the content of earlier courses.

This course is designed for LAN administrators who are responsible for supporting mail on Lotus Domino Servers, Notes, and Internet mail clients and who:

- are proficient Notes 7 Mail users
- have installed and configured a Domino 7 Server
- understand basic DNS and SMTP principles
- have taken the Lotus Domino 7 Administration Basics and Lotus Notes 7 Administration courses or have the equivalent knowledge and experience.

## **Duration**

This course is sold as a 5-day course.

## **Outline**

### **Topic 1: Mail Overview**

Mail terminology  
NRPC message flow  
SMTP message flow  
Domino mail clients  
License implications  
Choosing a mail protocol  
Network design

### **Topic 2: NRPC Message Transfer and Delivery**

Protocol independence  
Think Domino  
Domino Domain  
Domino Named Networks  
Multiple Domino Named Networks  
Multiprotocol servers  
NRPC routing  
Router task  
Router task functions  
Exercise: Test mail delivery  
Message document internals

### **Topic 3: Notes Configuration**

Create mail  
Mail format  
Submit mail to recipient  
Deliver mail to user

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Read mail  
User registration  
Exercise: Test mail delivery

**Topic 4: Inter-Network Notes Mail Routing**

Do you even need Connection documents?  
Two Connection documents are needed  
Create Connection document  
Replicate the Domino Directory  
Explicit inter-domain addressing  
Error messages  
Exercise: Connection document and Cross Certification  
Scheduling guidelines

**Topic 5: Inter-Network Routing Topologies**

Serial topology  
Mesh topology  
Hub-spoke topology  
View the routing topology  
Exercise: Mail routing through a hub  
Non-Adjacent Domain document  
Exercise: Non-Adjacent Domain document  
Combining schedules  
On-demand routing  
Cluster connection

**Topic 6: NRPC Controls**

Restricting mail source domains or Organizations  
Adjacent and Non-Adjacent Domain document restrictions (NRPC)  
Controlling message size  
Routing by mail priority  
Delivery Controls

**Topic 7: Domino Directory and Mail Addressing**

Directory terminology  
How directories are used for mail  
Return address of Notes users  
Recipient fields  
Short names and nicknames  
Router use of Domino Directory  
Local Address Book  
Finding users in the domain

**Topic 8: Directory Assistance**

Multi-domain companies  
Directory Assistance  
Configure Directory Assistance  
Exercise: Directory Assistance

**Topic 9: Directory Catalogs**

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- Directory Catalog: Condense and optimize Directory Assistance or Directory Catalog?
- Two versions of the Directory Catalog
- Create Directory Catalog
- Exercise: Create Directory Catalog
- Mobile Directory Catalog
- Multiple Directory Catalogs
- Extended Directory Catalog

### **Topic 10: Mail Database Design**

- Mail database master design template
- Template association
- Single Copy Template
- Exercise: Configure Single Copy Template
- Limit message size
- Shared Attachment database
- Central Forms database
- Alternative mail templates

### **Topic 11: User Mail Database Administration**

- Procedure 1: Access information about Mail users and their Mail databases
- Procedure 2: Define Mail Settings policy
- Procedure 3: Create full text index
- Procedure 4: Configure multiple replica Mail databases
- Procedure 5: Move Mail database to another directory or to another server
- Procedure 6: Delete users and their Mail databases
- Procedure 7: Set Mail database quotas and warning thresholds
- Procedure 8: Monitor Mail database size
- Database white space
- Procedure 9: Reduce the size of a Mail database using Compact
- Procedure 10: Configure server-based mail archiving
- Configure server-based Mail database archive from Notes
- Run COMPACT to perform archive
- Procedure 11: Define an Archive Settings policy

### **Topic 12: Notes Mail Security**

- System-required security
- User-option security
- Just-in-time encryption

### **Topic 13: Scheduling**

- Schedule a meeting
- Supporting technology
- BUSYTIME.NSF operation
- Free time lookup
- Resource Reservations database
- Resource administrator
- Exercise: Scheduling on a single Home/Mail server

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- Exercise: Test single-server setup scheduling
- Multiple Home/Mail servers in same domain
- Free time queries across domains
- Exercise: Multi-domain scheduling
- Server Console commands
- Schedule statistics
- Troubleshooting
- Clustered servers and multiple Resource Reservations databases
- Non-Notes schedule exchange
- Schedule interoperability through iCalendar

#### **Topic 14: Single Copy Message Store**

- Message components
- Multiple copy message store
- Single Copy Message Store
- Object store process
- Enabling shared mail
- Display information about shared mail
- Shared object store statistics
- Shared mail view
- Exercise: Shared mail
- Linking existing Mail databases
- Excluding Mail databases
- Move/delete user Mail database file
- Unlinking a shared mail database
- Other shared mail features
- Shared mail and other server technologies
- Drawbacks

#### **Topic 15: SMTP Mail Transfer**

- Before you switch to SMTP
- Server document or SMTP Inbound Site document?
- Turn on SMTP Listener
- Scenario 1: SMTP to route mail inside your Domino Domain
- Internet return address for Notes
- DNS configuration for transferring beyond your Internet domain
- Scenario 2: SMTP to route mail to/from to the Internet
- Exercise: Transfer messages to/from the Internet via SMTP
- Scenario 3: Internal SMTP with outbound SMTP to Relay Host
- Example Relay Host transfer all SMTP
- Scenario 4: Internal NRPC with outbound SMTP to conduit
- Example NRPC transfer to SMTP conduit
- Smart host
- On-demand routing
- Extended SMTP

#### **Topic 16: SMTP Inbound Controls**

- When controls are applied
- Stage 1: TCP/IP connection
- Stage 2: Before MTA connection is allowed

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- Stage 3: Before message is accepted by receiving MTA
- Stage 4: Before message is deposited to MQ (sender controls)
- Stage 6: Before message is deposited to MQ
- Stage 7: Before message moved from MQ to recipients MS
- UA connection to send message
- Third-party products

### **Topic 17: Blacklists and Whitelists**

- Private and public blacklists/whitelists
- Blacklist/whitelist processing order
- Configure blacklists and whitelists
- Blacklist desired actions
- Whitelist desired actions
- Custom SMTP error message
- Rules integration
- Statistics
- Getting off of a blacklist

### **Topic 18: Rules**

- Limitations
- Mail File Rules
- Create QuickRule
- Exercise: Create QuickRule
- Block Mail from Sender Rule
- Manually create a Mail File Rule
- Rule conditions
- Rule actions
- Blacklist and whitelist tag Rule conditions
- Exercise: Manually create a Rule
- Multiple Rules
- Stop processing action
- System Mail Rules
- Create a System Mail Rule

### **Topic 19: SMTP Outbound Controls**

- Configure SMTP outbound controls
- Outbound sender controls
- Outbound recipient controls

### **Topic 20: Internet Message Disclaimers**

- Message disclaimer basics
- Two conditions for message disclaimers to be added
- Define message disclaimer text and have Notes add it
- Message disclaimers added by Router task
- Domino Web Access message disclaimers

### **Topic 21: LDAP Directory Service**

- Other LDAP functions
- Directory Assistance and Directory Catalogs
- Configure LDAP on the server
- LDAP client configuration

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What LDAP returns  
Exercise: Configure and test LDAP  
LDAP Server Console commands  
Ldapsearch utility  
LDAP statistics

### **Topic 22: POP/IMAP Clients**

License implications  
POP3  
POP client configuration  
Exercise: POP3 client configuration  
MIME and message fidelity  
Exercise: Send MIME-encoded message  
IMAP  
Notes and IMAP interoperability  
IMAP configurationserver side  
Modifying user Mail for IMAP  
IMAP4 configurationclient side  
Notes access to Internet mail

### **Topic 23: Internet Certificate Authority**

Compare Notes security to Internet security  
Internet client security overview  
Level 1 Security: Anonymous access  
Level 2 Security: Name and password authentication  
Level 3: Name and password authentication over SSL  
Create Internet Certificate  
Step 3.1: Migrate the Organization Certifier ID to the CA Process  
Step 3.2: Create the Internet Certificate for your company  
Step 3.3: Create (Internet) Certificate Requests database  
Step 3.4: Create the server Key Ring file and sign the servers  
Certificate  
Step 3.5: Enable SSL on the server

### **Topic 24: Issue Internet Client Certificates**

Level 4 Security: Internet client authentication  
Request Internet Certificates for Internet mail clients  
Issue Certificates to Notes users  
How Notes adds Trusted Root Certificates  
Issued Certificate List (ICL) database  
Certificate Revocation Lists (CRL)  
Authentication via Client Certificate  
Checking for CRLs  
Revoking an Issued Certificate

### **Topic 25: Sign and Encrypt Internet Mail**

Outlook Express signs message to Notes user  
Notes user signs message  
Notes user accepts senders Certificate for encryption

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### **Topic 26: WebMail and Domino Web Access**

- Server-side requirements for WebMail
- Use WebMail
- Downsides of WebMail
- Exercise: Access Mail via browser
- Domino Web Access
- Server configuration for DWA
- Enable users to use DWA
- Domino Web Access Redirect
- Make DWA the default mail client
- Send signed messages
- Send signed message to Internet mail users
- Validate signature from Internet mail sender
- Encrypt message sent to other Notes/DWA users
- Encrypt message to Internet mail users
- Certificate for authentication versus Certificate for encryption
- Configure DOLS
- HTTP server security configuration

### **Topic 27: Domino Access for Microsoft Outlook**

- Task 1: Configure Domino
- Task 2: Register user
- Task 3: Prepare user computer
- Task 4: Install DAMO software on user computer
- Task 5: Start Outlook and select DAMO Profile

### **Topic 28: Mail Monitoring**

- Router status
- Server Console commands
- Hidden memo fields
- Mail logging
- Supplemental logging
- Logging level
- Mail statistics
- Mail trace
- Mail Routing Event Generator
- Domino Domain Monitoring

### **Topic 29: Mail Tracking and Reporting**

- MTC server task
- User tracks mail
- What the tracking request tells you
- Tracking across Domino Domains
- Track mail in Domino Administrator
- Report on tracked mail
- MTC console commands
- Exercise: Mail tracking and reporting

### **Topic 30: Message Journaling**

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Third-party solutions  
Configure message journaling  
Mail Journaling database security

### **Topic 31: Troubleshooting and Performance**

Dead mail  
Check for dead mail  
Held mail  
Message transfer retry interval  
Message timeout value  
Troubleshoot submission errors  
Troubleshoot transfer errors  
Transfer errors and route cost  
Troubleshoot delivery errors  
Create/restore a deleted Mail database  
Exercise: Mail errors  
Custom delivery failure messages  
SMTP troubles  
SMTP headers  
Improve performance



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## **Course Description**

### **Lotus Notes 7 Support**

#### **Description**

This course is designed for help desk personnel responsible for supporting both network based and mobile Notes 7 users.

The course starts with a technical discussion of how Notes and Domino work together. The course provides a very practical approach to fulfilling most user requests and solving many workstation problems, but at the same time helping you understand when to escalate problems to the proper Domino or Notes administrator or to a custom application developer.

#### **Course Goals**

In this course, you will learn how to:

- install and configure Notes
- configure Notes for multiple and roaming users
- troubleshoot network connectivity, Domino Server access, and database access problems
- understand and troubleshoot Notes User ID problems
- configure Notes Mail and make it easier for users to correctly address messages
- troubleshoot mail transfer and delivery problems
- solve Mail database issues, including accidental database and message deletion, reducing file size to meet its quota, and redesigning the database
- create private views and folders
- solve and prevent document-related problems
- export data from a view and create a mail-merge output file and import data into a view to create documents
- create simple agents to automate Notes
- configure Windows and Notes to use a modem
- create Connection and Location documents
- support mobile users who use Notes while disconnected from the network.

#### **Audience**

This course is designed for help desk workers responsible for direct Notes user support. These people do not typically have Domino Administrator or administrative rights to the Domino Server but are responsible for installing, configuring, and supporting Notes users.

Before taking this course, it is recommended that you have met these prerequisites:

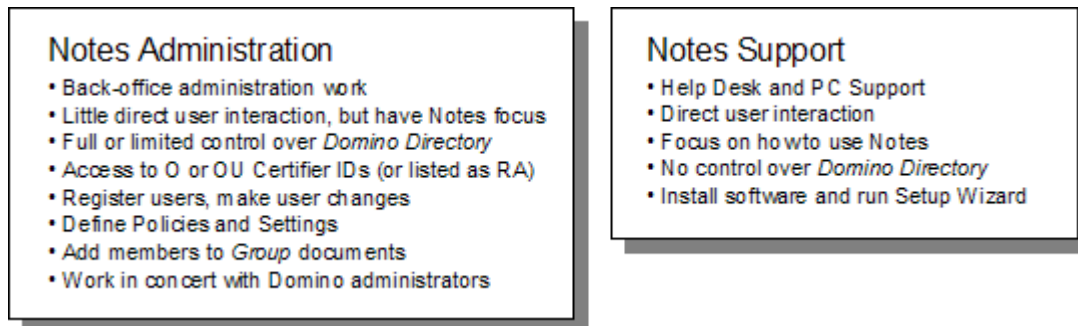
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- are proficient using Lotus Notes 7 and Domino Web Access 7 and have mastered all of the Topics in the Lotus Notes 7 User Essentials and Domino Web Access 7 User Essentials courses
- understand the principles and operation of personal computer networking using TCP/IP in LAN/WAN/Internet environments
- have installed and supported the operating system used in this course (Windows 2000 or XP Professional), as well as applications used by those systems
- know how to configure network interface cards and modems.

Courses later in the series assume that you have mastered the content of earlier courses. Depending on your job responsibilities, you may need to follow this course with the Lotus Notes 7 Administration course. This course is designed for administrators responsible for registering Notes users and developing Policies, and who have at least limited administrator rights to the Domino Directory. This diagram contrasts the audiences for the Lotus Notes 7 Administration and Lotus Notes 7 Support courses:



## Duration

To cover all topics in this course, you will need approximately 4 days.

## Outline

### Topic 1: The Domino Client Support Landscape

Notes client and Domino Server  
Clients that connect to Domino  
Defining technology  
Support roles in an organization  
Support resources  
Support database

### Topic 2: Install Notes

Provisioning a new Notes user  
Standard and custom installers

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- Ways to run the installer
- Offline installation
- Obtain the installer
- Exercise: Install Notes software
- Step 1: Uninstall previous installations
- Step 2: Start the Notes installer
- Step 3: Customer information
- Step 4: Choose directories
- Step 5: Client choice
- Step 6: Ready and set default email client
- Step 7: Reboot computer
- Results of the installation
- Rerun the Installer
- Custom installations
- Install Notes using the Transform file
- Software updates

### **Topic 3: Configure Notes**

- Setup policy settings
- Exercise: Notes Client Configuration wizard
- Exercise: Check Notes setup
- Information needed when Notes starts
- Summary: What Notes needs to access Domino
- Back up user files
- Reinstalling Notes
- Re-running the Client Configuration wizard
- Reconfiguration wizard
- Notes Log
- Debug variables
- Notes crashes
- Character display sizes

### **Topic 4: Notes Connectivity via the Network**

- Notes connectivity overview
- Network configuration overview
- Basic network connectivity
- Operating system configuration
- Protocol-level connectivity testing
- Network statistics
- Router paths
- NotesCONNECT
- Connection problems at startup
- Port settings in Notes
- Location document
- Connection document
- Role of Home/Mail Server
- How Notes locates a Domino Server
- Trace Connections from Notes
- Exercise: Network connectivity



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Proxy and firewall servers

User connections to servers in other Domino Domains

### **Topic 5: Multi-User PCs and Roaming Users**

Strategy 1: Shared executable files

Strategy 2: Multiple users on one computer

Strategy 3: Roaming between computers

Two roaming configurations

Setting a user as a roaming user

Multi-user roaming

Single-user installation roaming

Strategy 4: Data directory on a file server

Third-party roaming solution

Strategy 5: Citrix MetaFrame

Strategy 6: Switch locations

Strategy 7: Browser access to mail

Exercise: Access mail via WebMail

### **Topic 6: Notes and Domino Access Errors**

Sequence of access errors

Error 1: Wrong Notes password

Error 2: Cant find path to server

Error 3: Failure to authenticate

Error 4: Server Error: You are not authorized to use the server

Error 5: User cant create a new or replica database on a server

Error 6: You are not authorized to access that database

Error 7: User cant create a document in database

Error 8: User cant delete his/her own document

Error 9: User accidentally deletes his/her own document

Error 10: User cant edit or delete others documents

Error 11: Certain custom database features are not visible

Error 12: User cant create local replica of server-based database

Error 13: User cant open locally encrypted database

Error 14: User cant open encrypted document

Exercise: Server and database access

Sametime client set up in Notes

Sametime login name and password

Using a Sametime user name different from the Notes name

### **Topic 7: Configure Notes Mail**

Message transfer protocols

Message flow

Notes Mail configuration

User Mail database ACL

Create a Memo

Send Memo

Deliver mail to user

Read mail

User Preferences vs. Mail Preferences

Make Notes the default mail program



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Mail security

Exercise: Sign and encrypt message

User cant open encrypted memo

### **Topic 8: Address Mail**

Accurate addressing

Local Address Book

Contact documents

Exercise: Add contact

Public Keys

Mailing Lists (Groups)

Exercise: Contact and Group documents

Mobile Directory Catalog

Exercise: Create replica of the Mobile Directory Catalog

LDAP Account documents

### **Topic 9: Troubleshoot Mail Transfer and Delivery**

Message flow

Exercise: Mail configuration

Delivery Information

Exercise: Read delivery information

Delivery failures

Delivery options

Exercise: Delivery options

Internet mail delivery failures

### **Topic 10: Manage Mail Databases**

Problem 1: Accidental Mail database deletion

Problem 2: Accidental message deletion

Problem 3: Exceeding size quota

Help users slim down mail

Shared attachment database

Mail archiving

Problem 4: Wrong or obsolete design

### **Topic 11: Private Views and Folders**

Why create a private view

Security and storage

Where is my private view?

View characteristics

View restrictions

Create a private view

Customize view

Understand the data

Two view selection options

Simple Search

Conditions options

Select by formula

Time-based selections

Select by document property



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- Selection by exclusion
- Column properties
- Column Value
- Example formulas
- Column properties
- Column Info tab
- Sorting tab
- Format tabs
- Advanced tab
- Exercise: Create private view
- Create private folder
- Delete private view or folder

### **Topic 12: Document Issues**

- Problem 1: Changing forms to read a document
  - Alternate forms
  - Manually change forms
  - Automatically change forms
  - Potential user confusion
- Problem 2: Replication conflicts
  - Manual reconciliation
  - Prevent conflict documents by design
  - Automatic document locking
  - Manual document locking
  - Document locks and mobile users
- Exercise: Replication conflicts and document locking
- Problem 3: Phantom documents
- Problem 4: Document reader lists
  - Recover private documents
  - Exercise: Private document
- Problem 5: Removing document from folder versus deleting it
- Problem 6: Copied and pasted documents

### **Topic 13: View-Level Export and Import**

- Copy Selected as Table
- Print calendar to document
- View-level export
  - Export to Comma Separated Value (CSV)
  - Export to 1-2-3 file
  - Export to Structured Text
  - Export to Tabular Text
- Other reporting products
- View-level import

### **Topic 14: Simple Agents**

- Agent examples
- Components of every agent
- Agent considerations
- Agent List
- New Agent dialog box

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- Add (simple) actions
- Document selection
- How Simple Actions operate on documents
- Simple Action actions
- Exercise: Newsletter agent
- Safe agent testing
- Running agents locally on a schedule

### **Topic 15: Notes Connectivity via Modem**

- Ideal configuration
- Ways to connect via modem
- Install modem hardware
- Exercise: Simulate adding modem in Windows XP
- Network Dialup overview
- Information you will need for Network Dialup
- Notes Port settings for Network Dialup
- Notes Direct Dialup overview
- Configure modem for Notes Direct Dialup
- Notes Client Reconfiguration Wizard

### **Topic 16: Connection and Location Documents**

- Connection documents
- One connection, multiple locations
- Location documents
- Switch locations
- Common location dial modifiers
- Proxy servers and HTTP tunneling
- Summary: Connection and Location documents
- Connection for Home (Network Dialup) location
- Exercise: Simulate Network Dialup configuration of connection
- Connection for Home (Notes Direct Dialup) location
- Test your location and connection
- Prompt for time/date/phone in Location documents
- Travel across time zones
- Phonebook database
- Domino Passthru Servers
- Passthru topology
- Client-side Passthru configuration
- Server-side configuration
- Hunt group of Passthru Servers
- Server-side security
- Passthru authentication
- Passthru logging

### **Topic 17: Prepare Notes for Mobile Use**

- What mobile users need
- Two ways to work remotely
- Replication
- Create replica database copy
- Exercise: Create replica copies and replicate

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- Setup/Desktop Settings policy documents
- Open the replica from a Bookmark
- Replicate databases
- Replicas and the database ACL
- Exercise: Replicate databases
- Replication page
- Database replication tasks
- Call Entry/Hangup Entry tasks
- Schedule task
- High priority databases
- Enable the replication schedule
- Exercise: Scheduled replication
- Force Replication page tasks
- Replication settings
- Advanced replication options
- Easy selective replication
- Local free time information
- Local Freetime database
- Add Freetime to the Replication page
- Drawbacks of remote scheduling
- Replication page options
- Replication folders
- Replication History
- General replication troubleshooting

#### **Topic 18: Additional Mobile Security**

- User ID responsibilities
- Encrypt existing local databases
- Database security and replication
- Enforce consistent ACL
- Replicate or copy documents ACL attribute

#### **Topic 19: Take Notes on the Road**

- Two ways to work remotely
- Before you leave the office
- Other things not to forget
- While you are in transit
- When you arrive at your destination
- Replication page
- When you receive mail
- When sent messages are transferred
- Keep replication times short
- Back in transit
- When you return to the office
- Exercise: Simulate travel
- Miscellaneous tips for mobile user support
- Replication and accidental document deletion