eMerge

SAPIENS

eMerge

Course Catalog

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Courses

The following table shows the courses that one can take in order to learn *eMerge*.

- The *Comprehensive Developer* course focuses on how to develop *eMerge* applications covering data structure, logic and presentation. Participants learn how to develop *eMerge* applications within the *Development Workbench* environment using *Modeler*, *Rule Editor* and *Form Editor*.
- For those interested in enabling non-*eMerge* user access to the world of *eMerge*, the *Business Components for .NET and Java* course explains how *Business Components* allows Java, .NET, and Java EE clients access to *eMerge*. The *XML Messaging and SOA* course explains how *XML Messaging* enables *eMerge* applications to expose a set of rule-based services to other parties, as well as invoke message based services from other parties.
- For administrators, system programmers and *eMerge* project leaders who need to know about the installation, maintenance, and tuning of an *eMerge* site, the *Business Integrity Server Administration*, *Change Management*, and *Security* courses are very useful.

Course		Development	Administration
Introduction to eMerge Principles	4	✔	
Comprehensive Developer	5	✔	
Business Components for .NET and Java	6	✔	
XML Messaging and SOA	8	✔	
eMerge Queries	10	✔	
Business Rule Language (BRL) Workshop	15	✔	
Legacy Adapter	11	✔	✔
DBMS Adapter: SQL	13	✔	✔
Business Integrity Server Administration	18		✔
Change Management	19		✔
Security	21		✔

Introduction to *eMerge* Principles

Duration	1 day
Description	Presents a short description of *eMerge* features and capabilities: application development with *eMerge*, concept model, concepts and fields, development life-cycle, testing, business rules, presentation layer, report generation and open architecture.
Audience	People who want to get familiar with the *eMerge* world.
Prerequisites	None

Contents

Comprehensive Developer

Duration	10 days
Description	Focuses on the fundamental principles of *eMerge*. Participants learn how to develop *eMerge* applications within the *Development Workbench* environment using *Modeler* and *Form Editor*. The concept and rule models are covered. Provides practical hands-on experience developing an application, covering all stages of the development cycle.
Audience	IT professionals with experience with application development and data structure and with knowledge of the principles of application development, presentation and UI design.
Prerequisites	Knowledge of databases and various environments and C++, JavaScript, ActiveX, Internet/Intranet environments, etc. is recommended.

Contents

Business Components for .NET and Java

Duration	2 days
Description	Opens the world of *Business Integrity Server* to non-Sapiens users. Enables participants to develop *eMerge*-based client software without a familiarity with *eMerge*. Subjects covered include: Platform and protocol support, session management, *Business Components* processing, packaging and reusability, interface and methods, development and runtime procedures.
Audience	Most of the course is for IT professionals involved in the development of Java-based user applications. The Development section is for *eMerge* developers.
Prerequisites	Knowledge of Java EE for IT professionals. Knowledge of *eMerge* for the Development section.

Contents

XML Messaging and SOA

Duration	2 days
Description	Subjects covered include: XML, *eMerge XML Messaging*, *Web Services Adapter*, importing XML schemas, mapping a schema to a components, defining documents and parties, *XML Tester*, creating component and post rules and modular applications.
Audience	*eMerge* developers.
Prerequisites	Business Components for .NET and Java.

Contents

Messaging Application Logic

- Inbound Messages
- Outbound Messages
- Data Types
- Responding to an Inbound Message
- Notification System
- eMergeError Document
- eMergeNotification Document
- Synchronous Messages
- BLP Processing
- Message Descriptors
- Trace

Modular Applications

- Modular Applications
- Modules & Parties
- eMergeModule
- BLP Architecture
- Sending Message to an eMergeModule
- Queued Message Sending
- Invoking Component Methods from Rules
- BLP Stack

Methodology

- Development Scenarios
- Component Definition

Web Services

- What is a Web Service?
- Web Services Model
- Web Services Standards
- SOAP Message
- eMerge Web Services Support
- Web Services – Provider Architecture
- Web Services – Requestor Architecture
- SOAP Messages in eMerge

eMerge Queries

Duration	2 days
Description	Presents a hands-on detailed description of the advanced capabilities of *eMerge* query and data manipulation language. Enables the participant to fully utilize queries in application development.
Audience	IT professionals involved in the development and maintenance of *eMerge* applications, who have some *eMerge* experience
Prerequisites	Comprehensive Developer

Contents

Legacy Adapter

Duration	4 days
Description	Explores the capabilities of *Legacy Adapter*. Enables the participant to fully utilize *Legacy Adapter* for nonintrusive renewal of legacy applications by mapping legacy application screens and capturing legacy application flows.
Audience	IT professionals involved in the development and maintenance of *eMerge* applications, who have some *eMerge* experience.
Prerequisites	Comprehensive Developer

Contents

- Mapping/capture
- Memory run-time knowledgebase
- Flat and context
- Flow management
- Script
- Communication: Conversation, Rumba and FEPI
- TN3270 architecture

Installation Notes

- *Legacy Adapter* and Telnet
- Requirements
- Installation steps
- Customization for FEPI

DBMS Adapter: SQL

Duration	3 days
Description	Presents a hands-on workshop that describes the implementation of *eMerge* applications in an SQL environment. Includes interface techniques, tuning and application design considerations.
Audience	SQL Administrators (essential), project leaders and senior application developers who want to gain a better understanding of how to work with SQL.
Prerequisites	Comprehensive Developer is recommended

Contents

DBMS Adapter with DB2/400

- Environment specifications
- Enhancements
- Limitations

Business Rule Language (BRL) Workshop

Duration	5 days
Description	Presents a hands-on detailed description of the advanced capabilities of the *eMerge* Business Rule Language. Enables the participant to fully utilize BRL in application development. Provides ample opportunity to learn through hands-on exercises.
Audience	IT professionals involved in the development and maintenance of *eMerge* applications, who have some *eMerge* development experience.
Prerequisites	Comprehensive Developer; Actual hands-on experience.

Contents

- IgnoreMissingPath
- VERIFIED
- Dynamic error messages
- FetchSQL

Derivation Rules

- NoAutoTrigger
- Lastchange
- Violating valid values
- Source check
- Recursion
- Opposite
- InsertEqualChange
- Secondary
- MayChangeNothing
- Triggering Options
- ADDED/SUBTRACTED statements
- INVERSED statement

Queue

- Controlling physical order of derivations

Rule Analyzer

- Impact analysis
- Conflict analysis
- Sequencing analysis

Pack and Post Rules

- Syntax
- Implementation

Documentation

- Listrules
- Ruleset documentation
- Rule documentation

Business Integrity Server Administration

Platform	z/OS, i5/OS, Windows
Duration	3 days
Description	Explores the installation, maintenance and tuning of an *eMerge* site. Tailored to match the installation environment of the participants.
Audience	Administrators, system programmers and *eMerge* project leaders who need to know about the installation, maintenance and tuning of an *eMerge* site.
Prerequisites	Comprehensive Developer is recommended

Contents

- Estimating the Size of Memory Database
- Database Memory Tuning
- Multiple Memory Databases

Defining Environment Defaults

- General Database Options
- Customizing Special Characters
- Customizing Operation Code Values
- Changing the Current Date and Time
- Changing the Standard Color Palette

Managing Object Number Allocation

- Rangesets, Complexity and the Rules
- Default System Rangeset
- Defining Private Rangesets
- Defining User Privacy via Private Rangesets
- Viewing Allocated and Used Number Ranges

Environment Administration

Handling Transaction Allocation

- *Listener*

Business Integrity Server Administration File

- What is the Administration File
- Administration File Structure
- Building the Administration File

Optimizing Business Integrity Server Online Processes

- Diagnostic Tools
- COUNT Command
- Programs that Cause Excessive I/O
- Possible Causes of Excessive Use of CPU by the BLP
- Possible Causes of Excessive I/O by the BLP

Maintaining a Database

Business Integrity Server Utilities

- Description of the Utilities Available for the Administrator

Porting Databases

Porting Databases

- Introduction
- Porting Process
- EBCDIC vs. ASCII Character Sets
- Exporting the Database to Sequential Files
- Language Translation Issues
- Parameter File
- Specifying which Datasources to Export
- Specifying which Composites to Export
- Sequential Files Resulting from Export
- Transferring Files
- Importing from Sequential Files

Troubleshooting

Diagnosing Problems

- Introduction
- Commands
- Form-based Version of SNAP TRACE
- Diagnosing Abends
- DUMP Command and DUMP Runtime Parameters
- Formatted Batch Output
- Structures

SNAP

- Using SNAP to DIsplay Internal Memory
- Using SNAP Trace

Change Management

Duration	2 days
Description	A description of how to enable Change Management for an *eMerge* database, so that all changes to the application are associated with a particular task. How to determine what tasks should be migrated to a test or production database, and how to migrate the tasks.
Audience	Administrators who manage the migration of application development tasks to the production environment.
Prerequisites	Comprehensive Developer with an understanding of *eMerge* security.

Contents

Managing i.way Components

- Development
- Development to Test
- Testing
- Deployment
- Diagram of Change Management for Components

Utilities

- Utilities: SPLDJ2DB, SPJRNDB, SPTASKDB and SPNBKUP

Security

Duration	1 day
Description	Covers the security and privacy capabilities of *eMerge*. Topics include *eMerge* internal security and the External Security Interface.
Audience	IT personnel responsible for maintaining security in development and production.
Prerequisites	Comprehensive Developer.

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