



QA TECHNOLOGIES

EDGEucate 2009

Tutorial Lab

QAT

genesis

The ART of Legacy Modernization

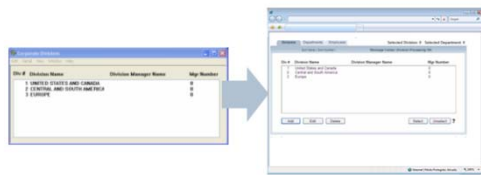
Questions Answered. Solutions Provided.

Tutorial Overview



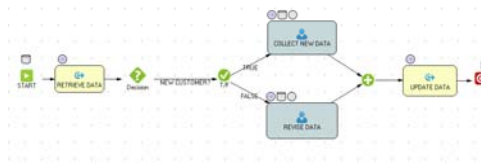
Provide overview of **QAT Genesis** modernization approach

PART I - Show QAT Genesis modernization techniques with QAT Webdaptive



- ✓ Use of CA Gen Web Client Enable Functionality
- ✓ CA Gen sample model modernized by QAT Webdaptive
- ✓ Data sharing between Sample application pages : Java ↔ .Net

PART II - Explore the role of QAT Flow as Business Process Orchestration engine



- **How to design the new business process using QAT Flow Designer**
- **Demonstration of QAT Genesis techniques**
 - ✓ Re-use of existing CA Gen Action Blocks
 - ✓ Consumption of Web Services
 - ✓ Automatic generation of AJAX user interface
 - ✓ Adding business value to the existing applications

Required Software



 vmware image, containing:

- ✓ **QAT Flow Web Edition (.Net application running on IIS)** – includes **QAT WebDaptive Premium Edition**
- ✓ **QAT Flow Design** (desktop application connecting to your QAT Flow Web Edition install)
- ✓ Web Browser (IE7+, Firefox 2+).
- ✓ Tutorial Flow Database (WF database in local SQL Server Install)
- ✓ CA Gen Sample Application as desktop application
 - .Net web application (running on local IIS)
 - Java web application (running on local JBoss Application Server)



Tutorial Scenario



Modernize the CA Gen Sample Model application

CA Sample model is a cooperative Client/Server application for maintaining common business organization units like divisions, departments and employees.



The legacy application consists of several overlapping windows:

- Corporate Management**: Main application window.
- Corporate Divisions**: Table showing divisions.

Div #	Division Name	Division Manager Name	Mgr Number
1	UNITED STATES AND CANADA		0
2	CENTRAL AND SOUTH AMERICA		0
3	EUROPE		0
- Corporate Departments**: Table showing departments.

Div #	Dept	Department Name
1	1	MARKETING AND SALES
1	2	INFORMATION SYSTEMS
2	3	MARKETING AND SALES
3	4	FINANCIAL SERVICES
- Corporate Employees**: Form with filters and a table of employees.

Display for Division Number: 0 (0 is for all)
 Display for Dept Number: 0

Buttons: Protect All, Enable All, Protect Record, Enable Record, Unselect

Emp #	Employee Name	Div	Dept	Work Phone
1	PETERSON, JEFFREY C	1	1	(123)-456-7890
2	FREISTÄTTEL, JÜRGEN	3	4	+49 222-333-5555
3	MEYERS, KIMBERLY	1	2	(123)-456-7898
4	JHONSON, CESILE L	1	2	402_391-9200
- Employee Details**: Form for editing employee information.

Employee Number: [input] Full Time Status

Employee Name: [input]

Division Number: [input] Dept Number: [input]

Home Phone: [input] Mail Stop: [input]

Work Phone: [input] Service Date: [input]

Pay Type: [input] Pay Rate: 0.00

The modernized application is shown in a web browser window titled "WebDaptive Sample Model - .Net".

- Project Tree**: Shows the application structure including Reference, Test Harness/Doco, Gen Sample Model - .Net, Divisions, Departments, Employees, Gen Sample Model - Java, QAT Products, Flow, Queue, Start Wo, Manage t, and Contact Us.
- Web Browser Window**:
 - Tab: Divisions
 - Selected Division: 0 Selected Department: 0
 - Message Center: Division Processing OK
 - Table:

Div #	Division Name	Division Manager Name	Mgr Number
1	United States and Canada		0
2	Central and South America		0
3	Europe		0
 - Buttons: Add, Edit, Delete, Select, Unselect ?

Tutorial Scenario



Business Process Change : Creating of a new employee

OLD PROCESS

1. Clerical Support gathers employee information.
2. Clerical Support calculates Pay Class by using another application.
3. Clerical Support decides whether Pay Class requires Manager Approval.
4. Clerical Support requests manager approval
5. Manager (dis)approves new employee and notifies Clerical Support of decision.
6. Clerical support enters employee data and submits it to the system.



NEW PROCESS

1. Clerical support enters employee information. The information will automatically be checked whether it meets all business rules. At this point, the clerical support's work is complete.
2. An external service will automatically calculate the Pay Class.
3. If required, the manager will be presented an approval screen (the manager can also be automatically notified via email – we skipped this configuration setting because it requires an email server).
4. If the Manager approved the employee, a Gen Server from wrapped as a Web service is executed to generate a new employee in the database

Modifications to the New Business Process

1. Add a step allowing Clerical support to review the employee data if it was determined that manager approval is required.
1. Configure the step to allow the re-start of the business process flow to correct any input data.

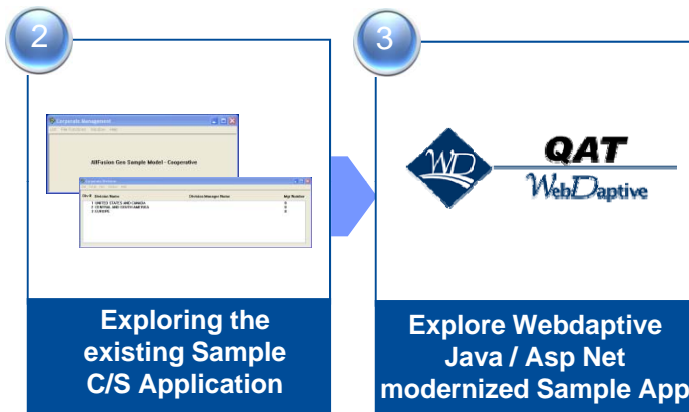


Hands-on

Tutorial Overview

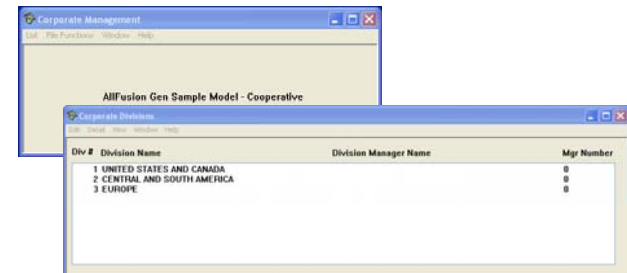


PART I - Tutorial Steps

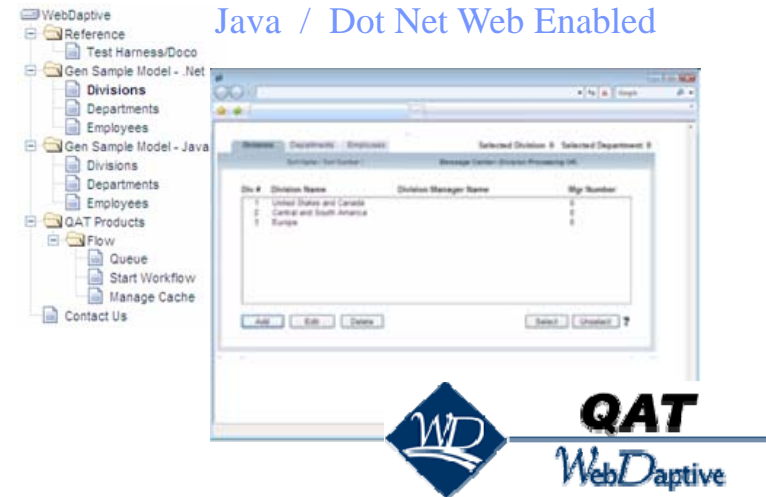


Modernization Technique #1:
Use the QAT WebDaptive Framework

Client-Server Sample Model



Java / Dot Net Web Enabled



Tutorial Overview



PART II - Tutorial Steps

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Add Employee Business Process

5

Identify and Prepare Services for Re-use

Modernization Technique # 2
Re-use of existing Gen Action Blocks

6

Implement the Business Process with QAT Flow

Modernization Technique # 3
Business Process Implementation with QAT Flow

7

Using Gen Externals to Integrate QAT Flow with External IT Services

Modernization Technique # 4
Use External IT Services

8

Add Value to the Business Process by Integrating Business Rules

Modernization Technique # 5
Add Value by Integrating Manual Processes

9

Consuming Gen Servers Exposed as Web Services

Modernization Technique # 6
Expose existing Gen servers as Web Services

10

Importing Data from the CA Gen Model

Modernization Technique # 7
CA Gen/ QAT Flow Designer Automation

11

Execute the Business Process in the QAT Flow Web UI

12

Hands-On Exercise: Enhance the Business Process