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# MQSeries Workflow

## Demo – CrossWorlds, MQSeries Workflow and HOLOSOFX BPM Suite

***Roland Peisl***

IBM WebSphere Marketing  
Business Process Management

IBM IDE GmbH, Boeblingen, Germany  
*psl @ de.ibm.com*



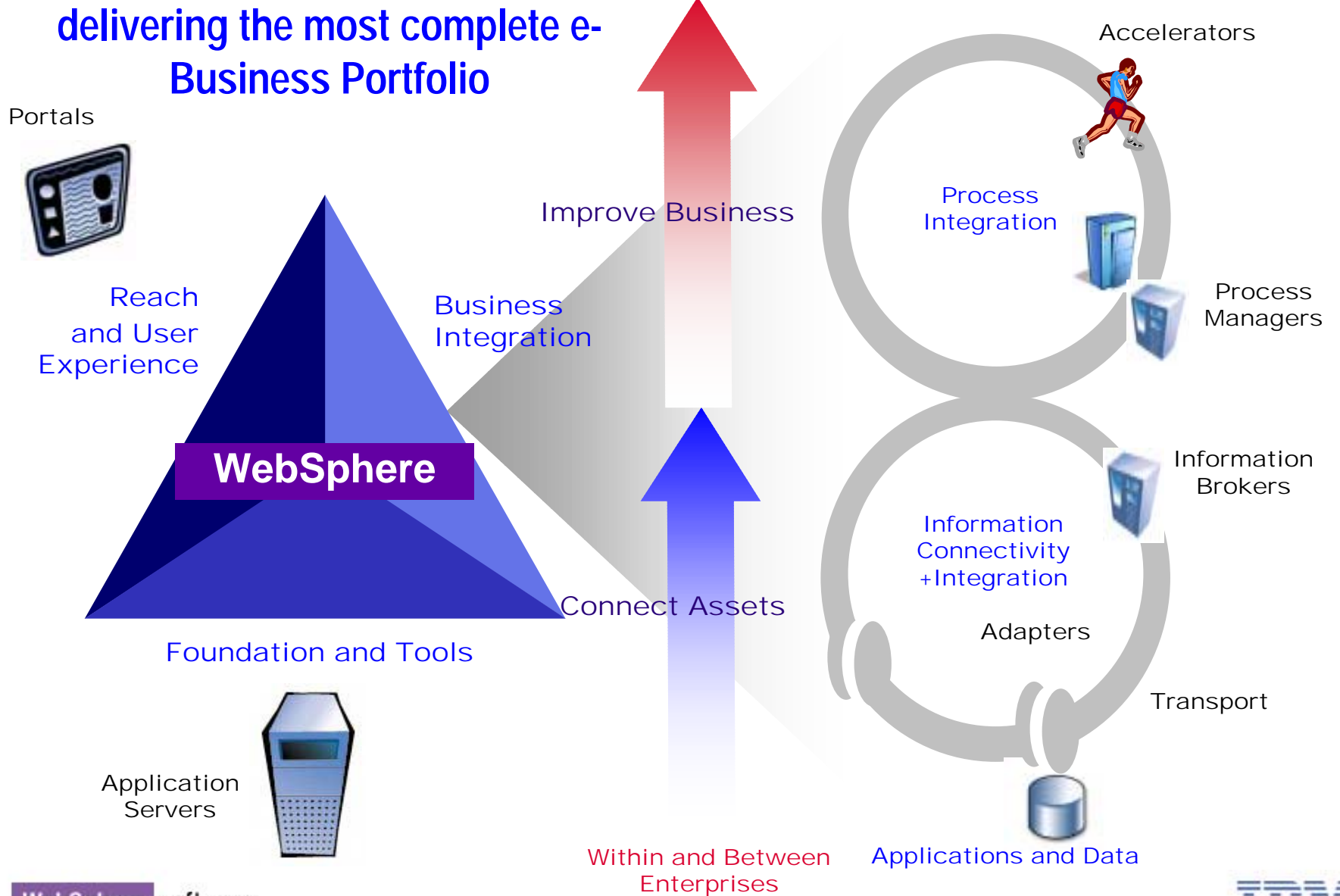
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# The IBM WebSphere e-Business Platform



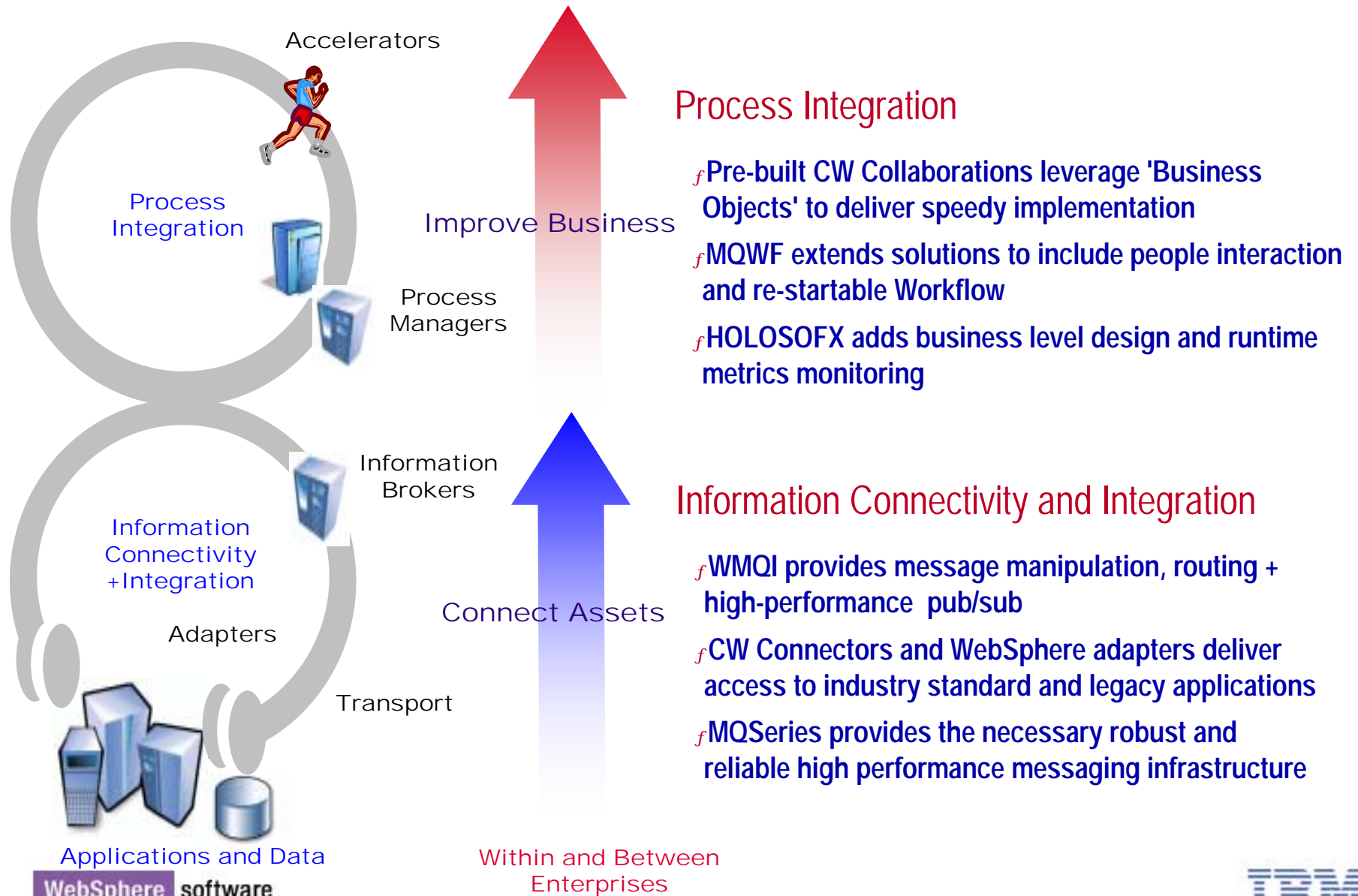
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# ... that enable best-of-breed solutions...



## Process Integration

- f* Pre-built CW Collaborations leverage 'Business Objects' to deliver speedy implementation
- f* MQWF extends solutions to include people interaction and re-startable Workflow
- f* HOLOSOFX adds business level design and runtime metrics monitoring

## Information Connectivity and Integration

- f* WMQI provides message manipulation, routing + high-performance pub/sub
- f* CW Connectors and WebSphere adapters deliver access to industry standard and legacy applications
- f* MQSeries provides the necessary robust and reliable high performance messaging infrastructure

Applications and Data

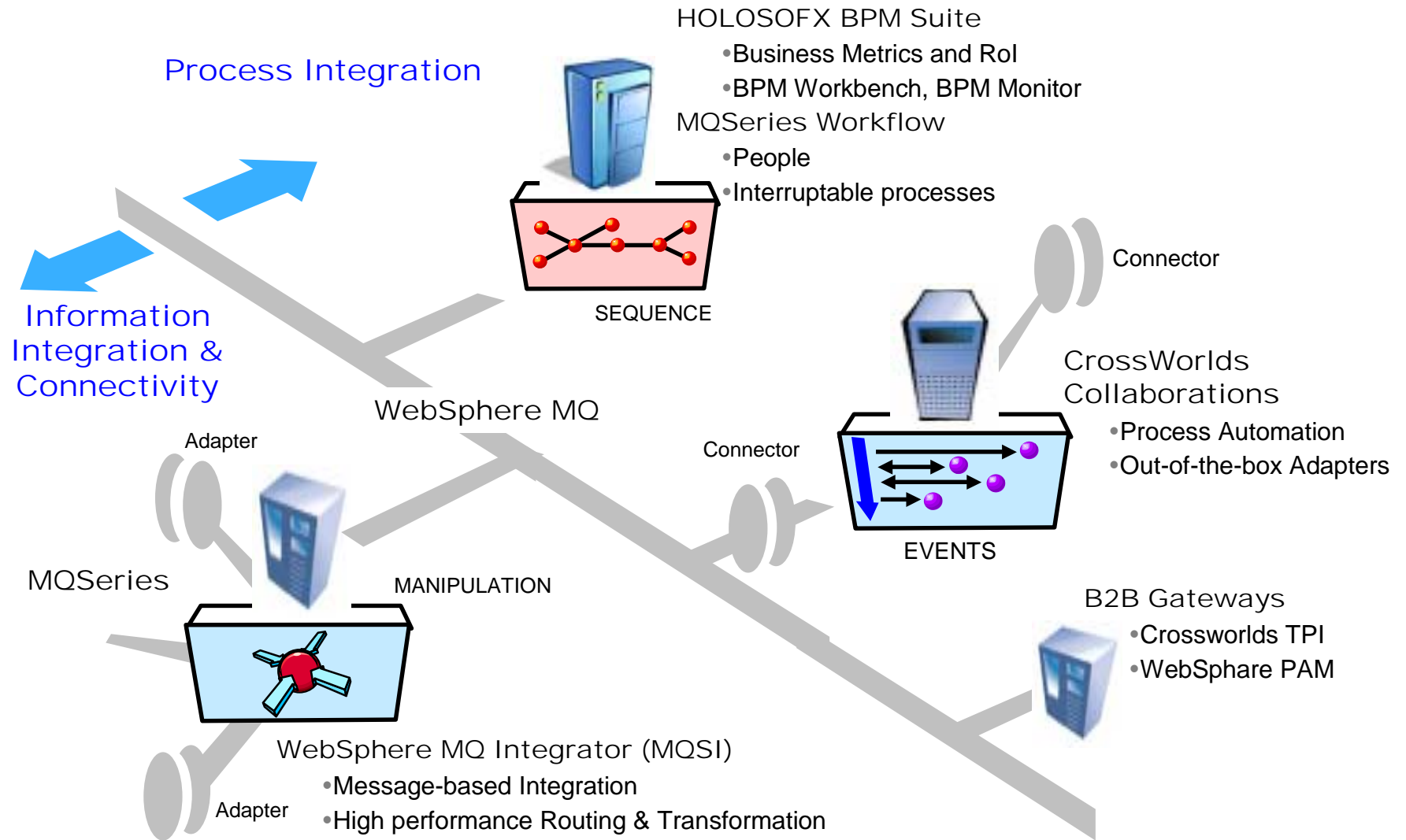
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# IBM and Crossworlds lead the Pack



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# What is HOLOSOFX??

- US-based company (LA)
- Expertise in BPM and BPR
- Voted to have one of the best BPM modeling tools by Gartner (2001)

## ➤ HOLOSOFX BPM Suite

### ➤ HOLOSOFX BPM Workbench:

- Modeling/Simulation/Analysis of business processes on business level
- Generates 100% FDL to allow process automation by MQSeries Workflow

### ➤ HOLOSOFX BPM Server: Multi-user environment to share business process model definitions

### ➤ HOLOSOFX BPM Monitor: Allows to monitor processes executed with MQSeries Workflow in real time, based on the MQSeries Workflow audit trail

#### ➤ Workflow Dashboard: Monitor processes in execution

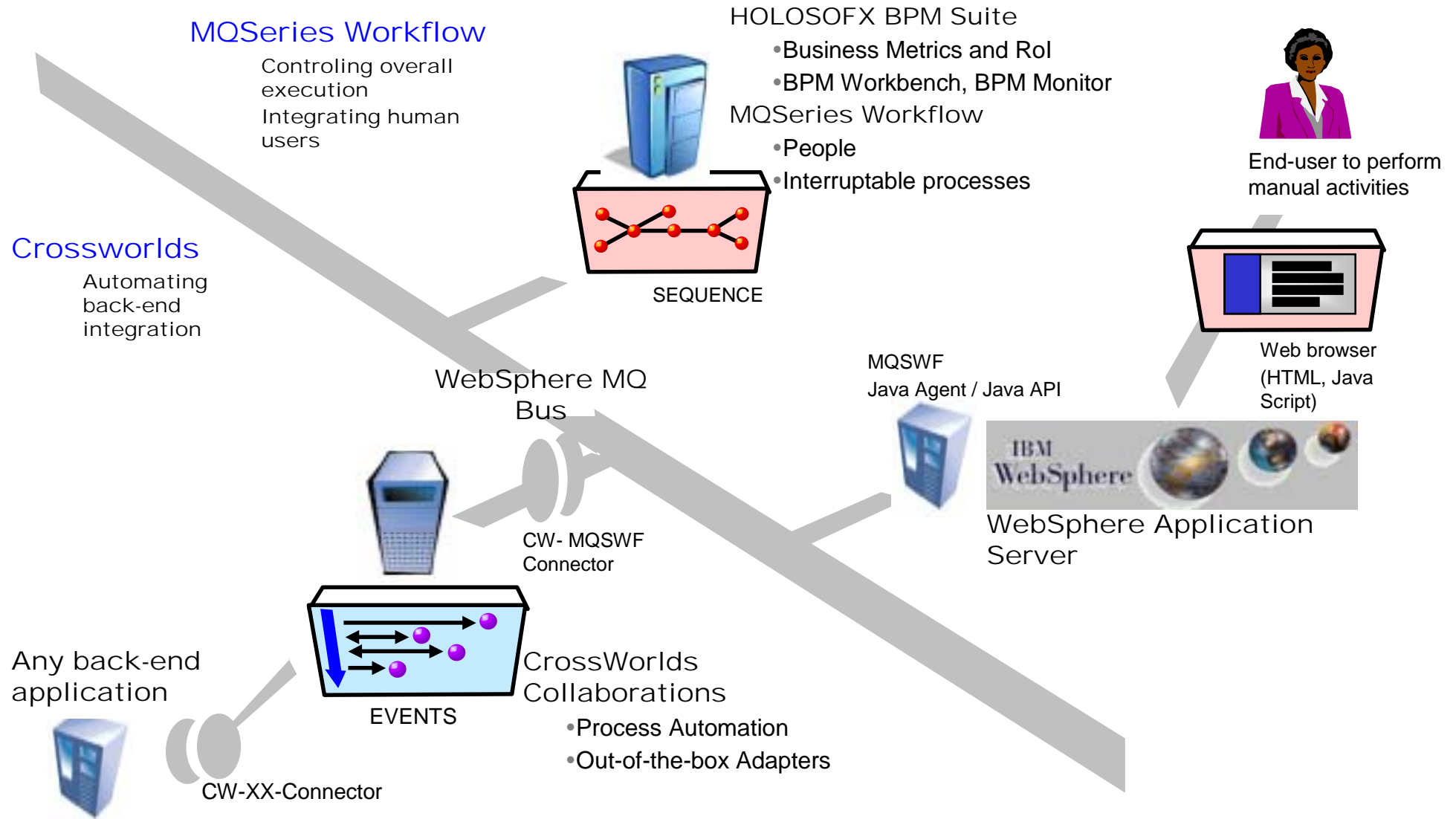
#### ➤ Business Dashboard: Monitor completed processes, visualizing results based on pre-defined and/or user-defined business metrics

# Brief demo descriptions

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- Shows the integration of CrossWorlds, MQSeries Workflow and HOLOSOFX
- Simple order business process, total of 5 steps:
  - Composed of 3 manual steps and 2 automatic steps
  - Modelled with HOLOSOFX BPM Workbench
  - Execution automated with MQSeries Workflow
  - MQSeries Workflow invokes CrossWorlds collaborations for backend integration, using MQ-based CrossWorlds MQSeries Workflow Connector
- Manual steps are performed using MQSeries Workflow WebClient
- Automatic steps implemented with CrossWorlds Collaborations
- HOLOSOFX BPM Workflow Dashboard used to monitor running process instances
- HOLOSOFX BPM Business Dashboard used to analyse completed process instances

# Brief demo architecture



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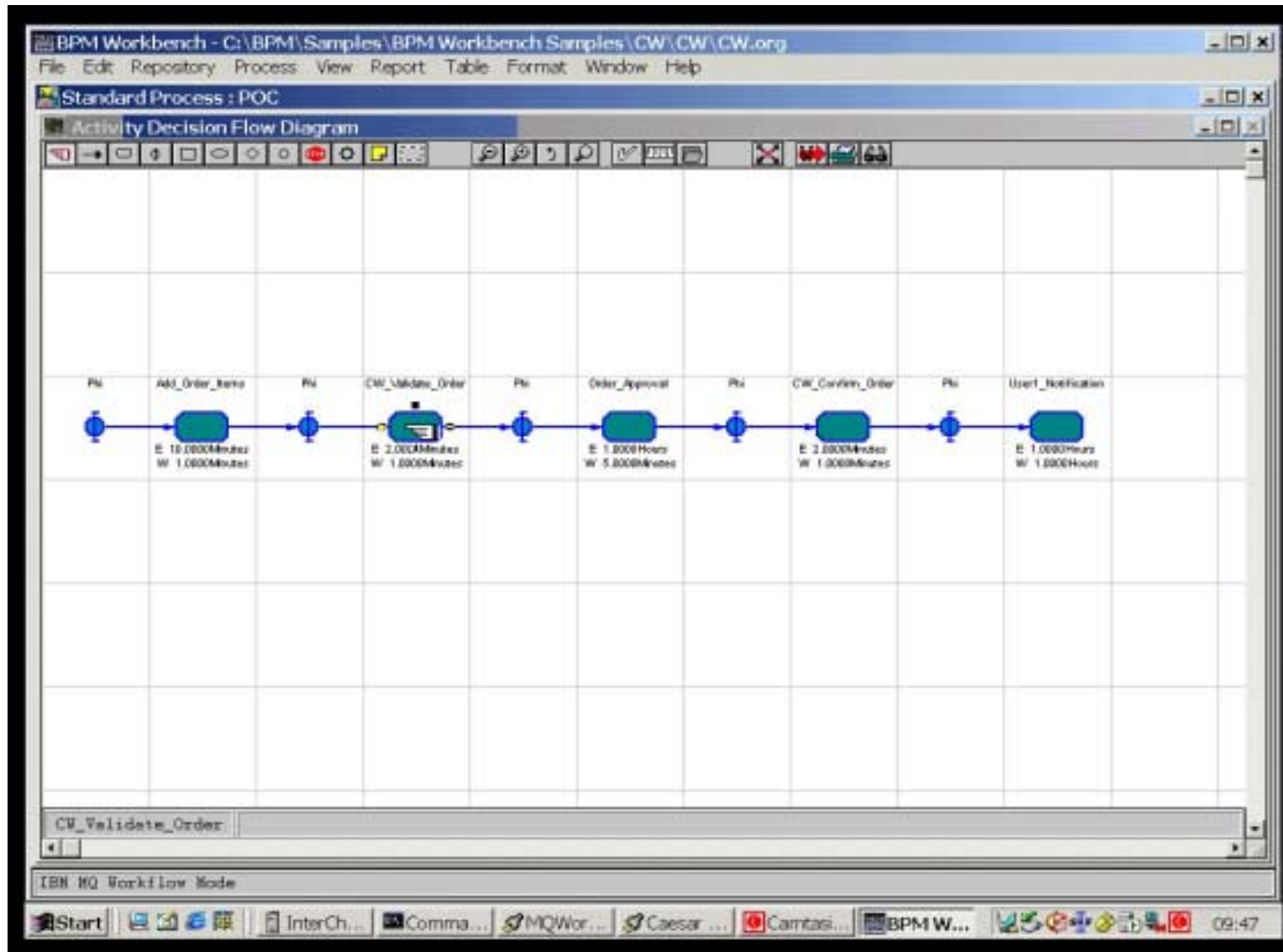
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# 1. HOLOSOFX BPM Workbench – Business process modelling



Model complete business processes using HOLOSOFX BPM Workbench

Order process:

1. Manually enter order data
2. Automated order validation data thru backend system
3. Manually approve order
4. Automated confirm order in backend system
5. Notify order requester

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## 2. HOLOSOFX BPM Workbench – Assign business process metrics (cost, duration)

The screenshot displays the IBM BPM Workbench interface. The main window shows a process diagram with two activities: 'CW\_Confirm\_Order' and 'User1\_MarkCase'. The 'CW\_Confirm\_Order' activity is configured with a standard cost of € 2,000/Minute and a work duration of W 1,800/Minute. The 'User1\_MarkCase' activity is configured with a standard cost of € 1,000/Hours and a work duration of W 1,000/Hours. A 'Repository: Roles' dialog box is open, showing configuration options for the 'Approver' role, including standard cost, overtime cost, per unit cost, and currency (U.S. Dollar). The dialog box also includes a role list with 'Approver', 'Crossroads', and 'Registrar' roles.

- Assign business metrics information, like cost and duration information for specific process steps
- Run simulation to understand business process execution behavior, change resource allocations to see changing in process cost and execution duration
- Use simulation to show ROI of new process BEFORE taking the process in production
- Import process model in MQSeries Workflow for automation

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# 3. MQSeries Workflow WebClient – Human user worklist for manual steps

The screenshot shows a web browser window titled "Work Items of user1 - Microsoft Internet Explorer". The address bar shows "http://localhost/MQWClient-FMC1/servlet/Main". The page content includes a navigation bar with "Select a View", "Refresh", "Help", and "Logout" buttons. Below this, the text "Work Items of user1 (13)" is displayed. The main content is a table with the following columns: Action, State Name, Description, Process Instance, Owner, and Received. The table contains 13 rows of work items, each with a set of icons in the Action column and a blue bar in the State Name column. The Process Instance column shows various alphanumeric strings, and the Owner column lists users like ADMIN, BRIAN, FMC, STUDENT, USER1, and USER2. The Received column shows dates and times from 15.01.2002 11:38:20 to 15.01.2002 11:40:17.

Action	State Name	Description	Process Instance	Owner	Received
[Icons]	Add_Order_Items	[Icon]	POCSAAAAAGBAwB0AAAAAAAAAAAAA==	ADMIN	15.01.2002 11:38:20
[Icons]	Add_Order_Items	[Icon]	POCSAAAAAGBAwBUAAAAAAAAAAAAA==	ADMIN	15.01.2002 11:38:15
[Icons]	Order_Approval	[Icon]	POCSAAAAAGBAwADAAAAAAAAAAAAA==	ADMIN	15.01.2002 11:40:17
[Icons]	Add_Order_Items	[Icon]	POCSAAAAAGBAwB0AAAAAAAAAAAAA==	BRIAN	15.01.2002 11:38:20
[Icons]	Add_Order_Items	[Icon]	POCSAAAAAGBAwBUAAAAAAAAAAAAA==	BRIAN	15.01.2002 11:38:15
[Icons]	Add_Order_Items	[Icon]	POCSAAAAAGBAwB0AAAAAAAAAAAAA==	FMC	15.01.2002 11:38:20
[Icons]	Add_Order_Items	[Icon]	POCSAAAAAGBAwBUAAAAAAAAAAAAA==	FMC	15.01.2002 11:38:15
[Icons]	Add_Order_Items	[Icon]	POCSAAAAAGBAwB0AAAAAAAAAAAAA==	STUDENT	15.01.2002 11:38:20
[Icons]	Add_Order_Items	[Icon]	POCSAAAAAGBAwBUAAAAAAAAAAAAA==	STUDENT	15.01.2002 11:38:15
[Icons]	Add_Order_Items	[Icon]	POCSAAAAAGBAwB0AAAAAAAAAAAAA==	USER1	15.01.2002 11:38:20
[Icons]	Add_Order_Items	[Icon]	POCSAAAAAGBAwBUAAAAAAAAAAAAA==	USER1	15.01.2002 11:38:15
[Icons]	Add_Order_Items	[Icon]	POCSAAAAAGBAwB0AAAAAAAAAAAAA==	USER2	15.01.2002 11:38:20
[Icons]	Add_Order_Items	[Icon]	POCSAAAAAGBAwBUAAAAAAAAAAAAA==	USER2	15.01.2002 11:38:15

- Logon to MQSeries Workflow runtime client (ultra-thin WebClient)
- Start workitems (manual process steps) to enter prompted data (here: order data that is required to perform the order)

# 4. MQSeries Workflow – Enter order using JSP front-ends

http://localhost/MQWFCClient-FMC1/servlet/Main?command=checkOutWorkItem&id=VwAAAAEAQMfAAAAAABX&startAllowed=true

File Edit View Favorites Tools Help

Back Search Favorites History

Address http://localhost/MQWFCClient-FMC1/servlet/Main?command=checkOutWorkItem&id=VwAAAAEAQMfAAAAAABX&startAllowed=true Go Links

Now please provide the following information

Your Customer Id: 25  
and Name: Morley

List below the items you wish to order

First item	hightechwidget
Quantity	100
Itemid	1
ProductNumber	11-1001
Second item	hitechattachment
Quantity	200
Itemid	2
ProductNumber	11-1002

and enter the Order Number and Date below

OrderNumber: ABC123    OrderDate: 14/1/2002

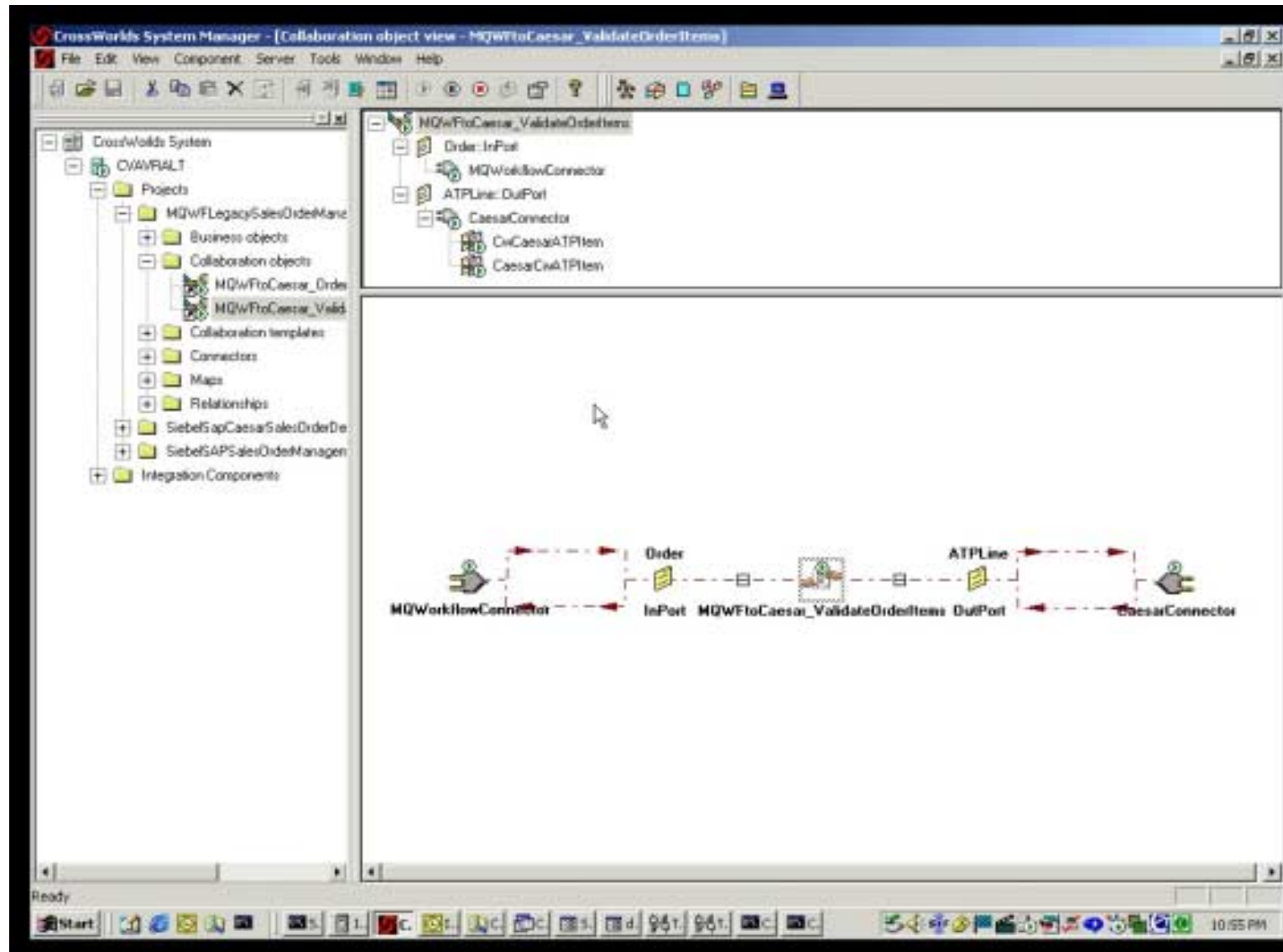
Process Order    Cancel

Done    Local intranet

Start    Inter...    MQW...    Caes...    Camt...    BPM...    Work...    http:...    13:02

- Complete order form with required data
- Click 'Process Order' button to complete process step
- MQSeries Workflow process engine navigates thru process model and starts next step, which is invoking CrossWorlds to perform automated backend integration to validate order

# 5. Cross Worlds collaboration – Integrate backend applications



- CrossWorlds performs pre-defined collaboration flow to validate order
- Order data is passed from MQSeries Workflow to CrossWorlds exploiting CrossWorlds MQSeries Workflow Connector
- CrossWorlds integrates backend application and finally returns if order fine or not



# 6. HOLOSOFX BPM Workflow Dashboard

## – Monitor running business processes

Workflow Dashboard - Microsoft Internet Explorer

Address: http://localhost/monitor/jobtracker/jobtracker.jsp?tz=-480

HOLOSOFX BPM Monitor

Workflow Dashboard | Business Dashboard | Notification | Help

Views: [ ] [X] [ ] [ ] Save as Default

Select Business Measures Set Filter Process: POC Process Diagram

1-3 of 3 Jump to # [ ] Go

Activity Instance	Admin Action	PI Diagram	STATE	STARTING TIME	ELAPSED DURATION	WORKING DURATION	IS DELAYED	COST	OrderNumber	Customer Name	Customer ID	CW Cost
[ ]	[ ]	[ ]	running	2002-01-15 11:15 AM	1.77 h	1.88 m	[ ]	\$2.31		Simpson	25	\$0
[ ]	[ ]	[ ]	running	2002-01-15 11:38 AM	1.4 h	---	[ ]	\$0				\$0
[ ]	[ ]	[ ]	running	2002-01-15 11:38 AM	1.4 h	50.00 s	[ ]	\$1.11				\$0

Done Local intranet

Start [ ] Inter... [ ] MQW... [ ] Coes... [ ] Camt... [ ] EPM... [ ] Wor... [ ] http:/... 13:02

- HOLOSOFX BPM Workflow Dashboards shows current state of order process that is executed by MQSeries Workflow
- Workflow Dashboards shows process cost and execution duration info on process instance as well as single process step level
- As well customer date (like Customer\_Name etc) can be shown in the dashboard

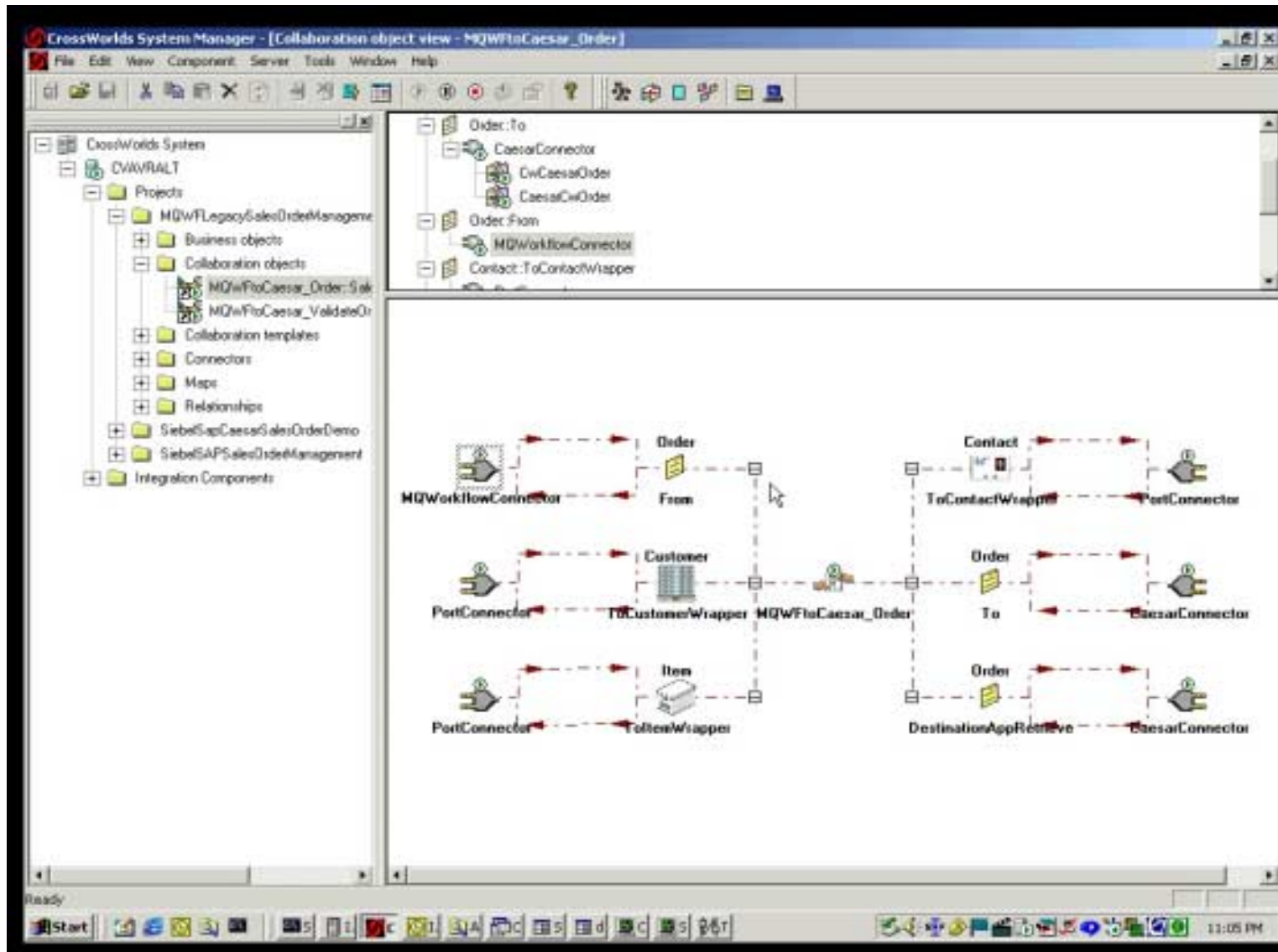
# 7. HOLOSOFX BPM Workflow Dashboard

## – Monitor ongoing process execution

Activity Instance	Admin Action	PI Diagram	STATE	STARTING TIME	ELAPSED DURATION	WORKING DURATION	IS DELAYED	COST	OrderNumber	Customer Name	Customer ID	CW_Cost
			running	2002-01-15 11:15 AM	1.8 h	1.88 m	●	\$2.31		Simpson	25	\$0
			running	2002-01-15 11:38 AM	1.42 h	---	●	\$0				\$0
			running	2002-01-15 11:38 AM	1.42 h	1.62 m	●	\$1.9	ABC123	Morley	25	\$0

- The longer the business process needs for completion, the more costly the process will get
- Check here the columns ,working duration‘ and ,Cost‘: As time increases from 50 seconds to 1.62 minutes, costs increase as well from \$1.11 to \$1.90
- The workflow dashboard delivers instant insights in current process costs

# 8. Cross Worlds collaboration – Integrate backend applications



After manual approval has been performed (again using MQSeries Workflow WebClient worklists and a JSP panel to confirm approval), MQSeries Workflow launches next CrossWorlds collaboration to file the order in another backend system, again exploiting CrossWorlds MQSeries Workflow Connector. When CrossWorlds returns defined return code, MQSeries Workflow navigates to next process step to complete the process.



# 9. HOLOSOFX BPM Business Dashboard – Analyse completed business processes

Business Monitor - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://localhost/monitor/bmonitor/bmonitor.jsp

HOLOSOFX BPM Monitor

Business Dashboard

Views

Analysis Type: Basic Analysis

Business Measures

Average elapsed duration

Average working duration

Average cost

CW\_Cost

Report Type: Table

Period: From 1/14/2002 To 1/15/2002 Daily

Preview in separate window  Preview

Save As Default  Save View

Export as CSV

Date	Average cost
01-14-2002	\$73.58
01-15-2002	\$2.70
Average	\$38.14
Std Dev.	\$35.44

selecting Procurement

Local intranet

Start Inter... MQW... Coes... Camt... BPM... Busi... Work... 13:09

HOLOSOFX BPM Business Dashboard allows to run different aggregated business analyses for completed business processes

Business Dashboard uses the MQSeries Workflow (runtime) audit trail data and the business metrics data defined in the HOLOSOFX BPM Workbench to show trends of average costs, average cycle times etc

Various analysis for various business measures are available

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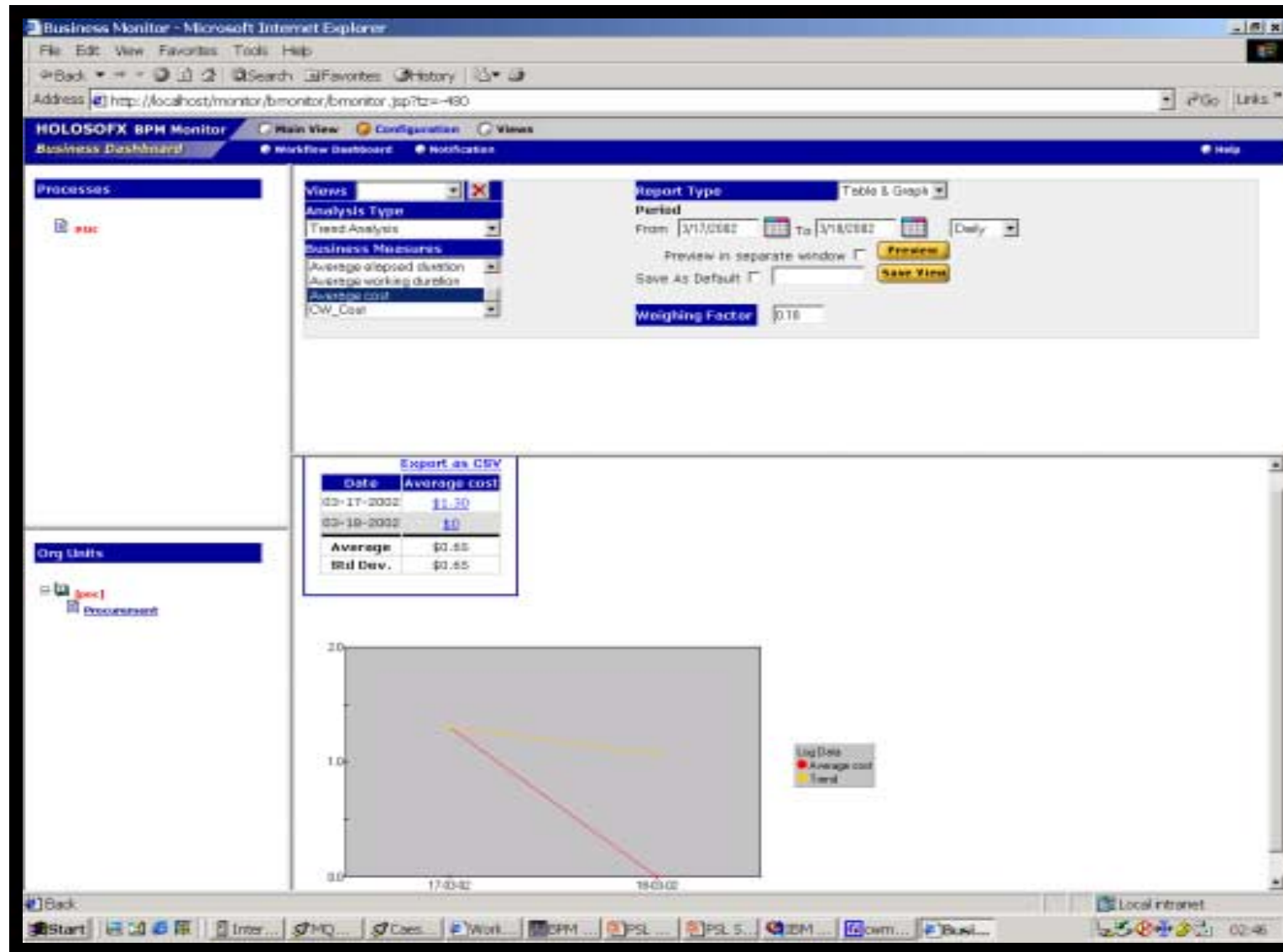
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# 10. HOLOSOFX BPM Business Dashboard

## – Use graphs to see the trends



HOLOSOFX BPM Business Dashboard allows to run different aggregated business analyses for completed business processes

Business Dashboard uses the MQSeries Workflow (runtime) audit trail data and the business metrics data defined in the HOLOSOFX BPM Workbench to show trends of average costs, average cycle times etc

Business Dashboard as well can show graphs (shown here is the trend analysis)

# 11. HOLOSOFX BPM Business Dashboard

## – Analyse single completed business process

The screenshot displays the HOLOSOFX BPM Business Dashboard. The interface includes a navigation menu with 'Main View', 'Configuration', and 'Views'. The 'Business Dashboard' is selected, showing a 'Process \*POC\*' and a 'Process Diagram' link. The dashboard features a 'Views' section with 'Analysis Type' (Basic Analysis), 'Business Measures' (Average elapsed duration, Average working duration, Average cost, CW\_Cost), and 'Report Type' (Table). The 'Period' is set from 1/14/2002 to 1/15/2002. A table of process instances is shown below, with columns for Activity Instance, PI Diagram, STATE, STARTING TIME, ELAPSED DURATION, WORKING DURATION, IS DELAYED, COST, OrderNumber, and Customer Name. The table contains four rows of completed process instances.

Activity Instance	PI Diagram	STATE	STARTING TIME	ELAPSED DURATION	WORKING DURATION	IS DELAYED	COST	OrderNumber	Customer Name
		completed	2002-01-15 11:03 AM	3.25 m	2.55 m	●	\$2.49	as12222	morley
		completed	2002-01-14 01:20 PM	8.2 m	5.17 m	●	\$6.89		KJKAKSJ
		completed	2002-01-14 01:06 PM	13.13 m	6.13 m	●	\$8.18		morley
		completed	2002-01-14 12:54 PM	8.3 m	5.58 m	●	\$7.44		simpson

- HOLOSOFX BPM Business Dashboard shows full data of:
  - Aggregated business metrics data of processes in selectable time periods
  - Full process execution data on process level
  - Full process execution data on process step level

Business Dashboard analyses complete business process repository to check ROI, and allows to improve processes based on real execution data

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# 12. HOLOSOFX BPM Business Dashboard

## – Dig deeper into activity level

The screenshot displays the HOLOSOFX BPM Business Dashboard interface. The top navigation bar includes 'Main View', 'Configuration', and 'Views'. The left sidebar shows 'Processes' and 'Org Units'. The main content area features a 'Views' dropdown menu, a 'Report Type' dropdown set to 'Table & Graph', and a 'Period' selection with dates from 3/17/2002 to 3/18/2002. Below these are buttons for 'Preview', 'Save as Default', and 'Weighing Factor' set to 'GTE'. The central part of the dashboard is an 'Activity Instance Table' with columns for Activity Name, State, User, Creation Time, Starting Time, Completion Time, Elapsed Duration, and Working Duration. The table contains five rows of data for various activities like 'Add\_Order\_Items', 'CW\_Validate\_Order', 'Order\_Approval', 'CW\_Confirm\_Order', and 'User1\_Notification'. A 'Back' button is located at the bottom right of the table.

Activity Name	State	User	Creation Time	Starting Time	Completion Time	Elapsed Duration	Working Duration
Add_Order_Items	completed	(USER2), (FMC), (BRIAN), (ADMIN), (USER1), (STUDENT)	2002-03-17 04:31 AM	2002-03-17 04:32 AM	2002-03-17 04:33 AM	41.92 s	41.92 s
CW_Validate_Order	completed	(FMC)	2002-03-17 04:33 AM	2002-03-17 04:33 AM	2002-03-17 04:33 AM	4.92 s	4.92 s
Order_Approval	completed	(ADMIN)	2002-03-17 04:33 AM	2002-03-17 04:35 AM	2002-03-17 04:35 AM	4.92 s	4.92 s
CW_Confirm_Order	completed	(FMC)	2002-03-17 04:35 AM	2002-03-17 04:35 AM	2002-03-17 04:35 AM	11.92 s	11.92 s
User1_Notification	completed	(ADMIN)	2002-03-17 04:35 AM	2002-03-17 04:35 AM	2002-03-17 04:35 AM	2.92 s	2.92 s

HOLOSOFX BPM Business Dashboard digs even deeper and shows you:

1. Business relevant information on process activity level
2. Filter what information should be shown can be customized

Business Dashboard shows you business metrics information on activity level for every single business process in the selected time period - a huge repository to understand how your business did!

# Crossworlds, MQSeries Workflow and HOLOSOFX BPM Suite - **UNIQUE**

- CrossWorlds, MQSeries Workflow & HOLOSOFX is an integrated solution available today for business process integration/management - NO COMPETITION, **UNIQUE** in 2002
- Use MQSeries Workflow for
  - ✓ support for interruptable processes including people (web clients)
  - ✓ powerful concepts to integrate automated process steps (PES, UPES)
  - ✓ advanced capabilities for business analysis (audit trail, monitoring)
  - ✓ high scalability (clustering, zOS)
  - ✓ native on zOS (OS390)
  - ✓ rapid deployment wizard
- Add CrossWorlds for back-end integration, leading with Process Automation and out-of-the box adapters
- HOLOSOFX Workbench and Dashboards to visualize process impact and RoI: Modelling and simulation for LoB as well as real-time visibility into business

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# Thank You!

For more information on BPM, visit  
[ibm.com/websphere/bpm](http://ibm.com/websphere/bpm)

Visit us at the MQSeries Workflow homepage  
<http://www.software.ibm.com/ts/mqseries/workflow>



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