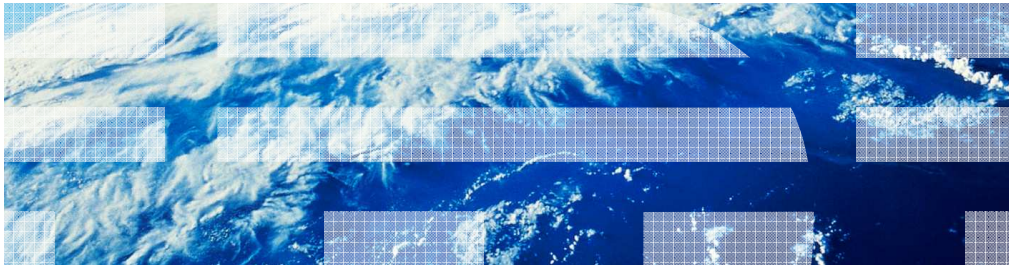IBM

Business Process Management
IBM Business Process Manager V8.0

Introduction to coaches

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With IBM Business Process Manager, user interfaces are created using the coach designer.

Coaches are web based, task interfaces for the end-users to interact with services.

To fully empower the business process authors to develop sophisticated human interactive applications, BPM version 8.0 provides a newly redesigned coach framework. This presentation introduces you to the new coach features available with IBM BPM V8.0.

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- Coach overview:
  - Heritage coach and coach
- Reusable coach views
  - Stock
  - Custom
- Coach designer
- Common coach development approaches
  - Start from a user interface mockup
 - Use activity wizard

The session begins with an overview of the coach concept in IBM Business Process Manager. There are two types of human service coaches, heritage coach and coach. The latter coach framework is a new design in version 8.0. It addresses some major limitations of the heritage coach.

You are first introduced to a new library item called the coach view. It is a key component in the new coach framework. By default BPM provides a set of stock coach views in the Coaches toolkit. You can also write your own custom views for specific functions. Both of them are discussed with examples. You will see how the coach designer is used to construct the user-interfaces for a human service using coach views.
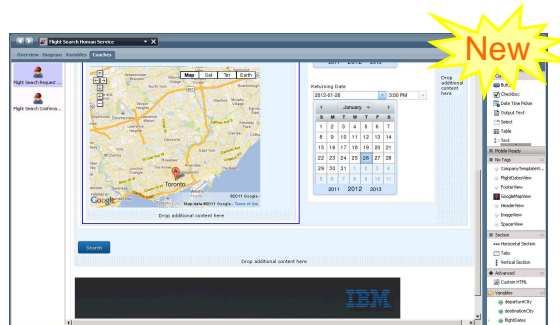
This presentation concludes with a brief discussion of two common approaches for developing coaches using the new coach framework.

Coaches

- Heritage coach (Available before BPM version 8.0)
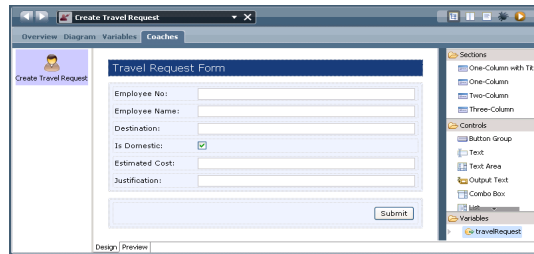
- Coach
  - New in version 8.0
  - **Reusable and share**
  - Client side model
  - Web 2.0 support
  - Third party integration
  - Collaboration

New

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A coach is an element in the human service editor in Process Designer. In IBM BPM version 8.0, there are two kinds of coaches: Heritage coach and coach.

Heritage coach is available in IBM BPM before version 8.0. There are some limitations of heritage coaches. They are difficult to reuse within or across business applications; and secondly the generated HTML is difficult to customize directly to achieve the required behaviors.

The new coach framework addresses these major concerns of the heritage coaches. The primary difference between them is that the new coach design is a composition of one or more coach views. The coach view is a library item and is available to use from the coach designer palette. The coach views can be shared between coaches and other views. In the lower screen capture, the map and the calendar are examples of reusable coach views.

Another key difference is the client-side model. With this flexible model, the technical web developers can easily create coach forms with more web 2.0 style interactions. They can also easily integrate the application with other widgets and frameworks, such as jQuery, Yahoo User Interface. It provides native Ajax support as well.

In addition, the new coach also supports the collaboration feature in the new Process Portal, while the heritage coach doesn't. With the collaboration feature, more than one person can work on the same coach form in the Process Portal at the same time. Each person can see the work of the other in their own browser, in real time.

Heritage coaches support

- BPM Version 8.0 Process Designer retains the existing heritage coach.

- No migration from heritage coach to coach

- Support mixed heritage coaches and coaches in the same human service

Different icons and positions on Palette
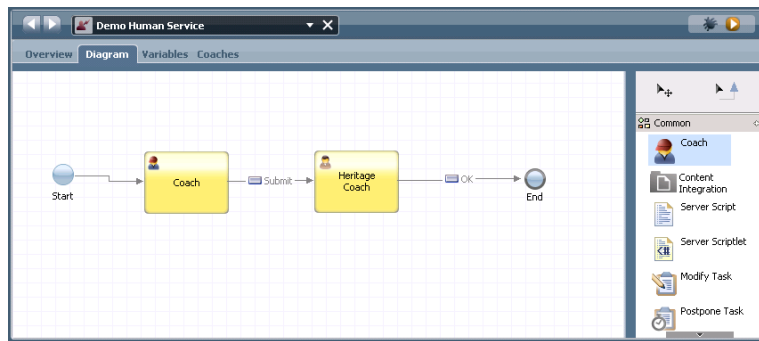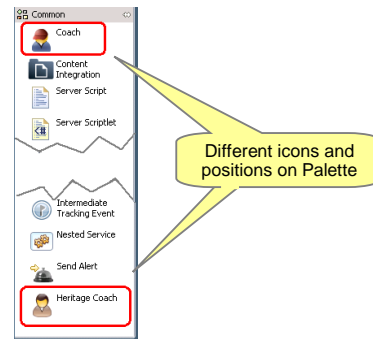
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Shown here is a screen capture of a Human Service flow. In the palette, both types of coaches are available. In order to encourage you to implement human services using the new coach, the Coach icon is placed on the top of the palette and the Heritage Coach icon is moved to the bottom.

In the Process Designer, if you open a human service that was developed from a previous BPM release, the editor is opened with the heritage coach designer. There is no migration from the existing Heritage Coach to the new Coach style. The heritage coaches are fully compatible with version 8.0.

BPM version 8.0 also supports mixed types of coaches in the same human service, so that you can add new coaches into an existing human service implementation.

Note; if you have both heritage coaches and coaches in the same human service, you cannot take advantage of the collaboration feature. The collaboration feature works only when you have all new coaches running in a human service.

Coach view

- Reusable user interface element
- A library asset under User Interface category in a toolkit or a process application
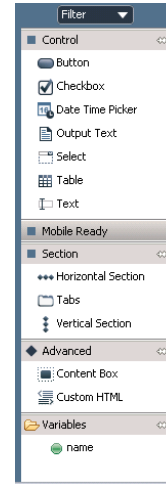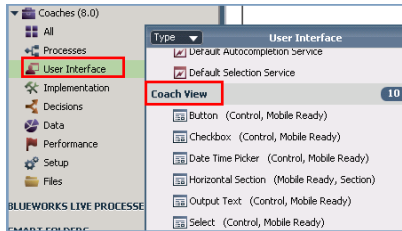
- Stock views
  - Provided by BPM and available in Coaches toolkit
  - Mobile device ready
- Custom views
  - Created by yourself, or provided other toolkits or solutions

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The Coach View is a key concept in the new Coach framework. Coach Views are reusable sets of user interface elements. They are the basic building blocks for constructing the human service coach forms. You can find them under the "User Interface" category in a toolkit or a process application.

Stock coach views are provided with BPM V8.0. You can use the stock views as they are provided, or create your own custom views and add them to your toolkit to be used by others.

The stock views are provided within the Coaches toolkit, for example, Button and Text. It provides a set of basic controls and section views for the layout purpose. They are available on the coach designer palette. In addition, all the stock views can be viewed in a mobile device.

In version 8.0, the Safari browser on the Apple iPad is also supported.

With all the stock and customized views available in the coach designer palette, you can compose the human service coaches for your business process application easily and quickly.

Different types of coach views

- Simple view without data binding
  - label, image, template…

- View bound with a business data
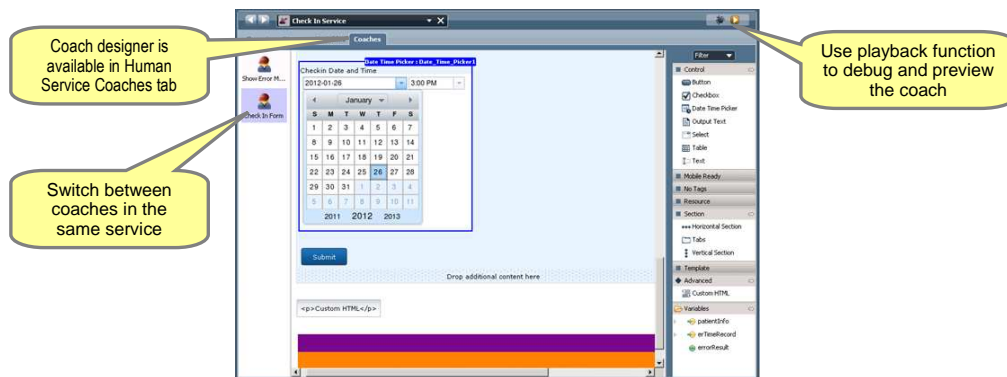 - simple or complex type
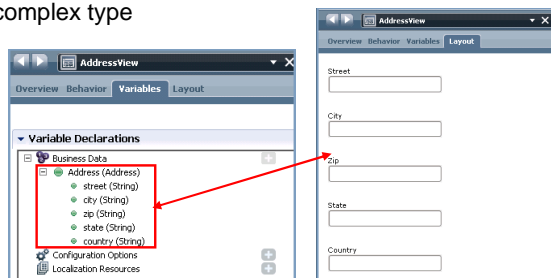
There are two basic kinds of coach views.

A simple view is the one that is not bound to a data object. For example, a view to represent a label, an image, or a template for a consistent look-and-feel.

Generally a coach view is associated with business data. Coach views that are bound to data are how the end-user can input data into the business process and read information from it. The screen capture in the lower part of the slide shows the user-interface representation of a complex data object, an address business object and the form for reading and entering the values.

Different from the coach view, a coach is a full html page which is displayed in a stand-alone browser or an iFrame. You construct a coach using the Coach designer.

The Coach designer is in the Coaches tab in Human Service editor. On the left side of the human service Coaches page, you can switch between multiple coaches that are defined in the same human service. On the right side, the palette contains all of the stock views, custom views, advanced custom HTML items, and service variables. You can drag the appropriate views onto the canvas, bind it with a service data if applicable, and set its properties. For example, you can add a Date Time Picker stock view and bind it with a Date type variable. In its property configuration, set it to show the date in both text format and calendar format.

You can preview the coach layout and interact with the coach using the human service playback feature. By clicking the Debug or Run button on the top right corner of the toolbar, the coach is displayed in the default system browser. When you click the Debug button, you can examine the coach further. You can inspect the incoming and outgoing data, and step through the actions.
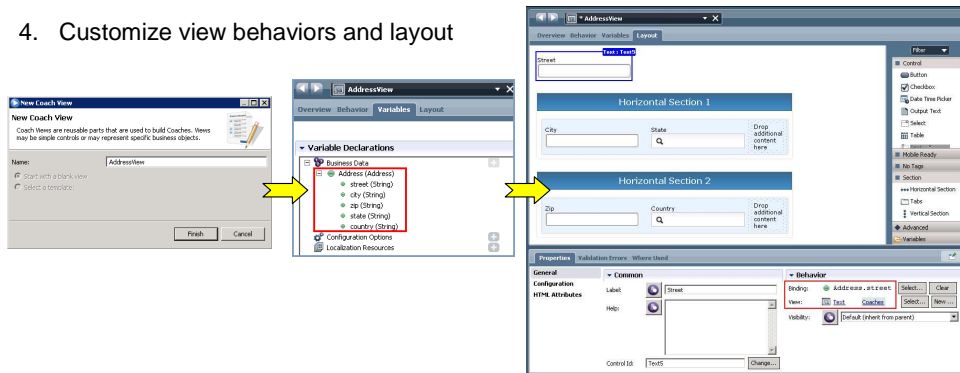
Coach development -- start from a graphical user interface mockup

- Typical approach

1. Identify the custom coach views from a mock up design

2. Create the business objects
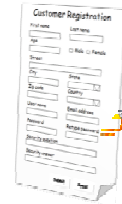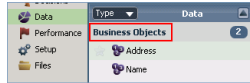
3. Create coach view and bind it with the business data if applicable

4. Customize view behaviors and layout

Building a coach is an iterative process in which you continually refine the coach as you build it.

There are many ways you can complete building the coaches in a human service, depending on your application development procedures. Shown here is a typical approach used when starting the development of a new business process application.

At the first stage, you start with a mockup design of the graphical user interface. From the visual look of the mockup, you identify the user-interface elements needed in the coach and which of them are common with other coaches.

Then using the Process Designer, you create the required business objects. Next you create the coach views that correspond to the reusable user-interface components found during the first stage.

In the coach view editor, you can further customize the view's behaviors, set its usage, and work on the layout.

Coach development – start from a mockup (continued)

5. Create a human service, add service variables, and add a coach element in the flow
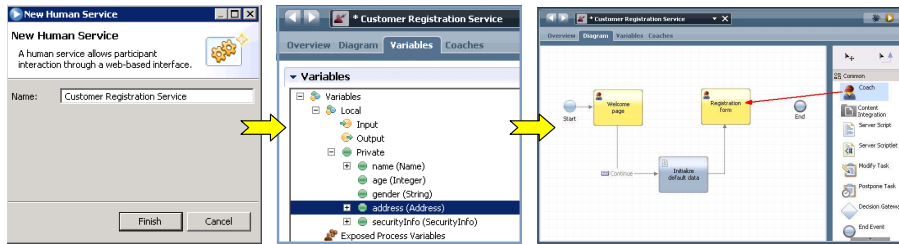
6. Add existing implemented views to the coach and bind the service data
7. Test the coach using human service playback

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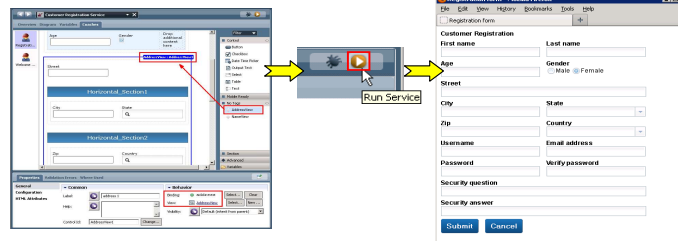
Once the coach views are implemented, it's time to assemble them into the coach form.

First you create a human service. Then you add the required business data to the service variables list.

On the service diagram page, drag a coach element from the palette onto the canvas and connect it in the flow.
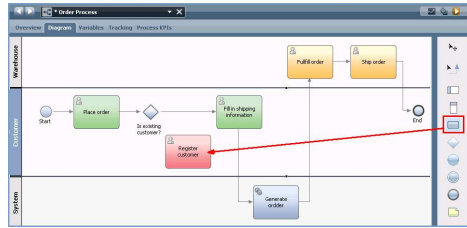
Once you have created the Coach View, you can use it in the Coach designer. The implemented Coach Views are available on the palette of the Coach designer. You then drag the view element from the palette onto the canvas and bind the service data in the properties setting.

At this point you can preview and test the coach using the human service playback function by clicking the "Run Service" button.
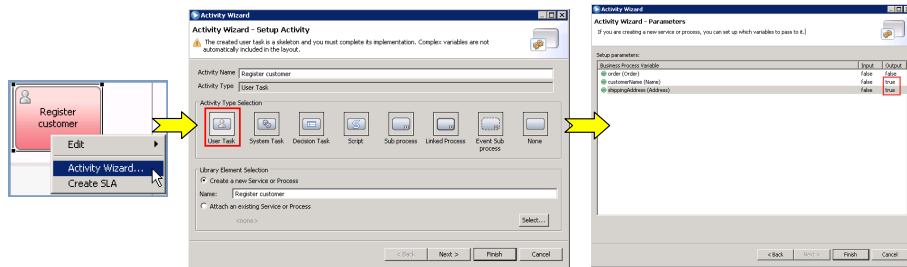
Sometimes the requirement is to add additional user tasks into an existing business process application. In this case the process data and some of the coach views have already been defined.

The development process starts with a business process definition diagram.

You add an activity to the process, right-mouse click the activity, and select the Activity Wizard… option from the popup menu.
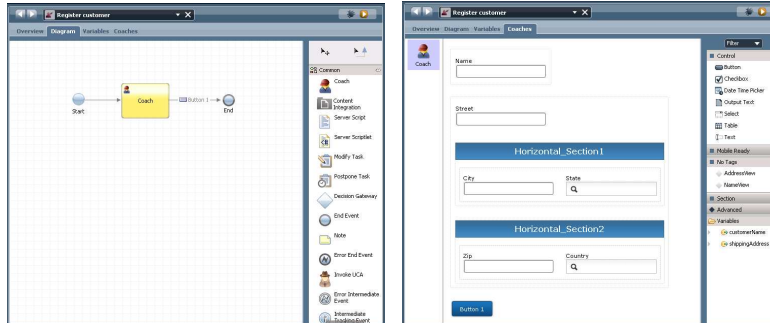
On the first page of the wizard, make sure the User Task activity type is selected.

On the second page, set the required input and output parameters.

After clicking the Finish button, a human service is created and associated with the activity.

Coach development – use Activity Wizard (continued)

3. Generate a default coach in the associated human service

4. Test the coach using human service playback

5. Continue customizing the coach views inside the coach

Introduction to coaches

In the generated human service, there is a default coach. The coach is generated with coach views that are corresponding to the selected service data.

If the data is a simple type, the matching stock view is generated. For example, a Text view for a String data, or a Checkbox for Boolean data.

If it is a complex data type and an associated view exists, the view is automatically generated with the matching view.

If there is no existing view matching the complex data type, a placeholder message is added in the coach. It reminds you to construct a new view to replace the message for the complex data.

Since the coach is available, test the coach using the playback feature of the human service editor.

You can then continue customizing the coach and its views using an iterative development process.

Summary

- Heritage coach and coach are available

- Benefits of using the new coach
  Reusable, client side model, Web 2.0, third-party integration, and collaboration…

- Coach view
  – Stock views provided with IBM Business Process Manager
  – Custom views
    • Simple and data-bound view

- Coach designer at a glance

- Two common coach development approaches
  – Start from a user interface mockup
  – Start from a business process definition

Introduction to coaches

In this session, you were first presented the overview of the two available coaches, Heritage Coach and Coach. You learned the major differences between them, and the benefits of using the new Coach.

Then a new library item called Coach View was introduced, which enables the important reusability design feature. The stock views, which contain basic controls and layout sections, are provided by BPM in the Coaches toolkit. The custom views are those you develop yourself. Coach views with and without data binding were discussed with examples.

Next you were introduced to the new Coach designer which is the tool you use to construct the human service coaches. You also learned about the human service playback feature which is used to preview and debug the coach.

Two common coach development approaches were presented. New development starting from a user interface mockup and incremental development of existing business process definitions.

Both approaches can be easily adapted to your own application development procedures.

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