Access IBM BPM from anywhere: phone, tablet or desktop, Part 1: Explore the mobile Process Portal for process participants

John Alcorn
Thalia Hooker
November 04, 2016

Process participants can use the responsive IBM Business Process Manager (BPM) Process Portal to work on process tasks, access dashboards from mobile devices and update user profiles with selfies taken from a phone. Learn how to test these mobile user interfaces and also create, use and share saved searches. Filter, sort and build custom task lists.

View more content in this series

Sometimes critical business tasks can't wait until you are back in the office. You need to approve that high-value request even if you are out to lunch or on the golf course. Learn how Process Portal in IBM Business Process Manager (BPM) can run directly on mobile devices so process participants can take action on the go. The completely rewritten Process Portal uses responsive user interface (UI) technologies like HTML5, AngularJS, Bootstrap CSS, and LESS templates, so that it looks and runs great whether on a phone, a tablet, a laptop, or a giant monitor.

Part 1 of this series covers process tasks, including accessing dashboards and updating a user profile with a selfie from a phone. Walk through and test the steps that your process participants can complete on a phone or tablet. In Part 2 of this series, learn how to update the look and feel of the user interfaces for your process participants: update the style of user interfaces for coaches, and create themes for your process application.

Part 1 walks through the following task scenarios for process participants who access Process Portal on mobile devices:

- Logging in to Process Portal.
- Working with task lists and process details, including starting a task.
- Using dashboards, opening lists, and using social capabilities
- Managing a profile.
- Creating and using saved searches.
- Filtering, sorting, and customizing a task list.

Try IBM BPM on Cloud for free
Log in to the Process Portal

Most screen capture examples in Part 1 are from a Process Portal on an iPhone 6. Most screen capture examples in Part 2 are from a MacBook running macOS.

   If you are using IBM BPM on Cloud, you first must log in to IBM BPM on Cloud: https://www.bpm.ibmcloud.com/#login
2. Select your subscription, if you have more than one.
3. Open the Process Portal development environment: https://your_hostname/bpm/dev/ProcessPortal (if you are using IBM BPM on Cloud) or https://your_hostname:9443/ProcessPortal/ (if you are using IBM BPM on premises).
   To match the examples in Part 1, enter the address in the web browser of your mobile device. You can also use your desktop or laptop, but some images might not match or not apply to desktop or laptops, such as taking a selfie or rotating the screen.

The default landing page for IBM BPM opens. Congratulations! You have just logged into the IBM BPM on Cloud environment from your preferred device.

The number of tasks displayed might look slightly different than the following screen capture, depending on the number of running tasks and processes in your environment. If you do not see similar tasks, start an instance for each of the following three processes: Advanced HR Open New Position, ReplenishmentBPD, and Standard HR Open New Position.

Now try rotating your device from portrait to landscape. As you'd expect of a mobile app, it adjusts accordingly – a true responsive app, as shown in the following screen capture:
Welcome to the Process Portal in a mobile environment. Also note that you can use the Process Portal with Process Federation Server, which makes all of the processes, tasks, and dashboards across all federated environments available through a single portal. See Getting started with Process Federation Server in the IBM BPM documentation.

**Work with task lists, process details and start a task**

In this section, you learn how to work with tasks from a mobile device. For example, you can start the coach for a task, view values of its exposed variables, edit its details, and see its process diagram.

**The default saved search**

As you saw in the previous section, when process participants first log in, they see the list of assigned tasks. This is actually a pre-defined dashboard (named **Work**) that displays the following human tasks:

- Tasks you have claimed
- Tasks assigned to you, waiting for you to claim them
- Tasks assigned to a team to which you belong

By default, the lists shows only active tasks. A later section shows how build search criteria to show other lists, such as completed tasks.

**Get task details**

Look at the details for a specific task. As shown in the previous example, tap the page icon to the left of the task name to open the task details (not the task name itself, which is a hyperlink that opens the coach). If you don't have a task by that name in your environment, you can examine any open task in your environment, or start a new process that has at least one task.

As you can see in the following screen capture, the business data for this task is displayed, such as the names of the Department and the Hiring Manager, and there are several action buttons:
The variables shown were marked as **Visible in Process Portal** when the process was created in IBM BPM. Some variables might be blank if the process has not yet reached the activity where the variables are set.

### Modify a task

Now, try out some of the available actions that process participants can take with the selected task. Tap the **Modify Task** button shown in the previous screen capture.

You see that you can reassign the task, either to a specific user or back to the team, as shown in the following screen capture. You also can adjust the Due Date and the Priority for a task.

To change the Due Date, tap the **Due-Date** list, and you should see your device's native interface for selecting dates. On iOS, you see the standard scrollable 3D cylinder of dates, as shown in the following screen capture:
Next, change the task's priority, from Medium to High. Tap the **Priority** list, and you should see your device's selection tool, such as the picker for an Apple device.

To make your changes take effect, tap **Save**.

### Modify process details

You can also modify the details of the overall process instance to which the task belongs. Tap **Modify Instance** in the task details, as shown in the following screen capture.

The only option you have to modify the instance is to either edit the due date for the overall process instance, or to disable the due date completely. Because each task has a due date, what
you see in the Modify Instance user interface is the date when the overall process instance is due. All tasks within that process must be done by then, for the process instance itself to be completed on time. As shown in the following screen capture, pick whatever date you prefer, then tap **Save**.

![Modify Instance Screen](image)

**View the process diagram**

Take a look at the diagram for the process instance associated with this task. From the task details user interface, tap **View Process Diagram**, as shown in the following screen capture.

![Task Details Screen](image)

The process diagram shows you where you currently are in the overall process flow (where you have been and where you are headed). Diagrams tend to be quite wide, so it is best viewed with
your device rotated to landscape mode. Even so, the diagram might be too wide to see all at once on a phone. You can pan around to see the different parts of the diagram, or you can adjust the zoom level in the top right.

Now exit from the diagram. To close any screen that you no longer want to view, tap the ellipsis that is under the task name, in the top middle of the task name bar. A menu opens, as shown in the following screen capture. Tap **Close** to return to the previous page.

Start a task

You viewed various metadata about the task instance and its associated process instance. Now start the coach for this task to see its user interface. In the task details, tap the task name to open the task completion user interface. The examples in this tutorial rely on the built-in coaches technology for task completion. However, the Process Portal also supports starting an external URL that is not based on a coach, if an external activity is configured for this task.

The example in the following screen capture shows the coach user interface that opens when you tap the **Submit Job Requisition** task from the Hiring Sample sample process application:
If the task is not already claimed, a window might open for you to claim the task. Go ahead and claim the task. Complete details for the coach user interface as you prefer. You can close the user interface by tapping the middle ellipsis under the task name and selecting **Close** from the menu. The menu also includes the option to put this coach into its own browser window, which is useful if you want to access the Process Portal again before you complete the coach.

**Use dashboards, the Launch list, and social capabilities**

In this section, you work with various dashboards and the **Launch** list. You also see some of the social capabilities of Process Portal on a mobile device.

**Dashboards and the Launch list**

So far, you worked with the middle pane of Process Portal on a mobile device. There are really three panes in Process Portal, but on smaller devices, the left and right panes are both hidden by default. If you are walking through this tutorial on a laptop, you probably saw the left pane, because it dynamically appears after the browser is wide enough (and disappears if you make the browser very narrow).

First, look at the dashboards list. On a narrow device, like most phones in portrait orientation, only mobile-ready options are displayed. Any heritage human services (like the Process Performance or Team Performance dashboards) are filtered out if the device or browser is too narrow. Client-side human services also are filtered out if the **Intended for multiple devices** check box is cleared when the human service is created. With some phones (such as iPhone 6), these options become available if the device is rotated to landscape orientation, because the calculation is based on screen width. Of course, any saved searches (including the default Work dashboard) are available, regardless of screen size.

Even if Process Portal hides the left or right panes due to screen width, you can manually slide out the left or right pane to use it. As shown in the following screen capture, tap the button with the
three horizontal lines in the top left to display the left pane. The pane shows the list of dashboards and saved searches, and the **Launch** list.

There are two lists available in the left pane. The first is the list of dashboards (both default dashboards available with IBM BPM and your own custom dashboard that you built). Saved searches are treated like dashboards, so every time you define a new saved search, it is available in the dashboards list. Upcoming steps in this tutorial deal further with saved searches, showing how you can build one yourself.

Feel free to try out any dashboards you see available. Note that some can take a few seconds to load. If your phone is vertical, the non-responsive dashboards such as Process Performance or Team Performance are hidden because they don't work well on small devices (see previous screen capture). If you turn your phone horizontally, the other dashboards are listed, as shown in the following screen capture:

The second list in the left pane is the **Launch** list, a list of processes where you can start a new process instance. If you are a member of the team to which the first human task in the started
process instance belongs, then Process Portal opens the coach, giving you the option to claim that task to work on.

Only the processes for which your user ID is authorized are available in the list. One user might see a totally different list than another, based on role-based access control.

Also, if you have any startable services (designated to enable members of the selected team to start the root client-side human service from the Launch area in Process Portal), these services also appear in the list. Basically, the left pane is a navigation pane, helping you select what you'd like to see in the main, middle pane.

You can start any process or startable service that appears in your list.

**Social capabilities**

As previously mentioned, there's a right pane that you haven't yet seen. Tap the button with the three vertical dots (essentially, a sideways ellipsis) in the top right. As shown in the following screen capture, the right pane is displayed, with available social interactions for collaborating with other members of your team. Note that in your environment, you might not have any mentions or any processes that you are following.

There are two lists available in this pane. The first is the list of process instances that you are following. Imagine a scenario where a particular instance of a process – such as the loan request from a key customer – is especially important. You can mark that process instance as one that you are following, and then you have easy access to it in this right pane, throughout the remainder of its lifecycle.

Underneath the list of process instances you are following, the second list shows the places in process instances where you are mentioned. Imagine a scenario where a member of your team
working on a task reaches a point where he or she needs help. Your team member can mention you in the activity stream for that task (accessed through the slide-out right pane when working in a task user interface). Then you see that request from the right pane of your Process Portal whenever you log in, visible for the remainder of the lifecycle of that process instance. If you happen to be logged in at the moment that you are mentioned, you also receive a notification window, so you have the opportunity to respond immediately.

**Manage your user profile**

To manage your user profile, you configure some of your user information such as job title, phone number, and email, you set your picture or avatar, and you set your preferences for confirmation and email notifications.

**User avatar**

You can personalize your experience in the Process Portal by updating your user profile. Tap **Edit Profile** from the left pane (above the Dashboards list). A window opens that shows your current avatar picture, as well as other information.

This window is blank for you at first. Tap **Change Avatar**, and you have a choice of where to get the new image, as shown in the following screen capture:

As you can see, I chose to take a selfie with my cat Aslan on my lap, although you can choose a picture from your photo library, or one from iCloud, if you have an Apple device. This window is device-specific. My example shows an iOS window. On a laptop, you just see a standard File open window to choose your image file.

**User settings**

In the user profile, you can modify several user settings. Your email address is one of the most important, so that the server can send you notifications (if requested). You can also set your
preferred language, and modify other locale-related settings, as shown in the following screen capture:

Scroll down to see additional user settings, such as which notifications you want to receive:

Scroll down one more time to see the bottom of the window, as shown in the following screen capture. After you are happy with your changes (including the avatar image), tap **Save**.
This concludes the mobile portion of this tutorial. The remaining examples are from an Apple MacBook Pro. Activities like running the Saved Search Editor and the Process Designer are best completed on a laptop, or maybe even a computer with a large monitor.

After you define and customize saved searches, you, and members of the groups you share the searches with, can run the searches from mobile devices.

**Create and use saved searches**

In the remainder of the tutorial, you create and share saved searches, mark a saved search as a favorite, filter and sort and customize a task list, and change between tabular and table displays. You also change the look and feel of user interfaces by creating a custom theme for your process app. Team leads or project leads who are building saved searches for their team to use typically complete these tasks.

The examples in this section are from a MacBook. These steps are intended to be completed on a laptop or a desktop computer with a large monitor. The searches that you build in this section can then be used by team members on mobile devices, laptops, or desktop computers.

Before you start working with saved searches, you complete setup tasks, including logging in to the Process Portal and creating some process instances so that you have data to display in your saved searches.

**Log in to the Process Portal from your desktop**

   If you are using IBM BPM on Cloud, you first must log in to IBM BPM on Cloud: `https://www.bpm.ibmcloud.com/#login`
2. Select your subscription, if you have more than one.
3. Open the Process Portal development environment: `https://your_hostname/bpm/dev/ProcessPortal` (if you are using IBM BPM on Cloud) or `https://your_hostname:9443/ProcessPortal/` (if you are using IBM BPM on premises).
Create process instances

To complete the remaining tasks in the tutorial, you must first create several process instances:

1. Start a new instance of **Advanced HR Open New Position** and claim the task, but do not complete it.
   b. Change the Hiring Manager value to your name and change the location to **Minneapolis**. Optionally, under Qualifications, select options for Education, Skills and Experience. Then click **Next**.
   c. After confirming the data, click **Submit**.
      In your Work dashboard, another task is displayed: **Approve / reject requisition**.
   d. Click **Step: Approve / reject requisition**. At Claim Task window, click **Claim Task**.
   e. Under **Step: Approve / reject requisition**, click the ellipses to open a menu. Click **Close** to close this task without completing the task.

2. Start a new instance of **ReplenishmentBPD** by completing the following steps:
   a. Click the search icon at the left of the **Launch** section and start typing **Replenishment**, as shown in the following screen capture:
   b. Click **ReplenishmentBPD** to start an instance. You should now have another task listed under Work. If the list doesn't refresh automatically, click **Work**.

3. Similar to the previous steps, start a new instance of **Standard HR Open New Position**. This task automatically opens. Close it without completing it. You should have a task list with at least three tasks, including this last task, as shown in the following screen capture.

Create, mark as favorite, and share saved searches

Now that there are some process instances in your task list, this section shows how to create saved searches that process participants can use for custom searches and share with teams that they are members of. Administrators also can create saved searches and share them with any
team. Process participants can marked a saved search as a favorite for easy access from the Dashboards list and set a default start page by moving a favorite saved search or dashboard to the top of the list.

To create a saved search, complete the following steps:

1. Next to **Dashboards**, click the down arrow and select **Create Saved Search**. The New Saved Search editor opens. Notice that you have Filter Criteria that you can add. Since this is a new search, no Filter Criteria have been added so far. Also notice that the task list items are displayed and dynamically refresh as you modify the saved search.

2. Click **add** to add a filter criteria.

3. The Filter Criteria window opens. Enter your user ID under Search, and then click **OK**. Notice that the task list refreshed and you should see at least the three tasks for the processes you started earlier:

4. Click **Save**, as shown in the previous screen capture.

5. Name the search **Free form search by name** and then click **Save**.

6. To access the saved search again, under **Dashboards**, click **Show more**, as shown in the following screen capture: The saved search should now appear in the list of dashboards. Alternatively, you can use the search feature of the dashboards to find that saved search by searching by its name.

To mark a saved search as favorite, complete the following steps:
1. Click the icon next to the name of the saved search. You see options for making the search a favorite, editing, duplicating and deleting the search.

2. Click the star to save the search as a favorite:
   By making this saved search a favorite, it now appears under the list of dashboards so there is no need to search for it or click Show More.

To share a saved search with a team, complete the following steps:

1. Click the icon to the left of Free form search by name and then click Edit.
2. Click Show Advanced Options.
3. Select Share with Team, and start typing hir so that you see the list of team names filter to include those that contain hir.
4. Select the second Hiring Managers, for the Hiring Sample process application, as shown in the following screen capture, and then click Save.

5. Close the saved search by clicking the Work dashboard.
Reorder displayed dashboards and set default start page

In this section, you reorder the displayed dashboards (including saved searches) and set the default start page by moving your favorite saved search or dashboard to the top of the list.

1. Hold down on the icon to the right of **Free form search by name**, as shown in the following screen capture, until you see it change shape. Then drag it to the top of the dashboard list.

![Dashboard list](image)

2. Confirm that the dashboard list order has **Free form search by name** at the top of the list.
3. Log out of the Process Portal by clicking **Log Out** under your profile name. Then log back in to confirm that **Free form search by name** is the first page that is displayed after you log in.

Filter, sort, and customize a task list

In this section, you create a tabular, spreadsheet-like view of the Work dashboard and add filter criteria to only show your overdue tasks. Examples shown are from a MacBook. It's best to edit saved searches on a device with a larger screen. But after you complete the editing, the saved searches are available to users with and any computer or mobile device, even those with smaller screens.

Change the Work dashboard to tabular

To change the Work dashboard to a tabular format, complete the following steps:

1. Open the **Work** dashboard, if it is not already open.
2. Under **Work**, click **…** and then select **Table View**, as shown in the following screen capture:

![Table View](image)

The dashboard changes to a tabular format.
3. If you are using a desktop or a browser, you can resize and narrow the browser width. Notice that even though you have the dashboard set to Table View it is displayed as List View when you change the browser to a narrow width.

Set filter criteria and add displayed columns

The Work dashboard comes with a pre-set list of columns and some pre-set filter criteria. In this section, you add two additional displayed columns, and you add other filter criteria.

To add another displayed column, complete the following steps:
1. Under Work, click ... and select Edit Columns.
2. The Available columns window shows a list of columns that can be displayed. Scroll up or down to see that the following columns are already selected: Instance name, Name, Task status, and Priority.
3. Select Owner and Task Due Date and click OK.
   The Owner column and Task due date are displayed, and you should see instances with your user ID in the owner column.

To add other filter criteria, complete the following steps:

1. Click the Saved Search icon, shown in the following screen capture:
   Notice that the Work dashboard has a default Filter Criteria value of Claimed and Available.
2. Add a filter criteria for Owner equals your user ID:
   a. Click Add.
   b. Select Owner.
   c. Select Equals and enter you user ID.
   d. Click OK.
3. Confirm that the refreshed task list only shows items that you own.
4. Click Save. Note that you must enter a Saved Search Name because the Work dashboard is a default dashboard that is not editable. For the name, type My Overdue Tabular Task List and click Save. (You add the overdue part to this saved search in the next steps.)
   The My Overdue Tabular Task List now has two filter criteria, as shown in the following screen capture:

5. Add another filter criteria to only show tasks due yesterday:
   a. Click Add.
   b. Select Task due date.
   c. Select Before.
   d. Click OK.
6. The Filter Criteria window shows the new criteria, but notice that by default it is 24 hours before the time that you selected the date. If you want to select midnight of
today, use the calendar date and the time controls to set the appropriate date and time. Click the calendar to adjust both the date and time, and click **Save** to save your changes. The **My Overdue Tabular Task List** now has the following filter criteria:

7. Optional step: Change the due date to tomorrow for one of the tasks, or reassign back to the team (which implicitly changes the due date). Then verify that the task no longer appears in the list.

**Sort and change order of columns in tabular view**

In this section, you rearrange the columns in tabular view and sort by columns.

1. Open the **Work** dashboard. It should appear in a tabular view, because the last view that was open was tabular.
2. Move the **Name** column to the right of the **Instance name** column by clicking and holding down the column title, **Name**, then dragging it to the right of the **Instance name** column.
3. An alternative way of reordering the columns is to use the column controls. Move the Priority column to the right of the Task Status column by clicking the down arrow to the right of **Priority** and then select **Move left**:

4. Sort the Instance name column in ascending order by clicking the down arrow to the right of **Instance name** and then select **Sort Ascending**.
5. Similarly, sort the Name column in descending sort order.

Note that the two columns used to sort now display their sort order and which one is the first sort column and second sort column. As expected, the Instance name column is the first sort column and the Name column is the second sort column. You can sort up to three columns.

**Conclusion**

In this tutorial, you experienced the mobile features of IBM BPM. You had the opportunity to run the new responsive implementation of the Process Portal from your own phone or tablet,
understanding what process participants for your process apps experience. Also, you learned some of the authoring experience from a laptop.

The responsive user interface technologies introduced with IBM BPM V8.5.6 let process participants access your app from a phone, tablet, a laptop, or a giant monitor. With IBM BPM V8.5.7 and later, you can use themes and instance styles to update the look and feel of the user interfaces. It is easier than ever to determine what items you want to see (such as tasks), and how you want to see them (such as setting a list or table, colors, fonts).

If you want to take advantage of these features and other enhancements for your process participants to work from mobile devices, consider migrating to IBM BPM V8.5.7 or later.

In Part 2 of this series, you learn how to update the look and feel of user interfaces, including the following tasks:

- Set instance styling at the coach level.
- Create a theme to style a process app.
- Apply the theme to the process app.
- Move the theme to a toolkit.

**Acknowledgements**

The authors would like to thank Ricardo Ramos for his review of this tutorial.
Related topics

- FAQ: What is IBM Mobile Quality Assurance?
- IBM Business Process Manager on Cloud
- IBM BPM on Cloud trial
- IBM Business Process Manager on Cloud documentation
- IBM Business Process Manager Developer Center

© Copyright IBM Corporation 2016

Trademarks
(www.ibm.com/developerworks/ibm/trademarks/)