Reference Guide

Process Builder v10x (ADF)

By CMiC

CMiC
Computer Methods
international Corp.

Proprietary Notice

Computer Methods International Corp.
4850 Keele Street
Toronto, Ontario M3J 3K1
Canada

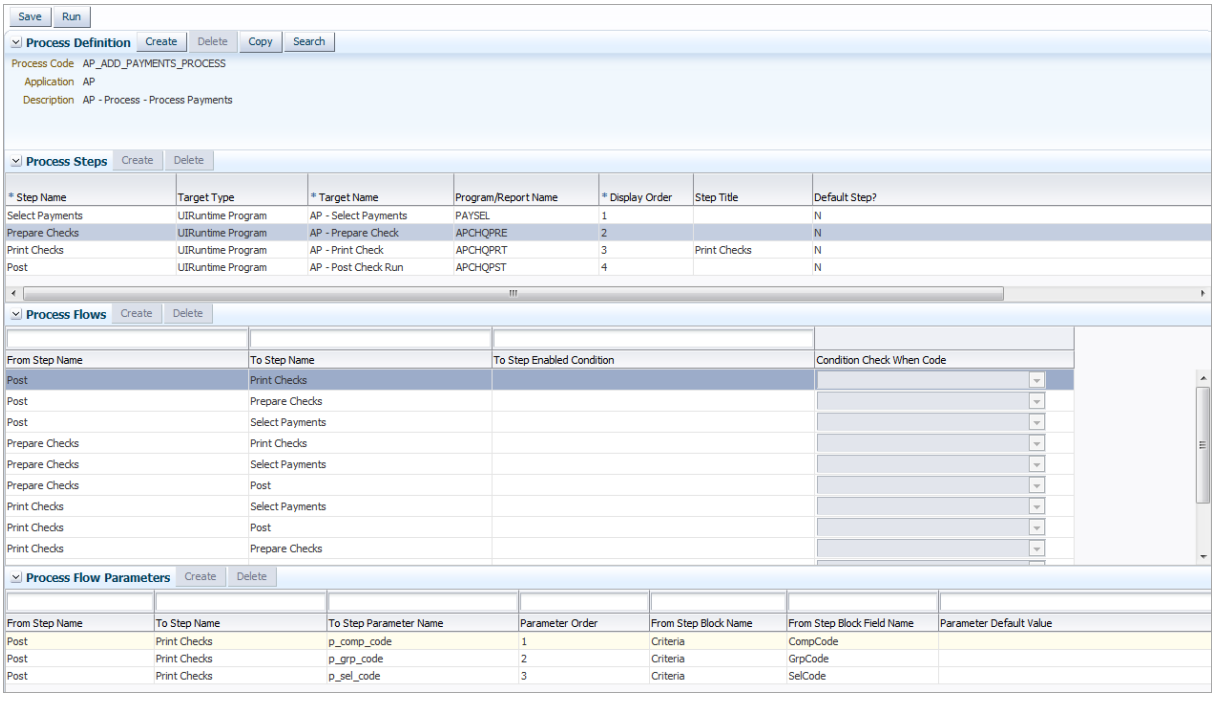
Risk of Use Notice

The CMiC software product, including both this manual and the program components, is licensed on an "AS IS" basis. The entire risk as to the results of its use is with the licensee. Except in those jurisdictions which impose certain warranties by statute which may not be waived by one or more of the parties, and only to that extent, Computer Methods International Corp. (CMiC) makes no warranties whatsoever, either expressed or implied, with respect to the quality, performance, merchantability or fitness for any particular purpose of any or all components of this software product, except as provided in the licensee's license agreement. The licensee (and not CMiC or its agents) will be solely responsible for the costs of all service, or of any defect in this software product and any incidental or consequential damages caused or alleged to be caused either directly or indirectly by the software product to the licensee or any other person, including, but not limited to, any interruption of service, or loss of business or anticipatory profits, even if CMiC has been advised of the possibility of such damages.

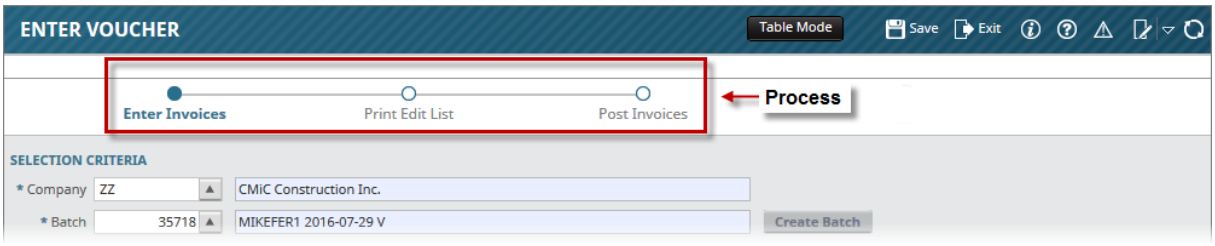
Contents

Process Builder (ADF) – v10x Tool

Overview – Process Builder (ADF)



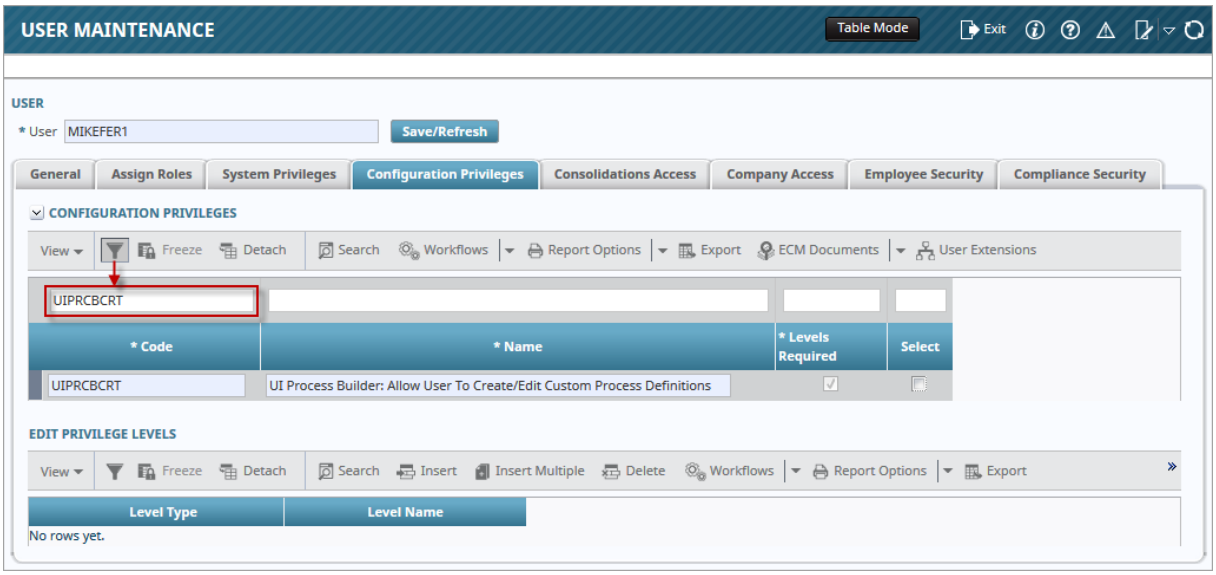
Sample of Process Builder.



Sample of a Process, on Enter Voucher screen (VOUCHENT).

CMiC's Process Builder is used to create a Process, which is comprised of a series of links to screens used to complete a particular process, such as the one required to enter, review, and post invoices.

Security Setup: Grant Privilege for Process Builder

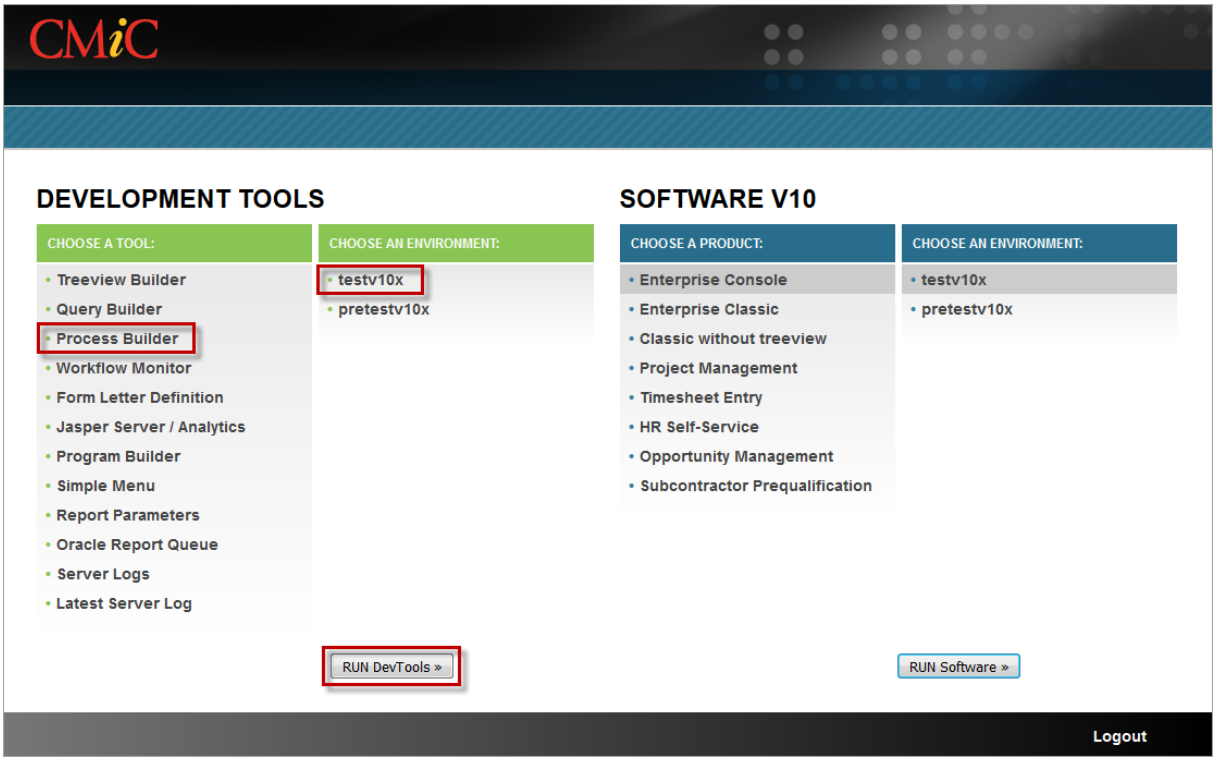


Pgm: SDUSRMNT - User Maintenance screen; standard Treeview path: System > Security > Users > User Maintenance

Using the User Maintenance screen, on the **Configuration Privileges** tab, ensure that the user has the following Configuration Privilege: **UIPRCBCRT**.

NOTE: This Configuration Privilege does not require an Editing Level, which would be set up via the lower section, **Edit Privilege Levels**.

Launch Process Builder

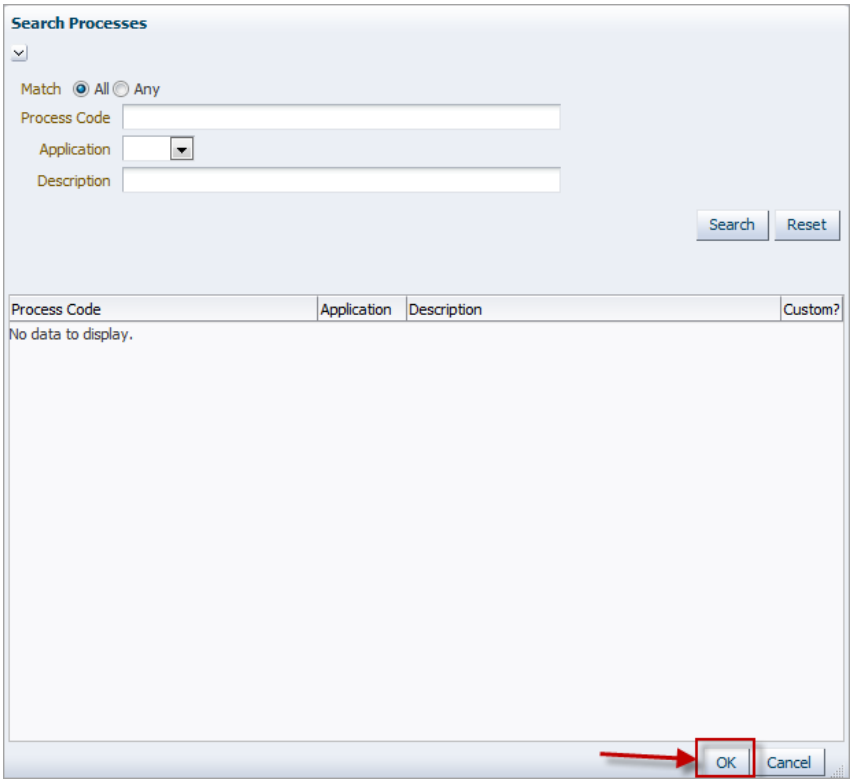


Sample of CMiC's launch page.

To launch Process Builder, select **Process Builder** from the **Choose A Tool** section, choose the database environment under the **Choose An Environment** section, and click [**RUNDevTools**], as shown in the above screenshot.

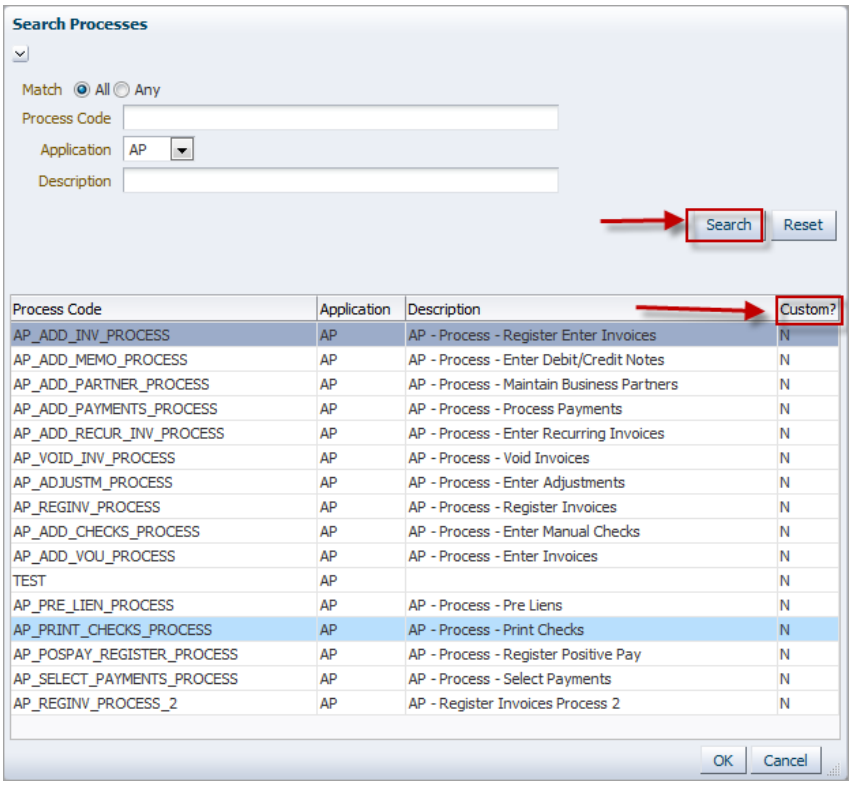
Process Builder can be launched in two modes: Add New, and Edit, as explained by the following subsections.

Create New Process – Add New Mode



To launch Process Builder to create a new Process, when the **Search Processes** popup is displayed, click [**OK**] to open Process Builder in Add New mode.

Edit or Copy Existing Process – Edit Mode

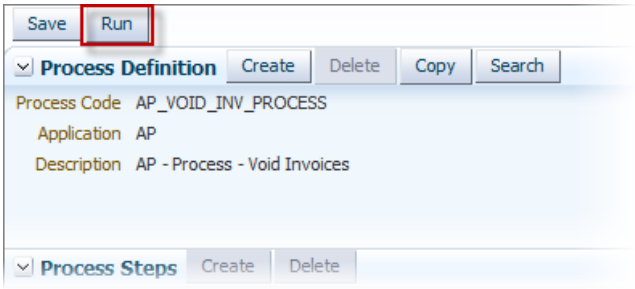


To launch Process Builder to edit or copy an existing Process, when the **Search Processes** popup is displayed, search for and select the Process you would like to edit or copy and click [**OK**] to open Process Builder in Edit mode.

The **Custom?** column, framed above, indicates if the Process is user-defined (indicated by "**Y**") or standard (indicated by "**N**"). Standard Processes, which come with CMiC Enterprise, are not editable, but they can be copied in order to use the copy as a starting point to edit and create a user-defined version of it.

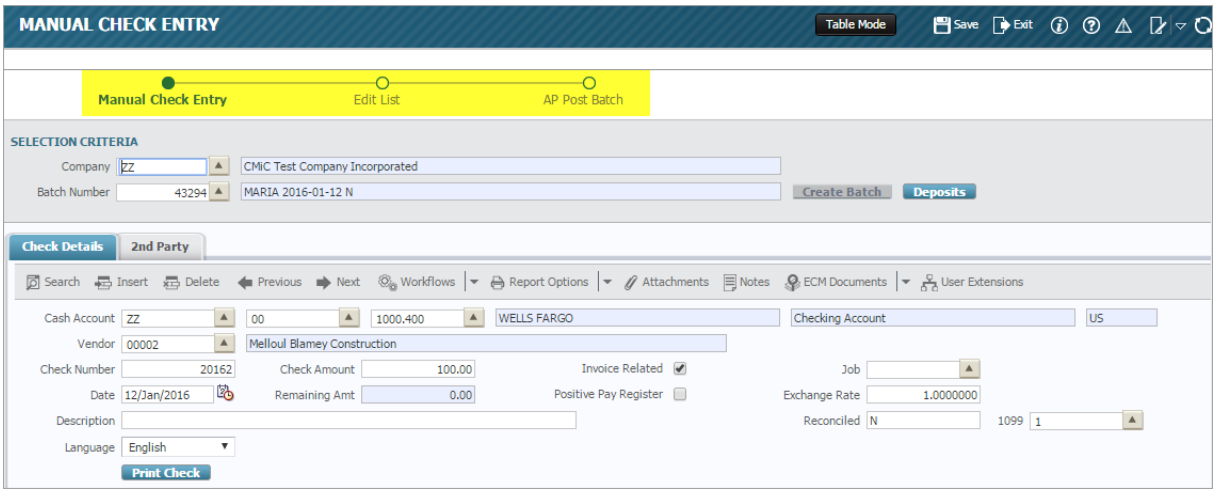
Process Builder – Screen

[**Run**] – Button



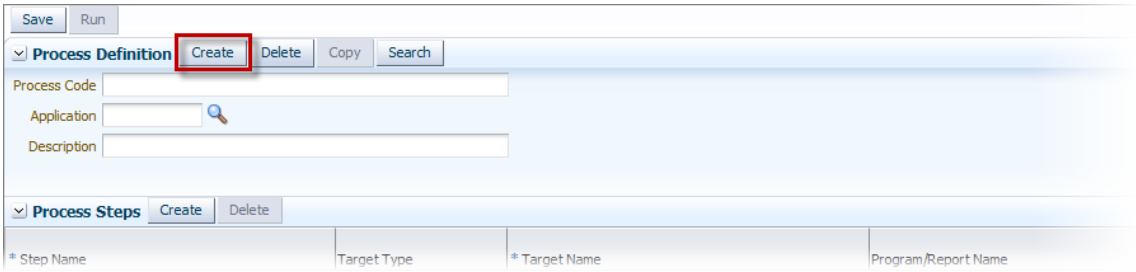
The [**Run**] button is used to test a new or altered Process.

When clicked, the Process will be executed via a new browser tab, as shown below:



Test all defined Process Steps by navigating between them, and making sure that parameters are passed correctly, and that conditions (if defined) are evaluated as expected.

Process Definition – Section



This section is used to create or edit a Process's Definition. If the screen was launched in Add New mode, click this section's [**Create**] button to make the fields available for entry.

The following table provides details about the fields of a Process Definition:

Field	Description
Process Code	A unique code to identify the new Process; it is suggested that prefixes or suffixes be added to Process codes in order to categorize them, and to distinguish user-defined Processes from standard ones.
Application	Code of application (module) for which the new process is being defined (e.g. AP, JC, PY); click the search icon (magnifying glass) next to this field to search for the code via a popup.
Description	A description of the process being defined.

[**Create**] – Button

If the screen is in Add New mode, click this button to make this section's fields available for entry.

[**Delete**] – Button

Used to delete the Process.

[**Copy**] – Button

This button is enabled if the displayed Process is saved in the system. It is used to create a copy of the existing Process to use as a starting point to create a customized version of it.

For details, refer to the following subsection, *Copy Process to Create Customized Version*.

[**Search**] – Button

Used to search for and load an existing Process.

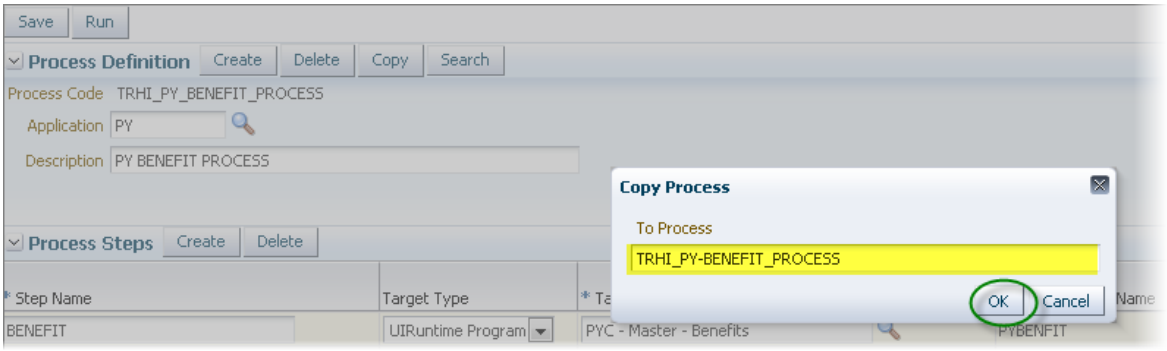
Copy Process to Create Customized Version

The [**Copy**] button is used to create a copy of an existing Process, including CMiC's standard Processes (provided with system). This is useful if you would like to create a customized version of a standard Process or of a user-defined Process, by adding steps to, or removing steps from the copy.

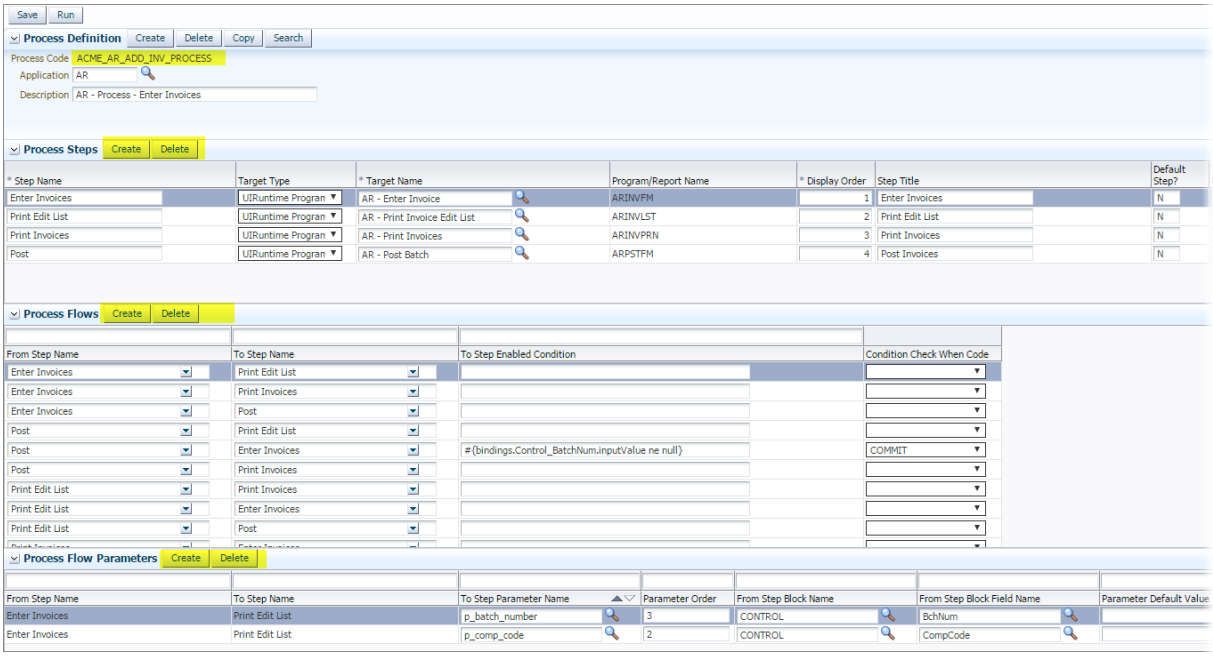
NOTE: The system's standard Processes are not editable, however, they can be copied, and the copy will be editable.

To create a copy of a Process, load Process Builder with the Process to copy, then click this section's [**Copy**] button.

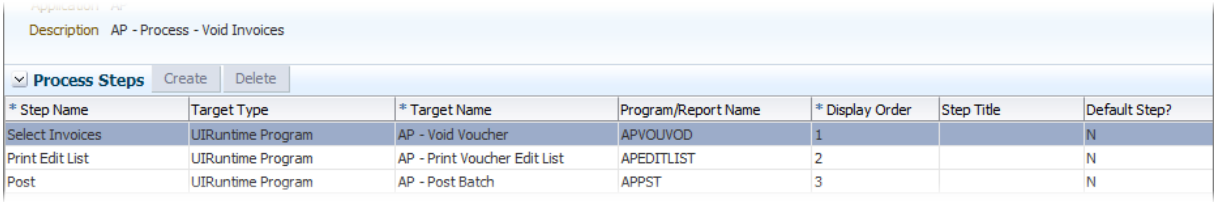
In the launched pop-up, enter the name for the new Process, as shown below:



Click [**OK**], and Process Builder will now be loaded with the new Process in Edit mode, as shown below:



Process Steps – Section



This section is used to define or edit the Steps in a Process. If the screen was launched in Add New mode, click this section's [**Create**] button to create a row to define a Process Step.

The following table provides details about the fields in this section:

Field	Description
Step Name	Name for the Process Step, which will be used in the next section to define Process Flows (rules controlling navigating between Process Steps).

Target Type	The type of program that will be launched by the Target selected via the **Target Name** field. Targets can launch either a UI Runtime Program (Enterprise application) or a Jasper Report. The **Target Name** field's LOV only lists Targets of the type selected via this field.
Target Name	Click this field's search icon (magnifying glass) to select the Target that launches the desired (targeted) program for this Process Step. **Targets**: • A Target is a set of information that is used by one program to launch another program. • Targets for standard UI Runtime Programs and Jasper Reports are available for selection via this field's popup, including user-defined Targets; to launch a new program or Process, a Target must be created for it by using Treeview Builder. • For details about creating Targets, refer to the *Screen Calls – Screen* section of the V10xTOOLS ADF – Log Builder reference guide, or to the *Create New Target* section of the V10xTOOLS ADF – UI Treeview Builder user guide.
Program/Report Name	This read-only field displays the name of the UI Runtime Program or Jasper Report that is targeted by the selected Target.
Display Order	Order in which the Steps should be positioned in the Process. **NOTE**: It is suggested to number steps as 10, 20, etc., to give some room for adding more steps in the future without having to renumber the existing steps.
Step Title	Label to identify the Step. If left blank, the Program Description will be read from the database and displayed as the label for the Step; otherwise, this field's text is used as the label.
Default Step?	This is an indicator to specify which Step will be loaded first when this Process is run: "**Y**" indicates it is the first step and "**N**" indicates it is not the first step (only one Step can be set as the default). If all Steps have this field set to "**N**", the first Step according to the D**isplay Order** will be loaded first.

Click [**Save**] when finished.

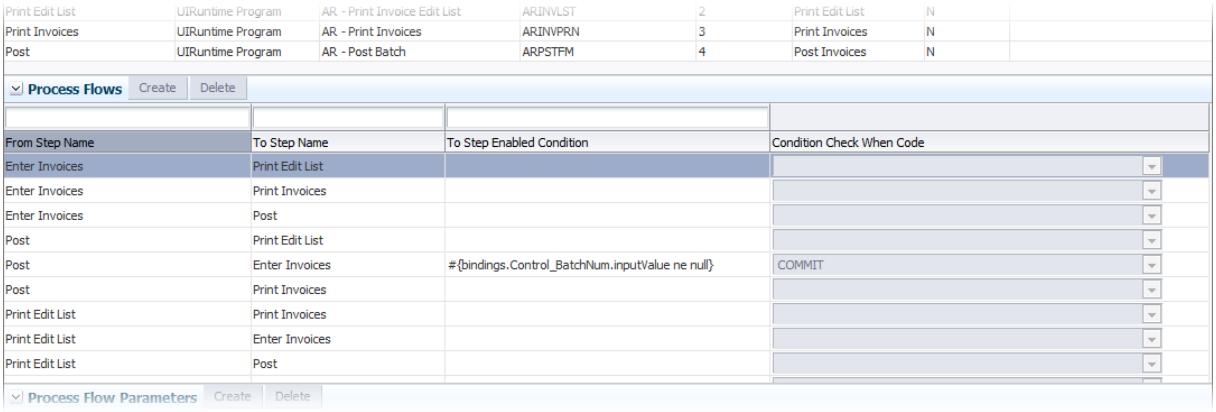
[**Create**] – Button

Click to create a new row to use to define a new Process Step.

[**Delete**] – Button

Used to delete a selected Process Step.

Process Flows – Section



This section is used to create rules that control the navigating between Process Steps.

In order to navigate from one step to another step, sequential or not, a rule must be created that decrees that the destination step (i.e. To Step) can be navigated to from the step of origin (i.e. From Step). A To Step cannot be navigated to from a From Step unless there is a rule explicitly stating so. In the above example, there are three steps (Enter Invoices, Print Edit List, and Post), and navigation rules have been set up to allow the navigation from any one of these steps to any of the other steps.

Also, if necessary, a condition can be set up for the From Step that must be satisfied in order for the To Step to become enabled in the Process.

To create a new navigation rule, click the [**Create**] button to insert a new row to define it.

The following table provides details about the fields in this section:

Field	Description
From Step Name	Select the From Step; LOV contains Steps created under the **Process Steps** section.
To Step Name	Select the To Step; LOV contains Steps created under the **Process Steps** section.
To Step Enabled Condition	Condition that is evaluated at runtime to determine whether or not the **To Step** is enabled; see following subsection, Set Up Condition, for details. If a condition is specified, the **Condition Check When Code** field must specify when this condition is to be checked.
Condition Check When Code	Specifies when the **To Step Enabled Condition** is evaluated; see following subsection, Set Up Condition, for details.

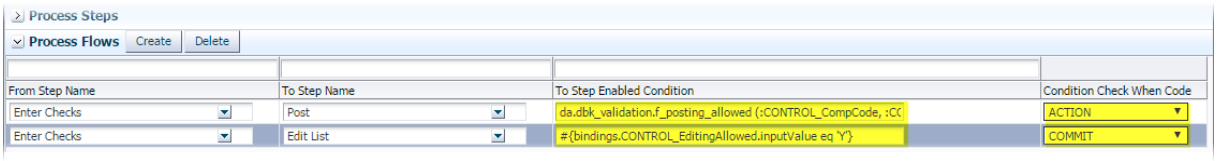
[**Create**] – Button

Click to create a new row to use to define a new Process Flow.

[**Delete**] – Button

Used to delete a selected Process Flow.

Set Up Condition



To specify a condition under which a To Step on the Process is enabled while on a From Step, the **To Step Enabled Condition** and **Condition Check When Code** fields are used, as shown above.

To Step Enabled Condition – Field

This field is used to enter a condition that controls when the **To Step** is enabled. A condition is evaluated when the Process's first screen is initially launched, and when specified by the **Condition Check When Code** field.

The **To Step Enabled Condition** can be either of the following two types:

EL Expression

An EL Expressions always references fields on the screen for the From Step.

Example:

```
#{bindings.CONTROL_EditingAllowed.inputValue eq 'Y'}
```

Database Function

A Database Function can reference fields on the screen for the From Step as parameters values.

Example:

```
da.dbk_validation.f_posting_allowed (:CONTROL_CompCode, :CONTROL_BatchNumber);
```

Condition Check When Code – Field

This field is used to specify when the **To Step Enabled Condition** is evaluated.

NOTE: In addition to the below options, the condition for the first Step will also always be evaluated when the Process is initially launched.

The following are this field's available options:

ACTION

Condition is evaluated after returning from any Process Flow and/or Screen Call invoked from the From Step

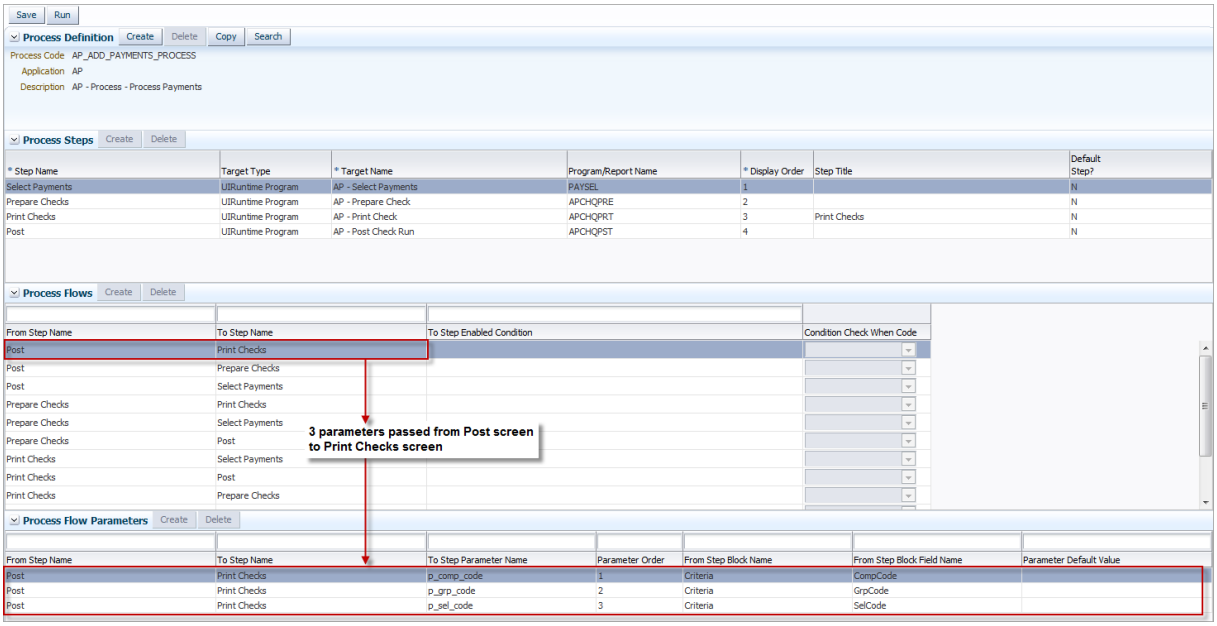
COMMIT

Condition is evaluated after data is committed in the From Step

ALL

Condition is evaluated after returning to the From Step from any Process Flow and/or Screen Call, and after data is committed in the From Step

Process Flow Parameters – Section



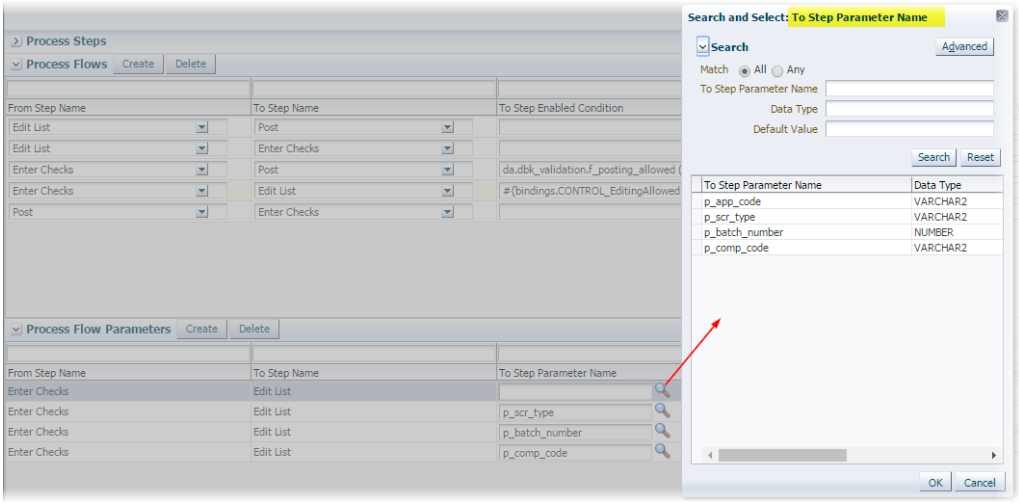
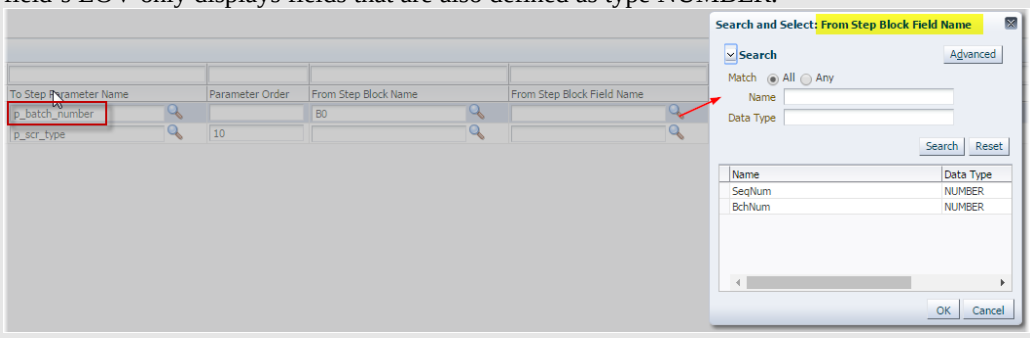
This section displays Process Flow Parameters for the selected Process Flow in the **Process Flow** section, and it is used to specify what, if any, parameters are to be passed from the screen of origin to the destination screen.

As shown above, for a particular Process Flow, comprised of a From Step (origin screen) and a To Step (destination screen), the parameters to pass from the screen of origin to the destination screen are specified via the **Process Flow Parameters** section.

To pass a parameter from the screen of origin to the destination screen, first ensure that the parameter-passing requirements are meet, as detailed in this section's *Parameter-Passing Requirements* subsection. Then, select the relevant Process Flow under the **Process Flow** section, and click the **Process Flow Parameters** section's [**Create**] button to insert a new row to provide the details required to pass the parameter from one screen to the other.

The following table provides details about the fields in this section:

Field	Description
From Step Name	Read only field, prepopulated with the From Step of the Process Flow selected under the **Process Flow** section.
To Step Name	Read only field, prepopulated with the To Step of the Process Flow selected under the **Process Flow** section.

To Step Parameter Name	 Name of field on the screen of origin that is to be passed, as a parameter, to the expecting destination screen. As shown above, all parameters defined for the associated Target will be displayed in this field's LOV. If this field's LOV contains no entries, it means that there are no parameters defined for the Target associated to the destination screen. If this is the case, you must first define the needed parameters. If you are using one of the standard Targets provided by CMiC, you will not be able to add more parameters, but you could define and use your own Target for the destination screen instead.
Parameter Order	Order in which parameter will be passed and evaluated; this field is optional, and if left blank, the order specified for the Target is used.
From Step Block Name	Applies only when the From Step is of type "**UIRuntime Program**"; this is the name of the block (screen section) on the From Step's screen that contains the field that holds the value for the parameter.
From Step Block Field Name	Applies only when the From Step is of type "**UIRuntime Program**"; this is the name of the field on the From Step's screen, under the block (screen section) specified by the **From Step Block Name** field that contains the value for the parameter. This field's LOV only lists fields that are compatible with the DATATYPE defined for the selected parameter. Using the following screenshot as an example, since the **p_batch_number** field is defined as type NUMBER, the **From Step Block Field Name** field's LOV only displays fields that are also defined as type NUMBER. 

Parameter Default Value	Used to specify a hardcoded literal value for the parameter, as an alternative to using the From Step Block Name and From Step Block Field Name fields to specify the field where the parameter's value is to come from. **NOTE**: If this field is used to specify a value for the parameter, the From Step Block Name and From Step Block Field Name fields would not be used.

[**Create**] – Button

Click to create a new row to use to specify a parameter.

[**Delete**] – Button

Used to delete a selected parameter.

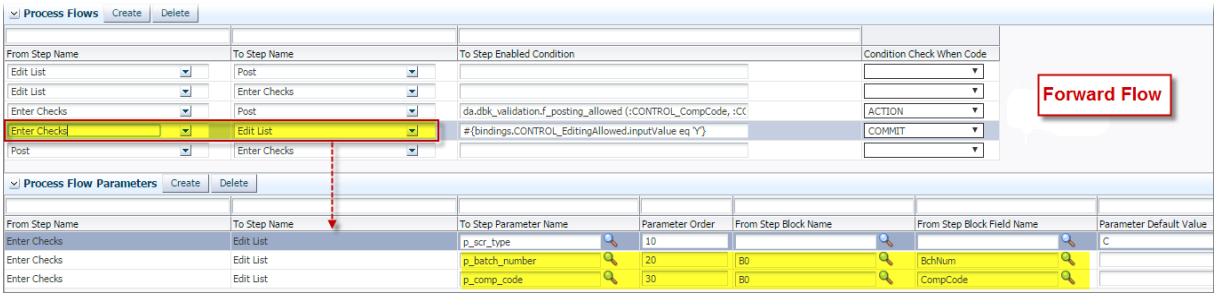
Parameter-Passing Requirements

The way parameters are passed from one screen to another is as follows: the value of a field on the origin screen is passed, as a parameter, into the corresponding field on the destination screen (e.g. value of Company field on origin screen is passed to Company field on destination screen).

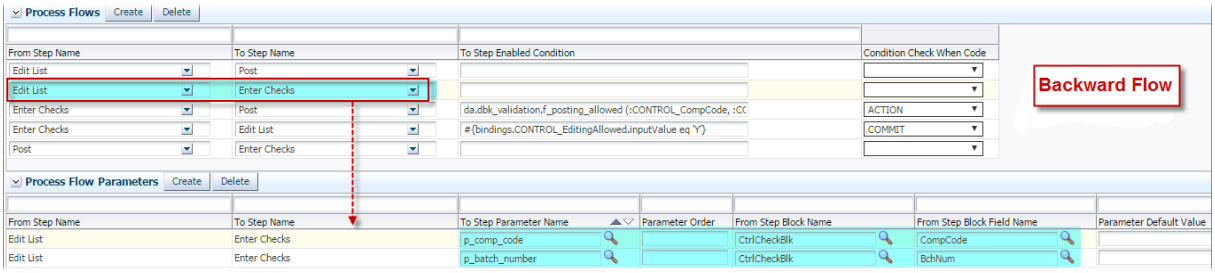
Consequently, to pass a parameter from the origin screen to the destination screen, the destination screen must have a field that corresponds to the field on the origin screen from which the parameter comes.

Also, as illustrated by the following two screenshots, if navigation is allowed back and forth between two screens, and values are passed as parameters from the origin screen to the destination screen in order to initialize it (e.g. initialized to load for particular Company and Batch), you must also pass those values as parameters in the other direction, otherwise those values are lost.

Forward Flow:



Corresponding Backward Flow:



Make New Process Accessible

Add Process to Treeview via Treeview Builder

To add a new Process to a Treeview, use CMiC's Treeview Builder development tool. For details about Treeview Builder, please refer to the *V10xTOOLS ADF - UI Treeview Builder* reference guide.

NOTE: New Processes will need to have a Target (set of information required to launch a program) created for them. For details about creating Targets, please refer to the *Create New Target* subsection under the *V10xTOOLS ADF - UI Treeview Builder* reference guide's *Configure Treeview* section.

Index

S