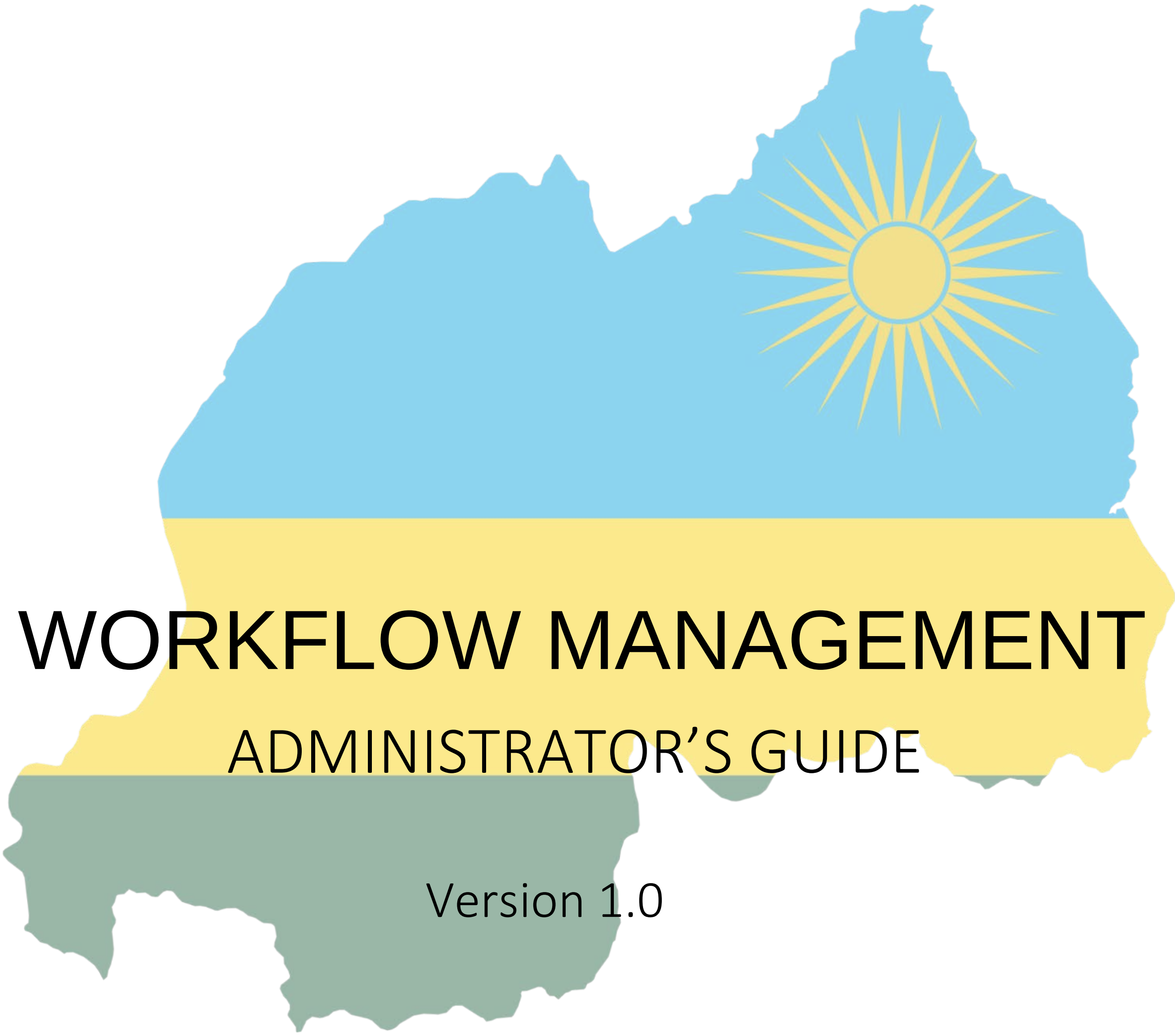
Rwanda Integrated Electronic Case Management System

Rwanda IECMS



WORKFLOW MANAGEMENT

ADMINISTRATOR’S GUIDE

Version 1.0

SYNERGY INTERNATIONAL SYSTEMS

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INTRODUCTION

This document describes the *Workflow* console in the *Rwanda Integrated Electronic Case Management System (Rwanda IECMS)* application. It provides the necessary instructions which the administrators and/or users granted with administrative rights should follow in order to ensure successful management of the workflow based processes existing in the application. Use of this documents and compliance with the standards specified herein is mandatory for anyone working with the mentioned application.

OVERVIEW

The *Integrated Electronic Case Management System for Rwanda (Rwanda IECMS)* is an automated information management system, which is designed within the initiative of modernizing Rwanda's Justice, Reconciliation, Law and Order Sector (JRLOS). It is intended to ensure improved access to and transparency of justice information both for the government institutions and general public. Moreover, the system aims at facilitating information sharing at key decision points, as well as to improve efficiency and coordination of the police, prosecution, and court activities in the Republic of Rwanda. Furthermore, it is intended to replace the paper-based case records and static spreadsheets and workflows with their computerized counterparts in order to enable full reproduction of cases along with case proceeding information in the event of loss or physical damage of the case file.

The main objective of *Rwanda IECMS* is to serve as a centralized and unique database for all justice sector institutions, including the Rwanda National Police (RNP), National Public Prosecution Authority (NPPA), Rwanda Judiciary (RJ), and Rwanda Correctional Services (RCS). Also, it is a sector-wide platform to assist all the officials accessing the system to have an easy and ad-hoc access to the information required for processing the cases and implementing day-to-day operations. *Rwanda IECMS* is intended to help to standardize case record information storage and to streamline current processes, and, thus, ensure more effective follow-up at different levels. It is also the main database and data collection and reporting system as it guarantees effective access to the case data, promotes accountability, and increases public trust and confidence.

Rwanda IECMS consists of the following applications, each dedicated to one justice agency and used to handle their business processes:

- Rwanda National Police

- Rwanda National Public Prosecution Authority
- Rwanda Judiciary
- Rwanda Correctional Service
- Civil Litigation Service

Rwanda IECMS incorporates business intelligence and data management solutions with comprehensive application administration functions. As such, it is equipped with a number of administrative tools, which aim at providing the application administrators with the possibility of performing their daily assignments in an easily manageable way.

One of the administrative tools that *Rwanda IECMS* is incorporated with is the *Workflow* console. The *Workflow* console is a space within the *Rwanda IECMS* application that allows designing and managing workflow based processes of various complexity. Moreover, through the *Workflow* console, the application administrator can define what actions different user roles should perform at each workflow state, as well as their permissions and privileges to the application resources as they pass through the business processes defined for them.

Rwanda IECMS provides a web-based user interface and requires having a web browser pre-installed.

WORKFLOW CONSOLE

This chapter describes the *Workflow* console under the *Settings* section, where you can model and manage the workflow based processes existing in the application, as well as define **Role Actions** and **Permissions**. More specifically, you may organize the processes present in the system, create new ones, assign actions to roles, define permissions, etc.

Accessing the Workflow Console

For accessing the *Workflow* console, go to Settings → Workflow (Figure 1).

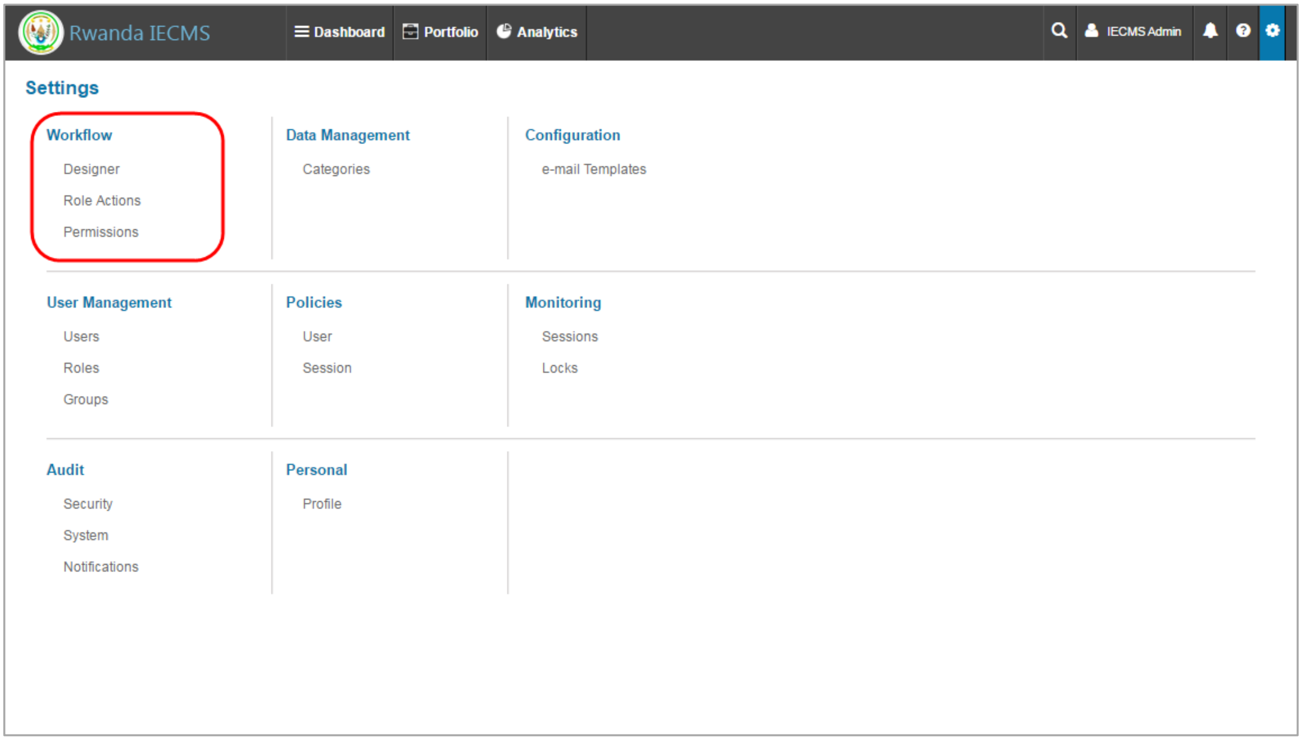


Figure 1: Workflow Console

The *Workflow* console consists of the following sub-sections:

- **Designer** – to manage application processes (see MANAGING WORKFLOWS);
- **Role Actions** – to manage the actions that user roles can perform at each stage of the workflow process (see MANAGING ROLE ACTIONS);
- **Permissions** – to manage the permissions for the data entry form fields that users may have (see MANAGING PERMISSIONS).

MANAGING WORKFLOWS

A **workflow** is the set of statuses and transitions that a dataset instance can go through during its lifecycle. It typically represents processes currently established in various forestry sector institutions and agencies.

In *Rwanda IECMS*, workflows are modeled and designed in the *Designer* sub-section of the *Workflow* console, where you can model and maintain your business processes using a graphical workflow builder that enables you to:

- Design and model processes;
- Design user and system based workflows tightly integrated with applications;
- Define and continuously improve your processes using a drag–and–drop process designer.

Also, you benefit from a graphical designer to literally draw the processes you want to implement and to assemble them without any coding. Those processes are then stored and can be shared with other users.

Accessing the Designer Sub-section

The *Designer* sub-section can be accessed at Settings → Workflow → Designer (Figure 1).

Once you access the *Designer* sub-section, you will be presented with its *Main Screen* (Figure 2).

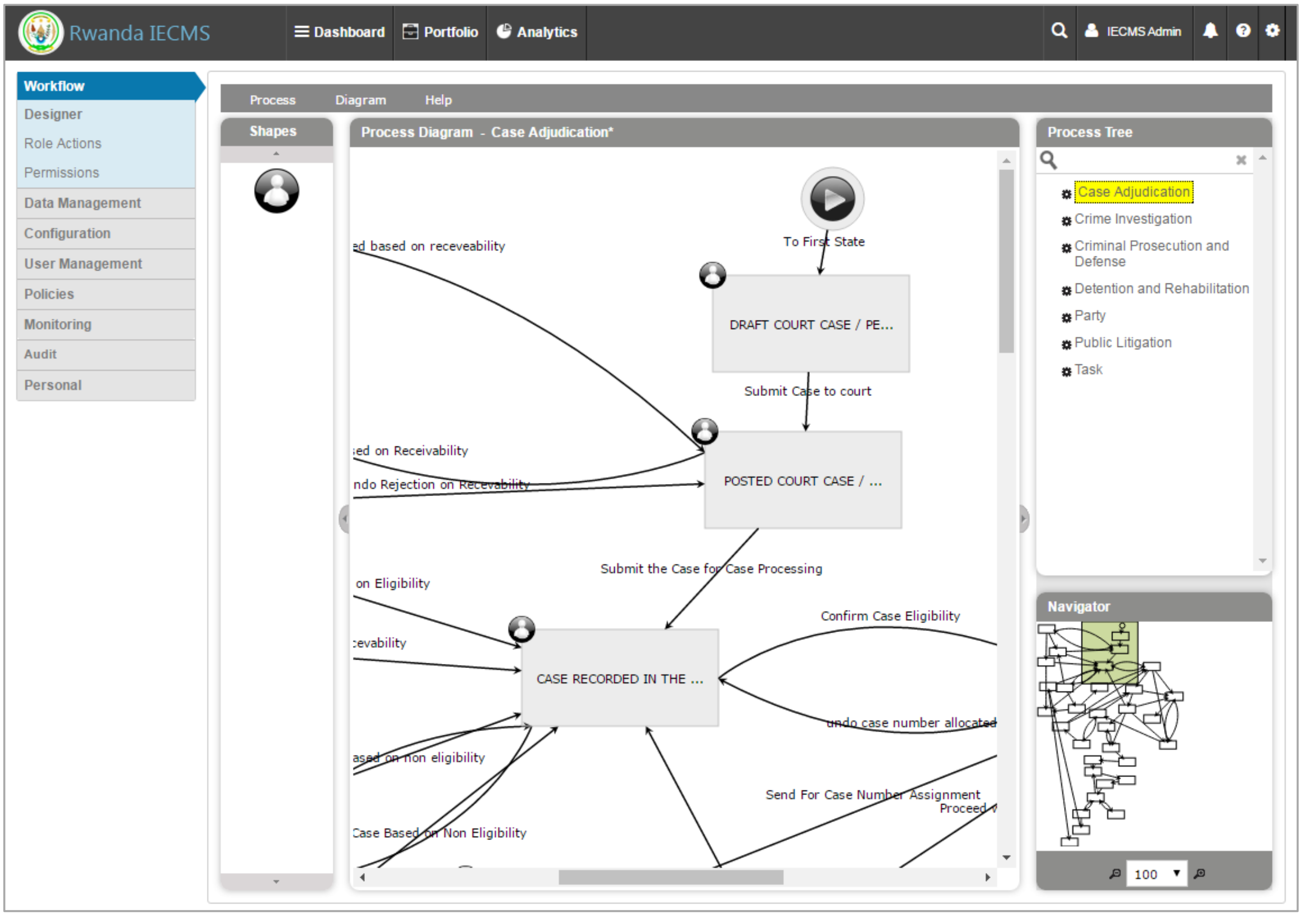


Figure 2: Designer Sub-section

Describing Workflow Designer Components

This chapter provides a detailed description of the components that the workflow designer is comprised of, including the menu items, different bars and panes, etc.

Menu Bar

The *Designer* contains the following control menus:

To see a control menu, move the pointer to the item you want to view and choose it. The following sections describe the control menus.

Process Menu

The table below describes the **Process** menu.

Menu Item	Sub-menu Item	Description
New	**Process**	Creates a new workflow process.
Save		Saves the process under the name given to it.
Remove		Deletes the process currently displayed in the design area, removing all process components.
Reload		Loads the latest changes made to the process.
Copy		Makes a copy of an existing process.
Properties		Allows modifying the properties previously set for the process.

Diagram Menu

The table below describes the **Diagram** menu.

Menu Item	Description
Angle Based Transitions	Indicates that an angle-based line will be drawn to connect two instances of a workflow process.
Auto Layout	Automatically re-arranges the workflow process components by certain coordinates given in the database.

Help Menu

The table below describes the **Help** menu.

Menu Item	Description
About Synergy Workflow Designer	Provides information about the current version of the workflow designer.

Shapes Bar

The *Designer* is equipped with a toolbar for drawing and assembling business processes. The toolbar is placed to the left of the design area and holds all the available components/elements that can be added to a process.

During a mouse-over event on a toolbar button, a tooltip appears explaining in short the functionality/purpose of each button.

Click Event Details for Each Shape

#	Shape	Description	Icon's Behavior after Click Event
1		User Activity	Adds a User Activity Process component, which represents a state that requires manual work from a user to proceed within the workflow. A User Activity may hold special role permissions enabling only users of a specific role to implement it.

Design Area

The **Design Area** is an intuitive interface that allows you to create and shape business processes, arrange the process components in the desired way, set permissions for the roles involved in the process implementation, etc. Also, the *Design Area* provides a drag-and-drop environment that turns the process design into an easily manageable task.

Process Tree

The **Process Tree** panel displays the workflows already created by the users organized into a list. The workflow currently opened in the *Design Area* is highlighted. Please, note that the processes marked in red contain invalid process elements.

Navigator

The **Navigator** panel displays the schema of the workflow currently displayed in the *Design Area*. Also, it allows you to zoom in and zoom out in order to better view all of your workflow design.

In case of large workflows, this panel allows you to display in the *Design Area* the portion of the workflow that is included in the rectangular shape.

Managing Workflow Processes

A **workflow** can be defined as a sequence of conditions and actions that occur in response to those conditions. A workflow is a natural way to organize and run a series of actions that correspond to a work process.

You can also think of a workflow as a sequence of actions that have a beginning, an end, and a flow from start to finish. Workflows can include parallel threads, but in the end they go from the initial action to the final action.

The workflow can include both actions performed by people (or workflow participants) and actions performed by the workflow. Workflow participants can interact with the workflow through e-mail notifications. A workflow can create a task for someone and remain paused until the task is marked complete.

Workflows can be as simple or as complex as your business processes require. You can create a workflow that is initiated by the user, or a workflow that is initiated automatically based on an event.

This chapter provides information about the basic operations that can be performed in *Designer*.

Designing a New Process

To design a new process, follow the steps below:

1. Go to **Settings → Workflow → Designer**...
2. Select **New → Process** from the *Process* menu. The *Process Properties* window will appear.
3. In the *General* tab (Figure 3), enter the following information:
    - Name
    - Description

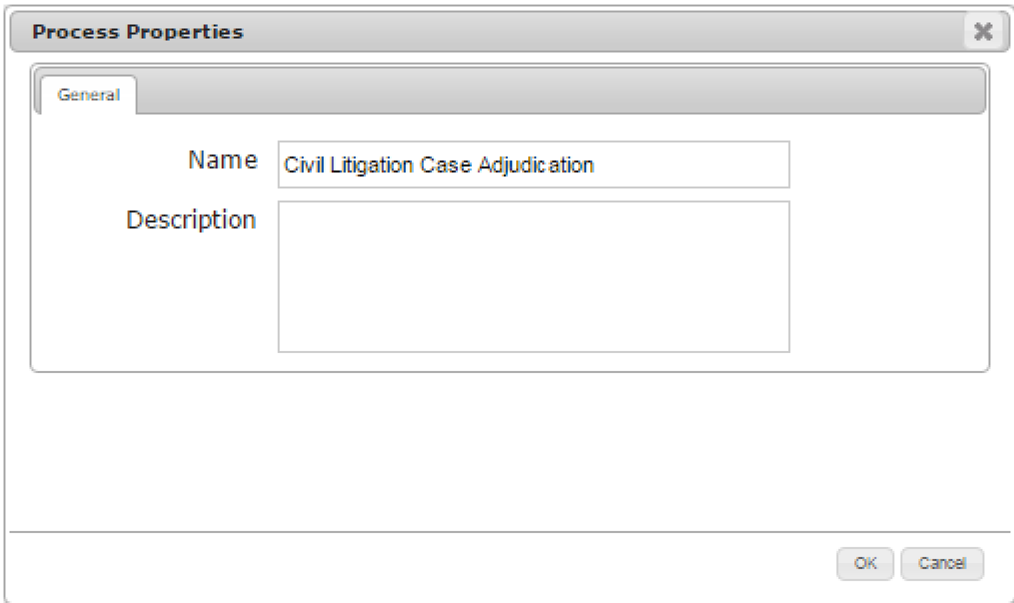


Figure 3: Designing a New Process

4. Click **OK** to save the process. In the event the process has successfully been saved, it will be listed in the *Process Tree* panel and the **Process Start Point** will appear in the *Design Area*. Now you can continue designing your process by adding process components and defining conditions for them.

Inserting Process Components

In order to design a business process of the desired level of complexity, you will have to use a drag-and-drop mechanism to insert shapes for process components (e.g. User Activity).

To insert a process component, follow the steps below:

1. Drag and drop a process component from the *Shapes* panel into the *Design Area*.

2. Set the properties for the selected process component to make it a valid participant of the process being designed.

Note: One of the distinct features of the *Designer* is its ability to support free form design of any business process. This means that no pre-defined layout for a process exists, i.e. the process components (or shapes) can be placed anywhere in the *Design Area*. Moreover, *Designer* allows nesting unlimited number of process elements.

Connecting Process Components

A workflow can be represented as a reliably repeated pattern of activities enabled by defined roles. In its turn, each activity is a workflow process element. The transition from one activity to another takes place provided the business rule defined for the given activity is obeyed.

In the *Designer*, transition from one activity to another is presented through links between two shapes of process instances.

To connect two shapes, follow the steps below:

1. Click the shape for the first activity to activate it. The activated shapes will receive red borders with small squares on each side.
2. Click the square from which you want to have a transition and, holding the mouse button, move the mouse cursor to the shape you want to connect to.
3. Release the mouse button once the second shape receives green borders. A connection will be created between the selected shapes (Figure 4).

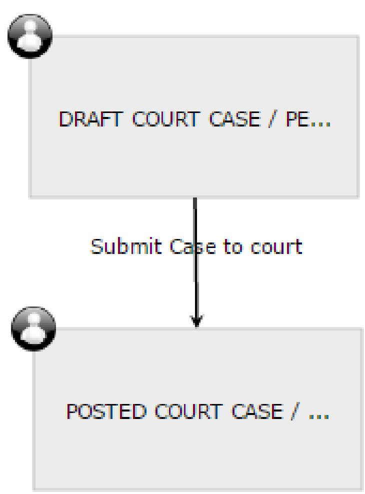


Figure 4: Connecting Two Shapes Together

Note: Refer to the Managing Transitions section of the present document to receive more information on how to set properties for actions.

Deleting Process Components

The *Designer* provides a quick and easy way of deleting process components.

To delete a shape for a process component, follow the steps below:

1. Click on the shape for the process instance that needs to be deleted.
2. Select the **delete** option from the actions menu that appears (Figure 5). Alternatively, use the right click of the mouse to open the action menu.
3. Click the **Yes** button to confirm the deletion. The selected shape will be deleted.

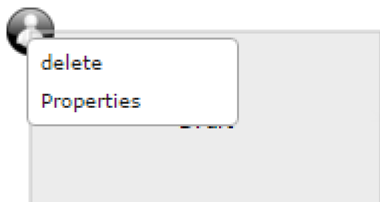


Figure 5: Deleting a Shape

Deleting Transitions

In the event that you have wrongly linked two process components, you can easily delete the connection between the two shapes. Deleting a connection will result in canceling the transition from one step of the process to another.

To delete a transition, follow the steps below:

1. Hover the mouse cursor on the transition you want to delete. The transition with the two shapes it connects will receive green borders indicating that they are active.
2. Use the right click of the mouse to open the action menu and select the **delete** option (Figure 6).
3. Click the **Yes** button to confirm the deletion. The selected transition will be deleted leaving the two shapes disconnected

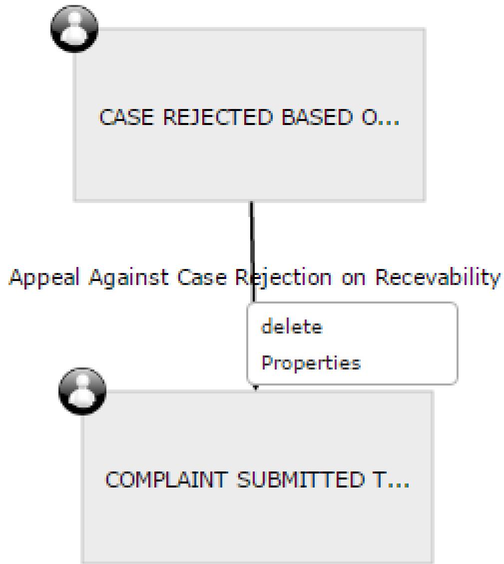


Figure 6: Deleting a Transition

Loading an Existing Process

The *Designer* gives you the possibility of loading one of the processes previously saved instead of designing it from the scratch.

To load an existing process, double-click the appropriate process in the *Process Tree* panel containing all existing processes. The selected process will be displayed in the *Design Area*.

Saving a Process

In order to make the workflow available when you need it or to make it re-usable, it is necessary to save it.

To save a workflow, select the **Save** option from the *Process* menu.

Managing Activities and Their Properties

A workflow can be defined as a set of activities imposed on the development of a business process. Each activity describes a variety of tasks or actions that should take place during the process. This way, actions are the basic unit of work in the workflow. They are discrete, reusable components that are designed to fulfill a definite purpose. The *Designer* provided you with a ready-made action that will help you design and model your workflow.

In the *Designer*, there exist the following activities:

 - User Activity

To insert an activity into the process, you need to drag and drop the shape in the *Design Area.* However, it should be noted that this will not make the inserted activity a valid element of the process. To validate it, you should set the properties for it. Later on, you will be able to modify the properties set for the action as required.

To edit the activity properties, follow the steps below:

1. Click the shape icon for the process instance properties to be edited.
2. Select the **Properties** option from the action menu that appears (Figure 7). A respective *Properties* window will appear.
3. Make the appropriate changes.
4. Click the **OK** button to save the changes made.

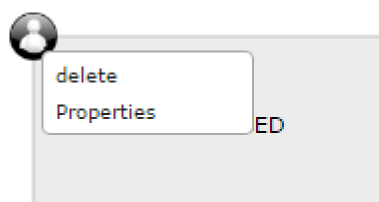
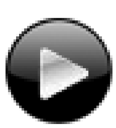


Figure 7: Editing Action Properties

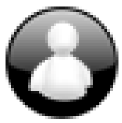
In more details, the properties for each activity are discussed in the paragraphs below.

Start



All workflows regardless of their level of complexity and the number of actions to be performed have a start and end points. The start point is where the execution of the entire workflow process starts. The start point is placed in the *Design Area* as soon as you choose to initiate a new workflow.

User Activity



This activity encompasses a variety of tasks or actions that should be implemented by an individual or a group of individuals (roles) having the appropriate permissions to perform them.

Setting User Activity Properties

In order to set the properties for this activity, provide basic information about the activity as described in the table below (Figure 8):

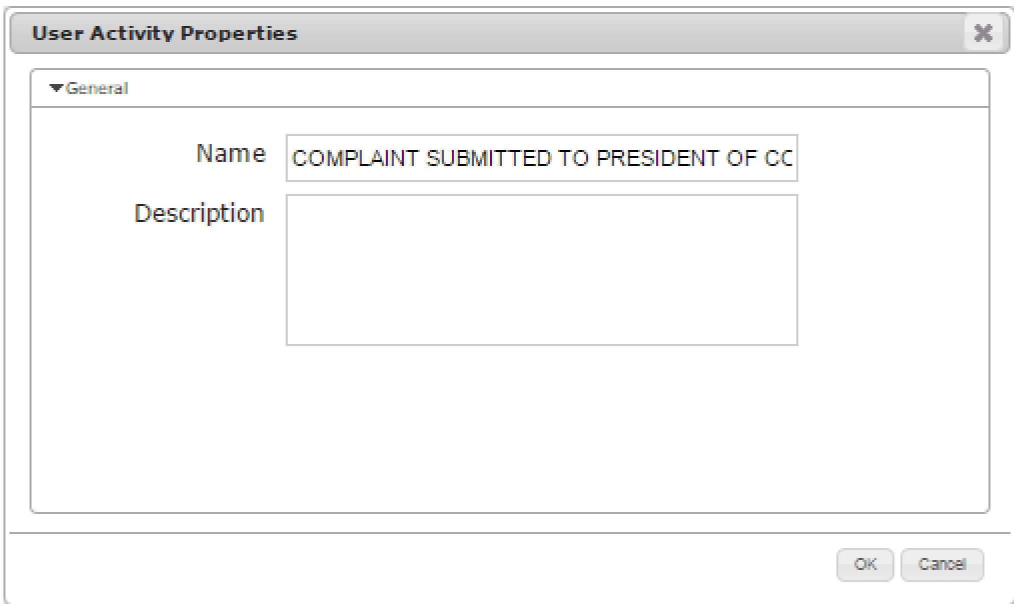


Figure 8: Creating a New User Activity

Field Name	Description & Instructions
Name	Enter the **Name** for the User Activity. It usually represents a brief description of the activity. Please note that the activity name is what the user sees on the shape in the *Design Area* (Figure 9).
Description	Enter a brief **Description** of the User Activity. It is usually a short overview of the activity, understandable to all roles involved in its implementation.

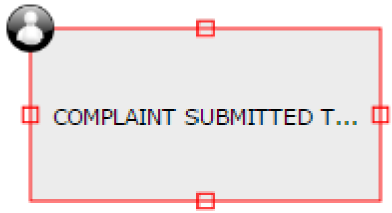


Figure 9: Viewing User Activity Element Title

Managing Transitions

The relationship that defines the completion of one action and the start of another action within a process is called a **transition**. In a process diagram, the arrow drawn between two actions represents a transition.

Transitions can also be defined as graphical representation of the passage from one step in the workflow process to another. In *Designer*, the following types of transitions are distinguished:

- Simple Transitions
- Action Transitions

The table below provides information about the types of transition that each activity/shape in *Workflow* can have.

Activity Name	Transition Type	Quantity
Start	Action	One
User Activity	Action	One or more

Simple Transitions

A **simple transition** is a passage from system-generated activity (start) to another (user activity).

A peculiarity of this type of transition is that it is devoid of any properties. The only action that can be performed with this transition is removing it. Please, refer to the Managing Workflow Processes section of the present document for more information on how to remove connections.

An example of a simple transition is given in the figure below.

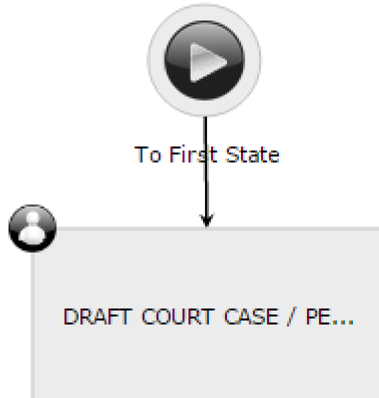


Figure 10: Simple Transition

Action Transitions

An **action transition** can be described as a passage from user activity or process start point to other workflow process instances.

When connecting a shape for user activity with other process elements, you are requested to define properties for the action. These properties are described in the paragraph below.

An example of an action transition is given in the figure below.

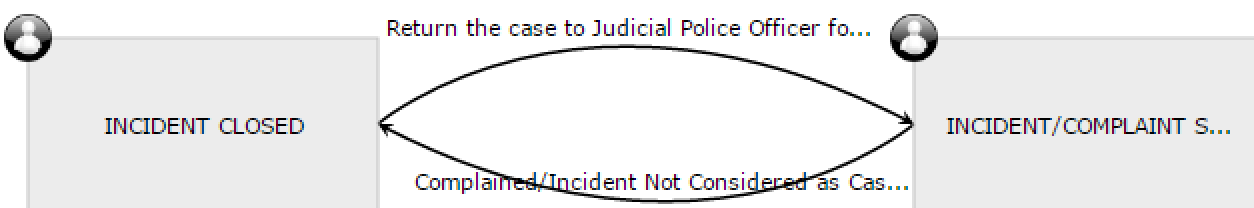


Figure 11: Action Transition

Setting Action Transition Properties

In order to set the properties for this type of transition, provide general information about the action.

In the *General* tab (Figure 12), specify the information described in the table below:

Field Name	Description & Instructions
Name	Enter the name for the activity. It usually represents a brief description of the activity. Please note that the activity name is what the user sees on the shape in the *Design Area*.
Description	Enter a brief description of the activity. It is usually a short overview of the activity, understandable to all roles involved in its implementation.

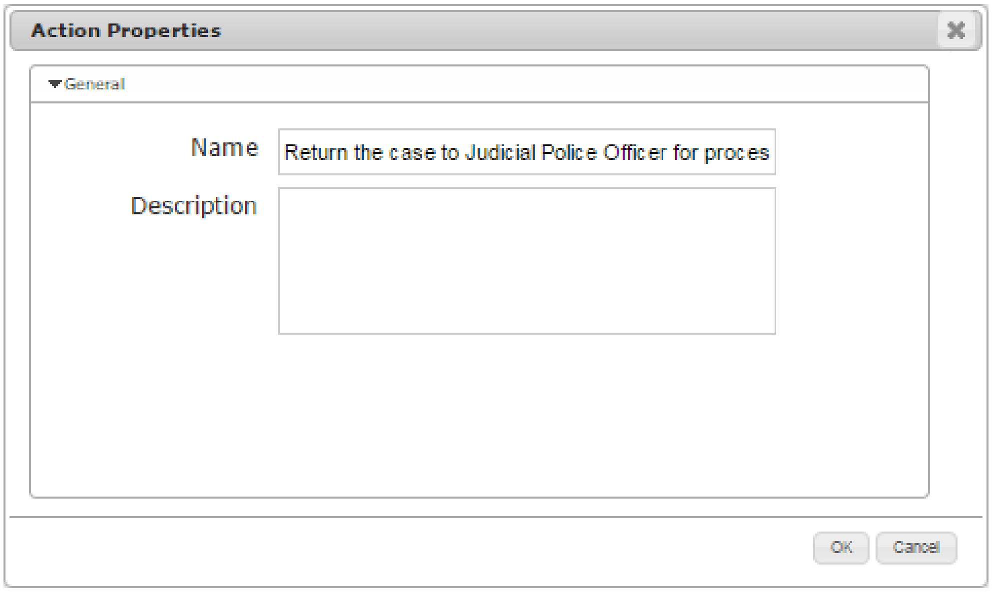


Figure 12: Defining Action Properties

MANAGING ROLE ACTIONS

This chapter outlines how you can manage role actions in the *Workflow* console of the *Settings* section in *Rwanda IECMS*. More specifically, it describes how to grant different user roles with specific permissions to perform actions in various states of the workflow processes defined for the application.

Accessing the Role Actions Sub-section

The *Role Actions* sub-section can be accessed at Settings → Workflow → Role Actions (Figure 1).

Once you access the *Role Actions* sub-section, you will be presented with the list of all processes / states you can manage action permissions for (Figure 13).

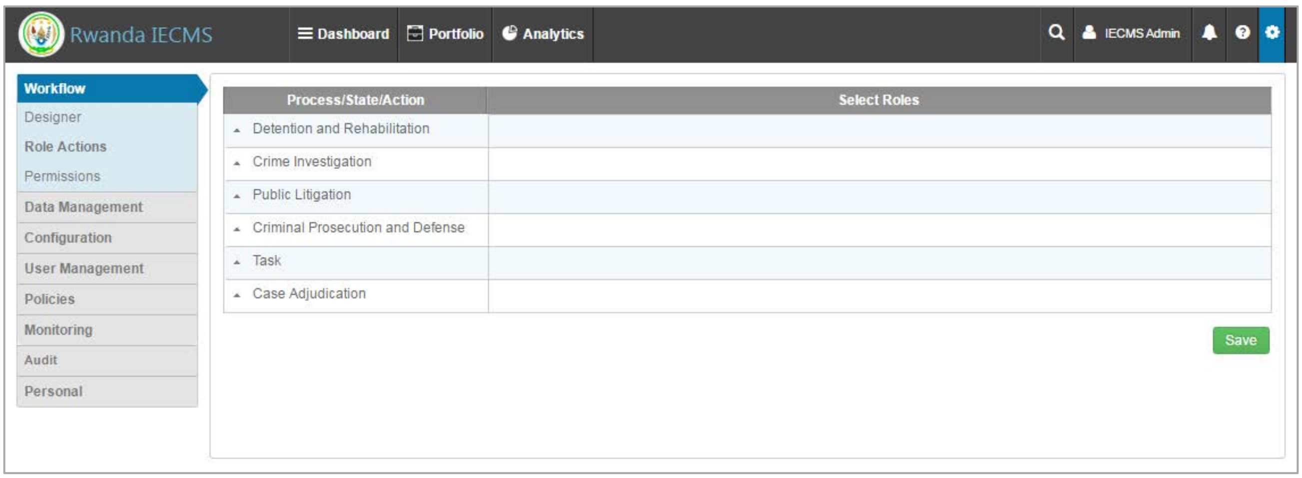


Figure 13: Role Actions Sub-section

The information displayed on the screen for each category includes the following:

Component Name	Description
Process / State / Action	This is the hierarchy of the processes and states available in the system.
Select Roles	Specify the user roles that will be granted with permissions to perform actions in the given process / state. For more details, see Managing User Roles.

Viewing the Sub-section Item Details

In order to view the details of the selected item, expand it by clicking the small triangle to the left of the item name (Figure 14). Once the lowest level of the item hierarchy is opened, the roles of the users who can perform actions over the selected item will be displayed.

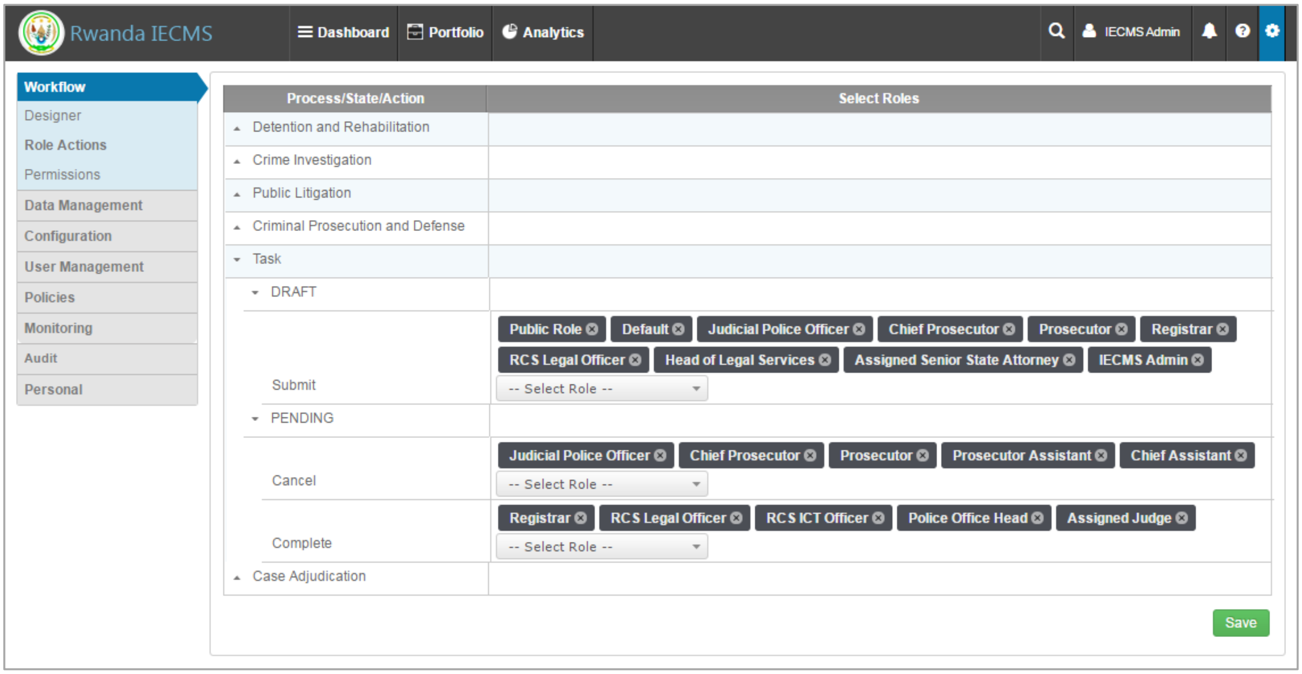


Figure 14: Viewing Selected Item Details

Managing User Roles

This chapter outlines how to add and delete user role permissions for the items.

Adding a User Role

It is possible to define the user roles who will be granted with permissions to perform actions with the selected items.

In order to add a user role for a particular item, follow the steps below:

1. Go to **Settings → Workflow → Role Actions**...
2. Expand the item you want to change the permissions for by clicking the small triangle to the left of the item name (Figure 14).

3. Select a user role from the drop-down list.
   Note: You can select multiple user roles for an item.
4. Click the **Save** button to finalize the process of adding user roles.

Deleting User Roles

In order to delete a user role and revoke the user permissions for an item, click the **(Delete)** icon to the right of the user role name.

MANAGING PERMISSIONS

This chapter outlines how you can manage permissions in the *Workflow* console of the *Settings* section in *Rwanda IECMS*. More specifically, it describes how to create rules that will govern the appearance of the data entry fields at different stages and states of the approval workflow that dataset items (e.g. projects, agreement, etc.) should go though.

Accessing the Permissions Sub-section

The *Permissions* sub-section can be accessed at Settings → Workflow → Permissions (Figure 1).

Once you access the *Permissions* sub-section, you will be presented with all the rules available in *Rwanda IECMS* and the permissions set in them (Figure 15).

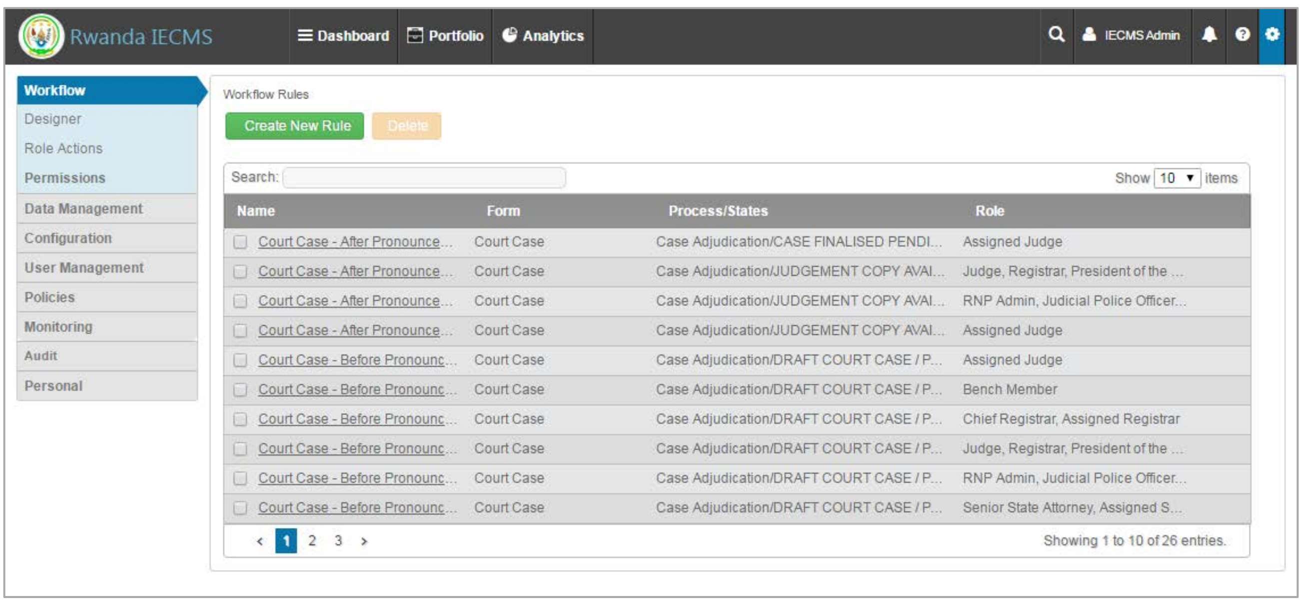


Figure 15: Permissions Section

The information displayed for each permission rule includes the following:

Component Name	Description
Name	This is the name assigned to the permission rule.

Form	This is the data entry form the rule is applied to.
Process / States	This is the process / state that the rule is valid for.
Role	This lists the user roles that will have permissions to manage the data entry fields in a way that is described in the rule at the given stage of the form workflow.

Viewing Permission Rule Details

In order to view the details of the selected permission rule, click the rule name (Figure 16). The details of the selected rule will be displayed on the screen.

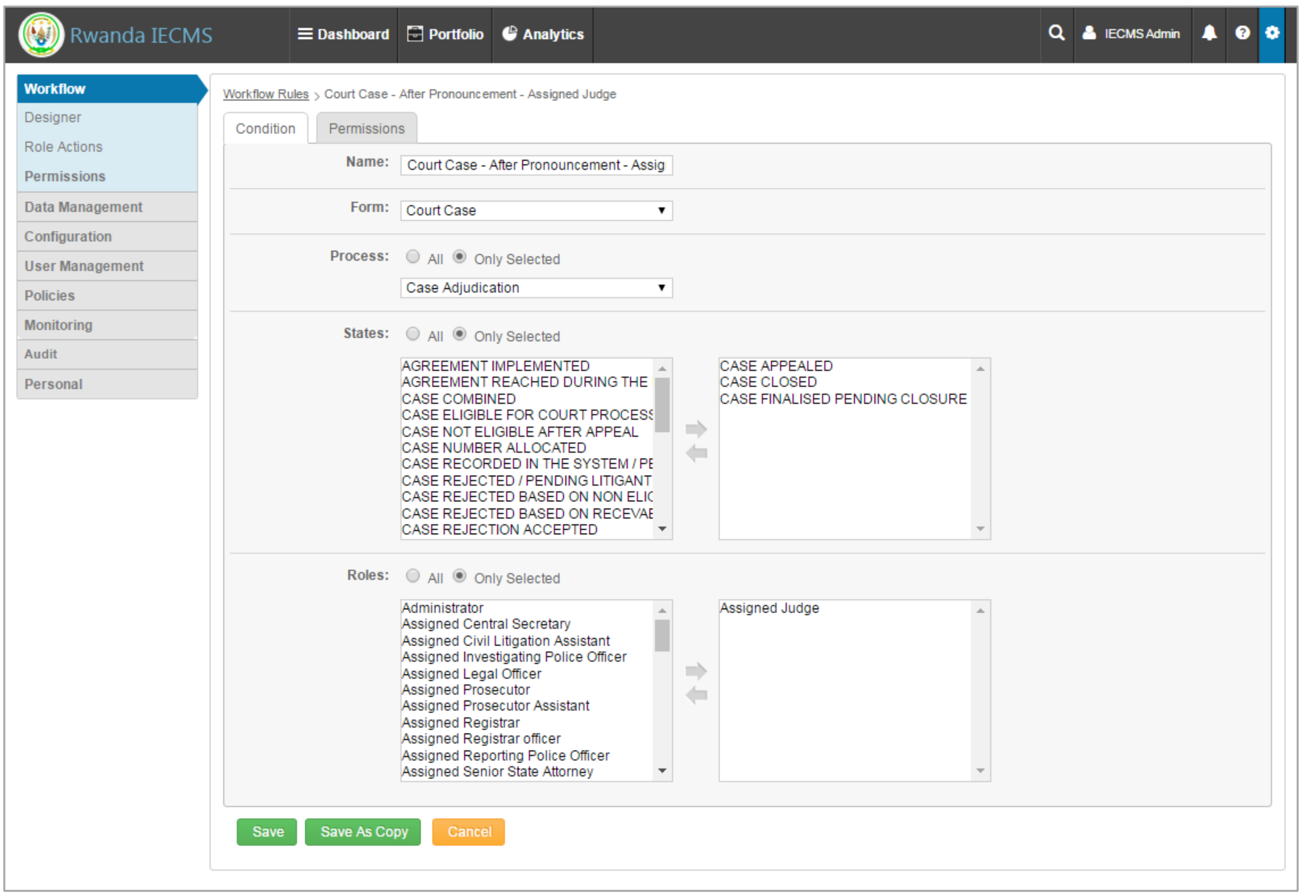


Figure 16: Viewing Selected Rule Details

Searching for a Permission Rule

The *Permissions* sub-section in the *Workflow* console is enhanced with a reliable and versatile search mechanism that allows locating any permission rule recorded in the application based on the keyword search criteria. The search mechanism enables powerful matching capabilities using single words and phrases.

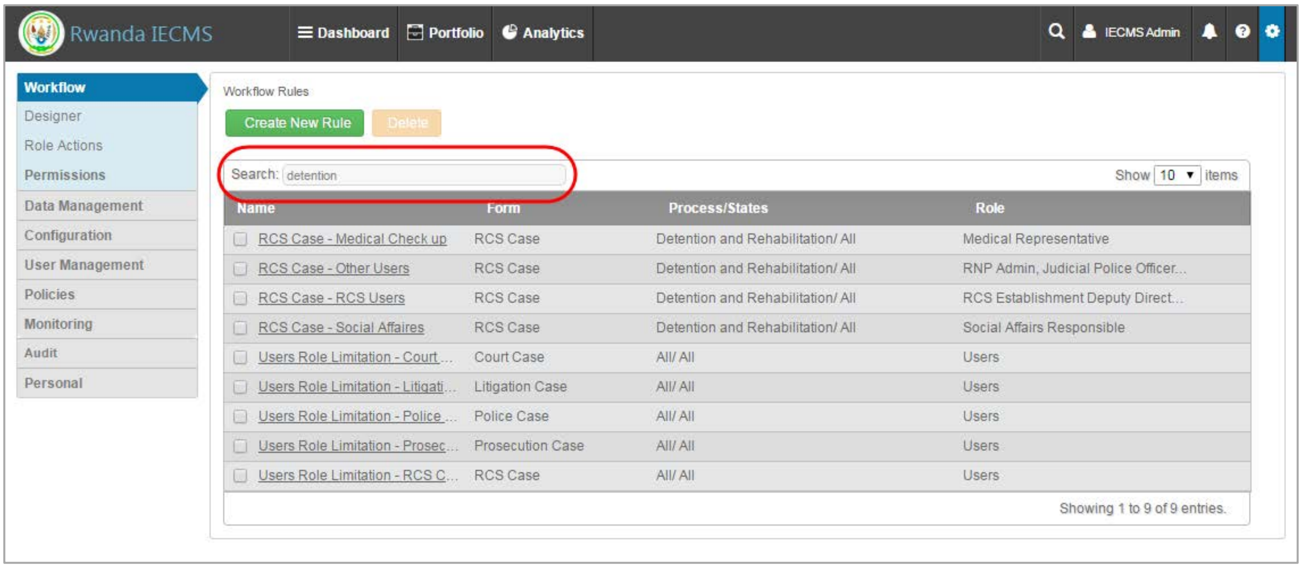


Figure 17: Looking for a Permission Rule

In order to search for a definite permission rule, you need to enter the keyword in the search box above the permission rules table. The results returned will display the permission rules that match the search criteria.

Setting the Number of Entries per Page

By default, each sub-section in the *Workflow* console is set to display ten entries per page to ensure fast page loading. However, you can define to view a greater number of entries per page. Please, note that setting a higher number of entries to display on each page can potentially impact page load time since you will load more data with each page.

In order to set the number of entries per page, select the preferred number from the **Show…entries** drop-down list in the upper right corner of the workflow rules table. The exact number of items will immediately be displayed on the screen according to your selection (Figure 18).

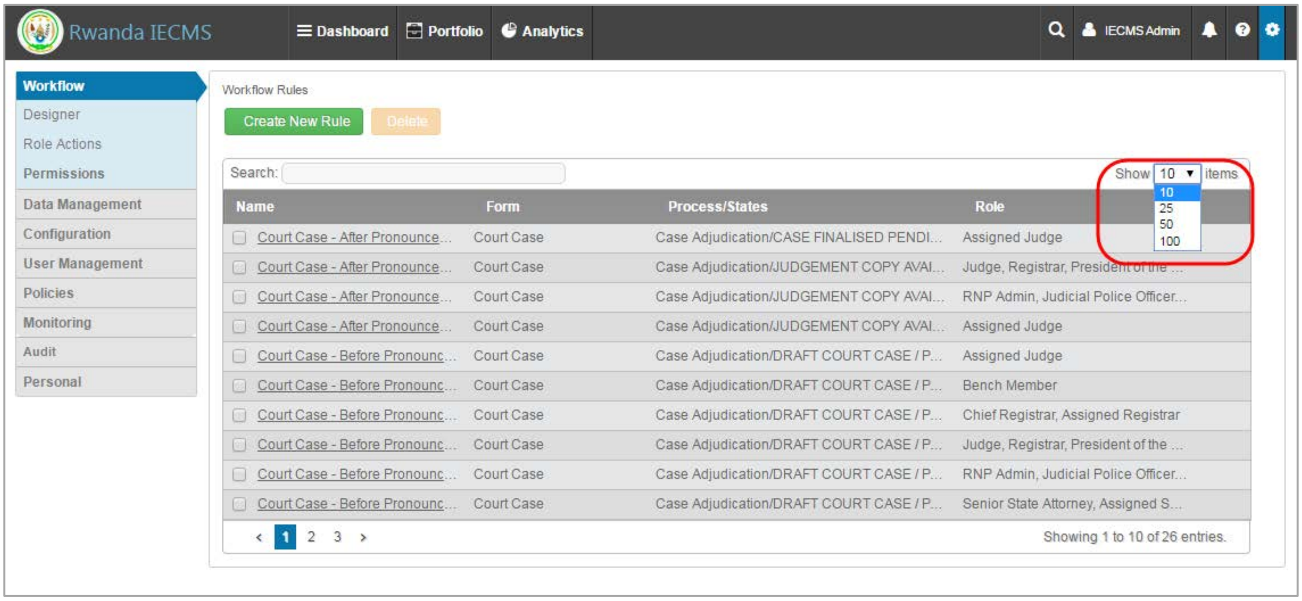


Figure 18: Setting the Number of Entries per Page

Note: Even if you limit the number of displayed items within the table, the simple search tool will find the searched element from the entire list of items.

Browsing among Permission Rules

The *Permission* sub-section has been enhanced with the pagination option. This means that it is enabled with the possibility of splitting the list of records in the field into pages for paged navigation.

To navigate through the pages, you can use the page numbers at the bottom of the field, as well as the **First** and **Last** arrow buttons.

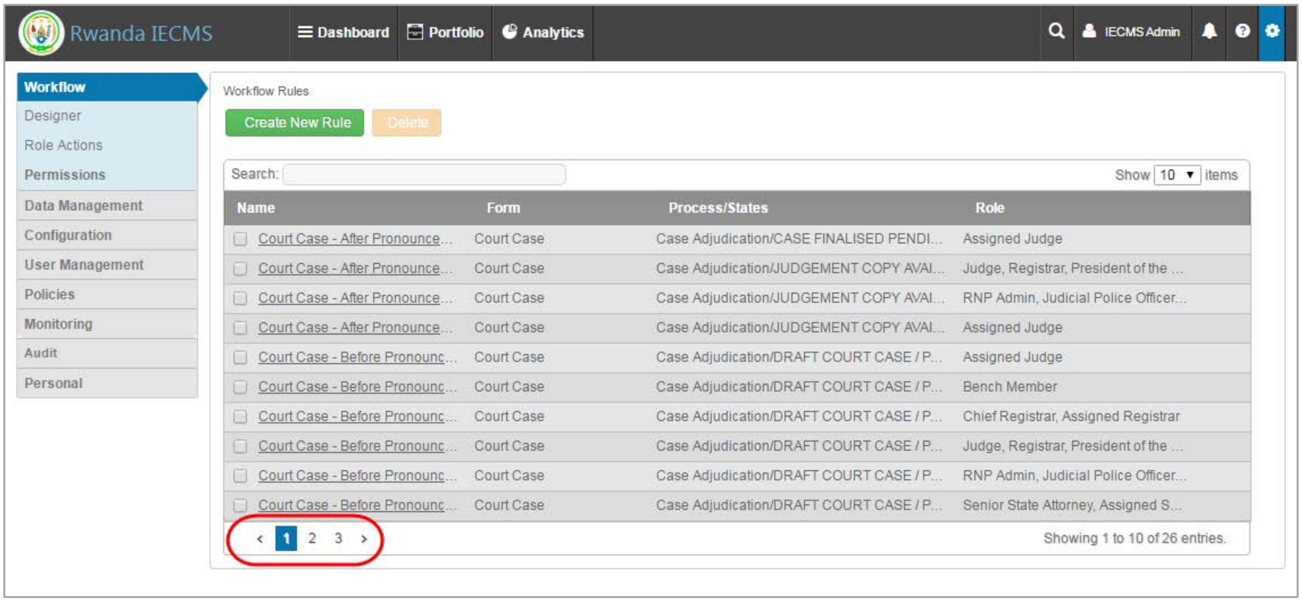


Figure 19: Browsing among Permission Rules

Managing Permission Rules

This section outlines how to create, edit, and delete permission rules.

Creating a Permission Rule

In order to create a permission rule, follow the steps below:

1. Click the **Create New Rule** button in the upper left corner of the screen (Figure 20). You will be directed to the *Rule* sub-section where the data entry form for adding a new permission rule will be displayed.
2. Provide the information requested in the following tabs of the data entry form:
   - Condition
   - Permissions
3. Click the **Save** button to finalize the process of creating a new permission rule.

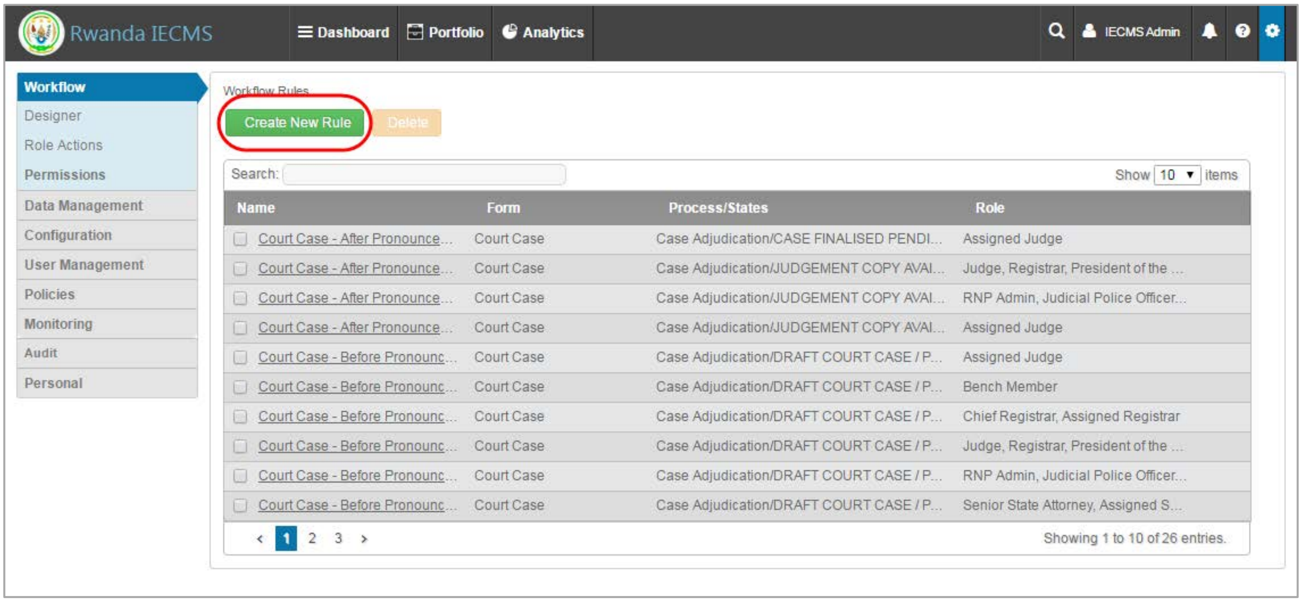


Figure 20: Creating a Permission Rule

Condition

In the *Condition* tab (Figure 21) of the permission rule form, you are requested to provide such information about the role permission as the permission rule name, application, state, etc.

For more details on how to provide the information requested in the *Condition* tab, refer to the table below:

Column Name	Description
Name	Enter the name for the permission rule.
Form	Select the data entry form the rule will be applied to from the drop-down list. The following options are available: • Party • Police Case • Prosecution Case • Task • Court Case • RCS Case

	• **Litigation Case**
Process	Specify whether the rule will be applied to the entire data entry form or only to some of its processes by activating the respective radio button. If the *Only Selected* option is activated, you will have to indicate the processes the rules will be applied to. Note: Selection of the data entry form process will filter the *States* field and display only the items that are related to the selection.
States	Specify whether the rule will be applied to all states that the selected data entry form has or just a sub-set of them by activating the respective radio button. If the *Only Selected* option is activated, you will be asked to select the states the rule will be applied to. To do this, select the respective instance in the *Available* list and click the **(Select)** button. The selected state will appear in the *Selected* list. In order to remove a selected state, choose the instance to remove in the *Selected* list and click the **(Unselect)** button. The selected state will be moved to the *Available* list.
Roles	Specify whether the rule will be valid for all user roles having access to the form or just a sub-set of them by activating the respective radio button. If the *Only Selected* option is activated, you will be asked to select the roles the rule will be valid for. To do this, select the respective instance in the *Available* list and click the **(Select)** button. The selected role will appear in the *Selected* list. In order to remove a selected role, choose the instance to remove in the *Available* list and click the **(Unselect)** button. The selected role will be moved to the *Selected* list.

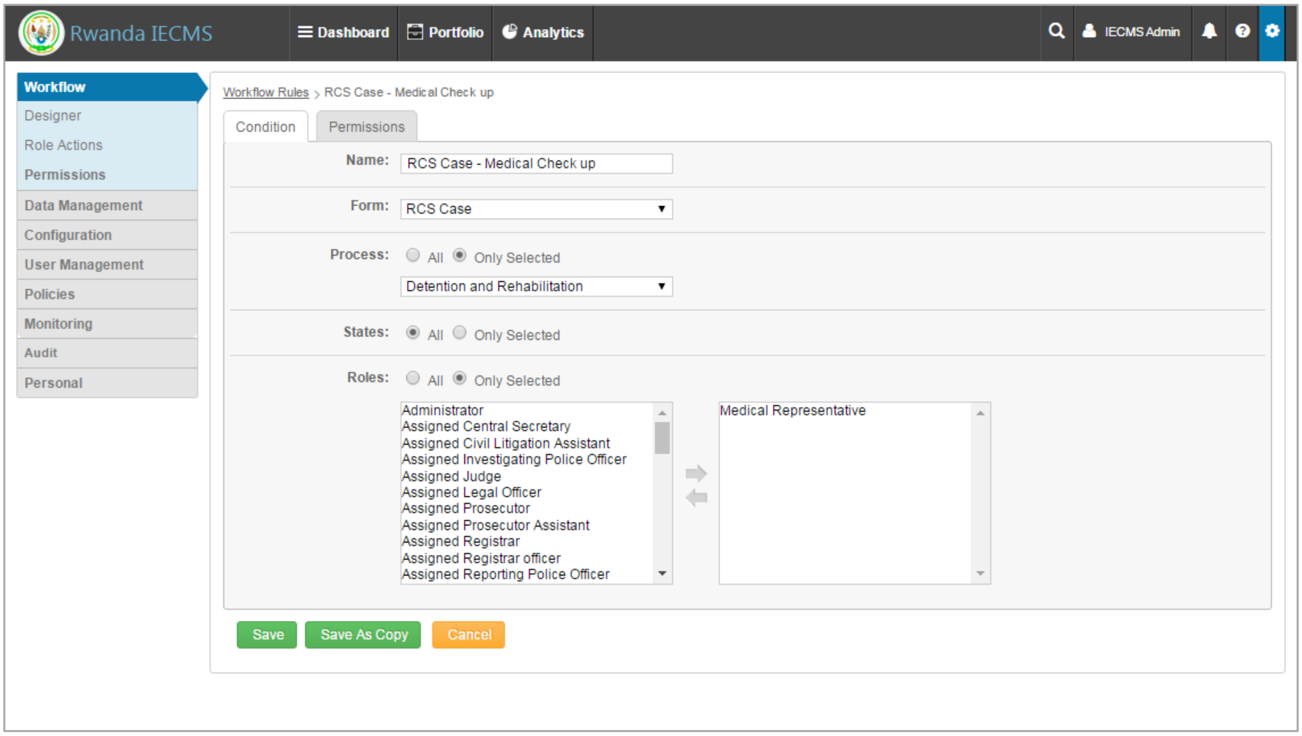


Figure 21: Adding a Condition for the Permission Rule

Permissions

In the *Permission* tab (Figure 22) of the permission rule form, you may control how the fields in the DE form will be displayed to the selected user roles at the selected states.

Please, note that by default, all fields in the data entry form are set to be displayed in the editable mode. However, if you want to set different appearance options for the fields, follow the steps below:

1. Use the switcher in the furthermost right column of the fields table to be able to define a different appearance option for the field.
2. For each field, define the role's access permission for the field by activating the respective radio button. The following options are available:
   - Hidden – the field will be not be displayed to the selected user roles when the form is in the selected states.
   - Read Only – the field will be displayed in a read-only mode to the selected user roles when the form is in the selected states.
   - Edit – the field will be displayed in an editable mode to the selected user roles when the form is in the selected states.

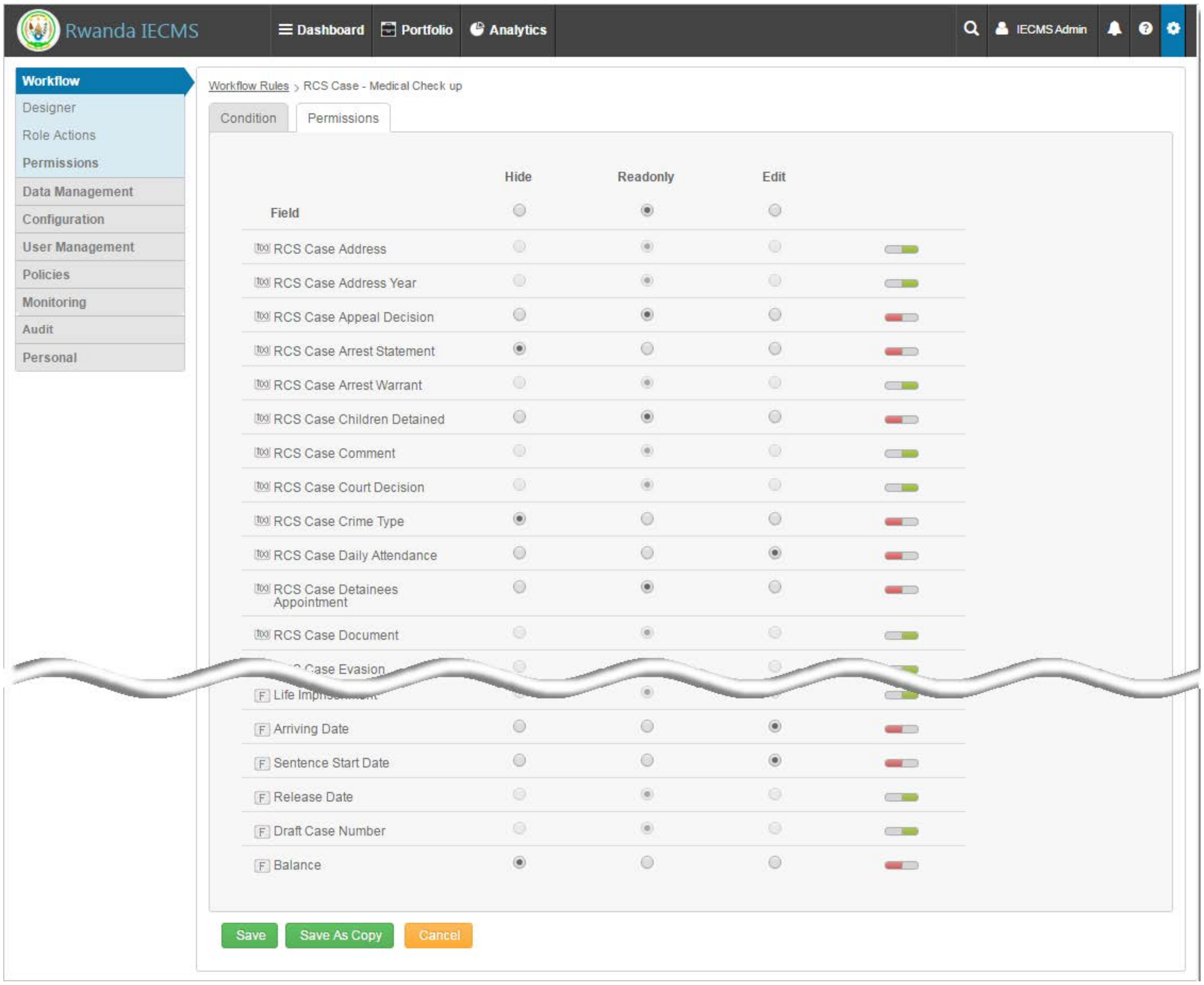


Figure 22: Specifying DE Field Permissions

Creating a Copy of the Rule

The *Permission* sub-section in the *Workflow* console is enhanced with a mechanism that allows creating unlimited number of rule copies. Using this mechanism, you will be able to save the rule with a different name and different set of conditions without overwriting the original rule. This way, you will be able to save time and effort of creating a new rule from scratch, while keeping the source rule intact.

In order to create a copy of a rule, follow the steps below:

1. Click the name of the rule you want to make a copy of.
2. Introduce any changes to the rule settings, as you think is appropriate.
3. Click the **Save as Copy** button to create a new rule.

Deleting Permission Rules

In order to delete a permission rule, follow the steps below:

1. Select the checkbox to the left of the rule to delete. Please, note that you can select multiple checkboxes for simultaneous deletion of several rules.
2. Click the **Delete** button in the upper left corner of the screen.

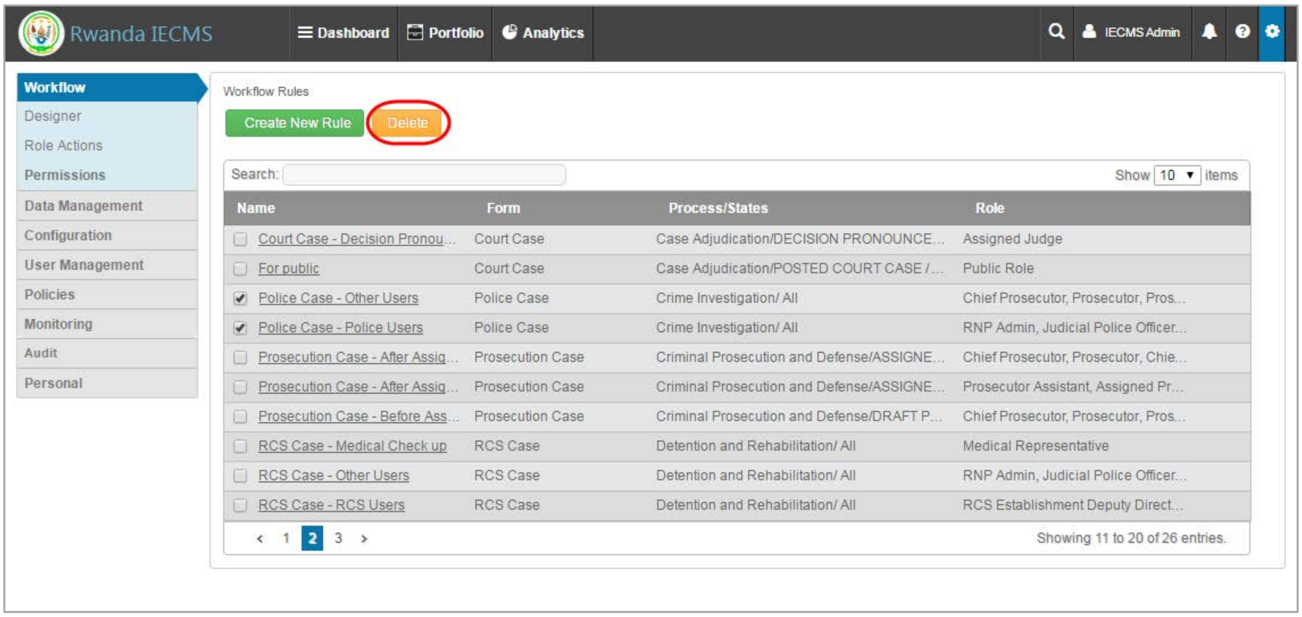


Figure 23: Deleting Permission Rules

LOGGING OUT

Once you have finished using the *Rwanda IECMS* application, it is necessary to log out. To log out from the application, click your account name in the upper right corner of the application window and then click the **Logout** link.

REFERENCES

Please, refer to the following Rwanda IECMS related documents to obtain more information about the system and how it functions:

- Rwanda IECMS Analytical Interface User Manual
- Rwanda IECMS Portfolio User Manual
- Rwanda IECMS Dashboard User Manual
- Rwanda IECMS Rwanda National Police Application User Manual
- Rwanda IECMS Rwanda National Public Prosecution Authority Application User Manual
- Rwanda IECMS Rwanda Judiciary Application User Manual
- Rwanda IECMS Rwanda Correctional Service Application User Manual
- Rwanda IECMS Civil Litigation Service Application User Manual
- Rwanda IECMS Task Form User Manual
- Rwanda IECMS Legal Entity Form User Manual
- Rwanda IECMS Individual Form User Manual
- Rwanda IECMS Case Processing Workflow User Manual
- Rwanda IECMS Settings Administrator's Guide
- Rwanda IECMS User Management Administrator's Guide
- Rwanda IECMS Data Management Administrator's Guide