103-wm-parm-302: Definition of Activities

Govern V6

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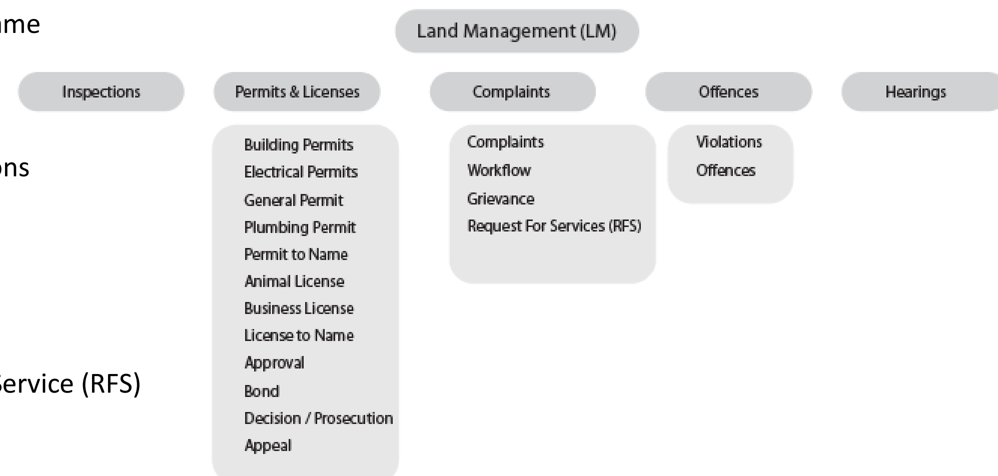
Introduction

Govern for Windows

Workflow Management is a module that is designed to replace the Workflow process that was associated with the Land Management (LM) module in Govern for Windows. In Govern for windows the LM Workflow process can be divided into the following five (5) areas with the associated sub-categories referred to as Kinds:

- Permits & Licensing (Multiple Kinds)
    - Building Permits
    - Electrical Permits
    - General Permit
    - Plumbing Permit
    - Permit to Name
    - Animal License
    - Business License
    - License to Name
    - Approvals
    - Bonds
    - Decisions
    - or Prosecutions
    - Appeal
- Complaints
    - Complaints
    - Workflows
    - Grievance
    - Request for Service (RFS)
- Offences
    - Violations
    - Offences
- Hearings
- Inspections

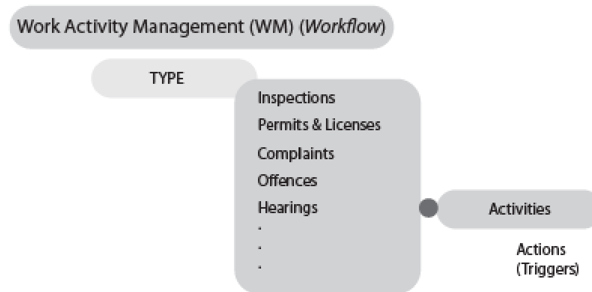


Within the above Kinds, there were Activities that surrounded the finalization process. These activities had Actions that could be automatic or triggered by the user.

Although functional, there were limitations to the structure. For example the number of Kinds were fixed. In some instances, users may need to create other types of Licenses, i.e. a Wedding License or a Death Certificate, this would necessitate the modification of existing Kinds, as an example.

Govern for OpenForms

Reviewing the limitations of Govern for Windows, the Workflow Activity Management was created. The structure allowed for a creating an unlimited number of processes, e.g. Permits, Licenses, Inspections, and so on, while maintaining the associated Kinds and Categories.

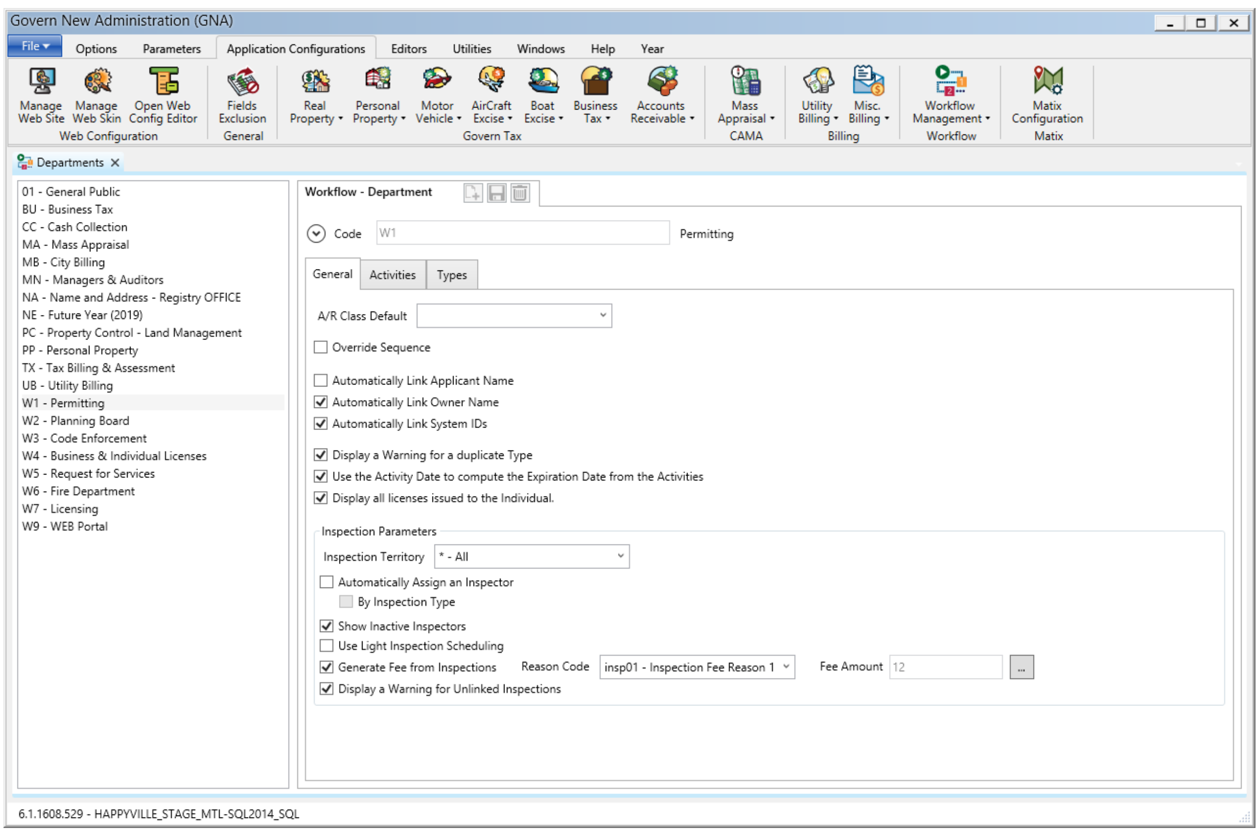


Overview

Workflow Management – Department

The **Workflow – Department** form provides a flexible method for creating and maintaining the *Kinds* and *Categories* required in Govern, e.g. Licenses, Complaints, Offenses, Permits, Workflows, and so on, as well any new ones that arise as a result of a business need. This is performed through the various interfaces in the *Govern New Administration* (**GNA**).

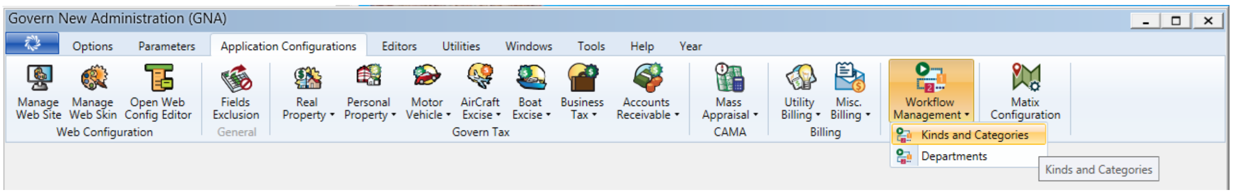
Parameters can be set at the department level, or for each permit or license type. If there is an overlap, a hierarchy is followed. Settings at the topmost specific level have the highest priority; i.e., those set for the permit or license type override those set for the department and those set for the department override those set for the organization.



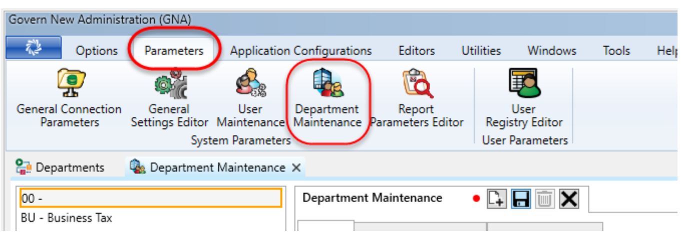
User Interface

The Workflow Management form with Parameters and Definitions is accessed through the Govern New Administration (GNA) under the Application Configurations menu. The menu from the icon has options for the following:

- Kinds and Categories
- Departments



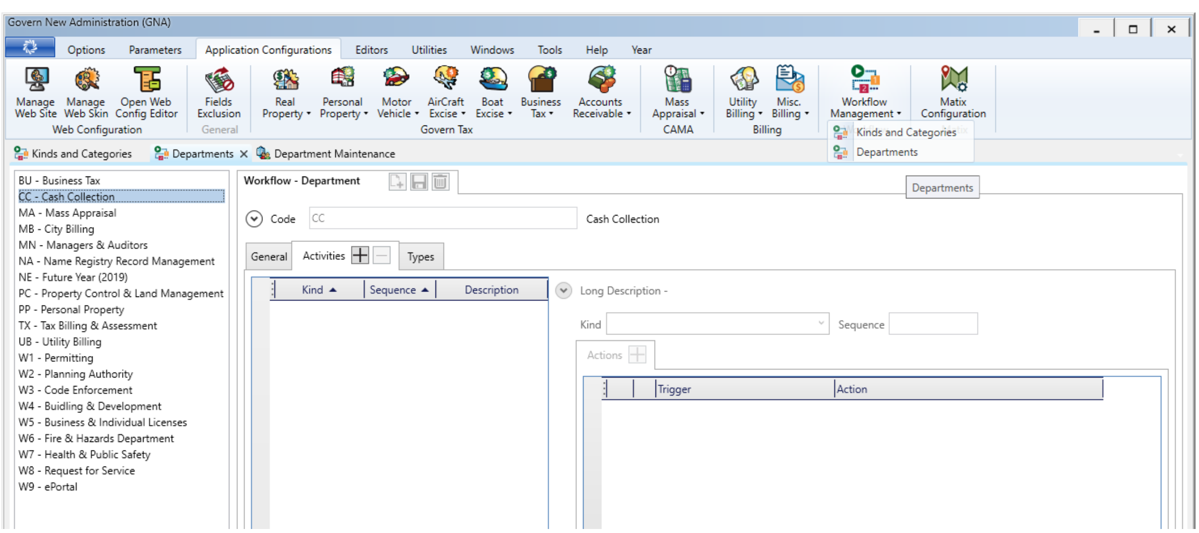
As is standard for Govern interfaces, lists are displayed on the left hand pane. As items are selected on the list the parameters and details are displayed in the central pane. In this interface the list of departments is displayed on the left hand pane (Table: **USR_DEPARTMENT**). Departments **cannot** be added through this interface, only Department parameters related to the Workflow can be modified. *Departments are created in the Department Maintenance form under the Parameters tab in the GNA ribbon. Refer to Govern Department Maintenance for details.*



To open the **Workflow – Department** form in GNA…

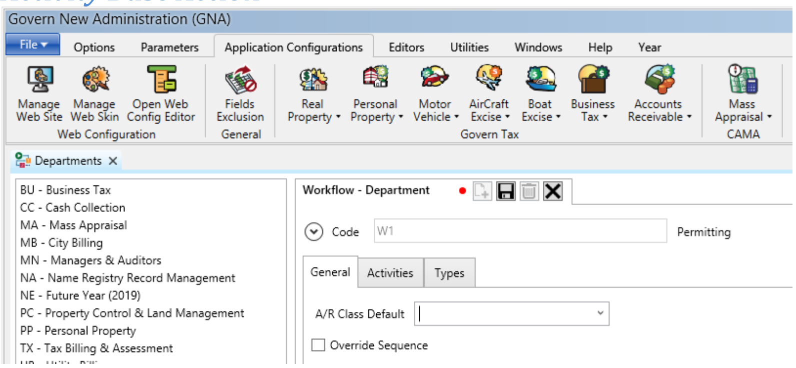
1. On the GNA ribbon, select *Application Configurations (tab) > Workflow Management >* **Departments**

The Workflow Department form is presented in the center pane.



What is an Activity?

Activity Base Action



The **Activities** tab of the *Workflow – Department* form is used for creating Activities that can be selected by the department when defining permit, offense and workflow processes. Activities are the various stages in a workflow process. For example, in a permit certification process, the user could define the following steps, (1) Application demand, (2) Information Verification, (3) Acceptance of the Application, and finally (4) Plan Review, as the preliminary activities. Activities can be set to be generated automatically, based on the outcome of precursor activities; e.g., if the Application Verification was completed successfully, the application is automatically accepted and a Plan Review is initiated; otherwise, a request for more information is sent out. Activities are recorded by Department and Kind.

Activities may also be set to trigger other events or actions based on the completion status of the activity. These can include a notification, a request for multimedia documents, the generation of a report, the execution of a business rule, the scheduling of an inspection or hearing, time cost code generation, or permit certification, and so on.

Accessing List of Activities

When available, a list of existing activities can be seen in the Workflow Department form. To access this form, in the GNA ribbon,

1. Select *Application Configuration (tab)* > *Workflow Management* > **Department**.
2. In the Workflow – Department form, if already existing, click to select a department from the list in left hand column.
3. You will note on the right hand side of the **Workflow – Department** form, three (3) sub tabs labelled *General*, *Activities*, and *Types*. Click the tab marked **Activities**.
4. On the Activities tab is a column that will contain, when created, a list of the activities associated with this Department code.

The records listed under the *Activities* tab are activity codes (ACTIVITY_CODE) from (Table: **WM_PARM_ACTIVITY**). These correspond to the department codes that have been selected on the left hand pane.

Columns Displayed

The Activities tab displays the following details regarding the Activity:

NOTE: All columns can be sorted. In the instance of multiple **Kinds**, this column can also be *Filtered* for selective viewing.

Kind – This is the classification of activity; for example in the instance of a Permit the Kind could be Building *Permit*, Electrical *Permit*, and so on.

Generated Tables

When created, the Kind will generate a (Table: WM_KIND_<kind code>). The Category will create a (Table: WM_CATEGORY_<category code>). If requested, each table will also generate respective required **Added Fields**.

Sequence – The *Priority Sequence* number is a designation of order of precedence. The item with the lowest priority sequence number will be executed first; for example, one is executed before two.

NOTE: The Sequence number must be unique within the same KIND.

Description – this information is taken from the Long Description field.

When an Activity is selected, the stored information associated with the activity is displayed. This information can be edited.

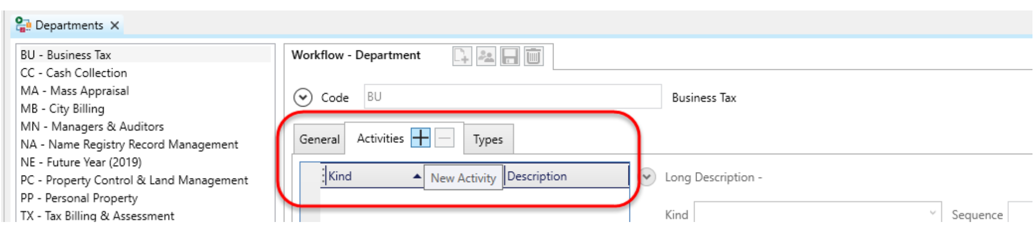
NOTE: When an Activity is created, a new record is created in (Table: **WM_PARM_ACTIVITY**). In addition, a record in (Table: **VT_USER**)
where **`TABLE_NAME = 'WMACTIVITY'`**
is created for the descriptions.

The CODE in (Table: VT_USER) will be the **Activity_ID** of the record from (Table: **WM_PARM_ACTIVITY**).

RULE: **Action**s can only be added after an Activity has be created.

Creating an Activity

Activities are created in the *Govern New Administrator* (**GNA**).



Adding an Activity

1. Click New Activities [+] to add an activity to the list. When creating an activity, there are parameters that are mandatory

Deleting an Activity

2. To delete a newly created Activity, click **Remove Activity** [-], to delete a newly created activity.

Actions

Activities can perform different actions based upon the completion status of the activity. Actions that are linked to Activities are saved in (Table: **WM_PARM_ACTIVITY_LK_ACTION**)

Actions tab

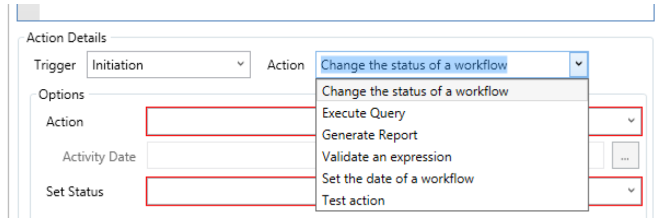
The Actions tab is linked to each activity under the Activities tab. When a base activity has been created, Actions can be added to it. To add an action to an activity...

1. Click to select the activity under the Activities tab.

2. On the right hand side is an Actions tab; click **Add Action** [+] to add a new action.

Actions that are linked to Activities are saved in (Table: WM_PARM_ACTIVITY_LK_ACTION

Actions & Triggers



The action selected can perform some of the following, i.e. change the workflow status, execute a query, generate a report, and so on. *See Action Details group below for the current list of actions.* A **Trigger** is a change in the state of a Workflow that initiates an action. For example an activity can be set to "trigger" events such as a request for a multimedia document, generating a report, executing a business rule, or schedule an inspection.

Adding an Action…

When an activity exists, it is then possible to add an **Action**. An Activity will need to exist. In the list of existing activities in the Workflow Department form, select an activity.

1. On the right hand side, note the **Actions** tab item.
2. Click the Add Actions button, [+]. A new action will be created in the grid below.
3. To delete an Action, click Remove Action [x] on the line second column of the line that the action appears in the grid.

NOTE: No actions are committed to the database until a **Save** has been initiated on the main Workflow – Department tab.

When an Action is created, there are associated Triggers and Actions that must be set. These are seen below the grid in the Actions Details group.

NOTE: Triggers and Actions are required fields.

1. Select a Trigger from the combo box.
2. Click to select an Action; complete the required parameters. Multiple actions can be added to the activity.
3. Click Save to save the action.

After the **Save** action, the actions are sorted by the *Trigger* column in the grid under the *Actions* tab.

Action Details group

Trigger – This is the completion status for the action. Options are the following:

- **Initiation** - Specify the point at which the selected action is to be initiated. (Table: **V_VT_SY_ACTION**).
- **Completion Status 1** - Completion Status 1, corresponds to a **Yes** response indicating the activity step has been successfully completed
- **Completion Status 2** - Corresponds to a **No** response indicating the activity is not successfully completed
- **Completion Status 3** – Corresponds to a special response indicating the activity step has been accepted on user-defined conditions.
- **Completion Status 4** – Corresponds to a **Restart** indicating the activity step has been suspended and must be restarted.

- **Completion All Status** – This is an indication of any of the above.

Action – Select the Class name of the action that is to be completed. Users should note that each time a selection is made from the combo-box, the User Interface (UI) will be modified to accommodate the selection.

NOTE: The options available under the Action combo-box are based upon the Classes that have been implemented.

UI changes in the Options group appear with the following combo-box selections:

- **Change the status of a Workflow** – Select this option to change the status of a Workflow
    - **Action** – *Issue Number* or *Issue Certificate; note that these are hard-coded in the system and require Govern to modify them, but descriptions can be modified through the Resource File.*
    - **Activity Date** – This parameter is populated by an expression that returns the date that is used to update (Table: WM_MASTER.NUMBER_DATE) or (Table: WM_MASTER.CERTIFICATE_DATE).

      NOTE: In Govern, this date is the *Completion Date* of the activity; in this case the expression would be: `@parmActivityDate`

    - **Set Status** – Options are, *Closed*, *On Hold*, *Open*, *Received*, or *Void.* These options are user configurable through (Table: VT_USR) and are used to update (Table: WM_MASTER.STATUS). They are taken from (Table: VT_USER) where… `Table_name = 'WMSTATUS'.`

    By default the values are automatically created by the Database Verification: CLOSED, HOLD (i.e. *On Hold*), OPEN, RECEIVED, VOID

- **Execute Query** – This query executes the following three (3) types of action queries, Update (U), Insert (I), and Delete (D).
  Select from a list of configured queries. All queries that are accessible through the Govern *Action Queries* editor are presented by their *Long Descriptions*.

    BUSINESS RULES (For Action Queries)
    The *Execute a Query* option adheres to the following Business Rules:
    • The selected query must exist in (Table: **USR_QUERY**) and (Table: **USR_QUERY_VALUE**).
    • Queries must be created prior creating any actions in Workflow Department Editor.
    • When a Query is added after the *Workflow - Department* editor has been opened, it will not be refreshed in the *Workflow - Department* editor dropdown.

- **Generate Report –** Choose a Report from the list of reports that are accessible to the Department. This is a required field. There are available options to:
    - **Bypass Report Prompts – Use Current ID(s)** – To bypass the report with prompts.
        - When selected, the current Govern IDs will be used as parameters for the Report. This information will be previewed on the screen, and no input parameters box will be displayed.
          Unchecked, the default, the report will open on a Tab in the form and the user will have to click on *Run Report*, to display the report.

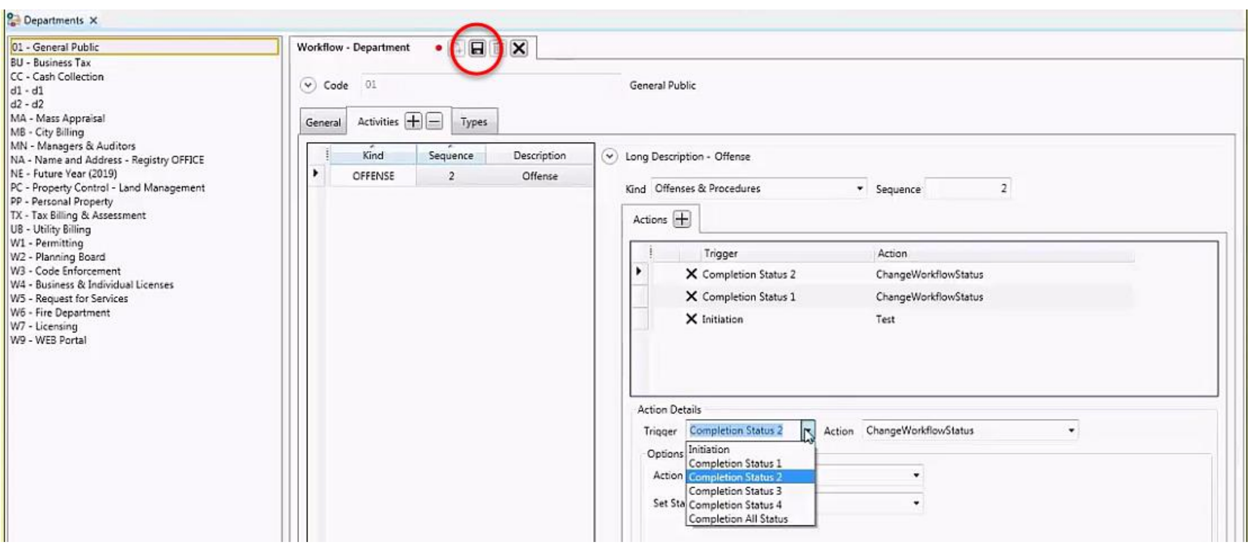
  - **Send to Default Printer** – This will send the report to a default printer that has been configured through Windows, or Terminal Server when users are configured with Terminal Server.
- **Validate an expression** – Configure an Expression that is to be used for validation. Click the ellipsis […] beside the parameter to display the Expression selector screen. *Refer to the Govern documentation regarding Expressions*
- **Set the date of a Workflow** – Select this option to change specified dates. Select the field that is to be evaluated from the **Field** combo-box. Click the ellipsis button [...] beside the **Expression** parameter to display the Expression selector screen. *Refer to the Expressions page on the Wiki for details about Expressions* http://product.govern.harrisgovern.com/100-Expressions
  - **Field** – This parameter will display all queries present in the Action Queries Editor. The Long Description field of the Code is displayed.
  - **Expression** – Enter an expression that will be used to change the specified date field
- **Test action** – Allows the entry of a conditional display of a message through an expression. This can be used for testing purposes.

Multiple Actions

It is possible to have multiple actions on an Activity. For example you can set a *Completion Status 2 – Set the Permit on hold*, and *Completion Status 1 – Generate the permit number*.

Saving Actions

Saves are made with the *Save* icon at the top of the interface.



After configuring multiple actions, when a save is made, the results that are presented in the Actions grid will be sorted by the *Trigger* column.

APPENDIX

Tables

The following tables and related actions are implicated in the implementation of this feature.

Database Tables

(Table: **WM_PARM_ACTIVITY**)

Column	Character	Details
DEPT	varchar(2)	Department Code from WM_PARM_DEPARTMENT
ACTIVITY_ID	int	auto assigned at creation (GUID)
KIND_CODE	varchar(15)	From (Table: WM_PARM_KIND)
ACTIVITY_SEQ	varchar(15)	Numeric Value. Minimum = 0 / Maximum = TBD

(Table: **WM_PARM_ACTIVITY_LK_ACTIONS**)

Column	Sample	Description
TRIGGER_ID	db9f7b96-71ba-4323-a07c..	GUID Contains ???
ACTIVITY_ID	d0a11f35-0145-4792-92b6…	GUID Contains ???
STATUS_CODE	0	0= N/A? | 1 to 4 =Completion status | 5=???

NOTE: Need Report or Query to extract GUID

Record added to…

(Table: **VT_USER_TABLES**)

Column	Description
TABLE_NAME	WMACTIVITY
TABLE_TYPE	3
DESCRIPTION_EN	Workflow Activities
DESCRIPTION_FR	----
BY_YEAR	0
BY_DEPT	-1
BY_JURISDICTION	0
SECURABLE	0

GENERATE_DB_VIEW	?
MAINTAIN_BY_SYSTEM =	

DEVNOTE: Activity records cannot be deleted if they are used in Workflow Type Steps.