

Strategic Series-7005

Strategic Triggers 1

Version 9.0

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Notes

Workbook

Strategic Triggers

The Trigger Toolkit option includes five different types of triggers, which are used to define under what conditions an action should occur:

- Alert
- Button
- Field Change
- Record Save
- Schedule

The Details tab is used to enter setup information about the trigger. The Conditions tab is used to define the conditions under which the trigger is to be executed. The Actions tab is used to define the actions to be taken once the trigger is executed. The Button trigger does not have a Conditions tab because it is a button that is clicked to execute.

All tabs have a navigation pane on the left that allow you to choose what trigger to update. Simply click on the trigger name to highlight that trigger and open it for editing.

Activating and Deactivating Triggers

For both schedule and alert triggers, there is an Active check box that allows you to specify whether or not the schedule trigger is active. Select the check box to make the trigger active or clear the check box to make the trigger inactive. When creating a trigger, this check box defaults to selected.

Tool Bar

All triggers use the standard Tool Bar with an additional component, the Trigger Class dropdown.



The Trigger Class dropdown is used to select the trigger class to be created or updated: User or Internal. As the names describe, triggers can be user-defined or shipped with People-Trak and used internally.

User versus Internal Triggers

All of the trigger types can be either user-defined or shipped with People-Trak and used internally. The Trigger Class dropdown on the trigger Tool Bar allows you to select the trigger class to be created or updated: User or Internal. The dropdown defaults to User, which allows you to create or update your own user triggers.

You can view the Internal triggers by selecting Internal in the Trigger Class dropdown, but the only update you can do is to set the trigger to inactive by clearing its Active check box. You would typically want to do this if you want to modify the internal trigger for your own use.

Alert Trigger

Alert triggers are based on a date within a record. When the specified date meets a defined condition and any additional defined conditions are met, the trigger is executed and its associated actions are taken. Alert triggers are checked to see if their conditions are met when logging into People-Trak, switching between modules and executing NightRun.

Note: The Check Alert Triggers check box in Enterprise Setup allows you to specify whether or not you want NightRun to check alert triggers.

The Alert Triggers process uses a three-tab screen.

Details Tab

The Details tab is used to name the trigger, assign it to a category, and define the Last Execution date

Conditions Tab

The Conditions tab is used to define the conditions by which the alert trigger will be executed. The If Today's Date Is field is composed of four separate fields that make up the alert trigger formula: amount, period, operator, and date. The bottom part of the tab uses the standard query grid.

Amount	The amount field is used to define how many days, months or years will be used in the equation.
Period	The period field contains three options: Days, Months or Years.
Operator	The operator field allows you to set when the trigger will execute: Before, After, Before Anniversary of and After Anniversary of. The Before/After variable will execute sometime before/after the field variable. The Before Anniversary of/After Anniversary of variable will execute sometime before/after the anniversary of the field variable every year.
Date	<p>The date field is the fourth field in the Conditions formula. This field determines what date field will be checked in every record. You may track any date field in People-Trak, such as Birth Date, Next Exam Date, Hire Date, and Seniority Date.</p> <p>In addition to the date field that is being checked, you can add further conditions using the standard query grid.</p>
Active Records Only	The Active Records Only checkbox allows you to specify whether or not you want only active records to be included in the alert trigger. Select the check box to only include active records in the alert trigger. Clear the check box to include all records in the alert trigger.

Actions Tab

The Actions tab is used to define the actions to be taken once the trigger is executed.

Button Trigger

Button triggers are executed by the click of a button. Unlike any other triggers, button triggers require no conditions to be met. You need only set the action and place the button on the screen of your choosing. For example, a button trigger can be used when you want to replace the Emergency screen on the Personal screen with a custom screen. You can make a button that will display your custom screen and insert it in place of the Emergency screen. Now whenever you click this button, the trigger will execute and display your custom screen. Picture, Hyperlink and Button objects on a custom screen can all use a button trigger. The Button Triggers process uses a two-tab screen.

Details Tab

The Details tab is used to enter setup information about the trigger.

Trigger Name	The name of the button trigger.
Category	The category into which the button trigger is to be placed. This category can also be used to secure button triggers. A table that contains all of the existing categories for the current module supports this field. You can only select a valid entry from the table.
Button Caption	The button's caption, which is the text that will be visible on the button when placed on a screen.
Auto Execute	A check box that allows you to specify whether or not the button trigger should be auto executed whenever the screen it is on is displayed. You might want to do this when the button is being used to recalculate totals on a screen. Select the check box to have the button trigger be executed when the screen it is on is displayed, or clear the check box to only have the button trigger be executed when it is physically clicked. When creating a trigger, this check box defaults to not selected.

Actions Tab

The Actions tab is used to define the actions to be taken once the trigger is executed

Trigger Actions

The following is a list of all available trigger actions. The actions that are valid for a trigger vary depending on the type of trigger being updated. See the Actions tab information for each type of trigger for a listing of valid actions for that trigger.

For each action, the Detail:row button allows you to enter the detail for the action. When you click the button, a screen unique to that action is displayed for detail to then be entered.

- Assign Task Assign a task to a user
- Display Message Display a message
- Display Prompt Display message with Y/N prompt
- Display Screen Display a screen
- Execute Procedure Execute a procedure
- Execute Tool Execute a People-Trak tool
- Hyperlink Execute a hyperlink to the specified URL
- Insert Row Insert a row in a grid. Used before Update Field actions.
- Run Document Run a report, letter, label, etc.
- Send Email Send email
- Send Message Send a message to a user
- Set Alarm Set an alarm for a user
- Update Derived Update any derived fields on the current screen
- Update Field Update a field for the current record

Assign Task

The Assign Task action assigns a task to any user, including yourself. There are eight different types of tasks: activity, administration, create, document, edit, link, processing and table. Once the trigger takes effect, the selected task will be sent to the specified user's Inbox. From the Inbox, the user can execute that task, which will run an activity, launch an administrative action, create a new record, run a document, edit records, access a link, run a process, or maintain a table.

Display Message

The Display Message action displays a message on the user's screen. This can be an informative message or a reminder. The entry that executed the trigger is allowed.

Display Prompt

The Display Prompt action displays a prompt with a specified message and then the question "Do you wish to continue?". If the user answers "Yes", the rest of the actions defined for the trigger will be executed. If the user answers "No", the rest of the actions defined for the trigger are skipped. This action can be used to allow the user to escape out of the sequence of actions about to occur. For example, if a series of reports are about to be printed that would take a long time to generate, the user might decide to generate the reports at a later time.

Display Screen

The Display Screen action displays a specified screen.

Execute Procedure

The Execute Procedure action executes code that is not included in standard People-Trak features. This code can be written by you or People-Trak, depending on the feature.

Procedure Type	The type of procedure to execute.
Custom	Custom procedures created by People-Trak for specific customers. The custom code is compiled into a DLL and installed and registered in the People-Trak directory.
Database	Stored procedures in the ACTIVEDB database, which is used by People-Trak. These may be created by People-Trak personnel (for SQL or Access) or by members of your own IT staff (for SQL only, because Access is password protected).
External	External procedures stored in EXE, VBS or BAT files.
Internal	Stored procedures already included in People-Trak.
Procedure Name	The name of the procedure to execute. If the Procedure Type is:
Custom	Enter the name of the custom procedure, if any have been created for you by People-Trak.
Database	Enter the name of the procedure created in the ACTIVEDB database.
External	Enter the name of the EXE, VBS or BAT file. This file must be stored in the People-Trak root directory so it can be shared by all users.
Internal	Enter the name of the internal procedure. This field is supported by a popup that lists the internal procedures for the current module.
Parameters	The parameters required by the procedure, separated by commas. You can enter literals or People-Trak Field IDs.

Execute Tool

The Execute Tool action executes the specified People-Trak tool. This action is only applicable for button triggers.

Hyperlink

The Hyperlink action executes a hyperlink to the specified URL. This action is only applicable for button triggers.

Insert Row

The Insert Row action inserts a row in a grid and is required before Update Field actions that require a new, blank row. Once the row is inserted, Update Field actions can then overwrite that blank row with the necessary data.

Run Document

The Run Document action runs a specified document.

Document Name	The name of the document to run. This field is supported by the Select Document popup, which in this specific use includes Audit Reports.
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Group Type	The group type to use to select what records to include in the report query. For Alert Triggers, you have a choice of Current Record or Use Query. For Schedule Triggers, you only have a choice of Use Query because no records are opened for that type of trigger. All other triggers have all three options: Current Group, Current Record or Use Query. If an Audit Report is selected, you only have a choice of Use Query because there are no records involved in those types of reports.
Current Group	Current Group queries the whole group of the current record being viewed. This is valuable when you would prefer the document to include all records in a certain group as opposed to only the current record or the whole database.
Current Record	Current Record queries only the current record that is being viewed. This can be used when you want the user to view only his information on the document instead of all other records.
Use Query	Use Query uses the query assigned to the document in the Explorer.
Auto-Destination	The destination to which the document is to be sent.
Archive	Archives the document.
Email	Sends emails based on the document's email breaks and/or email distribution specified in the document's properties. If the selected document does not have an email break and does not have email distribution specified in its properties, no action is taken.
Printer	Sends the document to the default printer. Alert and Schedule triggers do not have this option because those types of triggers might be executed via NightRun.
Viewer	Sends the document to the Document Viewer. Alert and Schedule triggers do not have this option because those types of triggers might be executed via NightRun.

Send Email

The Send Email action sends an email to the specified recipients. When you select this action, the following screen is displayed. This is the standard Send Email screen used throughout People-Trak.

Send Message

The Send Message action sends a message to the specified user's Inbox.

Set Alarm

The Set Alarm action sets an alarm for yourself or another user for a specified date and time. It functions just like using the Set Alarm tool.

Update Derived

The Update Derived action updates any derived fields on the current screen. A Details screen is not necessary for this action.

Update Field

The Update Field action updates a field with a new value.

Field Name The name of the field that is to be updated when the trigger is executed. This field is supported by the Select Field popup.

Row Modifier For fields that are normally tracked on a grid, this is the row number on the grid where the field is to be updated. The following values are valid:

- Blank Top row
- 1- 99 Row indicated
- + Bottom row

Note: The Select Row Modifier popup screen shows codes 1-10, but higher row numbers can be manually entered as well. The Update Field action overwrites any existing data in the specified row. If you require a blank row to be inserted before the overwrite, an Insert Row action is required before the Update Field action(s). For example, if you want to update the Company Property grid with a new row of Property Type and Issue Date, you would have an Insert Row action inserting a row at the appropriate location followed by two Update Field actions overwriting that same row in the appropriate fields.

New Value Type The type of the new value. This field is supported by the Select Value Type popup.

New Value If the New Value Type is Derived Field or Field, this is the field that contains the new value and is supported by the associated popup. If the New Value Type is Value, this is the new value that is to be inserted into the field.

Row Modifier If the New Value Type is Field and the New Value field is one that is normally tracked on a grid, this is the row number on the grid where the new value resides. Otherwise, this field is not used.

Trigger Type/Trigger Action Matrix

The following is a matrix showing the trigger actions that are available for each type of trigger. The Field Change trigger type can be used for validation or process purposes, so that is so noted in the table.

Trigger Action	Alert	Button	Field Change Process	Field Change Validation	Record Save	Schedule
Assign Task	X	X	X		X	X
Disallow Entry				X		
Display Message		X	X			
Display Prompt		X	X			
Display Screen		X	X			
Execute Procedure	X	X	X	X	X	X
Execute Tool		X				
Hyperlink		X				
Insert Row	X	X	X			
Run Document	X	X	X		X	X

Trigger Action	Alert	Button	Field Change Process	Field Change Validation	Record Save	Schedule
Send Email	X	X	X		X	X
Send Message	X	X	X		X	X
Set Alarm	X	X	X		X	X
Update Derived		X	X			
Update Field	X	X	X			

Lesson 1

Introduction to Triggers

Contents

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This lesson introduces the concept of triggers by having you create a field change trigger, define different conditions for when the trigger will be executed, and specify what actions should occur when the trigger is executed.

Tutorials

Field Change Triggers: shows how to create a field change trigger, which is a good representation of how triggers work.

More About Conditions: demonstrates how to create other conditions for your field change trigger.

Use a Query Condition: shows how to add a query condition to your field change trigger.

Tutorial 1.1 – Field Change Triggers

Field Change triggers are the most obvious triggers to demonstrate and will be the object of our demonstrations in this lesson.

1. Start People-Trak by double-clicking on the **People-Trak Trainee** icon on your desktop (or as instructed).

The Select Product Option screen is displayed.

2. The **Position Control**, **Attendance**, and **Strategic Toolkit** options should be the only options that are toggled on. If they are not, select the **Training** button and then select the **Strategic Toolkit** option.

3. Click **OK**.

The Login screen is displayed.

4. In the **User ID** field, enter **DEMO**.
5. In the **Password** field, enter **DEMO**.

The Organizer desktop is displayed with the Personnel Management module selected.

Let's start by learning about Field Change triggers.

6. On the **Tools** menu, select **Field Change Triggers**.

The Field Change Triggers screen is displayed. The Field Change Triggers screen uses three tabs to specify the details, conditions, and actions of each of your field change triggers. A list of the current field change triggers, a Menu Bar, and a Tool Bar are provided to enable you to fully manage your field change triggers.

On the right side of the Tool Bar, there is a Trigger Class dropdown that allows you to choose to display User or Internal triggers. Internal triggers are provided with People-Trak; you can copy them or make them inactive, but you cannot edit them. User triggers are created and edited by you, the user. We will see how to copy an internal trigger in a later lesson.

Let's get started and create a field change trigger.

7. On the **File** menu, select **New Field Change Trigger** or on the Tool Bar, click the **New Field Change Trigger** button to start a new field change trigger.

A default name is assigned. The name is NEW-#, where “#” is the next available, unused number.

8. Change the name of the trigger to **City Change Trigger**.
9. For the **Category** field, select **Personal**.

For field change triggers, the next field, Trigger Field, is very important. It determines the field upon which the trigger is based. If this field not only changes, but changes to meet the condition we are about to define, the trigger is executed and the specified actions will be taken. But we are getting ahead of ourselves. Let's select a field first.

10. In the **Trigger Field** field, click the popup button to display a list of the fields in the Personnel Management module. Select the **City** field.

We have now specified that our trigger condition will be based on a change of the employee's city of residence.

The next field, Row Modifier, is only used if the Trigger Field is a multi-row field. This is the modifier that determines which row should have its changes monitored. Since the City field is not multi-row, we will leave this field blank.

11. Leave the **Row Modifier** field blank.

The next field, Trigger Use, allows you to specify how this trigger is going to be used. It can be used for validation or it can be used for processing purposes. The first trigger we are going to create is a process trigger, so we will keep the field set to the default of Process.

12. Keep the **Trigger Use** field set to **Process**.

Finally, the last field on the Details tab is the Active check box. This check box is automatically selected when the trigger is first created. It means that this trigger will be checked each time the City field is changed. If at some point you wish to deactivate the trigger without deleting it, you can simply clear this check box. This is normally done when a trigger that has been in production is being changed. While a trigger is being changed and tested, you may not want the partially completed trigger to be executed. To prevent this, deactivate the trigger while the trigger is being updated and reactivate the trigger when you are ready to test it and use it.

13. For now, leave the **Active** check box selected.

14. Click the **Conditions** tab and we'll set a condition for our field change trigger. In the **If New Value Is** field, click the popup button to display a list of the operators.

This list contains operators that work just like the operators used in query functions throughout People-Trak. The operator names may be slightly more verbose than those you have seen before, but the functionality is the same.

15. Select the **Equal to** operator.

Once the operator is set, we must specify the corresponding value. For the City field we are using in our example trigger, the value is going to be a valid city name. For another field such as a salary amount, the value would be a specific salary amount. For a date, the value would be a date.

When the cursor is positioned to this value field (there is no label), a popup button may be displayed depending upon the field selected and the type of field. In our example, a button is displayed that can be used to pick from a list of the valid cities that have been defined.

16. In the value field, use the popup button to display a list of the cities and select the city named **Bonsall**.

We now have a trigger condition that will cause the specified actions to be taken if the City field is set to or changed to Bonsall. You can also use the standard query grid to add

further conditions. We won't be using the query grid in our example. Before we can test our trigger, we need to define an action. Let's do that now.

17. Click the **Actions** tab.

Field change triggers that are being used for processing can perform a number of actions. We'll learn about each of these in the coming lessons. For now, just follow along as we create an action that can be used to test our trigger.

18. In the first row of the **Action Type** column, click the popup button to display a list of the available action types. Select the **Update Field** action.

This action is used to force the contents of a field to a specific value. Because we are creating a field change trigger, the update field will only be updated if the condition defined in the trigger is met. Our trigger condition will be met if the city is Bonsall. Bonsall happens to be in California, so we will cause the State field to be set to CA whenever the City field is set to Bonsall.

19. When you selected the **Update Field** action, the cursor moved to the second row. Click back in the first row and then click the **Detail:1** button.

The Update Field screen is displayed.

20. In the **Field Name** field, click the popup button to display a list of the available fields. Select the **State** field, which is the employee's state. (Remember, there are also state fields for dependents and emergency contacts.)

The Row Modifier field is used when a row in a grid is being updated. Since an employee's State is a single value and not in a grid, we can leave that field blank. We will see how this field works in a later lesson.

21. Leave the **Row Modifier** field blank.

The New Value Type field is used to select what type of value you want to use for the update.

22. In the **New Value Type** field, click the popup button.

As you can see, you can use a derived field, a regular field or a fixed value. We are going to use a fixed value.

23. Select **Value**.

24. When the cursor is positioned to the **New Value** field, there will be a popup button that you can use to display a list of the states that have been defined. Select **CA** for California.

The Row Modifier field is only used if you are updating a field with the contents of a specific row in a grid. We will not be doing that in this example.

25. Leave the **Row Modifier** field blank.

26. Close the **Update Field** screen, saving your changes.

Our trigger is now complete. It's time to try it.

27. Close the **Field Change Triggers** screen.
28. Open **Donald Stern's** record. Clear the **City** and the **State** fields on the **Personal** screen.
29. In the **City** field, select **Vista**.

Note that the State is not set to CA. That is because the trigger was not executed. The trigger was indeed checked, but the condition of the trigger was not met. The condition demands that the City be set to Bonsall.

30. In the **City** field, select **Bonsall**.

Now the condition is met and the State field is set to CA.

And that's how all triggers work. There is an event such as a field change that sets a trigger in motion. If the trigger condition defined in the trigger itself is met, the action (or actions) defined in the trigger is executed. Now let's do one more thing.

31. Click the **Emergency** button to display the **Emergency Contacts** screen. Clear the **City** and the **State** fields for the first contact. Change the **City** to **Bonsall**.

What happens? Nothing. That is because we based our trigger on the City field for the employee. If we wanted the same action to occur for the City field for either emergency contact or for dependents, we would need to create separate field change triggers for those fields.

32. Close **Donald Stern's** record, without saving your changes.
33. Continue with the next tutorial.

Tutorial 1.2 – More About Conditions

Let's learn how to create other conditions for your field change trigger.

1. On the **Tools** menu, select **Field Change Triggers** and then select the **City Change Trigger** we created in the last tutorial.
2. Change the **Trigger Name** to **Birth Date Trigger**, and change the **Trigger Field** to **Birth Date**. Change the **Trigger Use** from **Process** to **Validation**.
3. On the **Conditions** tab, enter the following condition:

**If New Value is Greater than
 TODAY**

Note: You must select date variables using the Date Variable popup button to the right of the Calendar popup button. Since this is a date field, you cannot type the text directly. This will be true in the several places where dates or date variables can be entered.

This change will demonstrate a few features you have learned before. Our condition now tests for a birth date that is set greater than the current date. Because we have used a Date Substitution Variable, the condition will work correctly, without change, indefinitely.

With this change in field and condition, our action is hardly appropriate. We don't want to do anything but disallow this bogus entry, which makes the trigger's use one of validation. This means that we need to change the Trigger Use field from Process to Validation.

4. Click the **Actions** tab.

Changing the Trigger Use field deletes any existing actions, so our previous action of Update Field has been deleted. This is because there are different action types allowed based on the Trigger Use setting.

5. In the first row of the **Action Type** column, click the popup button to display a list of the available action types.

As you can see, there are only two valid action types available for a Validation field change trigger: Disallow Entry and Execute Procedure.

6. Select **Disallow Entry**.
7. Click the **Detail:1** button to display the action details for the first row (remember to click back in the first row).
8. In the **Message Text** field, enter the following:

You cannot set a birth date in the future.

The Disallow Entry action will cause the invalid date that was entered to be discarded after the message is cleared.

9. Close the **Disallow Entry** screen, saving your changes.

20. Close the **Display Message** screen, saving your changes. Close the **Field Change Triggers** screen.

Now let's test it.

21. Open **Donald Stern's** record. We need to make Donald much younger. In the **Birth Date** field, enter a date a few days before today's date 16 years ago.

There should be no message because Donald is at least 16 years of age.

22. Now change Donald's date of birth to a few days after today's date 16 years ago. This time, you will see the message and you can take appropriate action.
23. Close **Donald Stern's** record, without saving your changes.
24. Continue with the next tutorial.

Tutorial 1.3 – Use a Query Condition

Field change triggers are a very powerful feature. You can set a trigger (or triggers) on any field in any module. And you can define a nearly infinite range of conditions to obtain the results you desire. In addition to the condition specified for the trigger field, you can have a query based on any fields in the module.

One thing that is unique to the query in this trigger grid is that to determine the value of a field, the transaction log is first checked. If there is a pending transaction for the field in the current session, that transaction value is used. If there is no transaction, the value in the database is used. This allows you to query on the most recent value of the field.

Let's add a query condition to a field change trigger.

1. On the **Tools** menu, select **Field Change Triggers**, and then select **Birth Date Trigger**. Click the **Conditions** tab.
2. Enter the following query, which uses the standard query form:

```

Last Name           =    Stern           AND
First Name          =    Verne

```

Note that there is an AND between the two conditions, which means both conditions must be met in order for the trigger to execute.

3. Close the **Field Change Triggers** screen, saving your changes.
4. Open **Donald Stern's** record. In the **Birth Date** field, enter a different birth date but make sure you keep Donald younger than 16 in order to meet the first condition.

The query checks to see if the last name is Stern and the first name is Verne. The condition is not met. So, our first condition was met but not the second condition. Since both conditions were not met, the trigger is not executed.

5. Change **Donald's First Name** to **Verne**.

When you do so, there is no message because the field change trigger is on the Birth Date field.

6. In the **Birth Date** field, enter a different birth date, keeping Donald younger than sweet 16.

This time, the query condition is met. Because both conditions are now met, the trigger is executed and the action specified in the trigger (to display the employee age warning message) occurs.

7. Change the **Birth Date** again. Because both conditions are met, the trigger is again executed. Now change **Donald's First Name** from **Verne** back to **Donald**. Then, change the **Birth Date** again.

This time, both conditions are not met and the trigger is not executed.

8. Close **Donald Stern's** record, without saving.

9. On the **Tools** menu, select **Field Change Triggers**. Delete **Birth Date Trigger**. Close the **Field Change Triggers** screen.
10. This concludes this tutorial and lesson.

Lesson 2

Alert and Schedule Triggers

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This lesson covers two alert and schedule trigger actions that are unique to the Strategic Toolkit option: Update Field and Run Document. It also demonstrates how to use email to run documents.

Tutorials

Update a Field: shows how to use an alert trigger to update a field.

Use Email to Run Documents: demonstrates how to use the Send Email action to send an email and have documents run and attached to the email.

Run a Document in Another Way: shows how to use a schedule trigger to run a document.

Tutorial 2.1 – Update a Field

In the Essential Tools training, you learned how to create basic alert and schedule triggers. This lesson reviews alert and schedule trigger concepts by covering additional features available for these triggers in the Strategic Toolkit.

Let's begin by creating an alert trigger that uses the update field action, which is a feature added in the Strategic Toolkit. Remember that alert triggers are used to take action based on events that are approaching or have passed based on any date within a People-Trak module.

1. On the **Tools** menu, select **Alert Triggers**.

The Alert Triggers screen is displayed. The Alert Triggers screen uses three tabs to specify the details, conditions, and actions of each of your alert triggers. A list of the current alert triggers, a Menu Bar, and a Tool Bar are provided to enable you to fully manage your alert triggers. Let's get started and create an alert trigger.

2. On the **File** menu, select **New Alert Trigger** or on the Tool Bar, click the **New Alert Trigger** button to start a new alert trigger.

A default name is assigned. The name is NEW-#, where “#” is the next available, unused number.

3. Change the name of the trigger to **5-Year Anniversary Alert**.
4. Set the **Category** to **Status**.
5. Leave the **Active** check box selected.

For alert triggers, the next field, Last Execution, is very important. When an alert trigger is initially created, this date determines when the trigger will next execute. For example, if you set the trigger to today, it will indicate that the trigger should first be checked tomorrow. If you set the date to yesterday, the trigger will be checked today. Since we want to test our trigger, we either need to set the date to yesterday or leave it blank. We'll set the date to yesterday for our demonstration.

6. In the **Last Execution** field, enter yesterday's date.

Now we'll set a condition for the alert trigger.

7. Click the **Conditions** tab.

Alert trigger conditions place a date from a record in an equation. The condition is made up of four fields: the amount, the type of period (days, months, years), the operator, and the field to compare. In our example, we want to reward employees after five years of service with an additional 8 hours of vacation.

8. In the **If Today's Date Is** field, set the amount field to **5**. Set the period type to **Years**. Select the **After** operator. Now, in the fourth field, select the **Hire Date** field. The condition should now read as follows:

**If Today's Date is 5 Years
 After
 Hire Date**

9. Select the **Active Records Only** check box to limit this alert to active records only.
10. On the **Actions** tab, click the popup button to display a list of the available actions.

You will see the list of actions available. The Strategic Toolkit adds four new actions that were not available in base People-Trak: Execute Procedure, Insert Row, Run Document and Update Field. We won't demonstrate the Execute Procedure or Insert Row actions in this lesson because you will learn about those actions in later lessons. We will learn about the Run Document action later in this lesson. You learned about the Update Field in the previous lesson, but in our example, we are going to show you a new twist.

11. Select **Update Field** and go into the **Detail** for that action.

In our training database, the current balance of vacation time for an employee is stored in the Hours Available column of row 2 (vacation account) in the Attendance Accounts grid. In your data, you will have fixed rows for each type of account. You would use the appropriate row for your needs.

12. In the **Field Name** field, select **Hours Available**.
13. In the **Row Modifier** field, enter **2**.
14. In the **New Value Type** field, select **Derived Field**.

We have created a derived field for you to use for this demonstration. It takes the value in row 2 of Hours Available and adds 8 to that value.

15. In the **New Value** field, enter **Additional 8 Hours of Vacation**.
16. Close the **Update Field** screen, saving your changes.

You would normally send emails to notify both HR and the employee that this update had occurred. For the sake of time, we will not add the email actions to do that.

17. Close the **Alert Triggers** screen.

Now, let's try out our trigger. We will need to make someone's hire date 5 years before today's date to get the trigger executed.

18. Open **Julie Carrington's** record. On the **Status** screen, change her **Hire Date** to **5** years before today's date.

Let's see what her current vacation time balance is.

19. Select the **Attendance** screen and write down the **Current Balance** amount for the **Vacation** account in row 2.
20. Close **Julie's** record, saving your changes.

Remember that Alert triggers are checked when logging into People-Trak, switching between modules or executing NightRun. The first time the alert is checked each day, the Last Execution field is set to the current date and that alert will not be executed again on that date. When we created our sample alert, we set the Last Execution field to yesterday. So, it will run the next time we log into People-Trak or change modules. Let's change modules.

21. Switch to the **Safety Management** module and then switch back to the **Personnel Management** module.

The trigger was executed. Let's go confirm that fact.

22. Open **Julie's** record. On the **Attendance** screen, check the **Current Balance** amount.

Julie should now have 8 more hours of vacation available.

In reality, you would also want to update attendance history to explain this increase. You can easily do that with Insert Row and Update Field actions.

23. Close **Julie's** record.

You can see how powerful the Update Field action can be when using derived fields. If you need to update fields in People-Trak using a trigger, you have the tools to do so.

24. Continue with the next tutorial.

Tutorial 2.2 – Use Email to Run Documents

This tutorial will demonstrate a powerful capability of the Send Email action to create and send reports that are ready to print with a single click. This is something you could do with base triggers, but it leads in nicely to the new Run Document feature, which we will demonstrate in the following tutorial.

Our mission in this tutorial is to create a schedule trigger that emails a set of reports to the HR Manager on a monthly basis. The first thing we need to do is create a cluster report that includes the reports we want to send.

1. On the **Documents** menu, select **Cluster Reports**. Create a new cluster report and set the **Cluster Name** to **Monthly Cluster Report**. Set the **Explorer Category** to **General**, overriding the table if necessary. Set the **Category** to **Personal**. On the **Documents** tab, add the following reports in the **General** category:

Alphabetic Employee List
Birthday List by Date

2. Close the **Cluster Reports** screen, saving your changes. Close the **Explorer**.

Now, we need to create the schedule trigger. Remember that schedule triggers are similar to alert triggers but are based on a different type of condition.

3. On the **Tools** menu, select **Schedule Triggers**.

The Schedule Triggers screen is displayed and is very similar to the Alert Triggers screen you just learned about. We can skip redundant details and get started.

4. On the **File** menu, select **New Schedule Trigger** or on the Tool Bar, click the **New Schedule Trigger** button to create a new schedule trigger.
5. Change the name to **My Scheduled Reports** and set the **Category** to **Personal**.
6. Leave the **Active** check box selected.

The Last Execution field is updated when the trigger is executed. The Next Execution field is updated according to the frequency you select for this trigger. We will leave these fields blank so the trigger will execute today.

7. Click the **Conditions** tab.

Now we'll set a condition for the schedule trigger. As you might recall, schedule triggers are based on specified points in time. When that time is met, the trigger actions will be executed. For example, you might wish to schedule a series of reports to be run each month. Or you may wish to send an email to the benefits carrier with an attached report every month.

The condition is made up of three fields. The first two fields set the frequency and the start date for the schedule trigger. The third field, which is not always visible, indicates a special value based on the frequency selected. For example, if you select a monthly frequency, the third field will reflect the day of the month on which the trigger is to be executed. For a weekly frequency, the third field will indicate the day of the week on which the trigger is to be executed.

We want to create a schedule trigger that will send an email each month, so we will choose a frequency of **Monthly** and a **Start Date** of today's date.

8. In the **Frequency** field, select **Monthly**.

The **Start Date** is defaulted to today's date, and the **Day of the Month** field is displayed with the current day of the month.

9. Leave the **Start Date** field set to today's date.

10. Click the **Actions** tab.

11. Add a **Send Email** action and open the **Detail** for it.

We want to send the HR Manager a set of reports each month.

12. So, set the **To Address Type** to **Position**.

13. In the **To** field, click the popup button.

The Lookup Position screen is displayed.

14. Click **Search** and then select **1043 - Human Resource Manager**.

The position number for the HR Manager is returned to the **To** field. The email address for the employee currently in that position will be derived at the time the trigger is executed, and the email will be sent to that address.

15. Click the **Message** tab.

We won't be using an Email Definition in our example.

16. In the **From Address Type** field, select **Address Book**.

Your cursor is now in the **From** field.

17. Click the **Address Book** button that is now available.

The Email Source screen is displayed.

18. In the list of source types on the left, select **HR User** and then select **Timothy Carpenter** (you as DEMO user) in the list of names on the right.

Timothy's email address is returned to the **From** field.

19. Set the **Subject** to **Reports are Ready**.

20. In the **Text** field, enter the following:

There are reports in your email. These reports have been fully run and saved as PDF documents. All you need to do is print them. Life is good.

21. Click the **Attachments** tab.

22. In the **Attach Document** field, click the popup button to display a list of the available documents.

The Select Document screen is displayed. As you can see, you can select any People-Trak document.

23. In the list of report types on the left, select **Cluster Reports**. In the list of categories on the left, select **General**. Now, select the **Monthly Cluster Report** document you created.

Let's assume these reports are confidential and need to be encrypted.

24. Select the **Encrypt Document** check box.
25. In the **Group Type** field, click the popup button.

Only the Use Query option is available because the Current Record and Current Group options are not valid in a schedule trigger because no records are open at the time the trigger is executed.

26. Click **OK** to select that option.

The attach document capability in email is a powerful feature. Unlike regular attachments which are used to attach files, the attach document capability runs the specified document, converts it to a PDF document, and then attaches the resultant PDF file, all without operator intervention.

Because we selected a cluster report that contains multiple documents, we do not have to make multiple emails (although we could). With just one email, we can run many reports, place them into a single PDF document, and attach them to an email. This solves the problems of time and convenience. If the schedule trigger runs at night, it can take as long as it needs to generate all of the reports. When the reports are done, they are placed in a single PDF and emailed to you. You can walk into your office in the morning, open your email browser, print the PDF and have a whole set of monthly reports ready to read before your coffee is cool enough to drink. That's convenience!

After all that, we should test this thing.

27. Close the **Send Email** screen, saving your changes. Close the **Schedule Triggers** screen.
28. Switch to the **Safety Management** module and then switch back to the **Personnel Management** module.

You will see a simulated email giving you the password for the attachment coming in a subsequent email. The password was generated because you requested encryption.

29. Click **OK** to close the message.

Another simulated email is displayed. Note that the email has an attachment and that the attachment is a PDF. In live production, both emails would have been sent directly to you and the simulated emails would not have been shown. All you would have to do is open the attached PDF using the given password and have access to all the reports immediately.

30. Click **OK** to close the message.

In this example, we sent monthly reports to your email. Some of these reports are probably for managers and other internal users and so you might need to distribute them manually. Of course, if you think about it, you do not. You can create a whole stack of

Send Email actions that create and send the appropriate reports to the appropriate people. For example, if you have ten managers who each receive reports, you need only create one schedule trigger with ten Send Email actions. If you use Cluster Reports, you can send each manager their own private collection of reports using email without performing any work on your own. Of course, we won't broadcast that fact.

31. Continue with the next tutorial.

Tutorial 2.3 – Run a Document in Another Way

In the last tutorial, we used a schedule trigger to send an email that effectively ran a document, which was then attached to that email. In this tutorial, we will show how to use a schedule trigger to run a document in yet another way. In fact, when we run this document, it will send its own emails.

Our first step is to create the document we want to run using our trigger. We are going to save some time and copy an existing report.

1. On the **Documents** menu, select **Adhoc Reports**.
2. In the **General** category, highlight the **Birthday List by Department by Date** report.
3. On the **File** menu, select **Copy Adhoc Report**.

A copy of the report is created and highlighted.

4. Open that newly created report.

We want to email each supervisor a list of their employees along with their birth dates. Let's change this report to do just that.

5. Change the name to **Birthday List by Supervisor by Date**.
6. On the **Report Definition** tab, replace the **Department Name** field with **Supervisor Email**.
7. Clear the **Repeat** flag and set the **Sort Type** to **Email**.
8. Close the **Adhoc Reports** screen, saving your changes. Close the **Explorer**.

Now let's use our monthly schedule trigger to run this document.

9. On the **Tools** menu, select **Schedule Triggers** and open the **My Scheduled Reports** trigger.
10. Clear the **Last Execution** and **Next Execution** fields so our trigger will execute again today.
11. On the **Actions** tab, replace the **Send Email** action with a **Run Document** action. Open the **Detail** for that action.

The Run Document screen is displayed.

12. In the **Document Name** field, click the popup button.

The Select Document screen is displayed.

13. In the **General** category of **Adhoc Reports**, select our **Birthday List by Supervisor by Date** report.
14. In the **Group Type** field, click the popup button.

Once again, the only option is Use Query.

15. Select **Use Query**.
16. In the **Auto-Destination** field, click the popup button.

The Select Document Destination screen is displayed with two options: Archive and Email. Archive allows you to run a document and send it to archive. Email allows you to run the document and then email it. Other options available from other triggers are Printer and Viewer. Those two options are not available from Alert and Schedule triggers because those types of triggers might be executed via NightRun.

We are going to choose the Email option, which will only send an email if the document has an email break or email distribution information in its properties. Our document has an email break, so an email will indeed be sent.

17. Select **Email**.
18. Close the **Run Document** screen, saving your changes.
19. Close the **Schedule Triggers** screen.

Let's execute the trigger.

20. Switch to the **Safety Management** module and then switch back to the **Personnel Management** module.

You will see a simulated email that shows that our document has been run, generated as a PDF file, and emailed to the first supervisor. As you learned in earlier training on Email breaks, that supervisor only received that portion of the report that pertained to him.

21. Click **OK** to close that simulated email.

Another simulated email is shown that is identical to the first one, but for another supervisor.

22. Click **OK** to close this and subsequent simulated emails.

The Run Document action can be used in all trigger types.

23. This concludes this tutorial and lesson.

Lesson 3

Button Triggers

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This lesson covers how to create a variety of button triggers and then add those buttons to custom screens.

Tutorials

A Simple Button Trigger: shows how to create a simple button trigger and then add that button to a custom screen.

Email a Document on Demand: demonstrates how to create a button trigger that sends an email to an employee with a special document attached.

Populate Multiple Fields with a Single Click: shows how to create a button trigger that performs a series of Update Field actions.

Tutorial 3.1 – A Simple Button Trigger

On to yet another type of trigger, the Button trigger.

1. On the **Tools** menu, select **Button Triggers**.

The Button Triggers screen is displayed and is similar to the other trigger screens you have seen. The difference is that button triggers do not have a condition. They are executed when you click on the button. Buttons are placed on custom screens using the Button, Picture or Hyperlink objects in the Custom Screens process. You saw in earlier training that these objects allow you to give your button a different look. In this lesson, we will stick with the traditional look of the Button object.

2. On the **File** menu, select **New Button Trigger** or on the Tool Bar, click the **New Button Trigger** button to create a new button trigger. Set the **Trigger Name** to **EmpReports**, leave the **Category** set to **User**, and set the **Button Caption** to **Employee Reports**.

The Auto Execute button should be selected when you have a button on a screen that performs an action that you would like to have fired off whenever that screen is displayed (recalculating totals on a screen, for example). We aren't doing that in our example, so we will leave it unselected.

3. On the **Actions** tab, add a **Run Document** action. Open the **Detail** for this action. Click the popup button on the **Document Name** field to display a list of the available documents. In the **Attendance** category, select the **Attendance Balances by Account** report. Set the **Group Type** to **Current Record**. Set the **Auto-Destination** to **Viewer**.

This will cause a document to be created for the employee being edited. If you wanted, you could produce documents for each employee in the current group, or you could defer to the query inside the document itself. Those options are relevant here.

4. Close the **Run Document** screen, saving your changes. Add another **Run Document** action. This time, select the **Salary History by Employee** report from the **Compensation** category. Again, set the **Group Type** to **Current Record**. Set the **Auto-Destination** to **Viewer**. Close the **Run Document** screen, saving your changes. Close the **Button Triggers** screen.

To test our trigger, we need to place the button on a custom screen. We'll create a screen quickly since we are already experts.

5. On the **Tools** menu, select **Custom Screens**. Create a new custom screen. Name the screen **New Personal**. On the **File** menu, select **Append Screen** and append the **Personal** screen to your custom screen. Scroll to the bottom of the list of objects and insert a **Button** object after the last **Screen** object. In the **Object Name** field, select the **EmpReports** button that we just created. The caption should default to **Employee Reports**. Delete the **Communication** screen object. Use preview mode to move the button under the other buttons and size it as needed. Use the techniques you have learned to make any necessary adjustments. Close preview mode, saving your changes. Close the **Custom Screens** screen, saving your changes.

Now we need to put the screen on a workflow.

6. On the **Tools** menu, select **Workflows**. Select the **Standard - Employee** workflow and click the **Screens** tab. Use the **Screen Name** popup to change the first screen to the **New**

Personal screen we just created. You can leave the rest of the workflow as it is. Close the **Workflows** screen, saving your changes.

7. Open **Donald Stern's** record.

The screen you should see is the screen we just created. You should see an Employee Reports button.

8. Click on the **Employee Reports** button now.

The first report in our action list, Attendance Balances by Account, is run and displayed in the Document Viewer. It will show the balances for Donald Stern and that is all.

9. Close the **Document Viewer** and the next report will automatically run and then be displayed in the **Document Viewer**. This report will show the salary history for **Donald Stern**. Close the **Document Viewer**.

Now there is an example of how to run reports for the current record on demand from a button. Can we make it better? Of course. One obvious improvement would be to put the two reports into a cluster report. Then, the Document Viewer would be displayed only once and it would be much easier to view and print the documents. We won't demonstrate this feature now, but you know how to do it from prior lessons.

10. Close **Donald Stern's** record.

11. Continue with the next tutorial.

Tutorial 3.2 – Email a Document On Demand

Wouldn't it be great to be able to click a button and have an email sent to an employee with a special document attached? It would be great and you are now going to learn how to do it.

1. On the **Tools** menu, select **Button Triggers**, and then select the **EmpReports** trigger. On the **Actions** tab, delete the two actions we added in the last tutorial. Create a new **Send Email** action and open the **Detail** for it.

Whenever we click this button, we want the email to be sent to the address of the current record.

2. So, set the **To Address Type** to **Field Substitution**.
3. In the **To** field, use the popup button to select **Email**, which is the employee's main email address.

This means that when the button is clicked, the email address for the current record will be derived and the email will be sent to that address.

4. Click the **Message** tab.

We won't be using an Email Definition in our example.

5. In the **From Address Type** field, select **Address Book**.

We will set the From field to Timothy Carpenter's email as we have done before.

6. Click the **Address Book** button.

The Email Source screen is displayed.

7. In the list of source types on the left, select **HR User** and then select **Timothy Carpenter** in the list of names on the right.
8. Set the **Subject** to **I-9 Form Enclosed**.
9. In the **Text** field, enter the following:

Please print the attached form. Complete the form using the included instructions and return the form with the requested attachments to Human Resources. If you have any questions, please contact HR at 345-9100.

10. Click the **Attachments** tab.

11. In the **Attachment 1** field, click the popup button to display a list of email attachments, which were created using the Email Attachments process. Select the **I-9.PDF** file.

People-Trak uses the Email Attachments process as a means of granting you control over the documents that can be attached to emails. Only those documents specified in that process can be attached to an email that is going to be sent when a trigger is executed because the attachment needs to be in a centralized place. We already specified the I-9.PDF file for you.

If you want the attachment encrypted when sent, you would select the Encrypt 1 check

box. You have already seen how encryption works in the last lesson, so we won't cover that again.

12. Close the **Send Email** screen, saving your changes. Close the **Button Triggers** screen.

Let's go try this.

13. Open **Donald Stern's** record. Click on the **Employee Reports** button. An email simulation is displayed.

You can see from the simulation that an email was generated for Donald Stern and that the I-9 document was attached.

14. Click **OK** to close the email simulation.

15. Close **Donald Stern's** record.

The Send Email action allows you to send two individual attachments as well as the report attachment we learned about in the last lesson. You can use all three at the same time, if you wish. If you have a need to attach more documents, you can always create a multi-document PDF and send them all at once.

16. Continue with the next tutorial.

Tutorial 3.3 – Populate Multiple Fields with a Single Click

There are times when you may find that you are keying the same values for every new employee. While you may not wish to be “super person” who can “leap over tall buildings in a single bound”, perhaps you would just like to save a little time. In this tutorial, we’ll show you how to populate multiple fields with a single click.

1. On the **Tools** menu, select **Button Triggers** and create a new button trigger. Set the **Trigger Name** to **Stuff**. Set the **Button Caption** to **Stuff Data**.
2. Click the **Actions** tab.

We are going to create a series of Update Field actions. We’ll start with the first one now.

3. Add a new **Update Field** action, and open the **Detail** for it. Set the **Field Name** to **Payroll Company**. Set **New Value Type** to **Value** and **New Value** to **ZTI**.

We do not need to specify anything in the other fields on the Update Field screen because they are applicable to grid fields and we are going to be using single fields. You will learn more about these other fields on the Update Field screen in a later lesson.

4. Add five more **Update Field** actions with the settings shown below:

Field Name	City
New Value Type	Value
New Value	San Diego

Field Name	State
New Value Type	Value
New Value	CA

Field Name	Employment Status
New Value Type	Value
New Value	Full-Time

Field Name	Secondary Status
New Value Type	Value
New Value	Regular

Field Name	I-9 Document 1
New Value Type	Value
New Value	Driver’s License

5. Close the **Button Triggers** screen.

We need to update our custom screen to utilize this button trigger.

6. On the **Tools** menu, select **Custom Screens**. Select the screen named **New Personal**. Locate the **EmpReports** button object added earlier. Change the object to use the **Stuff** button we just created. Use preview mode to make any necessary adjustments. Close preview mode, saving any changes. Close the Custom Screens screen, saving your changes.

This screen is already associated with the Standard - Employee workflow and the changes we make are dynamic. So, all we need to do is create a record.

7. Click the **New Employee** shortcut.

The Create Employee screen is displayed with the Employee Source field set to Scratch.

8. Click **Create** to create a new employee from scratch.
9. Click the **Stuff Data** button. On the **New Personal** screen, the **City, State, and Payroll Company** are set. On the **Status** screen, the **Employment Status, Secondary Status, and first I-9 Document** are set. Delete the new record.

You can use buttons and Update Field actions to perform all types of data entry tasks. You are limited only by what you wish to achieve.

10. This concludes this tutorial and lesson.