

TOPIC B

Add Custom Fields

Microsoft Project Professional 2016 comes packed with hundreds of fields for capturing information about project tasks and resources. However, there may be situations in which you need additional or different data fields than those provided; for example, if your organization needs to track vendor categories on resources or uses a custom formula to calculate estimated cost. In this topic, you'll see how to add custom fields to a project.

Custom Fields

Custom fields are data fields that you can configure for your unique project or organizational needs. Dozens of these custom fields already exist as placeholders in Project 2016, ready for you to use.

There are several ways to use custom fields. You can:

- Insert data that is important to your organization.
- Write formulas that will perform calculations.
- Add lookup tables to make data entry more accurate.
- Build graphical indicators to call attention to important items.
- Create hierarchical coding structures.

When you create a custom field, you need to specify the appropriate data type. **Text** is the default data type, but you can also select **Cost**, **Date**, **Duration**, **Number**, and other options. When you create a custom text field, you can create a simple text field that accepts any text, such as notes and reminders to yourself, or you can create or import a lookup table so that your custom text field is populated with predefined options. Creating a custom field makes it available for use in Project, but it will not appear in any table, views, or reports until you add it.

The Custom Fields Dialog Box

The **Custom Fields** dialog box enables you to customize the built-in custom fields to suit your needs.

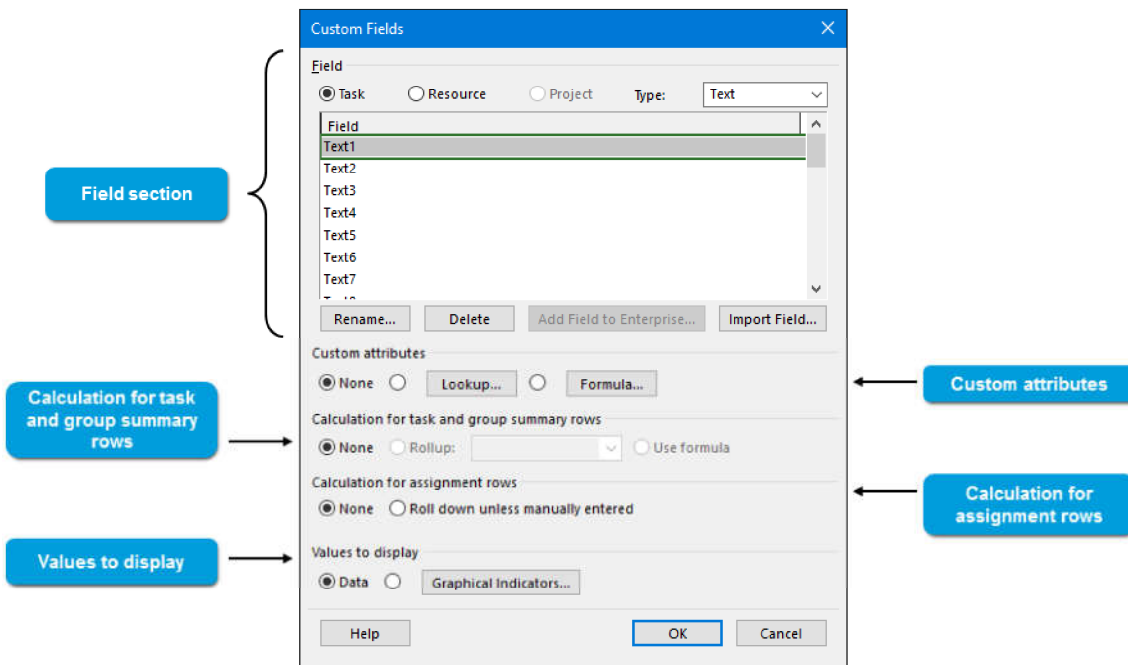



Figure 2–8: Modify custom fields using the Custom Fields dialog box.

The Custom Fields dialog box gives you many options for configuring custom fields.

Section of Dialog Box	Options and Functions
Field	<p>Select the Task option to customize a task field. Select the Resource option to customize a resource field.</p> <p>Regardless of whether you want to customize a task or resource field, from the Type drop-down list, select the type of field (Cost, Date, Duration, Finish, Flag, Number, Start, Text or Outline Code) you want to customize. A fixed number of each type of field is assigned to both tasks and resources. For example, 30 customizable text fields are set aside for tasks, and 30 customizable text fields are set aside for resources. Similarly, 10 customizable cost fields are set aside for tasks, and 10 customizable cost fields are set aside for resources.</p> <p>Select Rename to rename fields from their default names to something more descriptive of their functions.</p> <p>Select Delete to remove a customized field. When you do this, you are actually returning the field to its pre-customized state.</p>
Custom attributes	<p>Select the Lookup option to create a lookup table. A lookup table is useful when you want to be able to populate a field by selecting a value from a drop-down list. For example, you might create a lookup table called Priority Code with the values High, Medium, and Low. When you select the Lookup button, an Edit Lookup Table dialog box will be displayed where you can enter the data for your lookup table and set parameters for the table.</p> <p>Select the Formula option to create a formula field. A formula is useful when you want Project 2016 to perform a calculation for you. When you select the Formula button, the Formula dialog box will be displayed for you to compile your formula.</p>

Section of Dialog Box	Options and Functions
Calculation for task and group summary rows	<p>Select the Rollup option and select a rollup option from the drop-down list to customize how Project 2016 calculates task and group summary rows. In project management, to <i>rollup</i> means to include lower-level project information at higher levels of the project.</p> <p>Select the Use formula option if you want to use the formula field you created for the rollup calculation.</p>
Calculation for assignment rows	<p>Select the Roll down unless manually entered option if you want the values of the customized field to be spread evenly across each assignment.</p>
Values to display	<p>Select the Data option to see the actual information entered into a field.</p> <p>Select the Graphical Indicators option and then select the Graphical Indicators button to apply graphical indicators to your custom field. When you select the Graphical Indicators button, the Graphical Indicators dialog box will be displayed, where you can select criteria for what to display and when.</p>



Caution: Be careful with the **Delete** option because deleting a customized field will also delete any project data entered into the custom field.

Field Lookup Tables

A *field lookup table* is a set of predefined values that you create or import. A field is populated with the values in a lookup table so that you can select only those predefined values; any attempt to enter values other than those defined in the lookup table returns an error. This kind of field ensures data integrity.

For example, when you fill out your mailing address in an online form, you may choose from a list of states or provinces. The values that are available for you to choose from are stored in a lookup table. You can use the same method to prepopulate a list of values in a field in Project 2016.

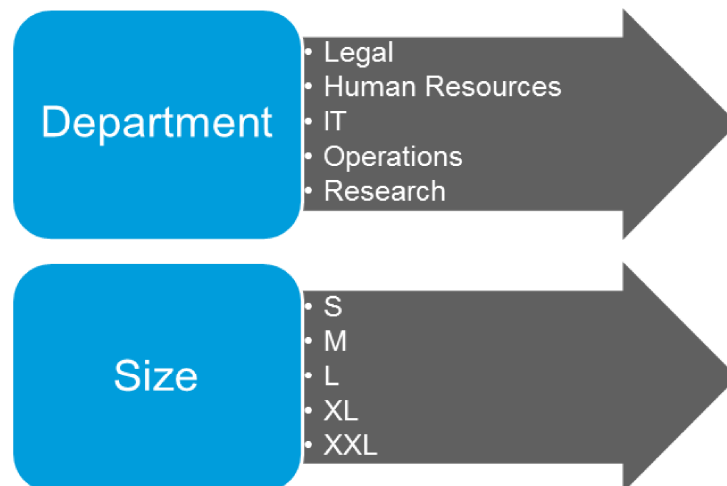


Figure 2-9: Keep values in a custom field uniform by using a field lookup table.

The Edit Lookup Table Dialog Box

When you select the **Lookup** button in the **Custom Fields** dialog box, the **Edit Lookup Table** dialog box will open. Use this dialog box to enter the data for your lookup table and set parameters for it. There are several options you can specify for a lookup table. These include selecting a value from the table as the default entry value, sorting the values in different ways, and allowing values not listed in the table to be entered.

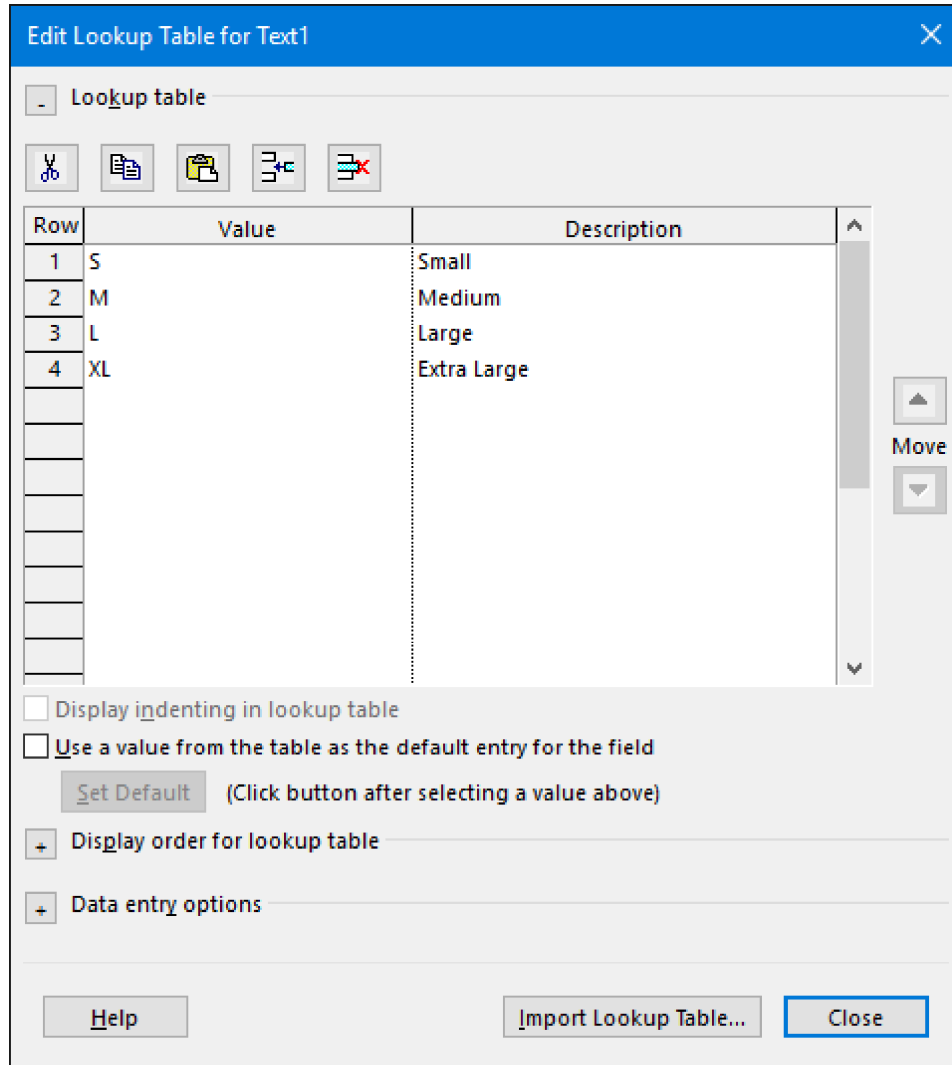


Figure 2-10: The *Edit Lookup Table* dialog box enables you to specify values to pick from for a field.

Custom Field Formulas

Formulas are scripts that generate values by calculating the values in other fields. In other words, formulas enable you to work with existing values to create new values that are important to you. For example, you can create a custom field that displays the number of days remaining, from the current date, until each task is scheduled to start. This value would be derived by calculating the value in each task's start date field against the current date. Make sure when you create a custom field for a formula that you choose the field type that matches the result of your formula. For example, if you are calculating the number of days between two dates, the result will be a number, not a date, so you would choose a number field type.



Figure 2-11: You can use a formula to have Project calculate the value of a field.



Note: You'll need to be familiar with scripting syntax to write formulas in Project, but the buttons and options in the **Formula** dialog box can help you build the expressions.

The Formula Dialog Box

The **Formula** dialog box enables you to enter or build a formula for calculating custom values in a field. There are three methods for entering a formula in the **Formula** dialog box. You can:

- Type the formula.
- Construct the formula using the field, function, and operator controls provided.
- Import the formula from another Project file.

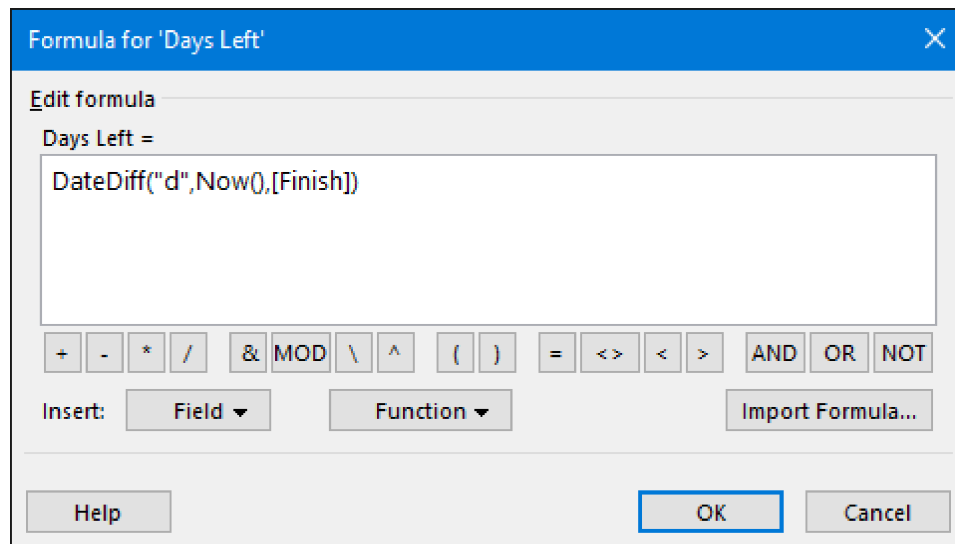


Figure 2-12: Enter a formula for a field in the Formula dialog box.

The Graphical Indicators Dialog Box

The **Graphical Indicators** dialog box enables you to set up custom visual cues that are based on criteria that you define. For example, you can create a custom field named “Cost Alert” that displays a warning icon if a task has a scheduled cost that’s greater than its baseline cost.

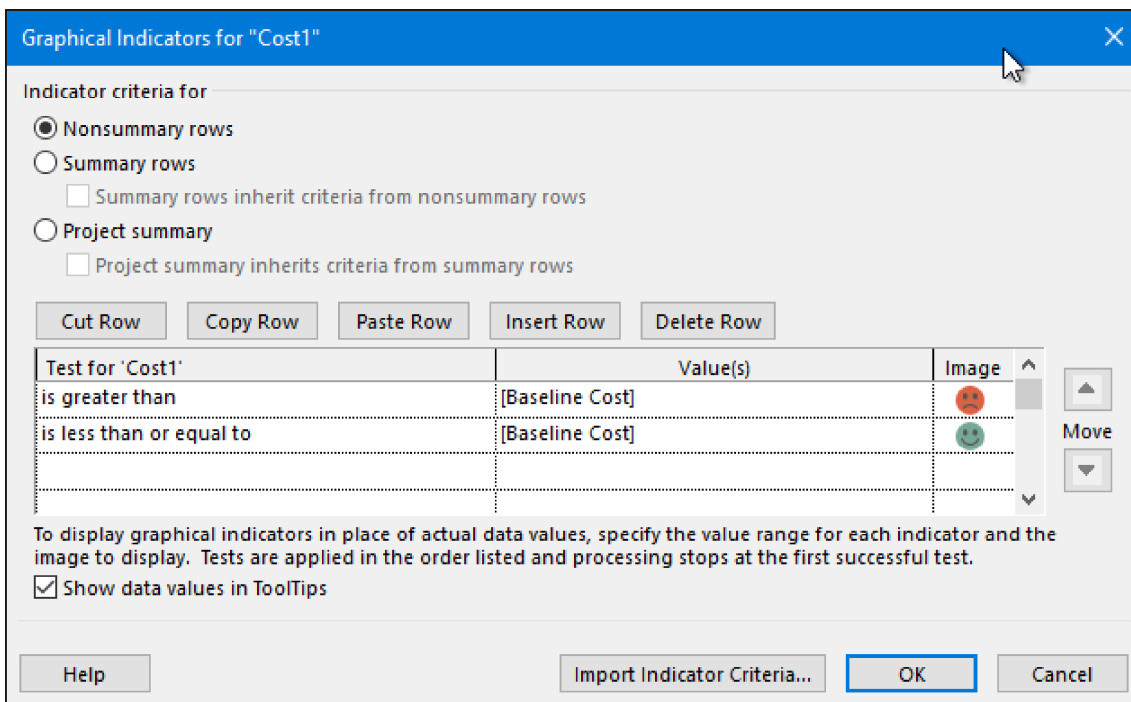
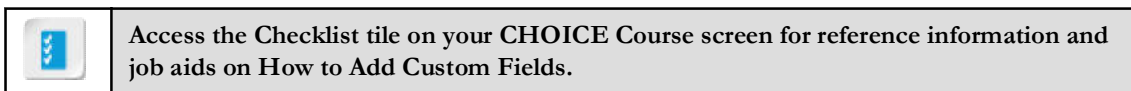


Figure 2-13: Create custom visual alerts in the Graphical Indicators dialog box.



ACTIVITY 2-2

Adding Custom Fields

Before You Begin

The **My_Woods_3BR_Home_Project_Monitoring.mpp** project plan file is open.

Scenario

You have hired contract resources for the construction project. One of the grants your organization was awarded requires that a certain percentage of contractors meet one or more specific criteria. You want to add a custom lookup table to your project plan so that you can easily capture this information about each contractor. Since you are creating a custom field, you also decide to add a formula field so that you can determine the number of days between the current date and the finish date for each task in your schedule.

1. Rename the **Resources Text1** field to *Grant Criteria*

- a) Select **Project**→**Properties**→**Custom Fields**
- b) In the **Custom Fields** dialog box, select the **Resource** radio button.
- c) In the **Type** drop-down list, make sure **Text** is selected.
- d) In the **Field** section, make sure **Text1** is selected.
- e) Select **Rename**.
- f) In the **Rename Field** dialog box, type *Grant Criteria* as the new name for the field.
- g) Select **OK** to close the **Rename Field** dialog box.

2. Make the **Grant Criteria** custom field into a lookup table.

- a) In the **Custom Fields** dialog box, select the **Resource** option and make sure the **Grant Criteria (Text1)** custom field is selected.
- b) In the **Custom attributes** section, select the **Lookup** button.
- c) In the **Edit Lookup Table for Grant Criteria** dialog box, select the first cell of the **Value** column and type *W*
- d) Select the first cell of the **Description** column and type *Women Owned*
- e) Select the second cell of the **Value** column and type *M*
- f) Select the second cell of the **Description** column and type *Minority Owned*
- g) Select the third cell of the **Value** column and type *V*
- h) Select the third cell of the **Description** column and type *Veteran Owned*
- i) Select the fourth cell of the **Value** column and type *>1*

- j) Select the fourth cell of the **Description** column and type *More Than One*

Edit Lookup Table for Grant Criteria

Lookup table

Row	Value	Description
1	W	Woman Owned
2	M	Minority Owned
3	V	Veteran Owned
4	>1	More Than One

Display indenting in lookup table
 Use a value from the table as the default entry for the field
 Set Default (Click button after selecting a value above)
 Display order for lookup table
 Data entry options

Help Import Lookup Table... Close

- k) Select **Close** to close the **Edit Lookup Table for Grant Criteria** dialog box.

3. Add a graphical indicator to the **Grant Criteria** custom field.

- In the **Custom Fields** dialog box, select the **Resource** option and make sure the **Grant Criteria (Text1)** custom field is selected.
- In the **Values to display** section, select the **Graphical Indicators** button.
- In the **Graphical Indicators** dialog box, select the first cell of the **Test for 'Grant Criteria'** column and select **equals** from the drop-down list.
- Select the first cell of the **Value(s)** column and type *W*
- Select the first cell of the **Image** column and select the first half-filled circle from the drop-down list.
- Select the second cell of the **Test for 'Grant Criteria'** column and select **equals** from the drop-down list.
- Select the second cell of the **Value(s)** column and type *M*
- Select the second cell of the **Image** column and select the second half-filled circle from the drop-down list.
- Select the third cell of the **Test for 'Grant Criteria'** column and select **equals** from the drop-down list.
- Select the third cell of the **Value(s)** column and type *V*
- Select the third cell of the **Image** column and select the third half-filled circle from the drop-down list.

- l) Select the fourth cell of the **Test for 'Grant Criteria'** column and select **equals** from the drop-down list.
- m) Select the fourth cell of the **Value(s)** column and type **>1**
- n) Select the fourth cell of the **Image** column and select a solid circle from the drop-down list.

Graphical Indicators for "Grant Criteria"

Indicator criteria for

Nonsummary rows

Summary rows

Summary rows inherit criteria from nonsummary rows

Project summary

Project summary inherits criteria from summary rows

Cut Row Copy Row Paste Row Insert Row Delete Row


Test for 'Grant Criteria'	Value(s)	Image
equals	W	
equals	M	
equals	V	
equals	>1	

To display graphical indicators in place of actual data values, specify the value range for each indicator and the image to display. Tests are applied in the order listed and processing stops at the first successful test.

Show data values in ToolTips

Help Import Indicator Criteria... OK Cancel

- o) Select **OK** to close the **Graphical Indicators** dialog box.
- p) Verify that, in the **Values to display** section, the **Graphical Indicators** radio button is now selected.



Note: Once you select the **Graphical Indicators** button and configure the graphical indicators, the **Graphical Indicators** radio button is automatically selected in the **Custom Fields** dialog box.

- q) Select **OK** to close the **Custom Fields** dialog box.

4. Create a custom formula field.

- a) Select **Project**→**Properties**→**Custom Fields**.
- b) If necessary, select the **Task** radio button. In the **Type** drop-down list, select **Number**.
- c) Rename the **Number1** field to **Days Left** and select **OK**.
- d) Select the **Formula** button.
- e) In the **Formula** dialog box, select the **Function** button, choose **Date / Time** from the drop-down list, and select **DateDiff**.
- f) In the formula, select **interval** with the mouse pointer. Replace it by typing **"d"** (with quotation marks) for day.
- g) In the formula, select **date1** with the mouse pointer. Replace it by selecting the **Function** button, choosing **Date / Time** from the drop-down list, and selecting **Now()**.
- h) In the formula, select **date2** with the mouse pointer. Replace it by selecting the **Field** button, choosing **Date** from the drop-down list, and selecting **Finish**.


- i) In the formula, highlight **firstdayofweek**, **firstweekofyear** and delete the text by pressing the **Delete** key. If necessary, delete all extraneous spaces and the comma in the formula.

- j) Select **OK** to close the **Formula** dialog box.
 k) If necessary, in the **Microsoft Project** dialog box about replacing all the data in the **Days Left** field, select **OK**.
 l) Select **OK** to close the **Custom Fields** dialog box.

5. Verify that the **View Bar** is visible on the left side of the Project 2016 interface.

6. Add a **Grant Criteria** column to the **Resource Sheet**.


- a) Find and select the **Resource Sheet** button on the **View Bar**.



Note: You may need to select the down arrow at the bottom of the **View Bar** to find the **Resource Sheet** button.

- b) In the **Resource Sheet** view, select the **Material** column.
 c) Right-click and select **Insert Column**.
 d) In the **Type Column Name** field, type **Grant Criteria** and press **Enter**.
 Verify that the view contains a new column titled **Grant Criteria**.

Resource Name	Type	Grant Criteria
Concrete contractor	Work	<input type="radio"/>
Finish carpentry contractor	Work	<input checked="" type="radio"/>
Fencing contractor	Work	<input type="radio"/>
Masonry contractor	Work	<input type="radio"/>



Note: If you select a cell in the **Grant Criteria** column, select the down arrow, and select an option. Project 2016 will convert your choice into the corresponding graphical indicator.

7. Add a **Days Left** column to the **Gantt Chart**.

- a) Select the **Gantt Chart** button on the **View Bar**.
- b) In the **Gantt Chart** view, select the **Predecessors** column.
- c) Right-click and select **Insert Column**.
- d) In the **Type Column Name** field, type **Days Left** and press **Enter**.
Verify that the view contains a new column titled **Days Left**.



Note: To see values in this column, you may need to expand subtasks and scroll vertically. The values may be rather large because the formula uses your computer's current date as the **Now** value for the calculation.

8. Save the file.
