CHAPTER 1

CUSTOM FIELDS

INFOCUS

Project provides a huge number of built-in fields. However, you won't always be able to find one that displays the exact information you want or even how you want it to be displayed. When this happens you can create custom fields to track information that the built-in fields don't record. For instance, you can create fields with lookup tables, fields that display information visually, and quite a lot more.

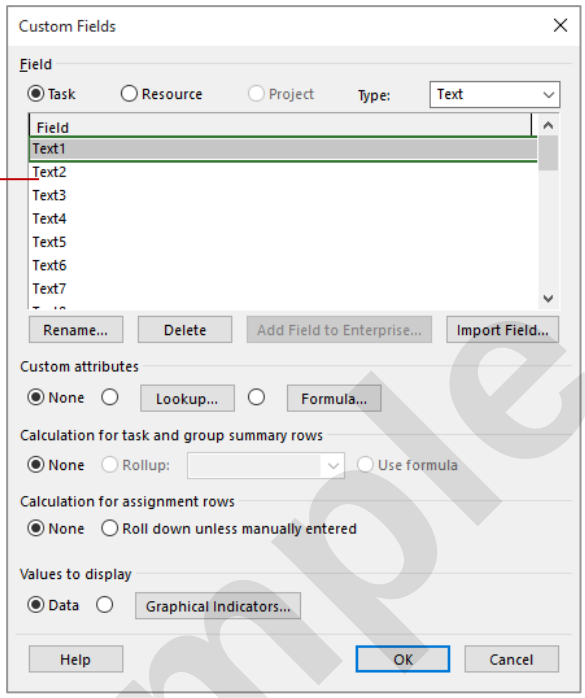
In this session you will:

- ✓ gain an understanding of the custom fields
- ✓ learn how to create and name custom fields
- ✓ learn how to insert custom fields
- ✓ learn how to use a formula in a custom field to calculate a field value
- ✓ learn how to modify formulas in custom fields
- ✓ learn how to test a formula in a custom field
- ✓ gain an understanding of graphical indicator custom fields
- ✓ learn how to create custom fields with graphical indicators
- ✓ learn how to create a lookup custom field
- ✓ learn how to create a code mask for an outline code lookup table
- ✓ learn how to enter values in a lookup table
- ✓ learn how to use a lookup table.

UNDERSTANDING CUSTOM FIELDS

Although Project comes complete with a myriad of fields, you may find situations when there isn't a built-in field available for tracking the specific information you need for your project. This is where ***custom fields*** are useful. For instance, you can use formulas to calculate values or build lists of values from which you can choose. Like built-in fields, custom fields come in various data types.

Available Task custom fields for the selected data Type (Text), hence the default field names – Text1, Text2, etc.



The Custom Fields Dialog Box

Although you can quickly create simple custom fields using the ***Insert Column*** or ***Add New Column*** features, if you need to create more complex custom fields you will need to use the ***Custom Fields*** dialog box, as shown above, which is available via the ***Custom Fields*** command on the ***Project*** tab.

Field type — The first thing you must specify when creating a new custom field is the view in which it will be available. For instance, ***Task*** custom fields will appear in ***Task*** views, while ***Resource*** custom fields will appear in ***Resource*** views.

Data type — You can specify the data type for the custom field based on what you are storing in the field. ***Cost*** holds money; ***Date*** hold dates; ***Duration*** holds the same type of data as the ***Duration*** field you've seen in a Gantt Chart; ***Start*** and ***Finish*** fields are usually used by Project for storing start and finish dates for interim plans but if you don't use interim plans, you can use these fields to store other custom dates; ***Flag*** fields are used to tag tasks or resources with Yes/No values (such as whether a task is being done at a fixed price or for tasks that you need to do extra quality assurance on); ***Number*** stores numbers other than cost and duration (e.g. the square metres of walls to be painted); ***Text*** fields can store up to 255 characters; and ***Outline Code*** fields are a special type which you can use to set up a hierarchy of values such as department numbers.

Custom attributes — You can use these options to either create a ***Lookup*** table of valid values to pick from or assign a ***Formula*** to a custom field to calculate values.

Calculation for task and group summary rows or ***Calculation for assignment rows*** — You can specify how you want Project to calculate task and summary rows. For instance, you could have Project roll up the values to the summary row, like the ***Duration*** does or you could use a formula to calculate it. Alternatively, you could tell Project how to calculate the values for assignment rows down from the task value.

Values to display — You can choose to display the values in the custom fields as either data or graphical indicators, such as red, orange and green circles.

CREATING CUSTOM FIELDS

Custom fields are initially named with a default name that identifies the data type on which they are based. For instance, the ***Cost1*** field is based on the ***Cost*** data type, while the ***Text1*** fields is based on the ***Text*** data type. To make a custom field easier to use the first thing you will need to do is to rename it to something more meaningful.

Try This Yourself:

Open File

Before starting this exercise you MUST open the file Custom Fields_1.mpp…

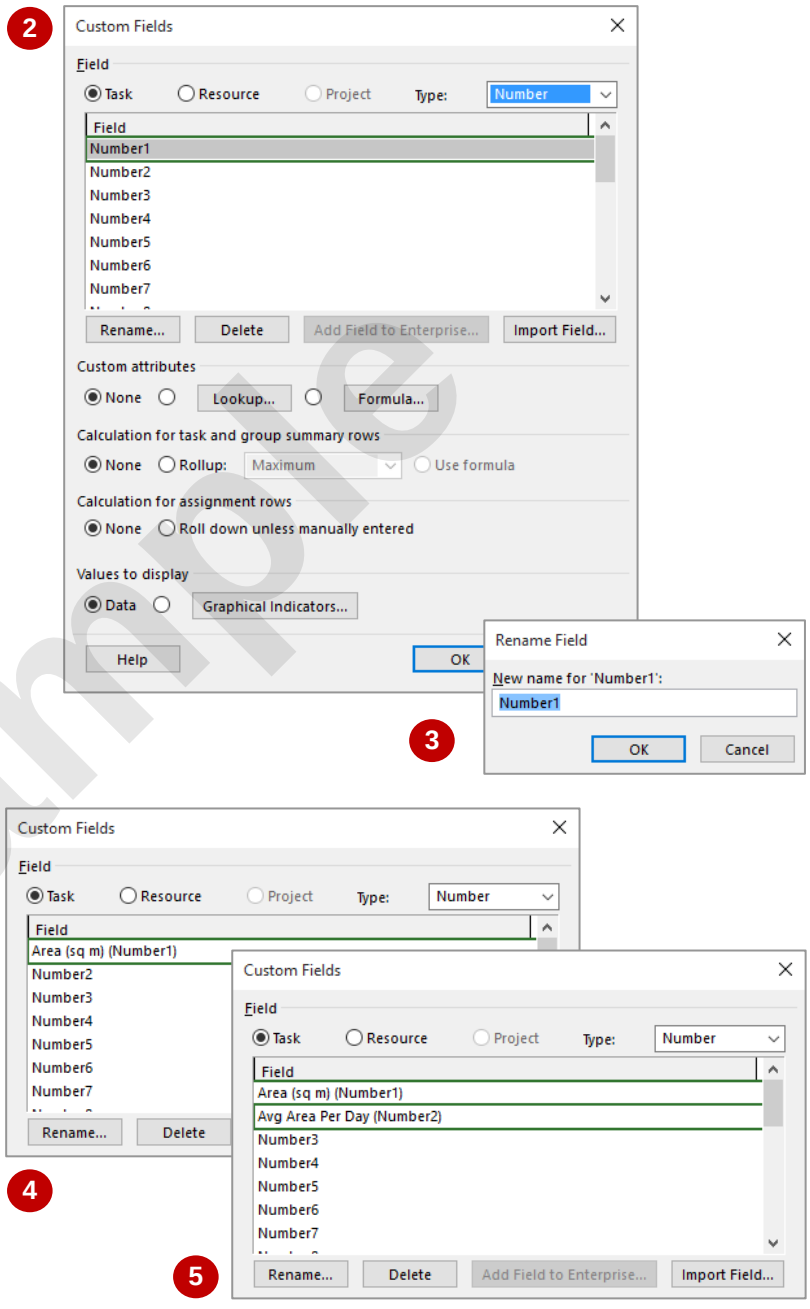
1. Click on the ***Project*** tab, then click on ***Custom Fields*** in the ***Properties*** group to display the ***Custom Fields*** dialog box

   Let's create two fields for tracking workers' output…

2. Ensure that ***Task*** is selected in ***Field***, then click on the drop arrow for ***Type*** and select **Number** to display the custom number fields
3. Ensure that ***Number1*** is selected in ***Field***, then click on **[Rename]** to display the ***Rename Field*** dialog box
4. Type **Area (sq m)**, then click on **[OK]** to rename it

   Notice that the field's new name appears, followed by its default name…

5. Repeat steps ***3*** and ***4*** to rename ***Number2*** as ***Avg Area Per Day***
6. Click on **[OK]** to close the ***Custom Fields*** dialog box



For Your Reference…

To ***create*** a ***custom field***:

1. Click on the ***Project*** tab, then click on ***Custom Fields*** in the ***Properties*** group
2. Click on ***Task*** or ***Resource***
3. Select the appropriate ***Data type***, click on the field name, click on **[Rename]**, then type the new field name

Handy to Know…

- You can make as many or as few custom fields as desired while you have the ***Custom Fields*** dialog box open.

INSERTING CUSTOM FIELDS

Once you have created a custom field, you are then ready to insert it into the appropriate table. Like built-in fields, you can search for them using the ***Insert Column*** command by typing the start of their field name. You can also locate them by searching on their default field name. This is extremely helpful if you know you've created a ***Cost*** field, for example, but can't recall its name.

Try This Yourself:

Same File *Continue using the previous file with this exercise, or open the file Custom Fields_2.mpp...*

1. Click on the ***View*** tab, click on ***Gantt Chart*** in the ***Task Views*** group, then click on ***Tables*** in the ***Data*** group and select **Tracking** to display the ***Tracking*** table

2. Right-click on the ***Act. Start*** column, select **Insert Column**, then type **ar**

   Notice that the field's new name precedes the default name which is shown in parentheses…

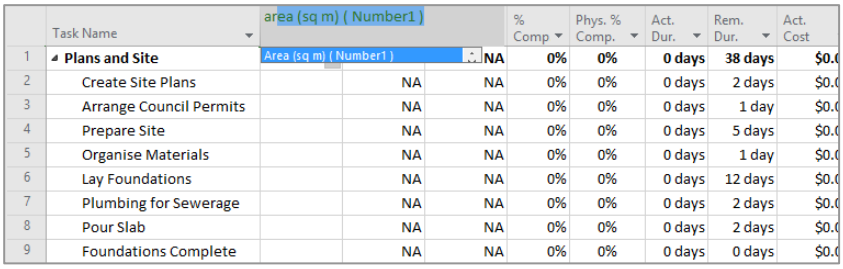
3. Press Enter to insert the ***Area (sq m)*** column

   Let's insert the second field but this time we'll search on the default field name…

4. Repeat step ***2***, but this time type **num**

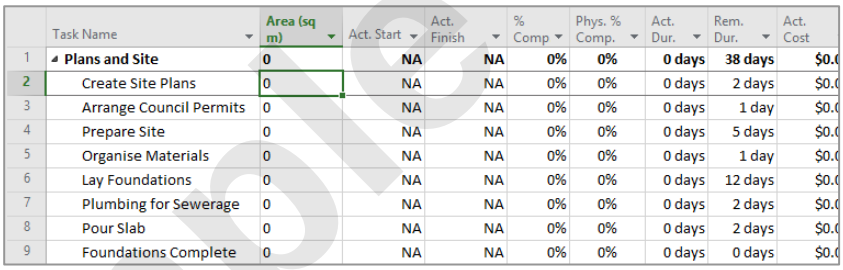
   Now all of the Number custom fields will be listed

5. Click on ***(Avg Area Per Day)*** to insert this custom field



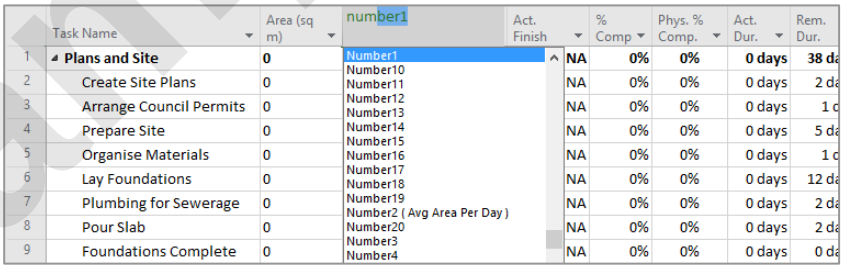
	Task Name	area (sq m) (Number1)		% Comp	Phys. % Comp.	Act. Dur.	Rem. Dur.	Act. Cost
1	Plans and Site	Area (sq m) (Number1)	NA	0%	0%	0 days	38 days	$0.0
2	Create Site Plans	NA	NA	0%	0%	0 days	2 days	$0.0
3	Arrange Council Permits	NA	NA	0%	0%	0 days	1 day	$0.0
4	Prepare Site	NA	NA	0%	0%	0 days	5 days	$0.0
5	Organise Materials	NA	NA	0%	0%	0 days	1 day	$0.0
6	Lay Foundations	NA	NA	0%	0%	0 days	12 days	$0.0
7	Plumbing for Sewerage	NA	NA	0%	0%	0 days	2 days	$0.0
8	Pour Slab	NA	NA	0%	0%	0 days	2 days	$0.0
9	Foundations Complete	NA	NA	0%	0%	0 days	0 days	$0.0

2



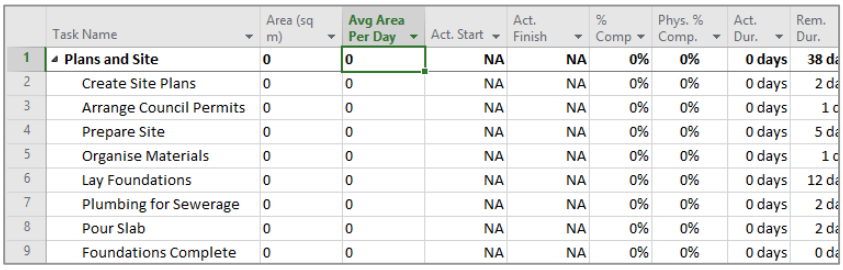
	Task Name	Area (sq m)	Act. Start	Act. Finish	% Comp	Phys. % Comp.	Act. Dur.	Rem. Dur.	Act. Cost
1	Plans and Site	0	NA	NA	0%	0%	0 days	38 days	$0.0
2	Create Site Plans	0	NA	NA	0%	0%	0 days	2 days	$0.0
3	Arrange Council Permits	0	NA	NA	0%	0%	0 days	1 day	$0.0
4	Prepare Site	0	NA	NA	0%	0%	0 days	5 days	$0.0
5	Organise Materials	0	NA	NA	0%	0%	0 days	1 day	$0.0
6	Lay Foundations	0	NA	NA	0%	0%	0 days	12 days	$0.0
7	Plumbing for Sewerage	0	NA	NA	0%	0%	0 days	2 days	$0.0
8	Pour Slab	0	NA	NA	0%	0%	0 days	2 days	$0.0
9	Foundations Complete	0	NA	NA	0%	0%	0 days	0 days	$0.0

3



	Task Name	Area (sq m)	number1	Act. Finish	% Comp	Phys. % Comp.	Act. Dur.	Rem. Dur.
1	Plans and Site	0	Number1	NA	0%	0%	0 days	38 da
2	Create Site Plans	0	Number10	NA	0%	0%	0 days	2 da
3	Arrange Council Permits	0	Number11	NA	0%	0%	0 days	1 d
4	Prepare Site	0	Number12	NA	0%	0%	0 days	5 da
5	Organise Materials	0	Number13	NA	0%	0%	0 days	1 d
6	Lay Foundations	0	Number14	NA	0%	0%	0 days	12 da
7	Plumbing for Sewerage	0	Number15	NA	0%	0%	0 days	2 da
8	Pour Slab	0	Number16	NA	0%	0%	0 days	2 da
9	Foundations Complete	0	Number17	NA	0%	0%	0 days	0 da
			Number18					
			Number19					
			Number2 (Avg Area Per Day)					
			Number20					
			Number3					
			Number4					

4



	Task Name	Area (sq m)	Avg Area Per Day	Act. Start	Act. Finish	% Comp	Phys. % Comp.	Act. Dur.	Rem. Dur.
1	Plans and Site	0	0	NA	NA	0%	0%	0 days	38 da
2	Create Site Plans	0	0	NA	NA	0%	0%	0 days	2 da
3	Arrange Council Permits	0	0	NA	NA	0%	0%	0 days	1 d
4	Prepare Site	0	0	NA	NA	0%	0%	0 days	5 da
5	Organise Materials	0	0	NA	NA	0%	0%	0 days	1 d
6	Lay Foundations	0	0	NA	NA	0%	0%	0 days	12 da
7	Plumbing for Sewerage	0	0	NA	NA	0%	0%	0 days	2 da
8	Pour Slab	0	0	NA	NA	0%	0%	0 days	2 da
9	Foundations Complete	0	0	NA	NA	0%	0%	0 days	0 da

5

For Your Reference…

To ***insert*** a ***custom field***:

1. Right-click on the heading of the column to the right of where you want to insert the custom field
2. Click on ***Insert Column***
3. Start typing the field name or default field name, then click on the desired field

Handy to Know…

- Before adding custom fields to a standard table, you might wish to save the table as a new table. To do this, click on the ***View*** tab, click on ***Tables***, select **Save Fields as a New Table**, then type a new name.

CREATING A FORMULA IN A CUSTOM FIELD

If you want to display or work with values that do not exist in fields, you can create a custom field and add a formula to create the desired values. For instance, in this exercise we will add a formula to our ***Avg Area Per Day*** custom field to calculate the average area per day value. The formula we want to create is the area in square metres divided by the actual duration.

Try This Yourself:

Same File *Continue using the previous file with this exercise, or open the file Custom Fields_3.mpp...*

1. In the ***Tracking*** table, under ***Fit Out*** click in the ***Area (sq m)*** column for ***Paint External*** and type **710**, click in the ***Area (sq m)*** column for ***Paint internals*** and type **925**, then press Enter

2. Display the ***Custom Fields*** dialog box, select ***Number*** in ***Type***, click on ***Avg Area Per Day***, then click on **[Formula]** to display the ***Formula*** dialog box

3. Click on **[Field]**, then select ***Number*** > ***Custom Number*** > ***Area (sq m) (Number1)***

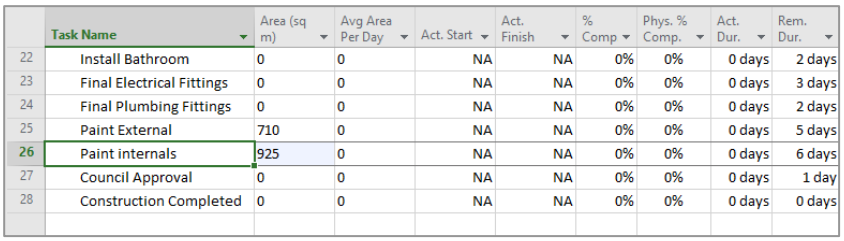
4. Click on **[/]** to insert the division symbol, then click on **[Field]** and select ***Duration*** > ***Actual Duration***

5. Click on **[OK]**

   A message will display warning you that existing data in the Avg Area Per Day field will be deleted. This is fine as we don't have any data in this field…

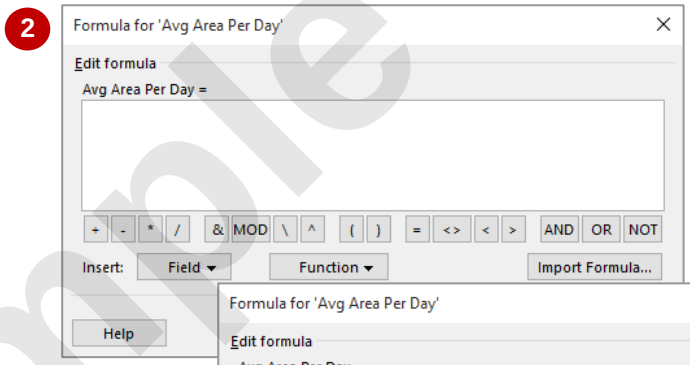
6. Click on **[OK]** to close the message, then on **[OK]** to close the dialog box

   We have created an error which we will fix in the next exercise

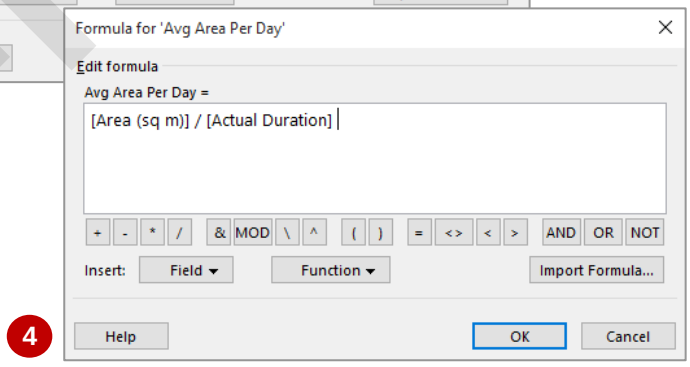


	Task Name	Area (sq m)	Avg Area Per Day	Act. Start	Act. Finish	% Comp	Phys. % Comp.	Act. Dur.	Rem. Dur.
22	Install Bathroom	0	0	NA	NA	0%	0%	0 days	2 days
23	Final Electrical Fittings	0	0	NA	NA	0%	0%	0 days	3 days
24	Final Plumbing Fittings	0	0	NA	NA	0%	0%	0 days	2 days
25	Paint External	710	0	NA	NA	0%	0%	0 days	5 days
26	Paint internals	925	0	NA	NA	0%	0%	0 days	6 days
27	Council Approval	0	0	NA	NA	0%	0%	0 days	1 day
28	Construction Completed	0	0	NA	NA	0%	0%	0 days	0 days

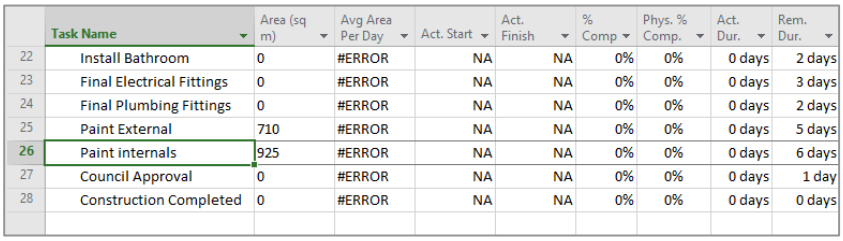
1



2



4



	Task Name	Area (sq m)	Avg Area Per Day	Act. Start	Act. Finish	% Comp	Phys. % Comp.	Act. Dur.	Rem. Dur.
22	Install Bathroom	0	#ERROR	NA	NA	0%	0%	0 days	2 days
23	Final Electrical Fittings	0	#ERROR	NA	NA	0%	0%	0 days	3 days
24	Final Plumbing Fittings	0	#ERROR	NA	NA	0%	0%	0 days	2 days
25	Paint External	710	#ERROR	NA	NA	0%	0%	0 days	5 days
26	Paint internals	925	#ERROR	NA	NA	0%	0%	0 days	6 days
27	Council Approval	0	#ERROR	NA	NA	0%	0%	0 days	1 day
28	Construction Completed	0	#ERROR	NA	NA	0%	0%	0 days	0 days

6

For Your Reference…

To ***create*** a ***formula*** in a ***custom field***:

1. Click on the ***Project*** tab, click on ***Custom Fields***, click on the field, then click on **[Formula]**
2. Enter the formula using the **[Field]**, **[Function]** and mathematical buttons
3. Click on **[OK]**

Handy to Know…

- There are various functions that you can use in custom field formulas. For example, you can include IF THEN clauses, convert values, or format dates and numbers.
- Before creating a formula for a custom field, ensure that the field is not selected in the table.

MODIFYING A FORMULA

You must check the values that appear in a custom formula field. If you have made an error, ***#ERROR*** may display. This makes it easy to see when something is wrong – like in our case where we divided the area by zero (as Act.Dur. are 0 days) which is mathematically impossible. Instead, we'll insert an ***IF THEN statement*** into the formula to test when ***Actual Duration*** is zero.

Try This Yourself:

Same File *Continue using the previous file with this exercise, or open the file Custom Fields_4.mpp...*

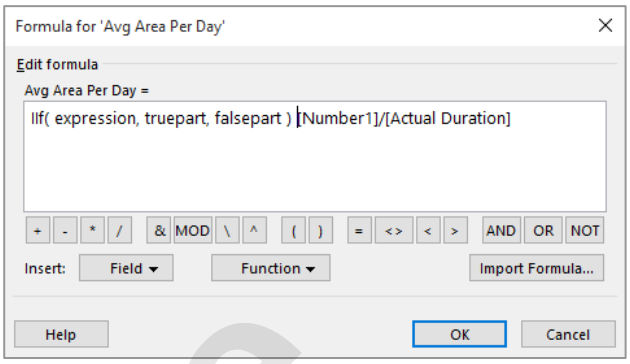
1. In the ***Tracking*** table, display the ***Custom Fields*** dialog box, select **Number** in ***Type***, click on ***Avg Area Per Day***, then click on **[Formula]** to display the ***Formula*** dialog box
2. Click at the start of the formula, then click on **[Function]** > ***General*** > **Iif(…** to insert the ***If Then*** statement
3. Double-click on ***expression***, click on **[Field]** and insert ***Duration*** > ***Actual Duration***, then type **>0** (zero) to enter the test

   If the test is true we want to run the formula...
4. Select ***[Number1]/[Actual Duration]***, then press Ctrl + X to cut the formula
5. Double-click on ***truepart***, then press Ctrl + V to paste the formula

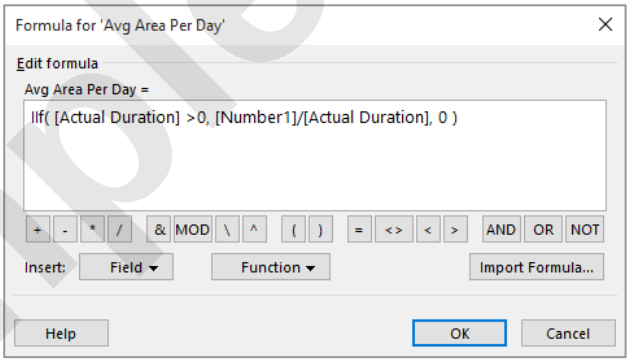
   If it's false we'll make it zero…
6. Double-click on ***falsepart***, then type **0**
7. Click on **[OK]**, then click on **[OK]**

   The Act. Dur fields are currently 0 days so the formula appears to be working

2



6



	Task Name	Area (sq m)	Avg Area Per Day	Act. Start	Act. Finish	% Comp	Phys. % Comp.	Act. Dur.	Rem. Dur.
22	Install Bathroom	0	0	NA	NA	0%	0%	0 days	2 days
23	Final Electrical Fittings	0	0	NA	NA	0%	0%	0 days	3 days
24	Final Plumbing Fittings	0	0	NA	NA	0%	0%	0 days	2 days
25	Paint External	710	0	NA	NA	0%	0%	0 days	5 days
26	Paint internals	925	0	NA	NA	0%	0%	0 days	6 days
27	Council Approval	0	0	NA	NA	0%	0%	0 days	1 day
28	Construction Completed	0	0	NA	NA	0%	0%	0 days	0 days

7

For Your Reference…

To ***modify*** a ***formula*** in a ***custom field***:

1. Click on the ***Project*** tab, click on ***Custom Fields***, click on the field, then click on **[Formula]**
2. Alter the formula as necessary using the **[Field]**, **[Function]** and mathematical buttons

Handy to Know…

- ***Iif statements*** have three components: the ***expression*** represents the test (*is Act. Dur > 0?*), ***truepart*** says what will happen when the test is true (*if Act.Dur > 0, then do this*…), and ***falsepart*** says what will happen when the test is false (*if Act.Dur <= 0, then do this*…).

TESTING A FORMULA

When you insert a formula into a custom field, it is important that you test for all situations. In the previous exercise we determined that we needed an IF THEN statement to test for cases when the actual duration is 0 days so that we wouldn't be trying to divide a value by 0. Now we must test that the formula works when the actual duration is greater than 0 days.

Try This Yourself:

Same File

Continue using the previous file with this exercise, or open the file Custom Fields_5.mpp...

1. In the ***Tracking*** table, under ***Fit Out***, click in the ***Act. Dur.*** Column for ***Paint External*** and type **2.5**, press Enter, then type **4** to add the value for ***Paint internals***

   Now that Act. Dur. have values, we see that the Avg Area Per Day has values; however, the values are too low…

2. Display the ***Formula*** dialog box for the ***Avg Area Per Day*** custom field

   Project calculates Duration fields in minutes so we must convert our formula accordingly. To do this we must divide Actual Duration by 480 to convert it back to an 8-hour work day…

3. Alter the truepart of the formula as shown

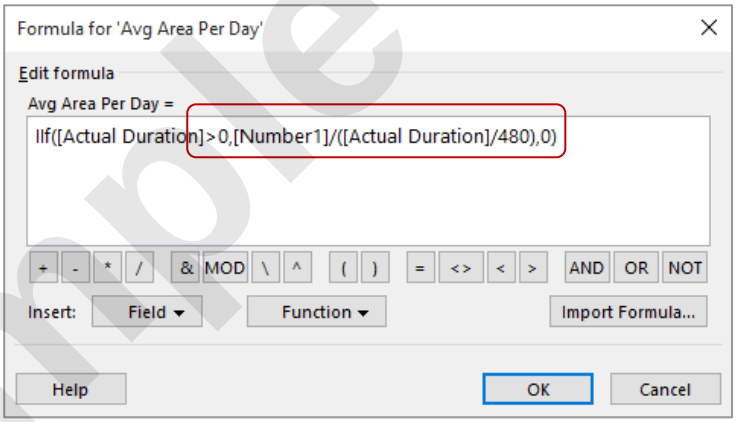
4. Click on **[OK]** and then on **[OK]**

   The formula is definitely working correctly now

	Task Name	Area (sq m)	Avg Area Per Day	Act. Start	Act. Finish	% Comp	Phys. % Comp.	Act. Dur.	Rem. Dur.
22	Install Bathroom	0	0	NA	NA	0%	0%	0 days	2 days
23	Final Electrical Fittings	0	0	NA	NA	0%	0%	0 days	3 days
24	Final Plumbing Fittings	0	0	NA	NA	0%	0%	0 days	2 days
25	Paint External	710	0.59	Fri 31/05/19	NA	50%	0%	2.5 days	2.5 days
26	Paint internals	925	0.48	Fri 7/06/19	NA	67%	0%	4 days	2 days
27	Council Approval	0	0	NA	NA	0%	0%	0 days	1 day
28	Construction Completed	0	0	NA	NA	0%	0%	0 days	0 days

1 *If 710 m² have been painted in 2.5 days, the average area per day should be 284 m² (710 / 2.5) – not 0.59 m², while the internal painting should be 231.25 m² rather than 0.48 m².*

3



Replace IIf ([Actual Duration] > 0, [Number1] / [Actual Duration], 0)
with IIf ([Actual Duration] > 0, [Number1] / ([Actual Duration] / 480), 0)

	Task Name	Area (sq m)	Avg Area Per Day	Act. Start	Act. Finish	% Comp	Phys. % Comp.	Act. Dur.	Rem. Dur.
22	Install Bathroom	0	0	NA	NA	0%	0%	0 days	2 days
23	Final Electrical Fittings	0	0	NA	NA	0%	0%	0 days	3 days
24	Final Plumbing Fittings	0	0	NA	NA	0%	0%	0 days	2 days
25	Paint External	710	284	Fri 31/05/19	NA	50%	0%	2.5 days	2.5 days
26	Paint internals	925	231.25	Fri 7/06/19	NA	67%	0%	4 days	2 days
27	Council Approval	0	0	NA	NA	0%	0%	0 days	1 day
28	Construction Completed	0	0	NA	NA	0%	0%	0 days	0 days

4

For Your Reference…

To ***test*** a ***formula***:

1. Enter values into the relevant fields to check that all components in the statement are tested
2. Use a calculator, if necessary, to ensure that calculated values are correct

Handy to Know…

- To calculate the Duration of one work day (8 hours) is 8 x 60 minutes = 480 minutes. Therefore, the duration for 2.5 days is 1200.

UNDERSTANDING GRAPHICAL INDICATOR CUSTOM FIELDS

Graphical indicator custom fields let you display the value of a field graphically rather than numerically. For example, you might use red images to highlight specific issues with tasks, such as finishing late. Using the ***Graphical Indicators*** dialog box you enter tests that Project will evaluate to determine which test passes and hence which image it will insert into the field.

How Graphical Indicators Work

We have inserted a custom field called ***Cost Status*** into the standard ***Variance*** table. By using a formula, we have set this field to be equivalent to the standard ***Cost Variance*** field (by simply selecting **[Cost Variance]** in the ***Formula*** dialog box).

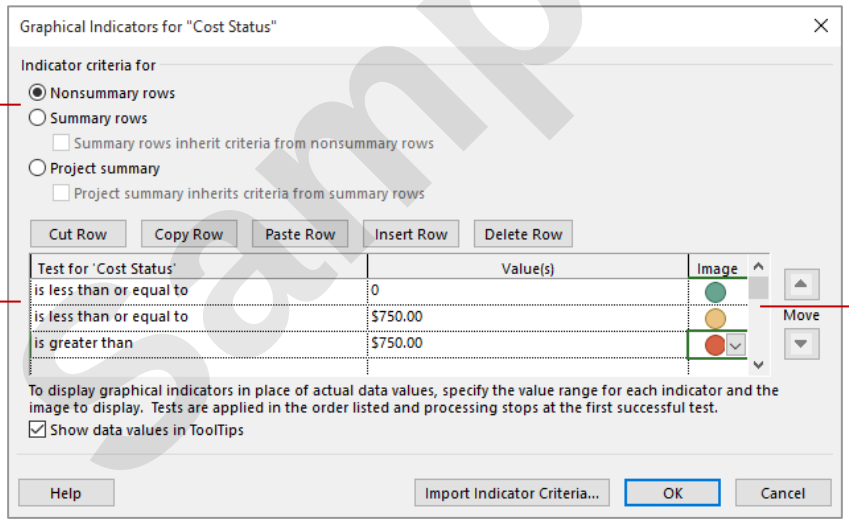
However, we don't want to see the actual cost variance in the table; otherwise, we would have simply inserted this field in the table. Instead, we'd like to see an overview of how each task is performing and we will achieve this by adding ***graphical indicators*** to the custom field. This will enable us to see at a glance tasks that are under budget (a green image will show when the cost variance is less than $0), tasks that are on track (an orange image will show when the cost variance is less than or equal to $750), and tasks that are over budget (a red image will show when the cost variance is greater than $750).

Graphical Indicator Tests

To create a graphical indicator custom field, you will need to access the ***Custom Fields*** dialog box, then click on **[Graphical Indicators]** to open the ***Graphical Indicators*** dialog box for the selected field, as shown below. This dialog box requires you to enter the appropriate tests that will be evaluated so that Project can then insert the graphical image that represents the positive state of the test.

You will need to set tests for each of these row types.

These tests must cover all possible Values.



The appropriate Image will display in the custom field based on which test is positive.

There are several important things to note when entering tests into the ***Graphical Indicators*** dialog box.

- You must specify as many tests as are necessary to cover all possible values of the particular field. For instance, we have three tests to cover all situations for the ***Cost Status*** field as specified above.
- You must enter the tests into the dialog box in the correct order. Project works by evaluating the top test first and if that test passes, Project will insert the specified image into the field. If the first test fails, Project moves onto the second test, evaluates it and if it passes, inserts the image specified for that test. This continues until all tests have been evaluated, if necessary, and an image has been inserted into the custom field in the table.
- You will need to enter tests for the three types of rows: ***nonsummary rows*** (which are simply all of the work tasks), ***summary rows*** and the ***project summary***. To do this you will need to access the ***Graphical Indicators*** dialog box ***three*** separate times, one for each of the different types of rows. If you want to use the same criteria in the Summary rows as you entered for the nonsummary rows, you can simply click on ***Summary rows inherit criteria from nonsummary rows***. Likewise, you can use the same criteria in the Project summary as you entered for the summary rows by clicking on ***Project summary inherits criteria from summary rows***.

CREATING GRAPHICAL INDICATOR CUSTOM FIELDS

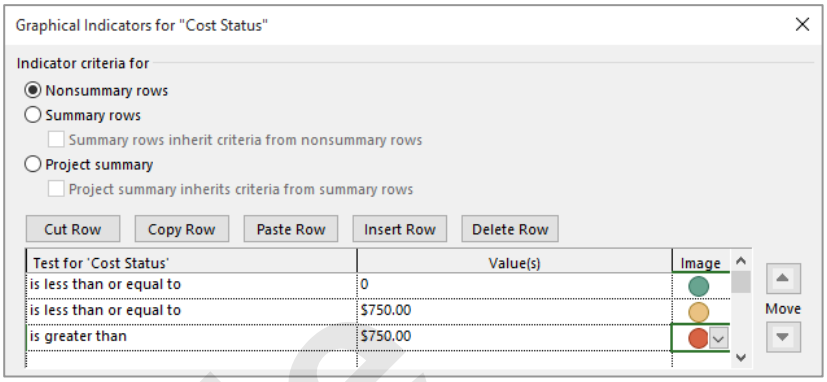
Project table data typically appears as rows of data. But if you would like to see at a glance how tasks are tracking, you can display custom field values graphically rather than numerically. In this exercise, we will add graphical indicators to a custom field so that we can see which tasks are under, on or over budget.

Try This Yourself:

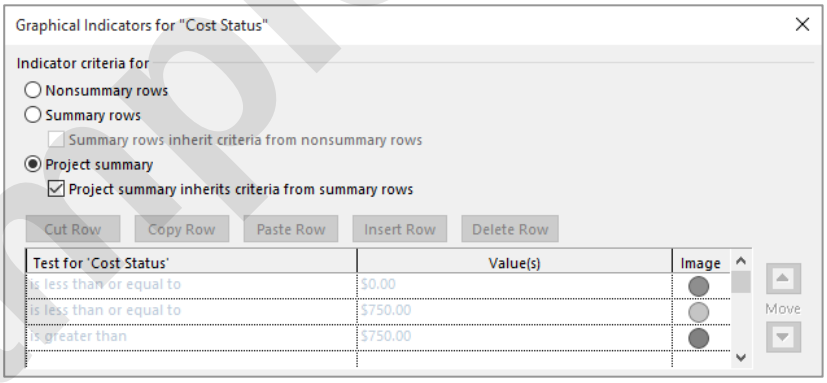
Open File

Before starting this exercise you MUST open the file Custom Fields_6.mpp…

1. Display the ***Variance*** table, right-click on the ***Cost Status*** heading and select **Custom Fields**, then click on **[Graphical Indicators]** to display the ***Graphical Indicators*** dialog box for this field
2. Click on the drop arrow for ***Test for*** and select **is less than or equal to**, type **0** in ***Value(s)***, then select the green circle in ***Image*** – this will show under budget tasks
3. Insert the other two tests, as shown, selecting orange and red images respectively
4. Click on **[OK]**, click on **[Graphical Indicators]**, then click on ***Summary rows***
5. Click on ***Summary rows inherit…*** , then click on **[Yes]** so they use the same tests as the work tasks
6. Repeat step ***4*** but click on ***Project summary***, then ensure that ***Project summary inherits…*** appears ticked
7. Click on **[OK]** for each dialog box, then click in another field so you can see the results



3



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	Task Mode	Task Name	Cost Status	Start	Finish	Baseline Start	Baseline Finish
1		**Plans and Site**		**Tue 5/02/19**	**Thu 28/03/19**	**NA**	**NA**
2		Create Site Pla		Tue 5/02/19	Wed 6/02/19	NA	NA
3		Arrange Counc		Thu 7/02/19	Thu 7/02/19	NA	NA
4		Prepare Site		Thu 28/02/19	Wed 6/03/19	NA	NA
5		Organise Mate		Thu 28/02/19	Thu 28/02/19	NA	NA
6		Lay Foundatio		Thu 7/03/19	Fri 22/03/19	NA	NA
7		Plumbing for S		Mon 25/03/19	Tue 26/03/19	NA	NA
8		Pour Slab		Wed 27/03/19	Thu 28/03/19	NA	NA
9		Foundations C		Thu 28/03/19	Thu 28/03/19	NA	NA
10		**To Lock Up**		**Fri 29/03/19**	**Fri 26/04/19**	**NA**	**NA**
11		Erect Framing		Fri 29/03/19	Tue 2/04/19	NA	NA

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For Your Reference…

To ***insert graphical indicators*** into a custom field:

1. Right-click on the custom field heading and select **Custom Fields**, then click on **[Graphical Indicators]**
2. Insert tests for nonsummary rows, summary rows and the project summary

Handy to Know…

- You can create a custom field (using a formula to make it equivalent to the standard ***Finish Variance*** field) to show graphically all tasks that finished ahead of schedule (is less than or equal to 0d), on time (is less than or equal to 5d), or late (is greater than 5d).

CREATING A LOOKUP CUSTOM FIELD

You can make data entry faster and more accurate by creating lookup tables of valid options from which to choose. Lookup tables work for all custom fields types except flag fields as they have only two options: yes and no. For outline fields, which we'll use, you can set up a template for the rules that the field values have to follow. We'll start by creating an outline code field.

Try This Yourself:

Same File *Continue using the previous file with this exercise, or open the file Custom Fields_7.mpp...*

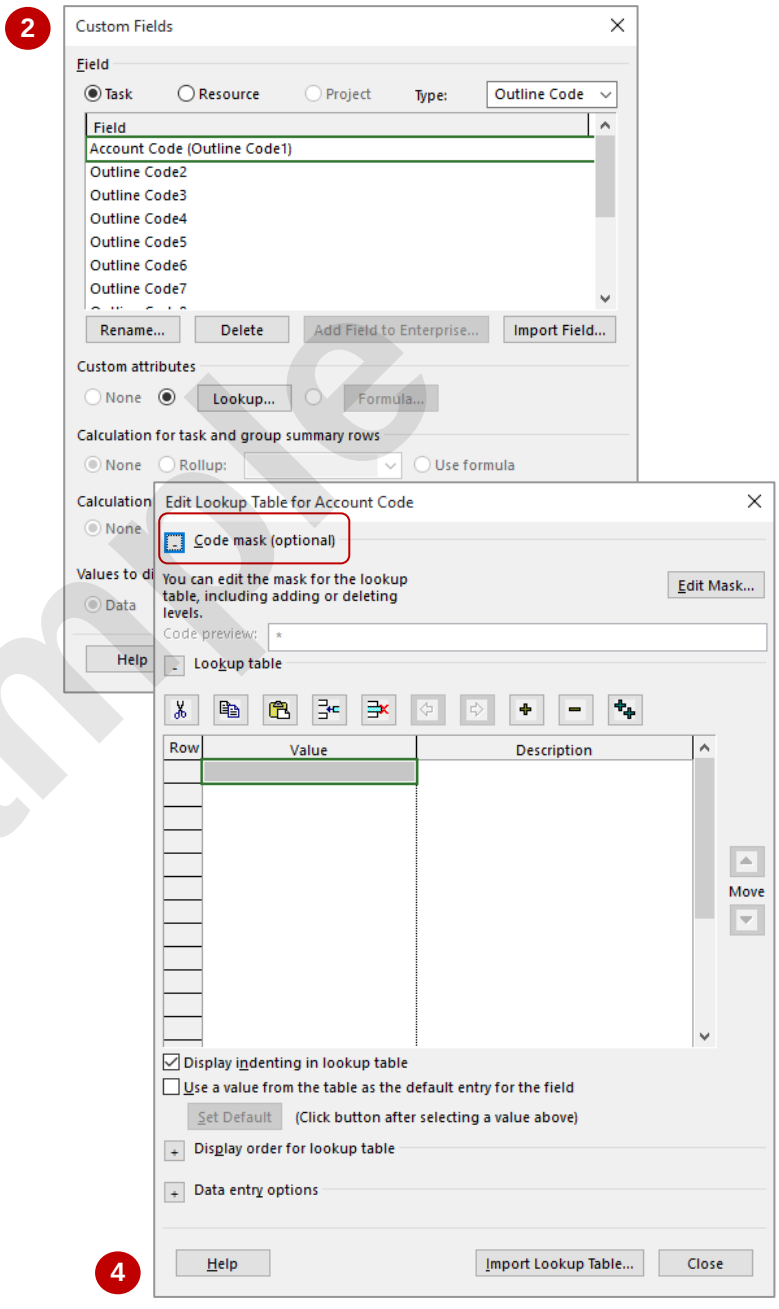
1. Click on the ***Project*** tab, click on ***Custom Fields***, then select **Outline Code** in ***Type***
2. Ensure that ***Outline Code1*** is selected, click on **[Rename]**, type **Account Code** in ***New name for***, then click on **[OK]**

   Now we need to specify that this is a lookup table field…
3. Click on **[Lookup]** under ***Custom attributes*** to display the ***Edit Lookup Table*** dialog box

   Here you can either simply enter the values and description in the rows, or first set up a code mask to define the rules that each code must comply with…
4. Click on **+** beside ***Code mask (optional)*** at the top of the dialog box to expand this section

   Now you can see the code preview as well as have access to the [Edit Mask] command.

   Leave this dialog box open for the next exercise



For Your Reference…

To ***create*** a ***custom field*** with a ***lookup table***:

1. Click on the ***Project*** tab, then click on ***Custom Fields*** in the ***Properties*** group
2. Select the appropriate ***Data type***, then rename the new field
3. Click on **[Lookup]**, then enter the required values and descriptions

Handy to Know…

- Outline code custom fields contain an alphanumeric code that you define to represent a hierarchical structure of tasks or resources. You can use them to group tasks or resources. For example, you can create outline codes to represent job codes or accounting cost codes associated with tasks.

CREATING AN OUTLINE CODE MASK

When you are creating a lookup table for an outline code custom field, you can choose to create a code mask. A code mask is a template that comprises the rules that all values for this outline code must follow. We'll define two outline levels: the first comprising four characters and the second comprising three numbers.

Try This Yourself:

Continue using the previous file with this exercise...

1. Click on **[Edit Mask]** to display the ***Code Mask Definition*** dialog box

   Let's define Level 1…

2. Ensure that ***Characters*** is selected in ***Sequence***, then click in ***Length*** and type **4**, leaving the full stop as the ***Separator***
3. Click in ***Sequence*** in the next row, click on the drop arrow and select **Numbers**, then type **3** in ***Length***
4. Click on **[OK]** to return to the ***Edit Lookup Table*** dialog box

   Leave this dialog box open for the next exercise

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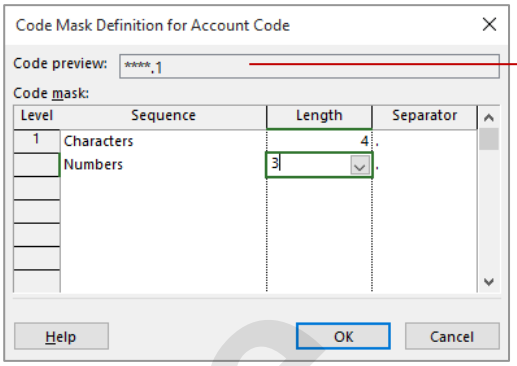
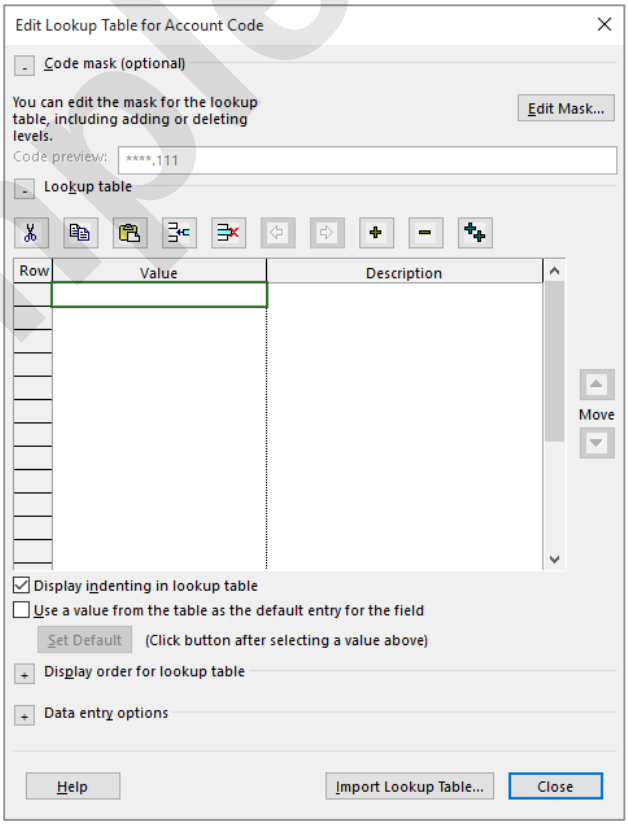


Notice the code preview: the asterisks (*) represent the four characters and the 1s represent the three numbers in the code.

4



For Your Reference…

To ***create*** a ***code mask*** for an ***outline code field***:

1. Display the ***Custom Fields*** dialog box for the field
2. Click on **[Lookup]**, expand ***Code mask***, then click on **[Edit Mask]**
3. Specify the levels, each with their sequence, length and separator

Handy to Know…

- You can specify as many outline levels as required for an outline code lookup table.
- In the ***Sequence*** field you can choose from Characters, Numbers, Uppercase Letters and Lowercase Letters.

ENTERING LOOKUP TABLE VALUES

Using the ***Edit Lookup Table*** dialog box you can add the required values and their descriptions to the lookup table. Because we created a code mask in the previous exercise, we need to enter the values carefully so that they conform to the rules specified in the mask. As well as adding values, you can also specify other options such as the display order, default value, and more.

Try This Yourself:

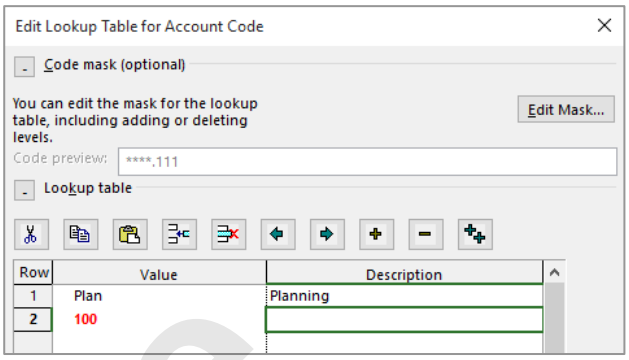
Continue using the previous file with this exercise...

1. In the ***Edit Lookup Table*** dialog box, type **Plan** in the first ***Value*** field, then click in ***Description*** and type **Planning**
2. Type **100** in the second ***Value*** field, then click in ***Description***

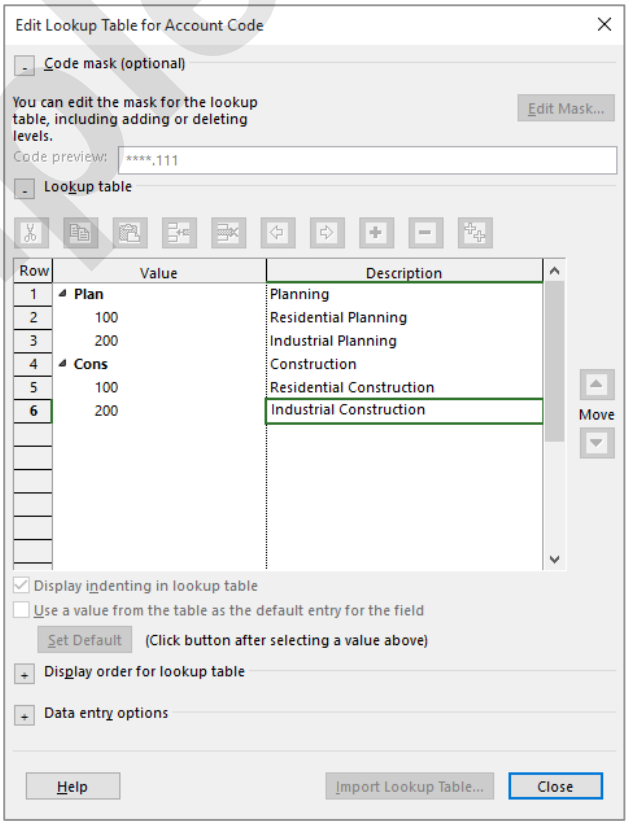
   The value will be red because you haven't typed four characters. We need to tell Project this value is actually a second level value…
3. Click on ***Indent*** (right pointing arrow), then type **Residential Planning**
4. Type **200** in the next ***Value*** field, then type **Industrial Planning** in ***Description***
5. Type **Cons** in the next ***Value*** field, then click in ***Description***

   Again you'll get another error. This time the value must be outdented to level 1…
6. Click on ***Outdent***, type **Construction** in ***Description***, then complete the details as shown
7. Expand ***Data entry options***, then click on ***Allow only codes that have no subordinate values*** so it appears ticked
8. Click on **[Close]**, then click on **[OK]**

2



6



For Your Reference…

To ***enter values*** in an ***outline code lookup table***:

1. Display the ***Custom Fields*** dialog box for the field, then click on **[Lookup]**
2. Type the values (in/outdenting as needed) and descriptions obeying the code mask if one has been set
3. Set other options as required

Handy to Know…

- To enter details in the outline code rows that contain very similar details, use the ***Copy Row*** and ***Paste Row*** tools in the ***Edit Lookup Table*** dialog box.
- Ensure that the ***Display indenting in lookup table*** option is selected.