Intro	In this we will build on **Getting started - 1** and learn how to use some of the more advanced functions: • Retrieve multiple Items into your Job • Merge Library Items • Give resources individual Item mark-ups and provisional sums. • Create Header Items. • Show Excluded Items • Use the Frequency Options • Create Master Jobs
Retrieving Multiple Items into your Job	We saw in **Tutorial 1** how to retrieve single Items from the library into a Job. However, in most cases a Job consists of multiple Items (tasks) and to save time in the build-up it is possible to retrieve more than one Item at a time. In this example we will cost for an excavation and base for a paved area of 150m^2. The base is 150mm, bedding for the brick is 25mm and the brick itself is 50mm; total 225mm (.225m) 1. Create a new Job (refer to Tutorial 1) and call it "TestJob2". Use menu [Job] > [Create New Empty Job] and follow through the wizard. 2. Remember to set some default mark-ups in the Job Settings boxes before proceeding. This is a good habit to get into. 3. Go into the Items screen: Toolbar [I] or Alt+I. 4. Open the Item Library [F9]. Familiarise yourself with the instructions at the very top of this screen. 5. Search in the Category box by typing "Exc" and select "Excavation 7T". 6. Choose an Item from the list that has a m^3 rate such as "Excavate 100mm deep; arisings offsite" £27.41/m^3. 7. Click on your selected Item so that the record turns blue. Note that the box in the bottom left indicates that "1 Item is selected". 8. Click on the down arrow in the Category box and type "bas" and select Bases. 9. Choose an Item from this list that has a m^2 rate such as "Base Type 1 150mm thick – 5 tonne machine and 3 tonne dumper" for 60 m^2 at a rate of £7.06. 10. Click on your selected Item so that the record turns blue. Note that the box in the bottom left now indicates that "2 Items are selected" (you can easily un-select one or all if you have made an error). 11. Click [Proceed]. A screen appears confirming the number of selected Items and asking you to choose how to add these to your Job. As this is the first Item you will only have the "Append them after the existing Items" option but you can choose to "combine the Items" – do not select this option for this example. Click [Next]. 12. The "Review the List of Selected Items and Specify their Quantities" screen appears. This contains the list of your selected Items. You can alter the order in which these Items will appear using the yellow up/down arrows or even delete an Item(s) using the controls in the bottom left of this box.

13. You need to specify a quantity for these Items so that they correspond with your new Job. The selected Items will have their default quantities set at the value they had in the library e.g. the excavation rate was for $1m^3$ - in this example we require 33.75.

    a.   For the Excavation enter 33.75 in the "Reqd Qty" box.

    b.   For the Base enter 150

14. Click [Finish]. If you get a "Resolve Connect Errors" screen, click [Cancel]. This indicates that there is a Resource that is no longer in the Library – not important in this example but refer to the notes in the manual for further information.

15. In your Items screen now there will be the two Items imported from the Library with the adjusted quantities for this Job. There is no limit to the number of Items that can be imported in this manner.

Merge Library Items

We have now seen how to import multiple Items into your Job and that they appear as individual Items in the list.

Now we will also import multiple Items, but they will be merged into a single Item in your Job. You may, for example, want to show the excavation and base as a single task, not two separate ones.

16. In the Items screen repeat steps 4 to 10 inclusive.
17. Click [Proceed]. The screen appears confirming the number of selected Items and asking you to choose how to add these to your Job. This time you will have all three options – select "Append them after the existing Items" option again but this time choose the "combine the Items" option by entering a √ (tick) in the box. Click [Next].
18. The "Review the List of Selected Items and Specify their Quantities" screen appears. Enter the same amounts as in step 13 above. Click [Next].
19. The "Specify the Quantity and Unit of the Combined Item" screen appears. Enter 150 in Quantity and m2 in Units. Click [Finish].
20. In your Items screen now there will be the new third Item which is the combination of the first two imported Items from the Library with the adjusted quantities for this Job. Review and compare all three Items to understand how the combined Item has been constructed. Note that the totals for Items 1 and 2 equals Item 3. This could have been any combination of Items and again there is no limit to the number of Items that can be imported in this manner.

Merging to a pre-existing Item

We will now look at merging Library Items into a pre-existing Item. This is useful when you have imported an electronic Bill of Quantities or you have described tasks in a Job but not yet allocated resources.

21. When in the Items screen press [F12] and type "This is my new excavation task" in the description box. Tab to or mouse-click on the Quantity box and enter "1" and then "Item" in the Units box.

22. Click the green √ in the tool bar or Ctrl+S to save this Item.

23. Repeat steps 4 to 10 inclusive.

24. Click [Proceed]. The screen appears confirming the number of selected Items and asking you to choose how to add these to your Job. Again, you will have all three options – select "Merge them (combined) into currently selected Item". Note you do not have the "combine the selected Items" option. Click [Next].

25. The "Review the List Selected Items and Specify their Quantities" screen appears. Enter the same amounts as in step 13 above. Click [Next].

26. The "Specify the Quantity of the Merged Combined Item" screen appears. This takes the Quantity as entered when we created the Item and could have been left blank as it is for display purposes only and does not affect the arithmetic. Enter 1 in Quantity and click [Next].

27. The "Specify the Description and Unit of the Merged Combined Item" screen appears. As above, this takes the Unit from our Item – change this if required. We also have the choice of which description to use:

    a. The existing job description (as we entered it or as imported from an electronic BoQ and do not wish to overwrite it).

    b. The library descriptions joined together (concatenated) and overwrite the original.

    c. Keep the description that you entered and combine those from the library for the selected Items.

    Select the third option and click [Finish].

28. There are now four Items and the fourth has the combined descriptions. You can, of course, re-edit the description if required.

29. Repeat this exercise from step 21 (enter different text when creating a task) and try out the other two options in step 27.

Give Resources individual Items Mark-ups and Provisional Sums

In **Tutorial 1** we assigned a Job or Default Mark-up % in the Job Settings that applied this mark-up % to all resources in the Job. It is often necessary to have the Resource(s) of an Item marked up individually at a different percentage.

1. Create a new Job: TestJob3

2. Set some Default Mark-up %s in the Job Settings boxes. We suggest making each one different – say Materials 20%, Labour 15%, Plant 12.5%, Subcontractor 10% - for this exercise.

3. Go into the Items screen: Toolbar [I] or Alt+I.

4. Create a "Test Item" with Quantity "1" and Unit "item", and

    a. A test Material resource with Quantity "1", Unit "each" and rate "10"

    b. A test Labour resource with Men "1", Quantity "10" the labour rate will be as per the Job Settings.

    c. A test Plant resource with Quantity "1", Unit "day" and rate "200"

    d. A test Sub-Contractor with Quantity "1", Unit "item" and rate "1000"

5. Return to the Job screen: tool bar [J] or Alt+J.

6. Look at the Job Totals screen on the right-hand side. Against each of the Resources there will be corresponding Costs, "Profits on Res. With Job mkup" and Sell values.

7. The "Profit on Res. With Item Mkup" column will be empty. As will the Provisional Sums box.

8. Go to the Materials screen: Toolbar [M] or Alt+M.

9. In the bottom left of the screen you will notice a Tab with a "Mark-Up" label and a blue box with "Job (a value %)" in it. This is indicating that this material has the Default or Job Mark-Up which has been set at a value %. Check this on your Job Screen.

10. Go to each of the Resource screens and note how the Job Mark-Up: (a value %) changes for each – assuming that you set them all differently in step 2!

11. Again, locate the Tab in the Bottom Half of the Screen which says "Mark-up" and click [1 Change]. A small window opens with a list of Resources in a column on the left-hand side. Next to each Resource (Materials, Labour, Plant, Sub-Contractor) is a row of boxes controlling the Mark-Up function. The following actions have effect:

    a. NONE: This will exclude the resource from any mark-up - this is used for **Provisional Sums**.

    b. JOB: Leaving the setting on this will mark-up the resource by the Job Default Mark-Up as set on the Job Screen

    c. ITEM: Click in the box will activate the ITEM box to the right. Enter the desired percentage to mark-up the resource.

12. For one resource (e.g. Materials) click [None] and [Close]. The Mark-Up box will now read "None". Return to the Job screen and note the effect on the Materials Job Totals:

    a. There is no longer any Materials cost, Profit nor Sell values.

    b. There is the Material "cost" in Provisional Sums.

13. Return to the Materials Screen and click [1 Change] in the Mark-Up Tab. Now click on [Item] and enter a value (e.g. 5%). Click [Close] and Mark-Up box will now read "Item 5%". Return to the Job screen and again note the effect on the Materials Job Totals:

    a. The Provisional Sums box has returned to zero

    b. The Material cost is again present

    c. There is a profit figure indicated only in the "Profit on Res. With Item Mkup" column.

14. Return to the Materials Screen, choose a different Resource (e.g. Labour) and click [1 Change] in the Mark-Up Tab. Now click on [Item] and click [Close] WITHOUT entering a value. The Mark-Up box will now read "Item (-)". Return to the Job screen and note the effect on the Labour Job Totals:

    a. There is a NO figure indicated in either Profit column so therefore there is no Mark-Up on this Resource.

    b. This is as would be expected BUT it can happen accidentally when hurriedly putting together a tender. Treat this as a **warning!**

15. You can get a full analysis of the Mark-up % for the whole job by printing the report titled "Item Mark-up"

Create Header Items

Header Items are simply a method of adding structure to a Bill of Quantities to improve its appearance – you cannot add Resources to a Header.

1. Open Test Job 2

2. Look at the Bill of Quantities Report. (hint: menu [Reports]> [Bill of Quantities]> include prices). Note how the report is structured – you can print it for reference if you like – then click [Close].

3. Go to the Items Screen and click on the top Item so that the top row is highlighted.

4. Insert an Item: press [Insert] or menu [Record]> [Insert]> or use the tool bar Icon.

5. Type "First Header" (or similar) into the description box for this new Item.

6. Now click the "header" Icon on the tool bar (an "H" with a line through the middle).

7. Notice that all the Resource Totals boxes have now turned to the background colour.

8. Try and add Resources to this Header Item. You will find that you are unable to do so. (NB. Should you wish to "un-header" an Item then simply un-click the Header Icon and add Resources as usual).

9. Click on an Item three rows down from your first Header Item.

10. Repeat Steps 4 to 6 but describe this Item as "Second Header" (or similar).

11. Re-run the Bill of Quantities Report and notice the difference when Headers are used. This can be particularly useful for long and/or complicated BQs.

Note: you can format header Items using [Job]> [Program Options]> [Reports]>.

Note that occasionally you may find that you are in an Item but can't add any resources such as Materials, Labour, etc. In this case check that the Item has not been set as a "Header".

Create Excluded Items

An Excluded Item is a method of showing an option, an alternative or a "below the line" bill item. For example, a client may wish to consider using handmade bricks compared to standard.

Excluded Items are NOT included in any of the costings but do appear on the Bill of Quantities.

1. Open Test Job 2

2. Go to Items Screen and add a new Item at the bottom of the list (Hint: [F 12]).

3. Enter a Description something like "cheap option", Quantity "1" Unit "item".

4. Add a Material for this Item such as "Cheap statue", Quantity "1" Unit "item", Rate "500".

5. Go to Job Screen and note the Cost and Sell Totals.

6. Repeat Steps 2 to 4 but Item Description will be "Expensive option", Material Description "Expensive statue" and Rate "4000".

7. Click on the Expensive Item on the Items screen and then click on the "Exclude" icon on the tool bar (it looks like two zeros with a horizontal line through the middle). You will see that there is now a line through all the costs in the Item line and in the Resource Totals.
Run the Bill of Quantities Report to see how Excluded Items are presented.

Using the Frequency option

The Frequency function is primarily designed for designed for maintenance estimating where tasks are repetitive over a period such as facilities management ground care or railway maintenance You are able to get totals and reports on a per occasion basis, a per annum basis or a combination of both.

To use the Frequency Function simply go to the Job Screen and select [2 Job Options.] at bottom Left and put a tick in the Show Item Frequencies box, and [OK].

When you return to the Items Screen you will notice a "Freq" column. Simply enter the frequency of occurrence in this box.

Note that some of the Reports have options to show the frequency of Items.

Create Master Jobs	A Master Job is a summary of, and will allow control of, a number of Sub-Jobs. This will mean that if a Job is divided into different sections say Earthworks, Pavings, Walls, Water features, each section will have its own Sub totals and reports. There will also be reports for the Global Job. It also means that each Sub-Job can be worked on independently

A Master Job can also be used to group any Jobs over a period to examine the resource requirements. E.g. Excavator time in all Jobs between April and August.

To create a Master Job:

1. Create a new empty job (Hint: menu [Job]> [Create New Empty Job]>

2. Select "Master Job" and give it a name such as "Test Master Job"

3. Save the new Job into a Job Folder.

4. Note that the bottom left-hand panel of the Job Screen is different – this box will show a list of all the constituent Sub-Jobs once they have been added.

5. Go to the Items Screen and note that there is also a difference in the top right-hand panel of the screen. Here you will see list of all the constituent Sub-Jobs once they have been added

6. To add Sub-Jobs, go to the Jobs Screen and click [3 Change]. A window appears which will allow you to administrate the constituent Sub-Jobs. As none have been added yet the only option will be [+ Add]. Click [+ Add] and another window will open showing all your Job Folders.

7. Simply select the Job(s) that you wish to form part of your Master Job. Multiple Jobs can be selected

8. For this example, select Test Jobs 1, 2 and 3. Click [OK] and the selected jobs will be imported and be in the list. Click [Close]. The Job Screen will have the totals of all these Jobs combined and the Items Screen will now have each shown with all the build-ups. You cannot make any changes to these Jobs (you can only do that by opening the Job itself as a normal Job).

9. Look at the Reports and preview some to see what information is available for the Master Job.

10. Finally return to the Job Screen and click [3 Change] again. Now you will see that you can delete Job(s) add others and change the order in which they are presented.

Summary

In this tutorial you have learned how to

✓ Retrieve multiple Items into your Job

✓ Merge Library Items

✓ Give Resources individual Item mark ups and Provisional Sums.

✓ Create Header Items.

✓ Show Excluded Items

✓ Use the Frequency Options

✓ Create Master Jobs