

3Sys Release Notes 4.1.3.0 -Supplement (a) Normalised Total Calculations for Multiple Tasks







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About this Release Note Supplement

This Release Note Supplement details the new Normalised Total calculations for multiple tasks functionality, available with **3Sys** version 4.1.3.0.

About Contacting Us

For further information on known issues, work-arounds and fixes, please visit our website Customer Centre: http://customers.wcbs.co.uk/

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About Creating a Markbook Normalised Total Calculation for Multiple Tasks

For how to create a Markbook Normalised Total calculation for multiple tasks, see Creating a Markbook Normalised Total Calculation for Multiple Tasks on p.11.

In addition to the Standard Calculations there are now four normalised calculation options available, two of which take into account the weighting assigned to the selected tasks; these four options are available on the **Insert calculated column** screen:

	×
Insert calculated column	Standard Calculations
I- Summary	©Calculate the weighted total mark ©Calculate the mean mark
II- Calculation Type	Normalised Calculations Normalised Total Option 1 Option 2 Normalised Weighted Total Option 1 Option 2 Option 2
	OK Cancel

NOTE: All four of the normalised calculation options use the mark 'out of' as entered in the **Normalised Maximum Mark** field, *see About the Normalised Maximum Mark on p.5*.





In order to calculate normalised totals, you need to:

- 1. Select the relevant pupils for whom you wish to perform the calculation.
- 2. Pick the tasks on which you want to perform the calculation.
- 3. Specify the type of normalised calculation you wish to perform:
 - a. Normalised Totals
 - b. Normalised Weighted Totals
- 4. Save the calculation.

Each of the four normalised total options perform different calculations and consequently return different results for the same data. You need to ensure that you run the relevant calculation for your purposes. To help you decide which calculation you need, see:

- About the Normalised Total Option 1 on p. 7.
- About the Normalised Total Option 2 on p.8.
- About the Normalised Weighted Total Option 1 on p.9.
- About the Normalised Weighted Total Option 2 on p.10.

About the Normalised Maximum Mark

The **Normalised Maximum Mark** field enables you to set the mark 'out of' on which the normalised calculations are based. By default, the **Normalised Maximum Mark** field is set to '100'; you can alter this value if required.

When you have selected one of the four normalised calculations on the **Calculation Type** tab of the **Insert calculated column** screen, the **Normalised Maximum Mark** field appears on the **III Options** tab. (The fields available on the **III Options** tab change dependent on the type of calculation you have chosen to perform.)

		×
Insert calculated column	Normalised Maximum Mark 100	
VI- Summary		
VII- Calculation Type	-	
VIII- Options	1	
		OK Cancel





About Task Weighting and the Normalised Weighted Total Calculation

When a task is set up, a weighting is assigned to indicate the importance of this task to the pupils' overall scores. For example, the Director of Studies may have set up a Class Essay task to have a weighting of 0.8, and the Homework task with a weighting of 0.2, as the Class Essay is deemed more important than the Homework task.

A normalised weighted total calculation proportionally calculates the importance of each task, and gives you a single score for all tasks selected. Consequently for a normalised weighted total calculation, the total weightings do not have to equal 1, as it is only the relative size of the weightings that matter. For example, the weightings between two tasks could be '0.8' and '0.2', but weightings '8' and '2' would also be valid, as would '0.8' and '0.3'.

NOTE: The examples used in this Supplement use just two tasks on which to perform the calculations; however, you can perform calculations on more than two tasks.

NOTE: If you need to check the weighting of a task before performing a calculation, on the Mark

Inquiry screen hover over the **Information** button ⁽¹⁾ and click **Edit**, the **Edit Task** screen appears displaying the **Weighting** field on the right-hand side.





About the Normalised Total – Option 1

The **Normalised Total – Option 1** calculates a pupil's overall score across the tasks by combining the value of the task marks and then calculating the normalised total to give the overall score. You can set the value for the normalised total within the **Normalised Maximum Mark** field (for details, *see About the Normalised Maximum Mark on p.5*).

The calculation is on a 'per pupil' basis.

NOTE: This calculation assigns equal importance to each task.

How is the Normalised Total – Option 1 calculated?

NOTE: By default, the **Normalised Maximum Mark** field is set to 100; it is set to 100 for this example.

For example, Harry Cheung scored 90/100 for his Homework task and 5/20 for his Class Essay task. The **Normalised Total - Option 1** combines these marks and then calculates the normalised total. Using the **Normalised Total - Option 1**, Harry's overall score for these two tasks was 79 out of 100.

	Homework 4/9 04/09/2014 0 English Max:100	Class Essay 🗱 5/9 05/09/2014 💷 English Max:20	Norm Total Opt 1 15/09/2014 English Max:100
CHEUNG, Fung L (Harry) 🙆	90	5	79

For a breakdown of each step of the **Normalised Total – Option 1** calculation, see below:

Task	mark	out of	normalised		normalisation level (100 equivalent to percent)
1	5	20	25		100
2	90	100	90		
			Normalised Total Calculation		
		mark	out of	%	
		79.166667	100	79.16666667	
			Normalised Total Calculations		
				Result	
		Step 1	Total all marks/2 - ((90+5)/2)	47.5	
		Step 2	Total all 'out of' scores/2 - ((20+100)/2)	60	
		Step 3	Result Step 1/Result Step 2 * Normalisation level ((47.5/60)*100)	79.16666667	
			Normalised Total (Option 1)	79.1666667	





About the Normalised Total – Option 2

The **Normalised Total – Option 2** calculates a pupil's overall score across the tasks by creating a normalised total for each task mark and then combining these values to give the overall score. You can set the value for the normalised total within the **Normalised Maximum Mark** field (for details, *see About the Normalised Maximum Mark on p.5*).

The calculation is on a 'per pupil' basis.

NOTE: This calculation assigns equal importance to each task.

How is the Normalised Total – Option 2 calculated?

NOTE: By default, the **Normalised Maximum Mark** field is set to 100; it is set to 100 for this example.

For example, Harry Cheung scored 90/100 for his Homework task and 5/20 for his Class Essay task. The **Normalised Total - Option 2** converts each task mark into a normalised total and then combines these values to derive the overall score. Using the **Normalised Total - Option 2**, Harry's overall score for these two tasks was 58 out of 100.

	Homework 4/9 04/09/2014 1 English Max:100	Class Essay 🗱 5/9 05/09/2014 🕕 English Max:20	Norm Total Opt 2 15/09/2014 English Max:100
CHEUNG, Fung L (Harry) 🕹	90	5	58

For a breakdown of each step of the Normalised Total – Option 2 calculation, see below:

Task	mark	out of	normalised		normalisation level (100 equivalent to percent)
1	5	20	25		100
2	90	100	90		
			Normalised Total (Mean) Calculation		
		mark	out of	%	
		57.5	100	57.5	
			Normalised Total (Mean) Calculations		
				Result	
		Step 1	Task 1 = Pupil Mark/Max Test Mark * normalisation level - ((5/20)*100)	25	
		Step 2	Task 2 = Pupil Mark/Max Test Mark * normalisation level - ((90/100)*100)	90	
		Step 3	Step 1 + Step 2/2 - ((25+90)/2)	57.5	
		Step 4 Step 3/Normalisation level * 100 ((57.5/100)*100)		57.5	
			Normalised Total (Mean)	57.50%	





About the Normalised Weighted Total – Option 1

The **Normalised Weighted Total – Option 1** calculates a pupil's overall score across the tasks by taking into the account the weighting value assigned to each task, combining these values and then applying the normalised total to give the overall score. You can set the value for the normalised total within the **Normalised Maximum Mark** field (for details, *see About the Normalised Maximum Mark on p.5*).

The calculation is on a 'per pupil' basis.

NOTE: If you are unsure about task weighting, see About Task Weighting and the Normalised Weighted Total Calculation on p.6.

How is the Normalised Weighted Total – Option 1 calculated?

NOTE: By default, the **Normalised Maximum Mark** field is set to 100; it is set to 100 for this example.

For example, Harry Cheung scored 5/20 for his Class Essay task and 90/100 for his Homework task. The **Normalised Weighted Total - Option 1** takes into account the weighting value each task is assigned, and then combines these values and applies the normalised total to give the overall score. Using the **Normalised Weighted Total - Option 1**, Harry's overall score for these two tasks was 61 out of 100.

	Class Essay \$ 5/9 05/09/2014 English Max:20	Homework 9/9 08/09/2014 1 English Max:100	Norm Wt Tot - Opt 1 15/09/2014 English Max:100
CHEUNG, Fung L (Harry) 🕹	5	90	61

For a breakdown of each step of the **Normalised Weighted Total – Option 1** calculation, see below:

normali: equival	sation lev lent to per	el (100 rcent)		
100				
Task	mark out of		normalised	Weighting
1	5	20	25	0.8
2	90	100	90	0.2
			Normalised Weighted Total Calculation	
		mark	out of	%
		61.11111111	100	61.1111111
			Normalised Weighted Total Calculations	
				Result
		Step 1	Task 1 = Mark * Weighting - (5*0.8)	4
		Step 2	Task 2 = Mark * Weighting - (90*0.2)	18
		Step 3	Result Step 1 + Result Step 2/2 - ((4+18)/2)	11
		Step 4	Task 1 = 'out of' * Weighting - (20*0.8)	16
		Step 5	Task 2 = 'out of' * Weighting - (100*0.2)	20
		Step 6	Result Step 4 + Result Step 5/2 - ((16+20)/2)	18
		Step 7	Result Step 3/Result Step 6 - (11/18)	0.61111111
		Step 8	Result Step 7 * Normalisation Level - (0.61111111*100)	61.1111111
			Normalised Weighted Total (Option 1)	61.1111111



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About the Normalised Weighted Total – Option 2

The **Normalised Weighted Total – Option 2** calculates a pupil's overall score across the tasks by normalising the value of each task, taking into account the weighting of each task, then combining these values to give the overall score. You can set the value for the normalised total within the **Normalised Maximum Mark** field (for details, *see About the Normalised Maximum Mark on p.5*).

The calculation is on a 'per pupil' basis.

NOTE: If you are unsure about task weighting, *see About Task Weighting and the Normalised Weighted Total Calculation on p.6.*

How is the Normalised Weighted Total – Option 2 calculated?

NOTE: By default, the **Normalised Maximum Mark** field is set to 100; it is set to 100 for this example.

For example, Harry Cheung scored 5/20 for his Class Essay task and 90/100 for his Homework task. The **Normalised Weighted Total - Option 2** undertakes the normalisation for each score, takes into account the weighting value each task is assigned, then combines these values to give the overall score. Using the **Normalised Weighted Total - Option 2**, Harry's overall score for these two tasks was 38 out of 100.

	Class Essay	Homework #	Norm Wt Tot -
	5/9	9/9	Opt 2
	05/09/2014	08/09/2014	15/09/2014
	English	English	English
	Max:20	Max:100	Max:100
CHEUNG, Fung L (Harry) 🕹	5	90	38

					normalisation level (100
Task	mark	out of	normalised	Weighting	equivalent to percent)
1	5	20	25	0.8	100
2	90	100	90	0.2	
			Normalised Weighted Total (Mean) Calculation		
		mark	out of	%	
		38	100	38	
			Normalised Weighted Total (Mean) Calculation		
				Result	
		Step 1	Task 1 = Pupil Mark/Max Test Mark *normalisation level - (5/20*100)	25	
		Step 2	Task 2 = Pupil Mark/Max Test Mark* normalisation level - ((90/100)*100)	90	
		Step 3	(Step 1*Weighting + Step 2*Weighting)/Total Weighting - ((25*0.8)+(90*0.2))/(0.8+0.2)	38	
		Step 4	Normalisation Level	100	
		Step 5	Result Step 3/Result Step 4 - ((38/100)*100)	38.00%	
			Normalised Weighted Total (Mean)	38.00%	

For a breakdown of each step of the **Normalised Weighted Total – Option 2** calculation, see below:



Creating a Markbook Normalised Total Calculation for Multiple Tasks

For an explanation of how **3Sys** calculates the markbook normalised totals, *see About Creating a Markbook Normalised Total Calculation for Multiple Tasks on p.4.*

How to create a Markbook Normalised Total for multiple tasks:

- 1. Open 3Sys.
- 2. On the **3Sys Home** page click on the **All Functions** tab.

3 Academic seamless. smart, supp		TOR OF STUDIES		Setup Help Sign Out The	Camelot School
Home Timetable People	Pupil Group	os School Academic All F	unctions		
All Functions Desktop: RB		•			
 Quick Search 	()
All 👻	Functio	ons			
Go	· 🙆	Academic Houses	Accidents	Activity Groups	Attendance
Recent Items ADAMS, Lauren S ADAMS, Sarah J		Baselines Export	Baselines Import	Boarding Houses	Calendar
Nursery Nursery Elephant House	\bigcirc	Contacts	Custom Groups	Documents	Email
ALLAN, Samantha E English Form 6A Registration 07A		Events - Pupil	Exam Access Arr	angements External Exam Results	Form Years
Geography Year 13 Block B Set 1		Forms	Ноте	JCQ Forecast Grades	Mark Entry
Calendar Attendance Markbook		Mark Inquiry	Markbook Tasks	Marking Schemes	Medical Consent
School Reports Pupil Events Notifications	\bigcirc	Names	Notification Cate	gories ON Notifications	Personal Documents
		Prospective Pupils	Pupils	Relationships	Reports
	Q	Rooms	School Reports	Special Need Reviews	Special Needs
	\bigotimes	SQA Unit Results & Estimates	Staff	Staff Cover	Subject Sets

3. Click Mark Inquiry.

The Mark Inquiry screen appears.

3 Academic seamless. smart, support	DIRECTOR OF ST	UDIES				Setup He	lp Sign Out	The Camelot School	▼ / Academic Year 2013	3/14 🔻
Home Timetable People	Pupil Groups School	Academic	All Functions							
All Functions Desktop: RB	-									
 Quick Search 	Mark Inquiry									
All	Mark Inquiry									
	* Search									
Go	Pupil Group Type:	Subject Set	 Pupil Group 	Search	Only include incomplete	tasks				
 Recent Items 	View: Group Calcs	- All	▼ Edit Ad	d Copy Delete						
ADAMS, Lauren S ADAMS, Sarah J Nursery	Apply Filter									
Nursery		0	Create calculation	Deselect all	Show marks as percent	ages		More Actions * Sun	nmaries 🔻	×
Elephant House Form 1A ALLAN, Samantha E English Form 6A				<u></u>	J					
Geography Year 13 Block B Set 1										
 Custom Links 										
Calendar Attendance Markbook School Reports Pupil Events Notifications										
			(-
		0	Create calculation	Deselect all	Show marks as percent	ages		More Actions * Sun	nmaries 🔻	





- 4. Use the **Search** panel to display the relevant pupils' data:
 - a. Select the relevant **Pupil Group Type** from the droplist and click the **Pupil Group**: Search button.

earch			
ubject Set Name 🔻	Search		
ame	Code	Subject	

- b. Select and enter search terms, and click the **Search** button. The Search list is populated.
- c. Select the appropriate item. You are returned to the Mark Inquiry screen populated with relevant markbook data.

	Calculated columns have headings with a light blue background and a calculato					ch :or		
				icon.				
Mark Inquiry								
Search Pupil Group Type: Subject Set View: Standard Apply Filter	Pupil Group: Eng Add Copy	ish Form 6A Search	Only include	incomplete tasks				
	Create calculation	eselect all Show pu	pils not in group	Show marks as percen	ages More Action	ns 🔻 Summaries 🔻		×
English Form 6A	Homework # 4/9 04/09/2014 English Max:100	Class Essay 5/9 05/09/2014 English Max:20	Class Essay # 9/9 08/09/2014 English Max:100	Homework # 8/9 08/09/2014 English Max:20	Norm Tetal S Option 1 08/09/2014 English Max:100	Norm Total Option 2 08/09/2014 English Max:100	Norm Wt Total opt 1 08/09/2014 English Max:100	Norr 08
CHEUNG, Fung L (Harry) 🔕	90	5	90	5	79	58	61	-
COLES,Mark 8000	71	13	83	16	73	76	75	
FRY, Jordan	80	8	81	9	74	63	63	
HENDERSON, Mary	43	6	58	4	39	32	46	-
HURST,Alexander 🕴	71	7	68	8	66	56	53	
JONES, Emily Ann	68	14	81	12	67	64	76	
PARRY, James A	84	13	70	13	81	75	68	
	< [III						•
0	Create calculation	eselect all Show pu	pils not in group	Show marks as percent	ages More Action	ns 🔹 Summaries 👻		

NOTE: If necessary you can restrict the list of pupils further, by selecting the appropriate View from the droplist and clicking Apply Filter.

5. Select the relevant column headings.

For example, Homework 4/9 and Class Essay 5/9.







6. Click Create Calculation.

The **I- Summary** tab on the **Insert calculated column** screen appears, displaying details about the chosen tasks on which to perform the calculation.

	×
Insert calculated column	Homework 4/9 Date: 04/09/2014 Type: Homework
VI- Summary	Profile: General Marking: Numeric (0 - 100) Categories: (None)
II- Calculation Type	Class Essay 5/9 Date: 05/09/2014 Type: General Profile: General Marking: Numeric (0 - 20)
III- Options	Categories: (None)
	OK Cancel

Click the II- Calculation Type tab.
 A list of the different types of available calculations appears.

		×
Insert calculated column	Standard Calculations	
VI- Summary	Calculate the weighted total mark	
	Ocalculate the mean mark Normalised Calculations	
	Normalised Total Option 1 	
V III- Options	Option 2 () Normalised Weighted Total	
	Option 1	
	ОК	Cancel
		1.

NOTE: Hover over each **Information** button ⁽¹⁾ to view details about the normalised total calculations available.

- Select the relevant calculation option and click OK.
 For example, Normalised Total Option 1.
- Click the III- Options tab.
 By default, the Normalised Maximum Mark field is set to 100. You can alter this value if required.





	×
Insert calculated column	Normalised Maximum Mark 100
VI- Summary	
VII- Calculation Type	
VIII- Options	а
	OK Cancel

10. Click **OK**.

You are returned to the **Mark Inquiry** screen, displaying a new calculation column (indicated by the light blue column heading and a calculator icon).

	Create calculation	Deselect all Show	pupils not in group S
English Form 6A	Homework # 4/9 04/09/2014 English Max:100	Class Essay # 5/9 05/09/2014 English Max:20	New Calc Column 10/09/2014 Max:100
CHEUNG, Fung L (Harry) 🔕	90	5	79.167
COLES,Mark	71	13	70.000
FRY, Jordan	80	8	73.333
HENDERSON, Mary	43	6	40.833
HURST,Alexander	71	7	65.000
JONES, Emily Ann	68	14	68.333
PARRY, James A	84	13	80.833

11. Click on the **Save** button 🖶 within the new column's heading. The **Save Calculated Task** screen appears.





Main Details					
Task:	I		Assessment Period:		
Task Date:	10/09/2014				
Task Type:	-		Subject:	English	Search
Categories:		Search	Description:	Normalised Total Mark	
Calculation					
Calculation Type:	Normalised Total				
Minimum Mark:	0		Number Of Decimal Places:	0 -	
Maximum Mark:	100		Weighting:	1	
Permission					
Visibility:	Global 🔻		Owner:	BRYANT, Melanie	Search

- 12. Complete the relevant fields, including:
 - a. Task: Enter the name for the task.
 - b. Task Type: Select the appropriate Task Type.
 - c. Number Of Decimal Places: Select the required number of decimal places.
 - d. **Weighting**: By default this is set to 1. If required you can amend this value, if the normalised total calculation is itself to form part of another calculated task.

13. Click Save.

You are returned to the **Mark Inquiry** screen, with the newly named column displayed. For example:

	Create calculation	Deselect all Show	ı marks as percentage
	Homework # 4/9 04/09/2014 English Max:100	Class Essay # 5/9 05/09/2014 English Max:20	Norm Total Opt 1 15/09/2014 English Max:100
CHEUNG, Fung L (Harry) 🔕	90	5	79
COLES,Mark	71	13	70
FRY, Jordan	80	8	73
HENDERSON, Mary	43	6	41
HURST,Alexander	71	7	65
JONES, Emily Ann	68	14	68
PARRY, James A	84	13	81

NOTE: Once you have created a calculation, you are unable to change it. However, you can use the same tasks to create another calculated column.





NOTE: You can view the tasks on which a calculation is based, by hovering over the relevant information button ⁽¹⁾ and clicking **Edit**. The task column headings on which the calculation was performed are highlighted with a dark blue border.

