

## Working With Production Units



This technical white paper is designed for Spitfire Project Management System users. It describes how production units are entered and tracked on the BFA workbook and the Production Units Doc type.

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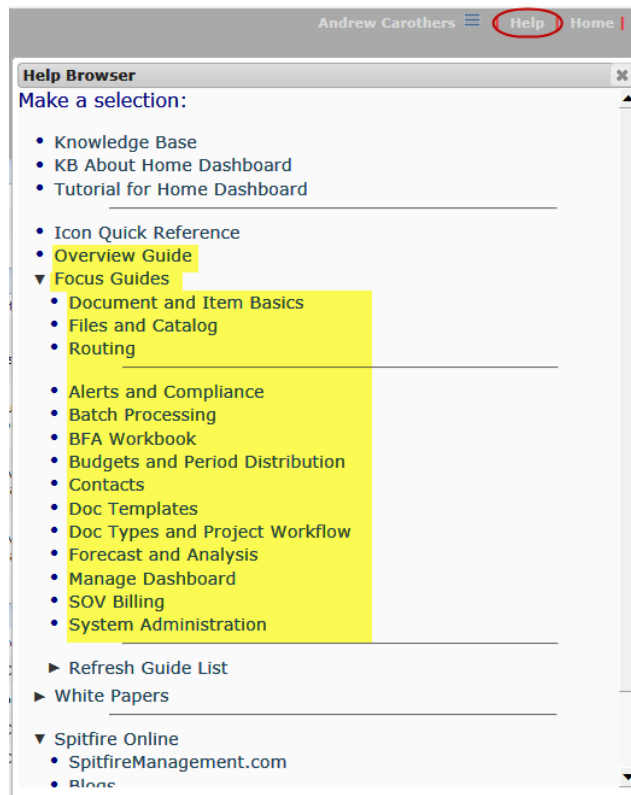
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# Introduction

This technical white paper describes how you would set things up to include production units in your budget, forecast and analysis and how the Production Units Doc type is used to record completed production across the life of the project.

This technical white paper assumes you have a basic understanding of sfPMS in general and the BFA workbook in specific. If not, please read the [Overview Guide](#) and the [Focus on the BFA Workbook](#) guide first.

All documentation referred to within this white paper can be found on the Spitfire Help menu.



**Note:** This technical white paper also assumes you can open and use Microsoft Excel. Anyone without a good understanding of Microsoft Excel should take the time to learn that application before attempting to create a supplemental workbook.

**Note:** aside from updated pictures, the information herein is the same as the information in the V4.4 documentation.

# Overview

The Spitfire Project Management System (sfPMS) can help you with dynamic production tracking—listing specific production tasks, establishing production units, setting production targets and then tracking both quantity and cost.

- Units can be included in the BFA workbook.
- Production Unit documents allow you to enter actual units.
- Units are tracked in real-time on the BFA workbook.

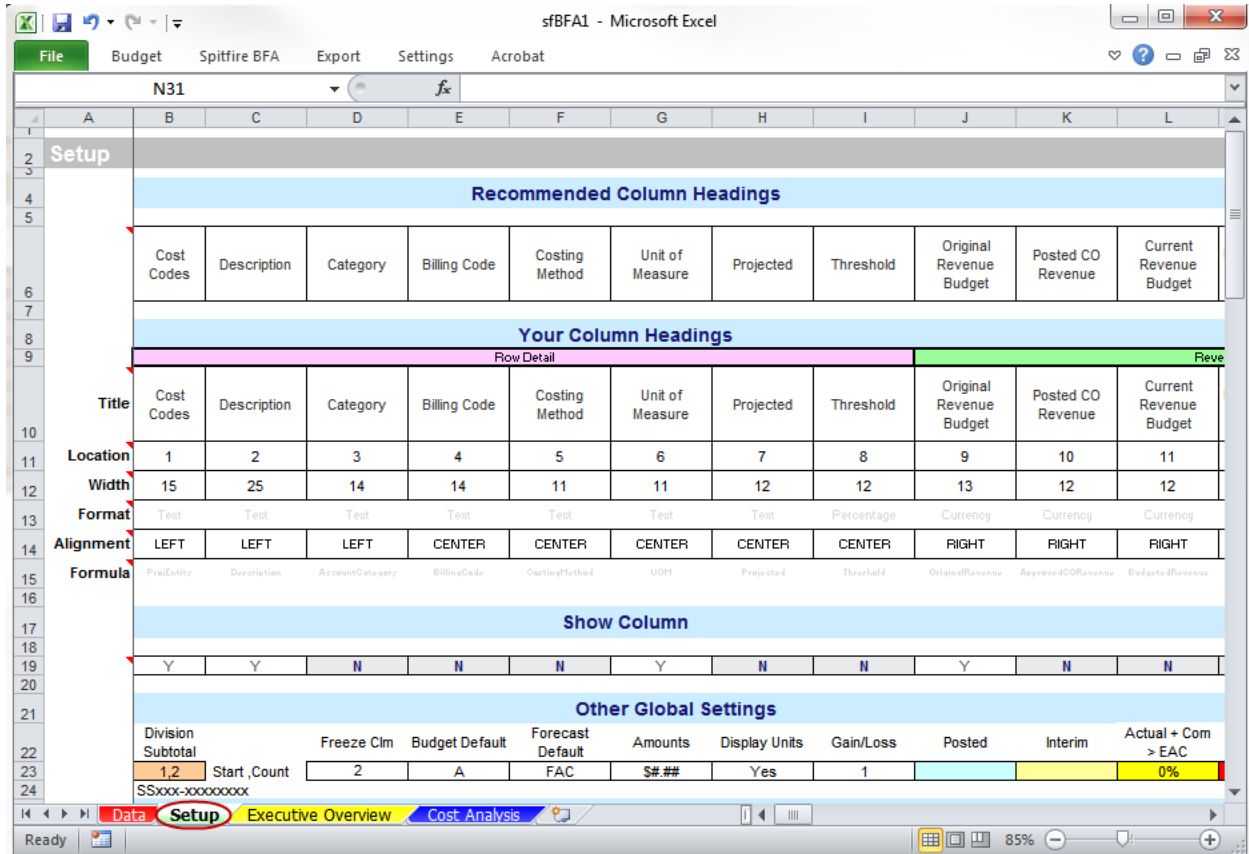
## Units on the BFA Workbook

You may have to change the settings on your BFA workbook in order to see the unit-related columns. The BFA workbook offers the following unit-related columns:

- Unit of Measure
- Original Units
- Revision Units
- EAC Units
- Manual EAC Change Units
- Original Units Change Results
- EAC Unit Change Results
- EAC Cost/Unit
- EAC Hours/Unit
- EAC Units/Hour
- Actual Units
- Declared Units
- Actual Units Prior Year
- Actual Units Prior Period
- Actual Units Current Year
- Actual Units Current Period
- Actual Cost/Unit
- Actual Hours/Unit
- Actual Units/Hour
- % Complete Units
- Calculated FAC Units
- FAC Gain/Loss Units
- Working Units
- Working Cost Per Unit
- Working Hours Per Unit
- Working Units Per Hour
- Last Posted FAC Units
- Working Gain/Loss Units

# Setup

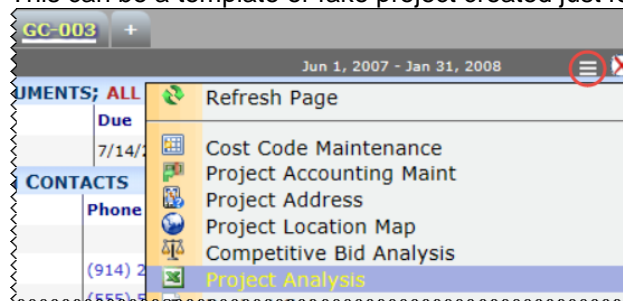
Make visible all the unit-related columns that you want to include in the BFA workbook, in its three modes (Budget, Forecast and Project Analysis). You do this configuration on the Setup worksheet on the BFA workbook.



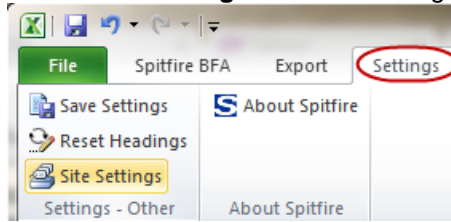
For complete information, see the instruction in the [Focus on the BFA Workbook](#) guide.

## To set up Unit columns:

1. Open the BFA workbook in Project Analysis mode.  
**Note:** you need to be on a project with an approved budget. This can be a template or fake project created just for setup.



- Select **Site Settings** from the Settings ribbon:



This will display the site settings area on the Setup worksheet. (You may need to scroll down.)

Default Headings	Cost Codes	Description	Category	Billing Code	Costing Method	Unit of Measure	Projected	Threshold	Original Revenue Budget	Posted CO Revenue	Current Revenue Budget	Un-posted CO Revenue		
<b>Title</b>	Cost Codes	Description	Category	Billing Code	Costing Method	Unit of Measure	Projected	Threshold	Original Revenue Budget	Posted CO Revenue	Current Revenue Budget	Un-posted CO Revenue		
<b>Location</b>	1	2	3	4	5	6	7	8	9	10	11	12		
<b>Width</b>	15	25	14	14	11	11	12	12	13	12	12	12		
<b>Format</b>	None	Text	Text	Text	Text	Text	Percentage	Percentage	Percentage	Percentage	Percentage	Percentage		
<b>Alignment</b>	LEFT	LEFT	LEFT	CENTER	CENTER	CENTER	CENTER	CENTER	RIGHT	RIGHT	RIGHT	RIGHT		
<b>Formula</b>	Projects	Descriptions	Accounts/Revs	Bills of Materials	Costing Methods	Units	Projected	Threshold	Original Revenue	Revenue CO Revenue	Revenue CO Revenue	Revenue CO Revenue		
<b>IntBU</b>	Y	Y	N	N	N	Y	N	N	Y	N	N	N		
<b>BU</b>	Y	Y	N	N	N	Y	N	N	Y	N	N	N		
<b>PA</b>	Y	Y	N	N	N	N	N	Y	N	N	Y	N		
<b>FC</b>	Y	Y	N	N	N	N	N	N	Y	N	N	N		
<b>Division Subtotal</b>	1,2	Start_Count	2	A	FAC	\$#	Yes	1			0%	0%		
<b>1st Item</b>	Actual Com > FAC	ActualPlusCom	>	CurrentBudget	@Default				Filter Title	Column	Prompt	Default Sort	1st Parameter	2nd Parameter
<b>2nd Item</b>	FTC < 0	WorkingFTC	<	@Default	0				Above or Below % Gain/Loss	FACGainLossArr	By Amount	Ascending	0	0
<b>3rd Item</b>	FAC > EAC	WorkingFAC	>	CurrentBudget					Above or Below % Spend	PercentOIEACSp	By Percent	Descending	25	0
									Above or Below % Complete	PercentComplete	By Percent	Ascending	25	0

- For each column that you want displayed, make sure the location is greater than zero. Change the location number to change the order of columns.

	A	AB	AC	AD
54				
<b>Default Headings</b>		Original Units	Revision Units	EAC Units
55				
<b>Title</b>		Original Units	Revision Units	EAC Units
56				
<b>Location</b>		27	28	29

- For each column, select **Y** if you want the column displayed in **IntBU** (Initial Budget), **BU** (Budget), **PA** (Project Analysis) and/or **FC** (Forecast) modes.



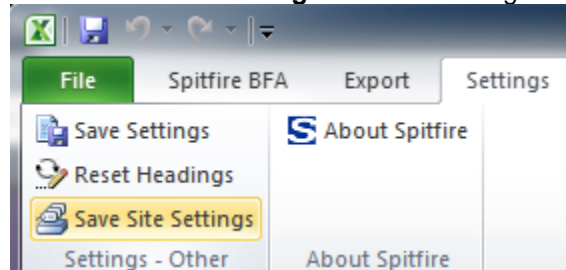
	A	AB	AC	AD	
54	<b>Default Headings</b>	Original Units	Revision Units	EAC Units	
55		Title	Original Units	Revision Units	EAC Units
56		Location	27	28	29
57		Width	13	13	13
58		Format	Units	Units	Units
59		Alignment	CENTER	CENTER	CENTER
60		Formula	OriginalUnits	RevisionUnits	EACUnits
61		IntBU	Y	Y	Y
62		BU	Y	Y	Y
63		PA	N	N	N
64	FC	N	N	N	
65			Y		
66			N		
67			n		
68			n		

5. Scroll up to the **Other Global Settings** section and set Display Units to **Yes**.

<b>Other Global Settings</b>		
Forecast Default	Amounts	Display Units
FAC	\$#.#	Yes

**Note:** To hide all unit columns for a particular project, project managers can change the Display Units option to **No**.

6. Select **Save Site Settings** from the Setting ribbon.



7. Save the Site Settings file to your desktop then upload the file to the Template library. (For more information, see the Templates chapter in the [Focus on the Manage Dashboard](#) guide.)

# Budget

When you enter your budget information on the BFA workbook, enter your Unit of Measure and Original Unit information on both the Cost Code and Account Category levels.

(For more information on entering a budget, see the [Focus on Budgets and Period Distribution](#) guide.)

	A	B	F	I	K	P	Q
1	© Copyright 2007-2012 Spitfire Management, LLC. All Rights Reserved.						
2	DEMO	Initial Budget (0001) (Y,Y)					
3	The Hotel						
4	GC-506						
5	Totals as of:	7/17/2013 @ 10:44 AM			\$0.00	\$0.00	\$37,600.00
6	Filter:	Show All			\$0.00	\$0.00	\$37,600.00
7	Cost Codes	Description	Unit of Measure	Original Units	Original Revenue Budget	Actual Revenue	Original EAC
9	02050-01	Demolition	CY	3,000	\$0.00	\$0.00	\$1,500.00
10	02050-01	LABOR	HR	60	\$0.00	\$0.00	\$1,500.00
11	02050-02	Demolition - Fixtures	EA	300	\$0.00	\$0.00	\$3,600.00
12	02050-02	LABOR	HR	120	\$0.00	\$0.00	\$3,600.00
13	08000-01	Doors	EA	50	\$0.00	\$0.00	\$9,250.00
14	08000-01	LABOR	HR	100	\$0.00	\$0.00	\$3,000.00
15	08000-01	MTRL PERM	EA	50	\$0.00	\$0.00	\$6,250.00
16	08000-02	Windows	EA	75	\$0.00	\$0.00	\$23,250.00
17	08000-02	LABOR	HR	150	\$0.00	\$0.00	\$4,500.00
18	08000-02	MTRL PERM	EA	75	\$0.00	\$0.00	\$18,750.00

- When your budget is ready, **Approve** the Budget document. The Production Units Doc type will not work properly unless there is an approved budget.

# Production Units Documents

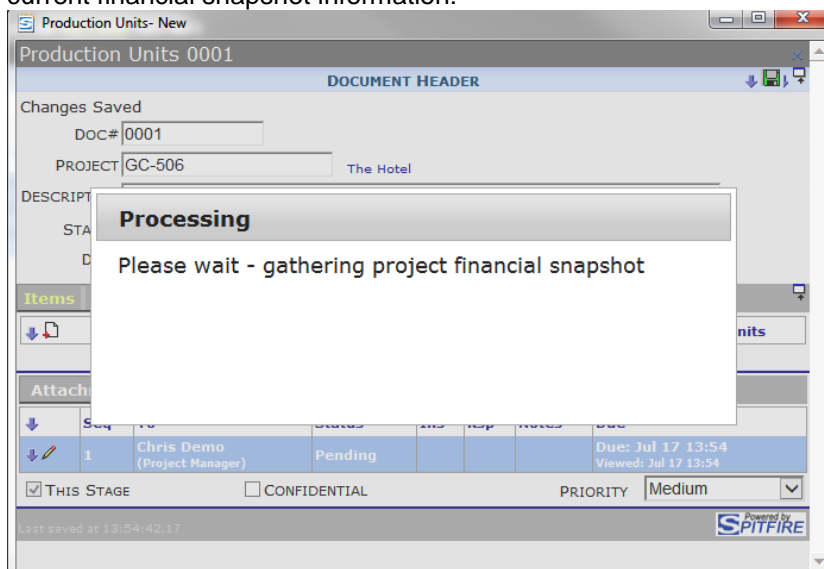
Throughout the life of your project, you can update your unit information through Production Units documents.

**Note:** The Production Units Doc type may need to be made active at your site. Doc types are made site-active through the Doc Types tool on the System Admin Dashboard.

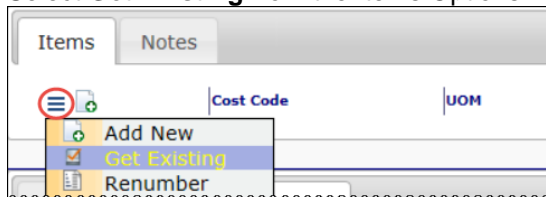
DOC TYPES							
DOC TYPE LIKE: <input type="text" value="Prod"/>					<input checked="" type="checkbox"/> SHOW INACTIVE DOC TYPES		
Doc Type	Site Name	Project Dashboard	Create From Dashboard	Cloud Sync	Plan Room	Site Active	Custom
	Production Units	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### To use a Production Units document:

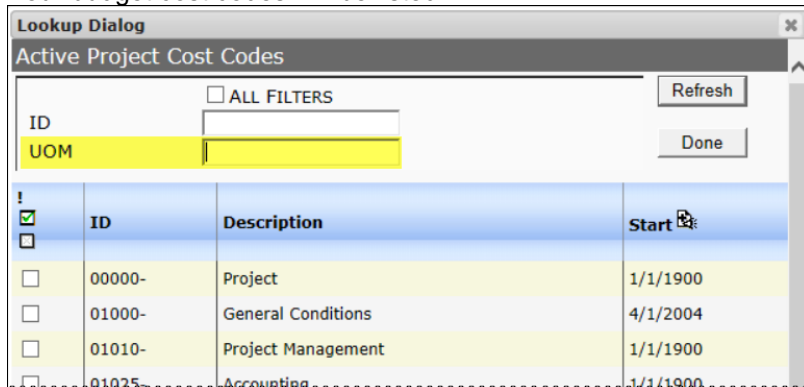
1. Start a new Production Units document on your project. (**Note:** you may need to **Show All Types** first.)
2. Click to save the document. The system will gather the current financial snapshot information:



3. Select **Get Existing** from the Items Options menu:



Your budget cost codes will be listed.



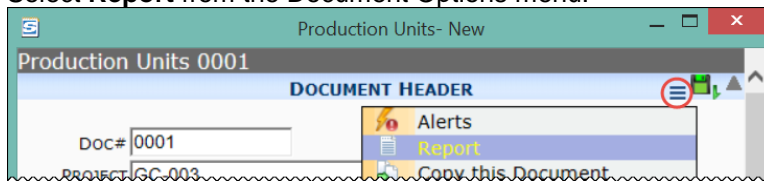
4. Specify a **UOM** filter. For example, enter a specific Unit of Measure such as **CY** (cubic yard) or enter **%** for all cost codes with a unit of measure.
5. Select the applicable cost codes for this Production Units document and click **Done!**.
6. Click **✓ Add Items**.
7. Back on the Items tab, enter the current **Units**.
8. When the document is ready for approval, change the status to **Approved** and save the document.
  - o When the Production Units document is approved, the cost codes listed within its Items are updated on the next BFA workbook snapshot to reflect the corresponding unit amounts. Specifically, the Actual Units column shows the unit amounts that were entered on the Production Units document.

	A	B	BA
1	© Copyright 2007-2012 Spitfire Management, LLC. All Rights Reserved.		
2	DEMO	Revise Budget (0002) (N,Y)	
3	The Hotel		
4	GC-506		
5	Totals as of:	7/17/2013 @ 3:15 PM	
6	Filter:	Show All	
7	Cost Codes	Description	Actual Units
9	02050-01	Demolition - Carpet	0
11	02050-02	Demolition - Fixtures	0
13	08000-01	Doors	10
16	08000-02	Windows	12

# The Production Units Report

You can access a Production Units report from the Production Units document.

- Select **Report** from the Document Options menu.



Production Analysis																	
Production Analysis as of 7/12/2013 3:00:06 PM																	
WBS Code	Budget						Actuals to Date						ETC		FAC		
	Dollars	MH	Units	UOM	Unit Cost	MH/Unit	Cost	MH	Units	Unit Cost	Cost Factor	MH/Unit	Prod Factor	Dollars/Unit	MH/Unit	Dollars/Unit	MH/Unit
<b>Project : 06-P-0047 YORKTOWN</b>																	
305355: Piling - Stl. H	\$97,450.03		157,660	LB	\$0.62	0.0	\$95,349.32		0					\$0.01	**		
508040: Demo 60" & 8" Pipes	\$196,051.06	7,166.0	6,002	LF	\$32.66	1.2	\$54,605.65	7,618.0	3,900	\$14.00	\$0.43	2.0	1.64	\$67.29	**	same	same
508041: NLP - Remove Fender System	\$1,210.91	120.0	1	LS	\$1,210.91	120.0	\$1,259.37	53.0	1	\$1,259.37	\$1.04	53.0	0.44	(\$484.60)	#Error		
508042: Remove Railing & Toe Plate	\$3,824.65	240.0	800	LS	\$4.78	0.3	\$0.00	0.0	0					**	**	same	same
508045: Abatement & Assist	\$139,213.00	2,720.0	160	EA	\$870.08	17.0	\$110,726.30	613.5	160	\$692.04	\$0.80	3.8	0.23	\$284,867.00	#Error		
520060: Ph 2 - Drive Steel H-Piles	\$131,066.34	1,700.0	19	EA	\$6,898.23	89.5	\$28,367.33	797.0	19	\$1,493.02	\$0.22	41.9	0.47	\$1,026,990.10	#Error		
520080: Drive Steel Pipe Piles	\$34,010.00	2,400.0	26	EA	\$1,308.08	92.3	\$14,741.84	555.0	7	\$2,267.98	\$1.73	85.4	0.92	\$988.11	94.6		
520081: G3 & 4 - Weld Test Piles	\$11,336.00	800.0	26	EA	\$436.00	30.8	\$0.00	0.0	0					**	**		
526020: Timber Work	\$202,709.30	12,740.0	1	LS	\$202,709.30	12,740.0	\$201,742.84	7,766.5	1	\$205,860.04	\$1.02	7,925.0	0.62	\$48,323.00	248,675.0		
526021: G3 & 4 - Set Precast	\$28,342.00	2,000.0	2	EA	\$14,171.00	1,000.0	\$1,473.58	58.0	0					\$13,434.21	971.0		
526121: G3 & 4 - Install Walkways & Rails	\$8,502.00	600.0	2	LS	\$4,251.00	300.0	\$0.00	0.0	0					**	**		
526160: G3 & 4 - Tying Rebar	\$9,866.00	700.0	2	EA	\$4,933.00	350.0	\$0.00	0.0	0					**	**		
536021: G3 & 4 - Pour Concrete	\$7,700.00	560.0	450	CY	\$17.11	1.2	\$0.00	0.0	0					**	**		
544040: EMCO Wheaton	\$151,673.56	300.0	1	LS	\$151,673.56	300.0	\$0.00	0.7	0	\$0.00	\$0.00	2.0	0.01	**	**		
544042: NLP - Install Steel Shapes	\$98,976.27	6,242.0	1	LS	\$98,976.27	6,242.0	\$29,686.30	1,106.9	1	\$49,477.17	\$0.50	1,844.8	0.30	\$173,224.93	12,837.8	same	same

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