The BFA Report Tool

This technical white paper is designed for Spitfire Project Management System users. It provides details about the BFA (Budget, Forecast and Analysis) Report Tool, which is a supplemental workbook in Microsoft Excel used to create a template file which, in turn, is used to organize the data from the BFA workbook.

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Table of Contents

Introduction

This white paper provides details about the BFA (Budget, Forecast and Analysis) Report Tool, which is a supplemental workbook in Microsoft Excel used to create a template file which, in turn, is used to organize the data from the BFA workbook.

This 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.
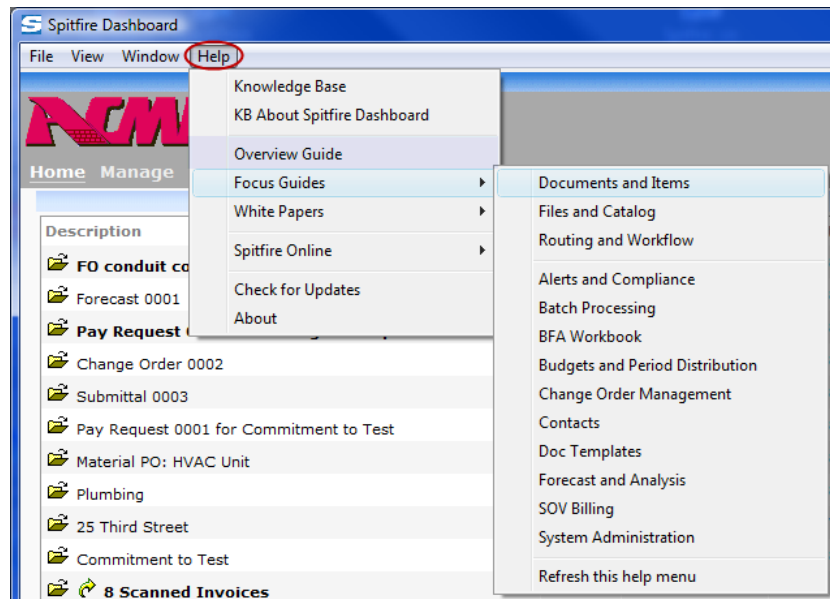
This white paper also assumes that you have a working knowledge of Microsoft Excel.

Note: the information herein is the same as the information in the V4.2 documentation.

Permissions

Access to the BFA workbook is granted through the **PAGE | Excel Project Budgeting & Forecasting** role capability. (For more information about roles, see the technical white paper *Designing User Roles*.) You must have this capability in order to use the BFA Report Writer described in this white paper.

The BFA Workbook

The BFA (Budget, Forecast and Analysis) workbook is connected to, and accessed through, the Budget and Forecast documents and the Project Analysis option off the Project Dashboard. When opened from the Budget document, the BFA workbook is used to create and revise project budgets; when opened from the Forecast document, the BFA workbook is used to create and revise the Forecast At Completion amounts based on current available information. And when opened from the Project Dashboard, the BFA workbook is used to review the most current approved EAC, Actual and FAC amounts. Information about the use of the BFA workbook is provided in the *Focus on Budgets and Period Distribution* and *Focus on Forecast and Analysis* guides.

|	A	B	I	K	N	O	S	AD	AE	AF	AG
1	© Copyright 2007-2010 Spitfire Management, LLC. All Rights Reserved.									11/23/2010	
2	DEMO	Project Analysis								10:12 AM	
3	Northern Lights Office Bldg										
4	GC-003										
5	Totals as of:	11/23/2010 @ 10:12 AM	$750,000	$750,000	$27,203	$575,000	$575,000	$40,132	$34,668	$74,800	$46,354
6	Filter:	Show All	$750,000	$750,000	$27,203	$575,000	$575,000	$40,132	$34,668	$74,800	$46,354
7	Cost Codes	Description	Original Revenue Budget	Current Revenue Budget	Actual Revenue	Original EAC	Current EAC	Actual Cost to Date	Committed Cost to Date	Actual + Committed Cost	Original Commitment
9	00000	Project	$750,000	$750,000	$27,203	$0	$0	$0	$0	$0	$0
10	00000	REVENUE	$750,000	$750,000	$27,203	$0	$0	$0	$0	$0	$0
11	01000	General Conditions	$0	$0	$0	$16,250	$16,250	$11,618	$11,618	$23,236	$0
12	01000	_LABOR	$0	$0	$0	$7,500	$7,500	$0	$0	$0	$0
13	01000	_MTRL PERM	$0	$0	$0	$0	$0	$11,618	$11,618	$23,236	$0
14	01000	_OTHER	$0	$0	$0	$8,750	$8,750	$0	$0	$0	$0
15	01700	Contract Closeout	$0	$0	$0	$0	$0	$215	$0	$215	$0
16	01700	_MTRL PERM	$0	$0	$0	$0	$0	$215	$0	$215	$0
17	02000	Site Work	$0	$0	$0	$73,875	$73,875	$12,694	$425	$13,119	$0
18	02000	_EQ RENTAL	$0	$0	$0	$5,125	$5,125	$1,550	$0	$1,550	$0
19	02000	_LABOR	$0	$0	$0	$18,750	$18,750	$0	$0	$0	$0
20	02000	_MTRL PERM	$0	$0	$0	$50,000	$50,000	$10,726	$425	$11,151	$0
21	02000	_OTHER	$0	$0	$0	$0	$0	$17	$0	$17	$0
22	02000	EQ PARTS	$0	$0	$0	$0	$0	$300	$0	$300	$0
23	02000	REVENUE	$0	$0	$0	$0	$0	$0	$0	$0	$0
24	02000	_MTRL EXPEND	$0	$0	$0	$0	$0	$101	$0	$101	$0
25	02050	Demolition	$0	$0	$0	$0	$0	$6,180	$0	$6,180	$0
26	02050	_LABOR	$0	$0	$0	$0	$0	$875	$0	$875	$0
27	02050	_MTRL PERM	$0	$0	$0	$0	$0	$5,305	$0	$5,305	$0
28	02200	Earthwork	$0	$0	$0	$0	$0	$0	$750	$750	$0
29	02200	_OTHER	$0	$0	$0	$0	$0	$0	$750	$750	$0
30	02500	Paving & Surfacing	$0	$0	$0	$0	$0	$0	$0	$0	$20,000
31	02500	_MTRL PERM	$0	$0	$0	$0	$0	$0	$0	$0	$20,000
32	03000	Concrete	$0	$0	$0	$23,750	$23,750	$300	$300	$600	$0
33	03000	_LABOR	$0	$0	$0	$13,750	$13,750	$0	$0	$0	$0

Columns

The columns in the BFA workbook can be made visible or hidden from view. In addition, all column titles can be customized. Changes to the BFA workbook are made through its Setup worksheet. For more information, see the *Focus on the BFA Workbook* guide.

Creating a Supplemental Workbook

While the BFA workbook gives you some choice in what data is shown, it also allows you to access template workbooks that gather your BFA data and create supplemental workbooks. These supplemental workbooks can display your BFA data in whatever varied and creative ways you want. For example, supplemental workbooks can include charts, graphs, logos, and subtotals. The BFA Report Tool described in this paper is one way to create templates and corresponding supplemental report workbooks, such as the BFA Basic and Advanced Reports.
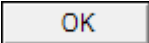
To create a supplemental workbook:

1. Open the BFA workbook.

2. Select **Supplemental Workbooks** from the Spitfire Menu:
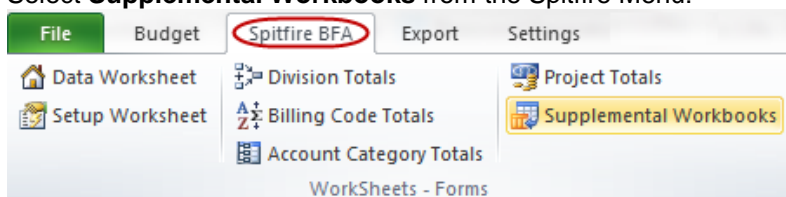
A dialog box will appear:
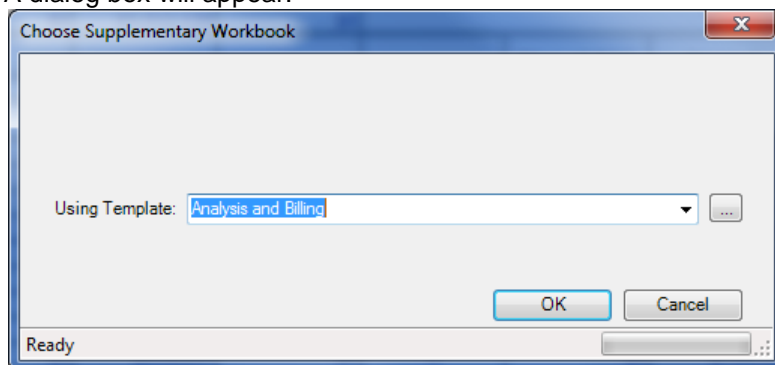
3. If you want to use the template that appears on the **Using Template** field, leave the field alone. Otherwise, click ▼ to select another template from your drop-down choices or click … to browse for a BFA template on your computer.
   Note: the BFA Report Tool chapter, beginning on page 7 describes how you can create your own template file(s).

4. Click OK. The supplemental workbook (a combination of the template file and your BFA data) will open in Microsoft Excel.

5. Save, print or edit the file as desired. The file is a stand-alone file, subject to Microsoft Excel functionality. Changes you make to this file are not reflected back in Spitfire. (See also the BFA Report Output chapter on page 40.)

The BFA Report Tool

The BFA Report Tool is a Microsoft Excel workbook used to design the BFA Basic Report and Advanced Report templates. The template workbook can then be used to harvest data from the BFA workbook and create a BFA supplemental workbook with a Basic Report and, optionally, Advanced Report.

BFA Report Tool	→	BFA Report Template

BFA Workbook	+	BFA Report Template	=	Report Workbook
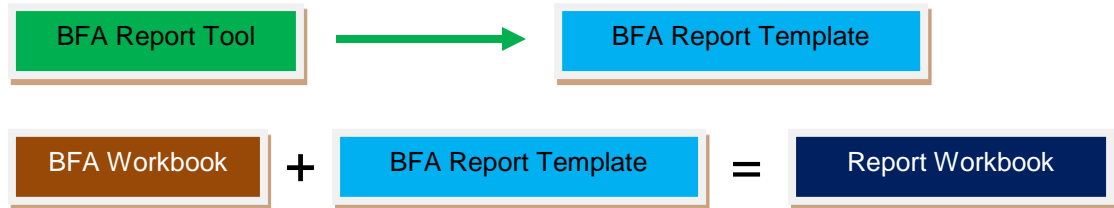
The Basic Report and Advanced Report worksheets are formatted and defined through the BFA Report Tool.

Spitfire distributes both a blank (**BFA WR Blank.xltm**) and a sample (**BFA WR Sample.xltm**) template file. You will need the blank template file in order to create your own BFA template workbook.

Planning

Whether you want to create Report worksheets based on an idea of how you want data to be displayed or you want to mimic a report that you are accustomed to using, you need to plan what each report will look like. Using either a piece of paper or software, determine the following for each report that you want. Minimally, you should plan your Basic Report.

- Will the report include a logo? Where will the logo be positioned?

- What will the report name be? How will it be formatted? Where exactly will it be located?

- What columns of data will be included in the report?

- What will each column be titled? In order to better understand and find possible columns of data, you can look at the setup data, as described in the following instructions.

- Will you need formulas for any columns?

- Will the report need column totals? Where will those totals be located?

- Will you be using conditional formatting to strengthen the appearance of your report?

Spitfire Column Headers

Before creating your template workbook, you should check the Setup worksheet on your BFA workbook to see the Spitfire-default headers of the columns you will want to use (in case any of them have been changed).
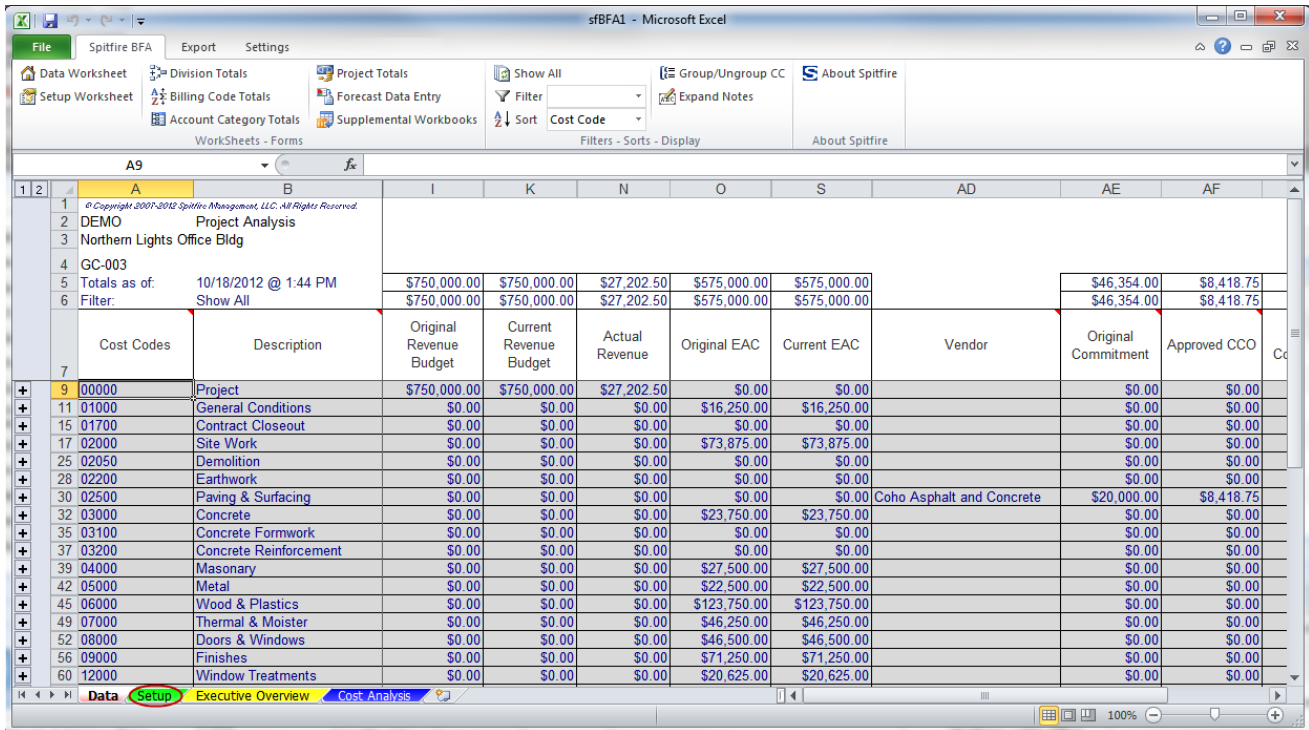
To review your BFA columns:

1. Log in to Spitfire.

2. Open an active Project Dashboard.

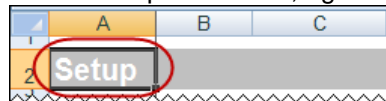3. Select **Project Analysis** from the Project Options menu:
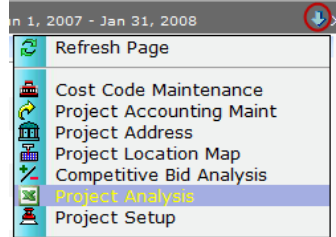
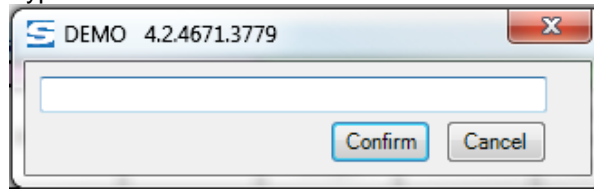The BFA workbook will open in Analysis mode.

4. Click the **Setup** tab to get to the Setup worksheet:

5. On the Setup worksheet, right-click the word **Setup**.

A confirmation box will appear.

6. Type **Default** and click [Confirm].

A new row will appear at the top of the Setup worksheet. This row indicates the Spitfire default headings for all the columns. These headings are the ones used in the BFA Report Tool.
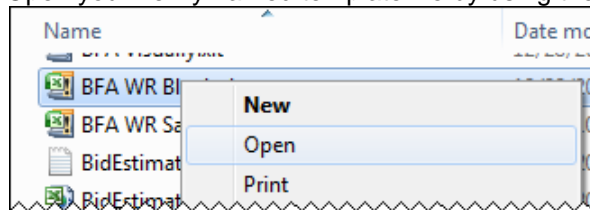

Once your reports are planned, you are ready to create your BFA template workbook.

Your Report Template Workbook

To create your copy of the BFA Report template workbook:

1. Copy the distributed **BFA WR Blank.xltm** file and give your working template file a new name. (Make sure you retain the **.xltm** extension.)

2. Open your newly named template file by using the **Open** option.

Note: do NOT double-click on the file in order to open it.

The workbook will open on the Spitfire Agreement worksheet.

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This workbook is an example of what is possible by repurposing the data collected and presented in the Spitfire Project Management application.

This workbook is distributed as a courtesy to Spitfire Clients.
Spitfire assumes no responsibility for the accuracy of data, presentation of data, no any conclusions that could be drawn from this workbook or the data presented herein.
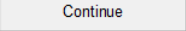
Supplementary Workbooks are NOT covered under Spitfire's Support and Maintenance agreement.

Spitfire offers advanced training and technical support in the fundamentals of Supplementary Workbooks on a fee basis. Please call your sales representative for further details.

This message will continue to be presented, at the time of opening, until such time as this workbook is saved with
the terms outlined herein accepted by placing an "X" in the box provided below.

Press continue to proceed with the opening.

I accept these terms:

Continue

3. Read the agreement then click the [Continue] button. The following message will appear:

Microsoft Excel

Open in Template mode - Change Report criteria and Save.

OK
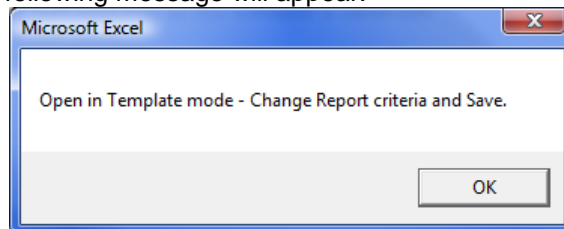
Note: if the message does not appear, either you did not open the template file correctly (perhaps you double-clicked on the filename) or you need to review the Microsoft Excel macro security.

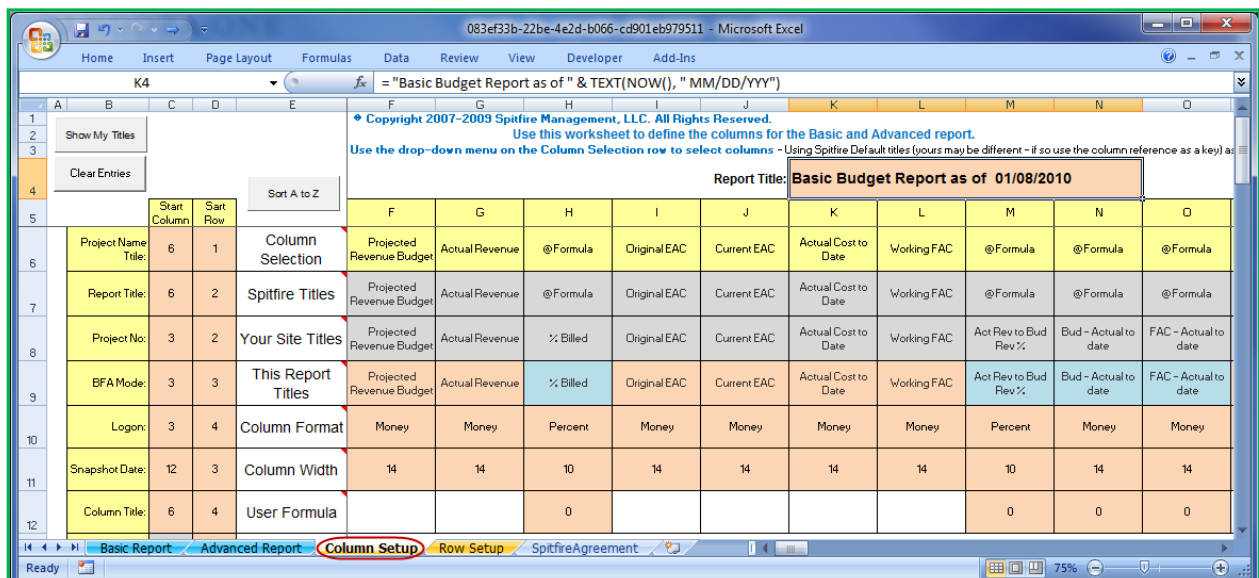4. Click [OK]. The workbook will open at the Column Setup worksheet.

Column Setup Worksheet and the Basic Report

The Column Setup worksheet allows you to configure the Basic Report worksheet. Information from the Column Setup is also used in the Advanced Report worksheet.

Blank
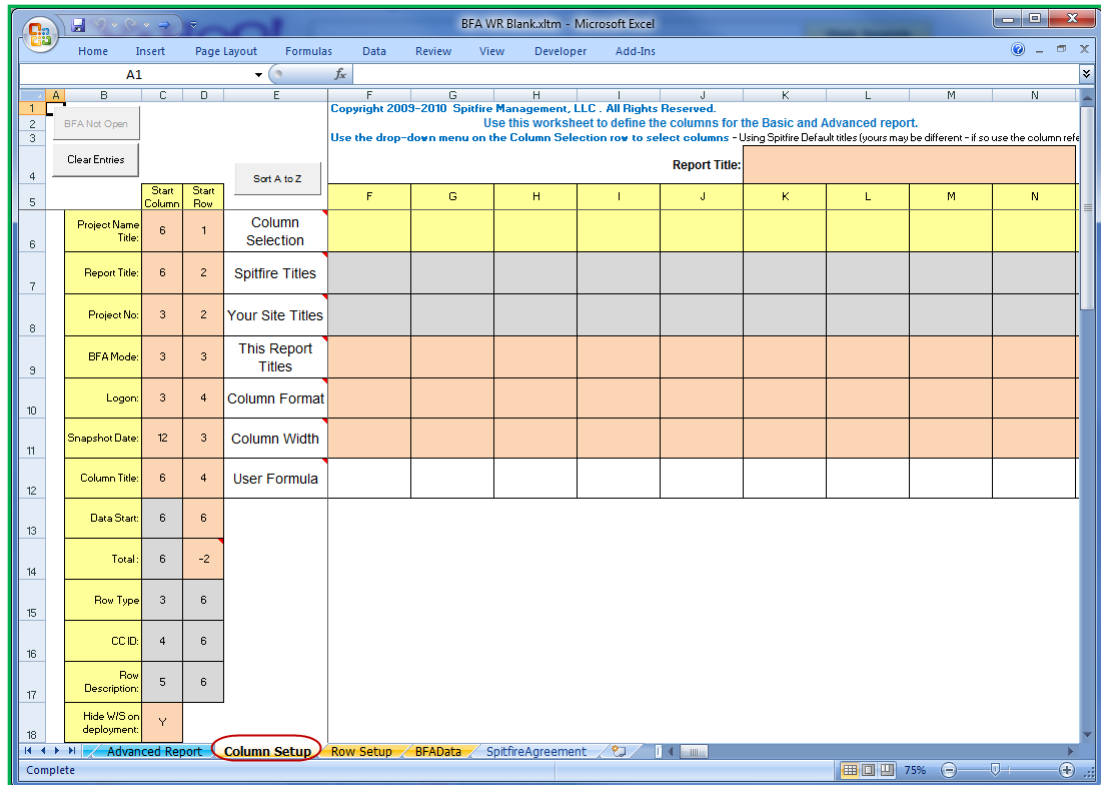
Sample

**Basic Report
(Output)**

Click the button to toggle between two views: all rows and Cost Code rows only.

Northern Lights Plaza
Basic Budget Report as of 01/08/2010

1/5/2010

	CC ID	Description	Projected Revenue Budget	Actual Revenue	% Billed	Original EAC	Current EAC	Actual Cost to Date	Working FAC	Act Rev to Bud Rev %	Bud – Actual to date	FAC – Actual to date
		Totals										
T	00000	Project	$750,000	$27,203	3.63%	$0	$0	$0	$0	0.00%	$0	$0
A	00000	REVENUE	$750,000	$27,203	3.63%	$0	$0	$0	$0	0.00%	$0	$0
T	01000	General Conditions	$0	$0	0.00%	$16,250	$16,250	$11,618	$53,973	0.00%	$4,632	$42,355
A	01000	_LABOR	$0	$0	0.00%	$7,500	$7,500	$0	$7,500	0.00%	$7,500	$7,500
A	01000	_MTRL PERM	$0	$0	0.00%	$0	$0	$11,618	$23,236	0.00%	-$11,618	$11,618
A	01000	_OTHER	$0	$0	0.00%	$8,750	$8,750	$0	$23,236	0.00%	$8,750	$23,236
T	01700	Contract Closeout	$0	$0	0.00%	$0	$0	$215	$215	0.00%	-$215	$0
A	01700	_MTRL PERM	$0	$0	0.00%	$0	$0	$215	$215	0.00%	-$215	$0
T	02000	Site Work	$0	$0	0.00%	$73,875	$73,875	$21,494	$71,550	0.00%	$52,381	$50,056
A	02000	_EQ OWNED	$0	$0	0.00%	$0	$0	$0	$8,800	0.00%	-$8,800	$0
A	02000	_EQ RENTAL	$0	$0	0.00%	$5,125	$5,125	$1,550	$8,800	0.00%	$3,575	$7,250
A	02000	_LABOR	$0	$0	0.00%	$18,750	$18,750	$0	$18,750	0.00%	$18,750	$18,750
A	02000	_MTRL PERM	$0	$0	0.00%	$50,000	$50,000	$10,726	$8,800	0.00%	$39,274	-$1,926
A	02000	_OTHER	$0	$0	0.00%	$0	$0	$17	$8,800	0.00%	-$17	$8,783
A	02000	EQ PARTS	$0	$0	0.00%	$0	$0	$300	$8,800	0.00%	-$300	$8,500
A	02000	REVENUE	$0	$0	0.00%	$0	$0	$0	$0	0.00%	$0	$0
A	02000	_MTRL EXPEND	$0	$0	0.00%	$0	$0	$101	$8,800	0.00%	-$101	$8,699
T	02050	Demolition	$0	$0	0.00%	$0	$0	$6,180	$6,180	0.00%	-$6,180	$0
A	02050	_LABOR	$0	$0	0.00%	$0	$0	$875	$875	0.00%	-$875	$0
A	02050	_MTRL PERM	$0	$0	0.00%	$0	$0	$5,305	$5,305	0.00%	-$5,305	$0
T	02200	Earthwork	$0	$0	0.00%	$0	$0	$750	$750	0.00%	$0	$750
A	02200	_OTHER	$0	$0	0.00%	$0	$0	$750	$750	0.00%	$0	$750
T	02500	Paving & Surfacing	$0	$0	0.00%	$0	$0	$0	$0	0.00%	$0	$0
A	02500	_MTRL PERM	$0	$0	0.00%	$0	$0	$0	$0	0.00%	$0	$0
T	03000	Concrete	$0	$0	0.00%	$23,750	$23,750	$300	$23,750	0.00%	$23,450	$23,450
A	03000	_LABOR	$0	$0	0.00%	$13,750	$13,750	$0	$13,750	0.00%	$13,750	$13,750
A	03000	_MTRL PERM	$0	$0	0.00%	$10,000	$10,000	$300	$10,000	0.00%	$9,700	$9,700
T	04000	Masonry	$0	$0	0.00%	$27,500	$27,500	$850	$27,500	0.00%	$26,650	$26,650
A	04000	_LABOR	$0	$0	0.00%	$12,500	$12,500	$0	$12,500	0.00%	$12,500	$12,500
A	04000	_MTRL PERM	$0	$0	0.00%	$15,000	$15,000	$850	$15,000	0.00%	$14,150	$14,150
T	05000	Metal	$0	$0	0.00%	$22,500	$22,500	$0	$22,500	0.00%	$22,500	$22,500
A	05000	_LABOR	$0	$0	0.00%	$12,500	$12,500	$0	$12,500	0.00%	$12,500	$12,500
A	05000	_MTRL PERM	$0	$0	0.00%	$10,000	$10,000	$0	$10,000	0.00%	$10,000	$10,000

GC-003

Revise Budget (0002) (N,Y)

DEMO

Sheet tabs: Basic Report / Advanced Report / Column Setup / Row Setup / SpitfireAgreement

Define the Global Structure

Columns B, C and D on the Column Setup worksheet position objects on the Basic Report. The values entered into the Start Column and Start Row identify the top-left position of the object. The numeric entry reflects the count of columns and rows from the worksheet home position (A1). For example, Start Column = 2 and Start Row = 2 means B2. Columns C and D contain defaults that you can choose to keep, if you like how the default Basic Report is formatted.

If either the Start Column or the Start Row is blank, the object is considered invalid and bypassed during the creation of the report.

Note: You are not able to change the Start Column and Start Row for **Row Type** (C15, D15), **CC ID** (C16, D16) or **Row Description** (C17, D17). This information always appears on columns C, D and E of the Basic Report.

Row Type distinguishes between a Cost Code (T) and its Account Categories (A), **CC ID** displays the Cost Code ID for each BFA data row and the **Row Description** is the Cost Code or Account Category description taken from the BFA's data worksheet.

BFA workbook, Data worksheet

Report Tool Column Setup

Basic Report worksheet

To define the global structure of your Basic Report template:

1. In C6 and D6, enter the start position for the **Project Name Title**. The Project Name Title is taken from G3 on the BFA's Data worksheet. For example,

BFA workbook, Data worksheet

Report Tool Column Setup

Basic Report worksheet

2. In K4, enter a **Report Title** for the Basic Report worksheet, for example:

3. In C7 and D7, enter the start position for the **Report Title** that you entered in the previous step.

| Report Title: | 6 | 2 |

4. In C8 and D8, enter the start position for the **Project No**. The Project No. is taken from G4 on the BFA's Data worksheet. For example,

	G
1	© Copyright 2007-2010 Spit
2	DEMO
3	Northern Lights Plaza
4	GC-003

| Project No: | 3 | 2 |

	C
1	
2	GC-003

5. In C9 and D9, enter the start position for the **BFA Mode**. The BFA Mode is taken from H2 on the BFA's Data worksheet.

	G	H
1	© Copyright 2007-2010 Spitfire Management, LLC. All Rights Reserved.	
2	DEMO	Project Analysis

| BFA Mode: | 3 | 3 |

6. In C10 and D10, enter the start position of the **Logon**. The Logon is taken from G2 on the BFA's Data worksheet.

	G
1	© Copyright 2007-2010 Spit
2	DEMO

| Logon: | 3 | 4 |

7. C11 and D11, enter the start position of the **Snapshot Date**. The Snapshot Date is taken from H3 (and also AS1 and AS2) on the BFA's Data worksheet.

	G	H
1	© Copyright 2007-2010 Spitfire Management, LLC. All Rights Reserved.	
2	DEMO	Project Analysis
3	Northern Lights Plaza	Totals as of: 1/7/2010 @ 11:40 AM

	G	H	AS
1	© Copyright 2007-2010 Spitfire Management, LLC. All Rights Reserved.		1/7/2010
2	DEMO	Project Analysis	11:40:00 AM

| Snapshot Date: | 12 | 3 |

8. In F6, select the contents of the first data column that you want in your Basic Report, for example:

Note: you will go back to defining your data columns later.

9. In C12 and D12, enter the start position of the **Column Title**. This Column Title refers to the data column you selected in the previous step. Each subsequent data column in your Basic Report will be positioned in the next available column.
    Note: the minimum allowable entry in these cells is 4.

10. In D13, enter the start row of the **Data** you indicated in F6— "Projected Revenue Budget" in our example. (C13 "Start Column" will automatically show the same number as C12 in order to maintain vertical alignment of title and data.)

11. In D14, enter the position of the **Total** row for the data you indicated in F6, in the following manner. (C14 "Start Column" will automatically show the same number as C12 in order to maintain vertical alignment of title and total.)

    o   If you enter a positive number, the Total row will appear exactly on the row you indicated.

    o   If you enter a negative number, the Total row will appear after all data rows, followed by the number of rows specified. For example,

12. In C18, select either **Y** (if you want to **Hide the Worksheet on Deployment**) or **N** if you do not want to hide the Column Setup worksheet when the Basic Report template is used to create a supplemental workbook. If you do not want general users to have access to this Column Setup worksheet, select **Y**.
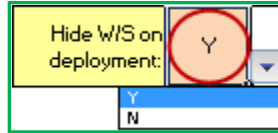
Define the Data Columns

Columns F through CG on the Column Setup worksheet are used to define the data columns that you want on your Basic Report.

> By default, data columns are listed in the same order as they appear in the BFA workbook. Click the **Sort A to Z** button to list them alphabetically and the **Sort By Column** button (which then appears) to switch back to the other order.

If you followed the previous instructions, you will have already selected your first data column in F6 (**Column Selection**). When you select a data column in row 6, the corresponding **Spitfire Title** on row 7 will be filled in automatically.

Note: the first choice in the Column Selection drop-down is **@Formula**, which identifies the column as one that displays the results of a user-defined formula. Whenever you select @Formula on row 6, you will be able to enter the formula on row 12. If no formula is entered, the column will remain blank and act as spacing (using the column width) in the report.

To define your Basic Report columns:

1. In F9, enter a **Title** for the data column on **This Report** (i.e., the Basic Report). If no title is entered, the title from row 8 (which is taken from the BFA workbook) will be used.
    Note: if you select **@Formula** on row 6, you should enter a title on row 9.

2. In F10, select the **Column Format** to be used in formatting the data in this column. The default is **Text**.

3. In F11, enter the **Column Width** for this column. If no width is entered, 15 will be used by default.
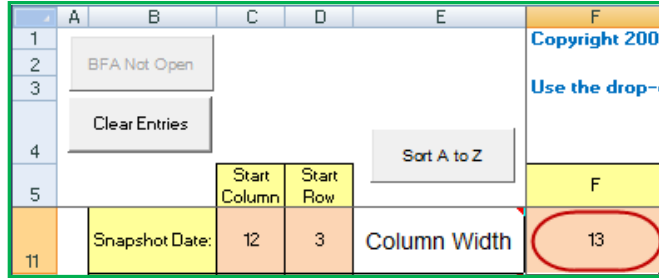
4. Leave F12 alone unless your Column Selection on row 6 is @Formula and you want to enter a **User Formula**.

   Notes about Formulas: You can use any of the standard Microsoft Excel functions for your formula. However, the formula can rely only on data in other columns on the same row. Constants contained within the formula or directed to an absolute cell reference also work providing the value in the absolute cell reference is present in the deployed report workbook. If the formula references a column to the right of its current position, enter the formula after the desired column is defined. You can also use the point and click method in Microsoft Excel to create your formula, provided you point and click only on columns in row 12.

> **TIP**
> We recommend that you use the **IFERROR***(your formula, default)* function to ensure that your report doesn't display errors based on incorrect or missing data, such as dividing by zero.
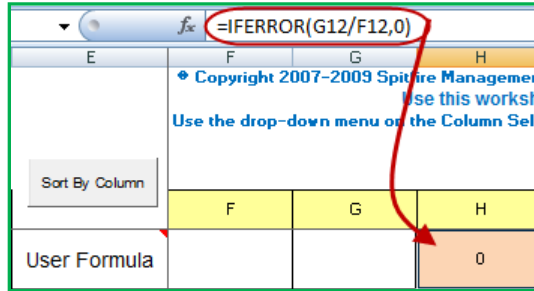
   It is not mandatory to enter a formula for each @Formula column. You can force an empty column in your Basic Report by leaving the **The Report Titles** and **User Formula** rows blank.

5. Go to column G to define your next data column in your Basic Report. Enter or select information on rows 6 – 12 as described in these instructions.

6. Continue to define as many data columns as you desire, in the same manner.

Add static text or logos

You can add logos, graphics, results fields, or text directly in the Basic Report. What you add to the worksheet remains in the report template and is visible in the BFA Report workbook.

For example, if you add your logo in the upper left corner of the worksheet, it will appear there in your output/printout.
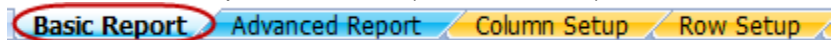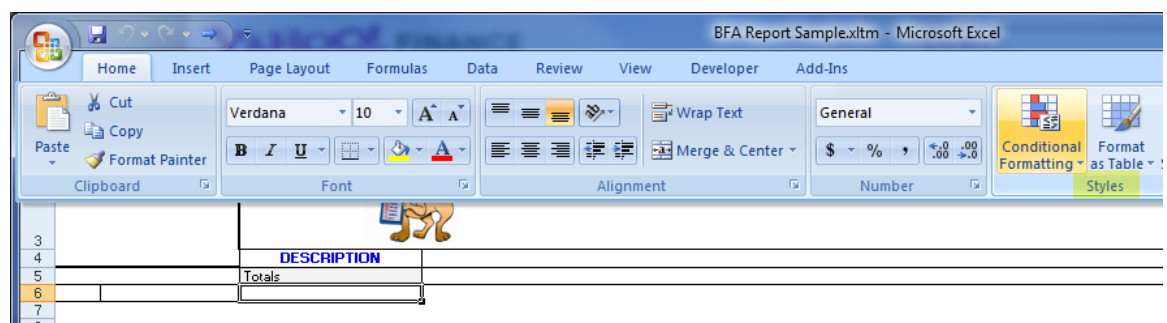

Conditional Formatting

The use of conditional formatting can provide significant format value to an otherwise drab worksheet of facts. You can choose conditional formatting at the worksheet, cell and cell range level.

To conditionally format the Data rows:

1. Go to the Basic Report worksheet (click on the tab).

2. Find your first data row (as defined in D13 on the Column Setup worksheet).

3. On this row, locate the appropriate column to contain the conditional formatting information.

4. Click on **Conditional Formatting** on the Styles part of the Home ribbon.


5. Select your conditional formatting. When data rows are added during the creation of your Basic Report, all rows will inherit the profile and be formatted accordingly.

Review the Basic Report

The only way to find out if your data appears the way you intend it to appear is to use your template.

1. Save your work and close the workbook. Provided you opened the workbook as a template, it will save as a template (**.xltm**) file.

2. Log in to sfPMS.

3. Go to a Project Dashboard.

4. Open the BFA workbook in the appropriate mode (from a Budget document, a Forecast document or from the Project Options menu).

5. Select **Supplemental Workbooks** from the Spitfire BFA ribbon:
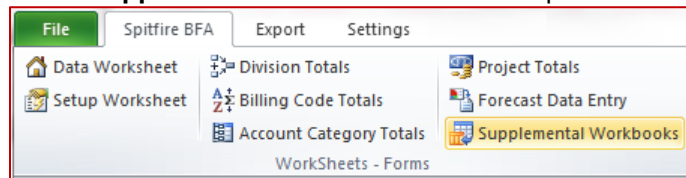
6. On the dialog box that appears, click [...] at the **Using Template** field to find your newly created BFA Report template on your computer.

7. If the Spitfire Agreement appears when your report workbook first opens, click the **Continue** button. The Basic Report worksheet will then appear.

8. Look over the report worksheet carefully, checking for correct data in each column and ensuring that it is formatted as you designed. If you find mistakes, jot them down. You will make changes back in the template file, not in this report file.

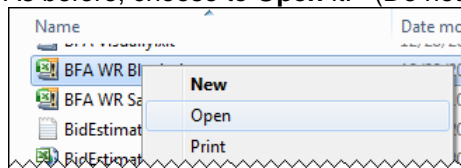9. Close the report workbook without saving it.

The date you create the report worksheet can appear next to the report title.

Edit the Basic Report

1. Locate your BFA template workbook on your computer. It should have an **.xltm** extension.

2. As before, choose to **Open** it. (Do not double-click to open it.)

3. Make your changes on the Column Setup worksheet.

4. Save your template workbook.

Row Setup Worksheet and the Advanced Report

The Row Setup worksheet is used to define the Advanced Report. The Advanced Report is optional. You can use the Row Setup worksheet as a means to control the presentation of the rows of BFA data similarly to how you control the presentation of the columns by using the Column Setup worksheet. The Advanced Report can be configured for multiple tier subtotaling and rollup. If you do not need to define the Advanced Report, skip to the chapter on the Template tool on page 37.

Blank

Sample

Advanced Report (Output)

The Row Setup worksheet allows you to structure the Advanced Report worksheet from a row layout point of view. You can define multiple header and subtotal rows on the Advanced Report worksheet and indicate how rows should be grouped.

When you gather data from the BFA workbook, the Advanced Report worksheet organizes the rows of data according to your specifications.

Note: The row setup in the Advanced Report is linked to the column setup in the Basic Report. For this reason, column setup in the Basic Report must be completed before the Advanced Report is configured.

Define the Global Structure

Columns L, M and N between rows 19 through 28 on the Row Setup worksheet position objects on the Advanced Report. The values entered into the Start Column and Start Row identify the top-left position of the object. The numeric entry reflects the count of columns and rows from the worksheet home position (A1). For example, Start Column = 2 and Start Row = 2 means B2. These cells contain defaults that you can choose to keep, if you like how the default Advanced Report is formatted.

If either the Start Column or the Start Row is blank, the object is considered invalid and bypassed during the creation of the report.

To define the global structure of your Advanced Report template:

1. Go to the Row Setup worksheet on your BFA template workbook.

2. In M20 and N20, enter the start position for the **Project Name Title**. The Project Name Title is taken from G3 on the BFA's Data worksheet. For example,
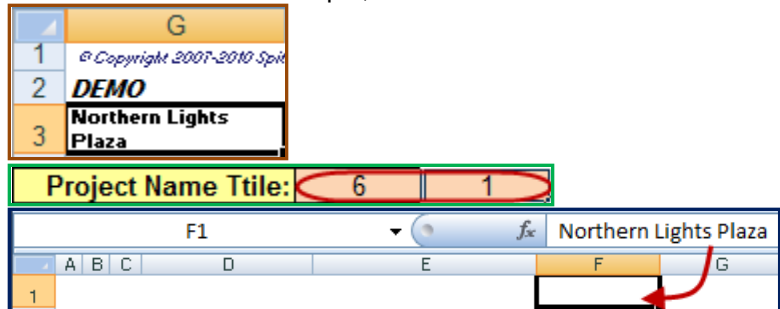
3. In G5, enter the **Report Title** for your Advanced Report.
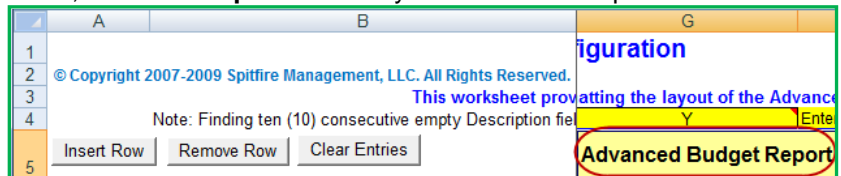
When the Advanced Report worksheet is created, this name will be placed on the report as the page header.

4. In M21 and N21, enter the start position for the **Report Title** that you entered in the previous instruction.
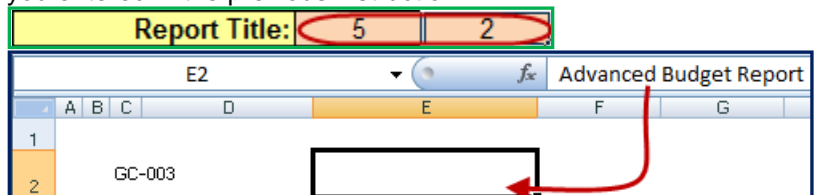
5. In M22 and N22, enter the start position for the **Project No**. The Project No. is taken from G4 on the BFA's Data worksheet. For example,
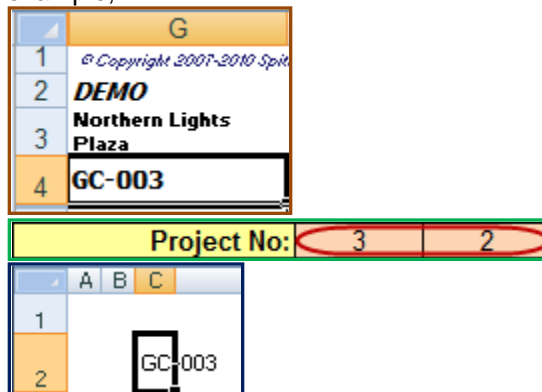
6. In M23 and N23, enter the start position for the **BFA Mode**. The BFA Mode is taken from H2 on the BFA's Data worksheet.

7. In M24 and N24, enter the start position of the **Logon**. The Logon is taken from G2 on the BFA's Data worksheet.

8. In M25 and N25, enter the start position of the **Snapshot Date**. The Snapshot Date is taken from H3 (and also AS1 and AS2) on the BFA's Data worksheet.

9. In N26, enter the row position of the **Column Title**. All column titles (which are defined on the Column Setup worksheet) will appear on this row.

10. In N27, enter the start row of the **Data.** The data is defined in columns A through K on the Row Setup worksheet (see page 29). **Note**: the start row for the data can be influenced by what you enter in column F (see page 30).

11. In M28, select either **Y** (if you want to **Hide the Worksheet on Deployment**) or **N** if you do not want to hide the Row Setup worksheet when the template is used to create an Advanced Report worksheet. If you do not want general users to have access to this Row Setup worksheet, select **Y**.

Note: if the Row Setup worksheet is visible on the generated Report workbook, the ⬛ Clear and 🟩 Refresh buttons will be available on the Advanced Report worksheet (see page 40).

12. In G4, indicate if you want special total rows to be included at the end of the report.

   o Type **X** if you want the workbook to create a row with a SumIf formula. You can then compare your total with the report's total to see if they match.

   Note: you must have at least one Subtotal row with a Sum Level of "A" in order to calculate the total. (See page 27.)

   o Type **Y** if, in addition to the above row, you want the workbook to create another row with the total from the Basic Report. You can then compare your total with the Basic Report's total to see if all the data is included in the Advanced Report.

   o Leave this cell blank if you do not want either of these total rows at the end of your Advanced Report worksheet.

Understand Row Types

The rows in the Row Setup worksheet are used to define the rows in the Advanced Report worksheet. You can define three types of rows:

- **H** – Header row
- **S** – Subtotal row
- **D** – Detail row

Understand Sum Levels

In order for grouping and subtotaling to work correctly, each header row must have a corresponding subtotal row with the same Sum Level. The Sum Level indicates what information is to be grouped or totaled. Sum Level A adds up all Sum Level B totals within its "bookends." Sum Level B adds up all Sum Level C totals within its bookends; Sum Level C totals all Sum Level D totals within its bookends, etc.

Section	Description	Row Type	Print Column	Sum Level	Ab
1	Header	H	A	A	
2	Subheader 1	H	B	B	
3	Detail for Subheader 1	D		C	
4	Detail for Subheader 1	D		C	
5	Subtotal for Subheader 1	S		B	
6	Subheader 2	H		B	
7	Detail for Subheader 2	D		C	
8	Detail for Subheader 2	D		C	
9	Subtotal for Subheader 2	S		B	
10	Total for Header	S	A	A	

Note: if you are using the auto-populate feature for your detail rows (see page 31), you should not include subtotal rows because subtotal rows (with corresponding Sum Levels) will be created by the workbook.

Understand Print Columns

Plan your Headings and Subtotals and decide where each should appear on the Advanced Report worksheet.

- If you indicate that a Header row is to be placed in Print Column A (i.e., column A in the Advanced Report), the row on the Row Setup worksheet will appear in light yellow:

Description	Row Type	Print Column
Header	H	A

- If you indicate that a Header row is to be placed in any Print Column other than A, the row on the Row Setup worksheet will appear in light pink:

Description	Row Type	Print Column
Header	H	B

- If you indicate that a Subtotal row is to be placed in Print Column A, the row on the Row Setup worksheet will appear in bright yellow:

Description	Row Type	Print Column
Subtotal	S	A

- If you indicate that a Subtotal row is to be placed in any Print Column other than A, the row on the Row Setup worksheet will appear in bright pink:

Description	Row Type	Print Column
Subtotal	S	B

- If you indicate that a Detail row is to include Account Category details, the row on the Row Setup worksheet will appear in light blue:

| Description	Include detail
Detail row with Account Category details	Y

- If you indicate that a Detail row is to not include Account Category details, the row on the Row Setup worksheet will appear in green:

Description	Include detail
Detail row without Account Category details	N

Note: on the printout (output), headers and subtotals in column A will appear with a gray background; others will not.

Use Control Buttons

As you design your Advanced Report worksheet, you can add and delete rows in the Row Setup worksheet or clear all of your entries. In order to use one of these buttons, you must be in a cell that is between columns B – K under row 6.

Insert Row	Remove Row	Clear Entries
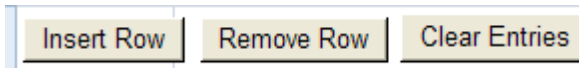
- **Insert Row** – creates a new blank row above your current location. Your current row and those below are moved down one row.

- **Remove Row** – deletes the current row and moves all rows below the current row up one row.

- **Clear Entries** – asks you to confirm removal of all existing entries. If you click OK, all entries will be deleted.

Set Up Group Codes for Auto-Populate Feature

The Auto-populate feature (described on page 31) is optional, but if you will use it, you can set up header and subtotal descriptions for each group, according to a code.

To define your group codes:

1. Scroll to columns V through X.

2. In row 8, enter a **Group Code** in column V, a **Header Description** in column W and a **Subtotal Description** in column X, for example:

3. Enter Group Codes, Header Descriptions and Subtotal Descriptions as needed in rows 9+.

Define Your Rows

1. In the **Description** column (B), enter display text for headers and subtotals. Detail rows will either display what you enter in column B or inherit the description from the BFA workbook, depending on what you select in column K (see step 10 on the next page).

2. In the **Row Type** column (C), select **H** for header rows, **D** for detail rows or **S** for subtotal rows.
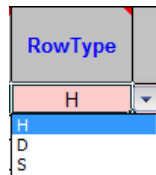
3. In the **Print Column** column (D), select a column from A – D to indicate where the row should begin on the Advanced Report worksheet.

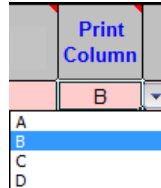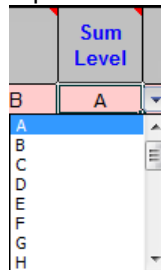4. In the **Sum Level** column (E), select a level for this row, as explained on page 27.

5. In the **Header Spacing Above/Below** column (F), select the number of blank rows to be placed before/after this row in the Advanced Report worksheet. The choices range from 0,0 to 2,2.
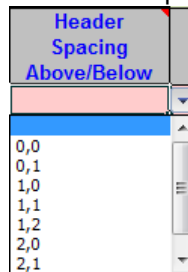
6. (*For Detail rows only*) In the **Cost Code Range (Start)** column (G), indicate the start of the range to be used on the Cost Code details.

    o You can enter an exact value, for example '**00100**. **Note**: you should start a numeric text string with an apostrophe so Microsoft Excel does not treat it as a number.

    o You can use the wildcard **#**, for example 01# (to mean "every value that starts with 01") or #003 (to mean "every value that ends with 003").

    o You can enter **%** in the first Detail row to auto-populate the detail rows. (See the section on the next page.)

7. (*For Detail rows only*) In the **Cost Code Range (End)** column (H), indicate the end of the range to be used on the Cost Code details.

   o You can enter an exact value that is different from the Start value.

   o You can use the wildcard **#** as described above.

   o If using the auto-populate feature (see below), you can enter a prefix or **GroupXReference** for your groupings.

8. (*For Detail rows only*) In the **Include detail** column (I), select **Y** if you want to include Account Category details for each Cost Code; **N** if you do not want to include such details or **F** if you want to find and display a specific Cost Code row separately. **F** requires you to enter a specific value in the Cost Code Range (Start) column.

9. *(For Detail rows only)* In the **Display Cost Code ID** column (J), select **Y** if you want to display the Cost Code ID for your Cost Codes and **N** if you do not want IDs.

10. *(For Detail rows only)* In the **Use BFA for Detailed Description** column (K), select **Y** if you want each data row to inherit the description from the BFA workbook or **N** if you want the description from column B on the Row Setup worksheet to be used.

11. Enter all your rows on the Row Setup worksheet.

12. Save your work.

The Auto-populate Feature

You can enter **%** in the **Cost Code Range (Start)** column of the Row Setup worksheet to enable the auto-populate feature. The location of the % within the Cost Code Range (Start) entry determines the grouping pattern. For example, an entry of AA%, XX%, etc. will create a new group each time the value in the third position changes. (This would be the correct entry to auto-populate based on the industry CSI codes.) In the report:

- Each time the target position value changes, a title row will be created with the current value.

- Each row matching the current group (i.e., the value in the title row) will be recorded in order.

- Each time the target position value changes, a subtotal row will be created for the prior group.

- Whatever is entered in the Cost Code Range (End) column will be treated as a prefix for each group.

If you enter **GroupXReference** in the **Cost Code Range (End)** column of the Row Setup worksheet, the system will look to columns V through X to find the group Header and Subtotal description that match your codes. The number of characters in the Group Code must match your Cost Code Range (Start) input.

Examples

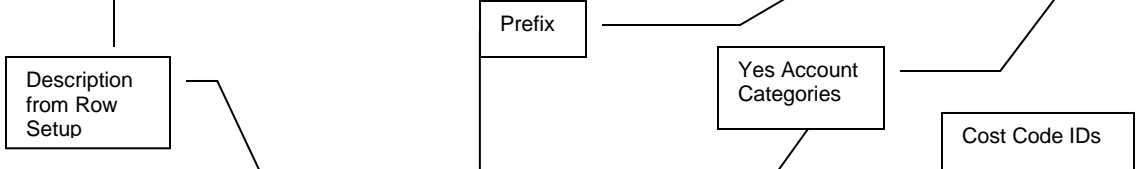| Section	Description	Sum Level	Header Spacing Above/Below	Cost Code Range (Start)	Cost Code Range (End)	Include detail	Display Cost Code ID	Use BFA for Detailed Description
1	CSI Codes	A	1,2					
2	Sorted by CSI level	B	1,0					
3	Detail description from BFA	C	1,0	XX%	Group:	N	Y	Y
4								
5	CSI Totals	A	2,0					

Prefix

No Account Categories

Cost Code IDs

Description from BFA

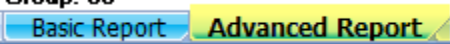| DEMO	DESCRIPTION	Projected Revenue Budget	Actual Revenue	% Billed	Original EAC	Current EAC	Actual Cost to Date	Working FAC
CSI Codes								
Sorted by CSI level								
Group: 00								
	0 Project	$750,000	$27,203	3.63%	$0	$0	$0	$0
Subtotal 00		$750,000	$27,203		$0	$0	$0	$0
Group: 01								
	1000 General Conditions	$0	$0	0.00%	$16,250	$16,250	$11,618	$53,973
	1700 Contract Closeout	$0	$0	0.00%	$0	$0	$215	$215
Subtotal 01		$0	$0		$16,250	$16,250	$11,833	$54,188
Group: 02								
	2000 Site Work	$0	$0	0.00%	$73,875	$73,875	$21,494	$71,550
	2050 Demolition	$0	$0	0.00%	$0	$0	$6,180	$6,180
	2200 Earthwork	$0	$0	0.00%	$0	$0	$0	$750
	2500 Paving & Surfacing	$0	$0	0.00%	$0	$0	$0	$0
Subtotal 02		$0	$0		$73,875	$73,875	$27,674	$78,480
Group: 03								
	3000 Concrete	$0	$0	0.00%	$23,750	$23,750	$300	$23,750
Subtotal 03		$0	$0		$23,750	$23,750	$300	$23,750
Subtotal 15		$0	$0		$26,250	$26,250	$0	$26,250
Group: 16								
	16000 Electrical	$0	$0	0.00%	$48,750	$48,750	$4,650	$83,250
	16050 Electrical Materials	$0	$0	0.00%	$0	$0	$3,625	$5,125
	16120 Wires and Cables	$0	$0	0.00%	$0	$0	$0	$9,250
Subtotal 16		$0	$0		$48,750	$48,750	$8,275	$97,625
CSI Totals		$750,000	$27,203		$575,000	$575,000	$48,932	$656,418
Project Total		$750,000	$27,203		$575,000	$575,000	$48,932	$656,418
Project Total Compare		$750,000	$27,203		$575,000	$575,000	$48,932	$656,418

Section	Description	Print Column	Sum Level	Header Spacing Above/Below	Cost Code Range (Start)	Cost Code Range (End)	Include detail	Display Cost Code ID	Use BFA for Detailed Description
1	CSI Codes	A	A	1,2					
2	Sorted by CSI level	B	B	1,0					
3	My Group	C	C	1,0	XX%	Group:	Y	Y	N
4									
5	CSI Totals	A	A	2,0					

Prefix

Description from Row Setup

Yes Account Categories

Cost Code IDs

	DESCRIPTION	Projected Revenue Budget	Actual Revenue	% Billed	Original EAC	Current EAC	Actual Cost to Date	Working FAC
DEMO								
CSI Codes								
Sorted by CSI level								
Group: 00000								
00000	My Group 00000 (1)							
	REVENUE	$750,000	$27,203	3.63%	$0	$0	$0	$0
	Total: My Group 00000 (1	$750,000	$27,203	3.63%	$0	$0	$0	$0
Subtotal 00		$750,000	$27,203	3.63%	$0	$0	$0	$0
Group: 01000								
01000	My Group 01000 (1)							
	_LABOR	$0	$0	0.00%	$7,500	$7,500	$0	$7,500
	_MTRL PERM	$0	$0	0.00%	$0	$0	$11,618	$23,236
	_OTHER	$0	$0	0.00%	$8,750	$8,750	$0	$23,236
	Total: My Group 01000 (1	$0	$0	0.00%	$16,250	$16,250	$11,618	$53,973
01700	My Group 01000 (2)							
	_MTRL PERM	$0	$0	0.00%	$0	$0	$215	$215
	Total: My Group 01000 (2	$0	$0	0.00%	$0	$0	$215	$215
Subtotal 01		$0	$0	0.00%	$16,250	$16,250	$11,833	$54,188
Group: 02000								
02000	My Group 02000 (1)							
	_EQ OWNED	$0	$0	0.00%	$0	$0	$8,800	$8,800
	_EQ RENTAL	$0	$0	0.00%	$5,125	$5,125	$1,550	$8,800
	_LABOR	$0	$0	0.00%	$18,750	$18,750	$0	$18,750
	_MTRL PERM	$0	$0	0.00%	$50,000	$50,000	$10,726	$8,800
	_OTHER	$0	$0	0.00%	$0	$0	$17	$8,800
	EQ PARTS	$0	$0	0.00%	$0	$0	$300	$8,800
	REVENUE	$0	$0	0.00%	$0	$0	$0	$0
	_MTRL EXPEND	$0	$0	0.00%	$0	$0	$101	$8,800
	Total: My Group 02000 (1	$0	$0	0.00%	$73,875	$73,875	$21,494	$71,550
02050	My Group 02000 (2)							
	_LABOR	$0	$0	0.00%	$0	$0	$875	$875
	_MTRL PERM	$0	$0	0.00%	$0	$0	$5,305	$5,305
	Total: My Group 02000 (2	$0	$0	0.00%	$0	$0	$6,180	$6,180
02200	My Group 02000 (3)							
	_OTHER	$0	$0	0.00%	$0	$0	$0	$750
	Total: My Group 02000 (3	$0	$0	0.00%	$0	$0	$0	$750

**Review the
Advanced
Workbook**

The only way to find out if your data appears the way you intend it to appear is to use your template.

1. If you haven't already, save your work and close the workbook. Provided you opened the workbook as a template, it will save as a template (**.xltm**) file.

2. Log in to Spitfire.

3. Open the BFA workbook in the appropriate mode (from a Budget document, a Forecast document or from the Project Options menu).

4. Select **Supplemental Workbooks** from the Spitfire Menu:
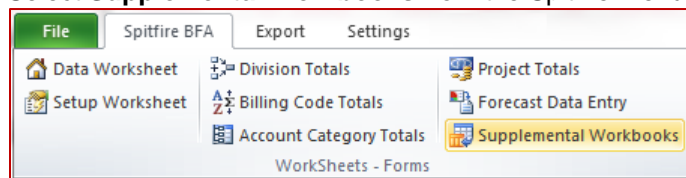
5. On the dialog box that appears, click at the **Using Template** field to find your newly created BFA Report template on your computer.

6. If the Spitfire Agreement appears when your report workbook first opens, click the **Continue** button. The Basic Report worksheet will then appear.

7. Click on the Advanced Report tab to view the Advanced Report.

8. Look over the report worksheet carefully, checking for correct data in each column and ensuring that it is formatted as you designed. If you find mistakes, jot them down. You will make changes back in the template file, not in this report file.

9. Close the report workbook without saving it.

Edit the Advanced Report

1. Locate your BFA template workbook on your computer. It should have an **.xltm** extension.

2. As before, choose to **Open** it. (Do not double-click to open it.)
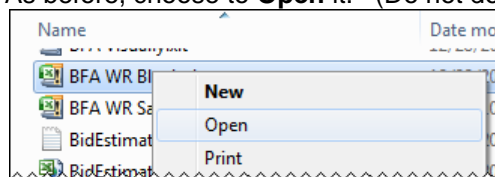
3. Make your changes on the Column Setup worksheet.

4. Save your template workbook. When it is ready for use, you should upload the template into Spitfire so that all your users can select it (see page 37).
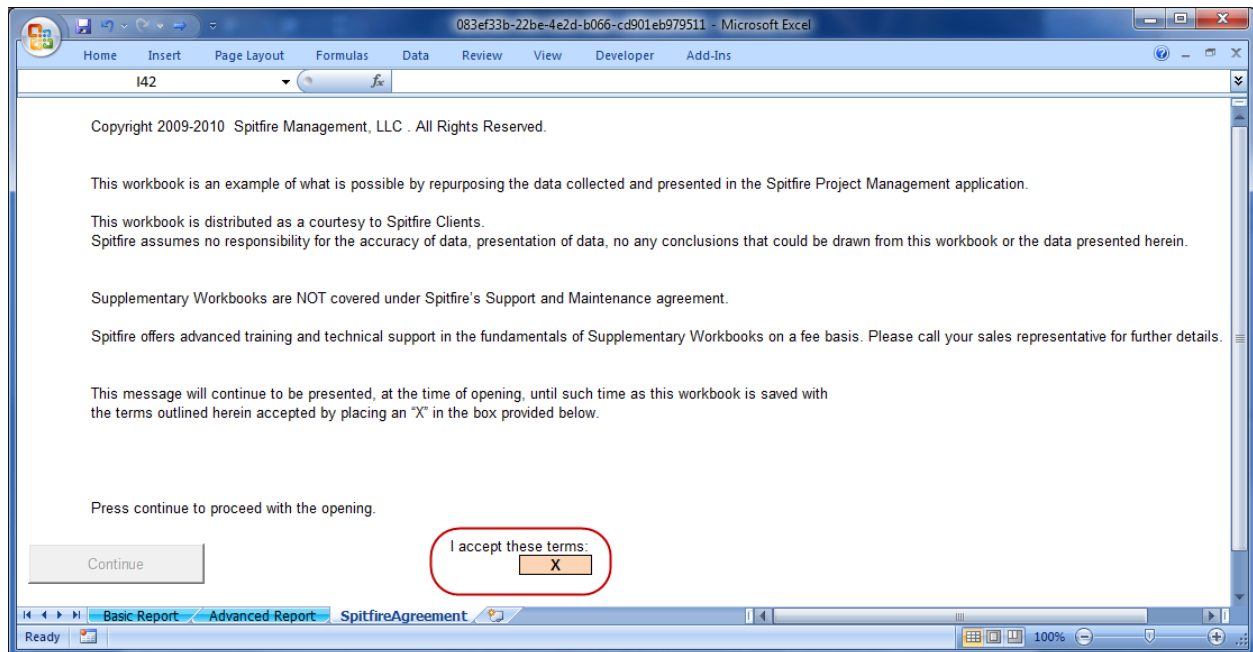
Your Finished BFA Report Template File

When you have finished creating and configuring your BFA Report template file and consider it ready for your users, there is one more thing you should do before uploading the file into sfPMS.

Spitfire Agreement

To configure your template file for auto-launch-and-build:

1. Open your BFA Template file (.xltm) one more time.

2. On the SpitfireAgreement sheet, click on the cell under **I accept these terms**, and type an **X**.

3. Save the file.

Now (after you upload the template file), when users select the BFA Report template file, they will bypass the Spitfire Agreement and the workbook will open on either the Basic Report or Advanced Report, depending on setup. In addition, the Row Setup and Column Setup worksheets will appear only if so configured.

Your BFA Report template workbook is ready to be uploaded to sfPMS so that other users can access the template by default through the Supplemental Workbook option on the BFA workbook.

The Template Tool

You upload your template file through Spitfire's Template tool. You can access this tool either from the Manage Dashboard or the System Admin Dashboard.


Upload Your Template

1. Go to the Templates tool in sfPMS as shown above.

2. Check the **Type** box and select **BFA Supplemental Workbook**. If there are any BFA Report templates already in Spitfire, they will be listed. You can have multiple BFA templates.

3. Click to add a row.

4. (*optional*) Change the **Doc Type** (to Forecast or *blank*, for example) if you do not want the template to be available only for Budget documents.

   o If you keep Budget as the Doc Type, you can also select a subtype, if desired.

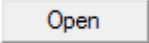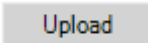5. (*optional*) Change the **Name** of the template to reflect the name of your file.

6. Leave the Type as **BFA Supplemental Workbook**.

7. (*optional*) Change the **Description** for the template file.

8. (*optional*) Look up a **Company** and/or **Doc Ref** for this template, if appropriate.

9. Click ✔ to accept your row.
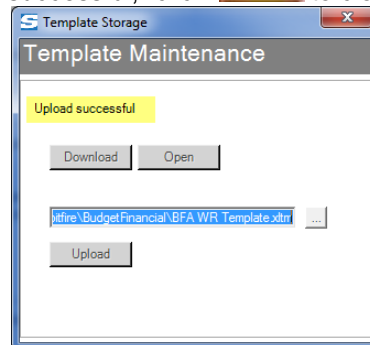
10. Click 💾 to save.

11. Click 🖫.
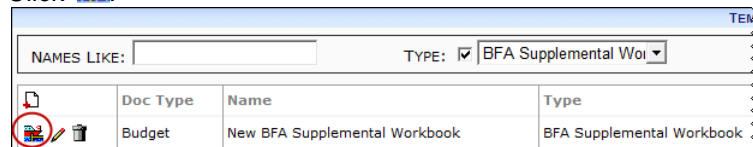
The Template Maintenance dialog box will appear.

12. Click [...] to browse for your BFA Report template file (it should have an .xltm extension).

13. Click **Open**.
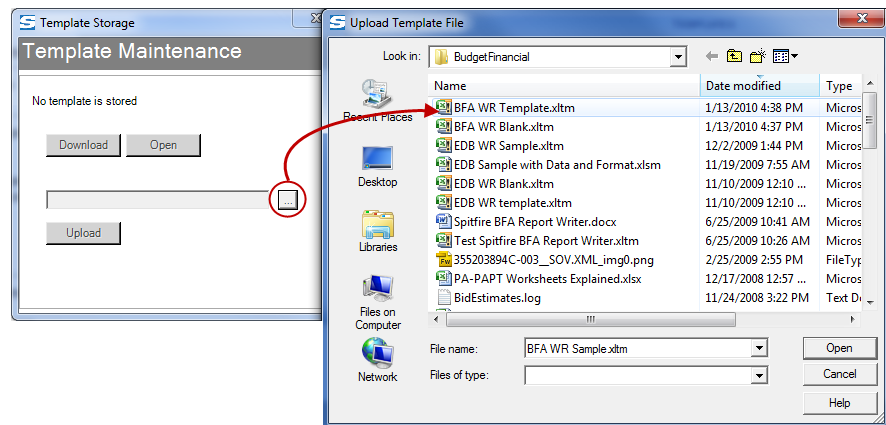
14. Back on the Template Maintenance dialog box, click **Upload**

15. When the Template Maintenance dialog box says "Upload successful," click ❎ to close it.

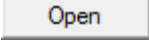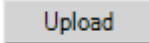16. Back on the Templates tool, click 💾 to save it again.

The next time you or someone else chooses the Supplemental Workbook option from the BFA workbook (see page 6), this newly uploaded template workbook will appear in the Using Template drop-down:
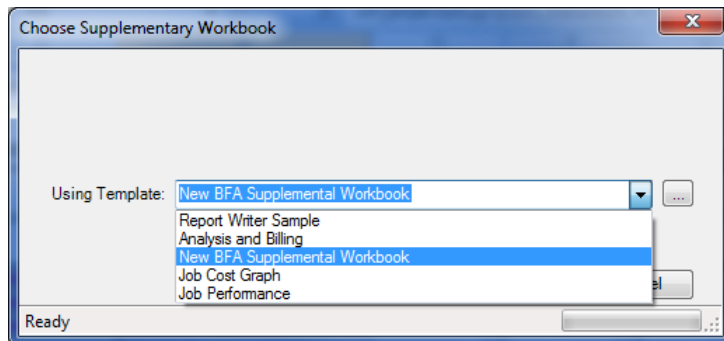
Note: if you have more than one BFA Report template, all templates will appear in the drop-down. You would have to choose which one you want each time.

Re-upload Your Template

You may need to replace the BFA Report template workbook with another.

- If, after uploading your template, you realize you want to change it, make your changes to your **.xltm** file on your computer. After you save the template file, you will need to replace your old version in sfPMS with your new version.

- If you want a totally different template workbook to be used instead of the current one, create your new **.xltm** file on your computer.   After you save the template file, you will need to replace your current template with your new template.

1. Go back to the Templates tool on either the Manage or System Admin Dashboard.

2. Click the **Type** checkbox and select **BFA Supplemental Workbook**. Your existing template(s) will appear.

3. Click to open the Template Maintenance dialog box.

4. Click to browse for your BFA Report template file then click Open.

5. Back on the Template Maintenance dialog box, click Upload

6. When the Template Maintenance dialog box says "Upload successful," click to close it.

7. Back on the Templates tool, click to save it again.

BFA Report Output

This chapter discusses the output you create when using a template designed through the BFA Report Tool.

When you use the Supplemental Workbook option from the BFA workbook and choose your BFA Report template, sfPMS creates an **.xlsm** file. This output Microsoft Excel file contains your data in the report worksheets you designed.

What Appears in the BFA Report Workbook

Which worksheets are generated and populated with data when you first create your BFA Report output through your template depends on the following:

- If the Spitfire Agreement in the template file was not already accepted (see page 36), the SpitfireAgreement worksheet will appear first.

- If the Spitfire Agreement was already accepted, the BFA Report workbook will open on the Basic Report worksheet.

- If the Row Setup worksheet is visible, the Advanced Report worksheet will include Refresh and Clear buttons.

The Refresh Report Button

The Clear button on the Advanced Report lets you clear the data from the worksheet if you want to make a change on the Row Setup worksheet in order to generate different output.

The Refresh button uses the (revised) Row Setup worksheet to generate a new Advanced Report.

For example, you might want to see your data with and without the Account Category details or with and then without the special total rows. By clearing and refreshing the data, you can generate the version that you want to save or print.

Note: any change you make to the Row Setup worksheet at this point is temporary. It will not be a permanent change to the template. To make a permanent change, you will have to open the template file separately.

Saving Your Output

If you want to keep the BFA Report workbook with all its generated worksheets, you should save Microsoft Excel in the usual way. You will be saving an **.xlsm** file.