

Pay Application Print Templates (PAPTs)



This technical white paper is designed for Spitfire Project Management System users. It describes how to create PAPTs for use with Spitfire's SOV workbook.

Revision Number: 4.6.03.21.2016

© Copyright 2006-2016 Spitfire Management, LLC. All Rights Reserved.

No part of this document may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means electronic or mechanical, photocopying, recording, or otherwise without written permission of Spitfire Management, LLC.

© 2005-2016 Microsoft, Microsoft Business Solutions (MBS), Microsoft Dynamics and Solomon are either registered trademarks or trademarks of Microsoft Corporation, Great Plains Software, Inc. or Microsoft Business Solutions Corporation in the United States and/or other countries. FRx are either trademarks or registered trademarks of FRx Software Corporation. Microsoft Business Solutions Corporation is a wholly-owned subsidiaries of Microsoft Corporation.

The names of actual companies and products mentioned herein may be the trademarks of their respective owners.

Spitfire Management, LLC.

www.spitfiremanagement.com

Table of Contents

| | |
|--|-----------|
| Introduction | 5 |
| Overview | 6 |
| Planning | 7 |
| Output Worksheets | 8 |
| Output Worksheet Design | 8 |
| Structured vs. Unstructured | 8 |
| SOV Headers and Subtotals | 9 |
| Where Spitfire Data Will Go | 9 |
| Exporting Defined Names | 9 |
| Existing vs. New Output Worksheets | 11 |
| Existing Output + Print Format Worksheets = PAPT | 11 |
| New Output + Print Format Worksheets = PAPT | 12 |
| Creating the PAPT | 13 |
| Exporting the Print Format Worksheets | 13 |
| The Print Format Worksheets | 14 |
| sfSOVSetup | 15 |
| App Detail | 15 |
| Project Details | 16 |
| Combining the Print Format Worksheets with Output Worksheets ... | 17 |
| Examples | 17 |
| PAPT Setup | 21 |
| Your Input | 22 |
| 5. Project Data Sheet Name | 22 |
| 6. Paste Project Data in <i>Project Details</i> cell | 22 |
| 7. Original SOV Data Sheet Name | 22 |
| 8. Paste Original SOV data in <i>SOVs</i> cell | 22 |
| 9. Separate Change Orders from Original Data? | 23 |
| 10. Change Order Data Sheet Name | 23 |
| 11. Paste Change Order data in <i>COs</i> cell | 23 |
| 12. Unique Subtotal Page? | 23 |
| 13. Subtotal Data Sheet Name | 23 |
| 14. Paste Subtotals data in <i>HSMaster</i> cell | 24 |
| 16. Just Pass the Data | 24 |
| 18. Page and Pages | 25 |
| 19. Cover Sheet Name | 25 |
| 20. Cover Sheet Page Print Cell Reference | 25 |
| 21. Cover Sheet Distribution Destination Sheet Name | 25 |
| 22. Cover Sheet Distribution Cell Reference | 25 |
| 23. Cover Sheet Land on Cell Reference | 26 |
| 24. Schedule 1 Sheet Name | 26 |
| 25. Page Print Cell Reference | 26 |
| 26. Page Sum Cell Reference | 27 |
| 27. Single Page Output – Set AutoFilter | 27 |
| 28. Single Page Output – Blank Rows Cell Reference | 28 |
| 29. Repeatable Structured Page | 28 |
| 30. Source of Items | 28 |
| 33. Schedule 2 Sheet Name etc. | 28 |
| 66. Prompt-To-Print options | 29 |
| Testing and Mapping | 30 |
| Connecting the Dots | 32 |
| Fine-tuning | 33 |

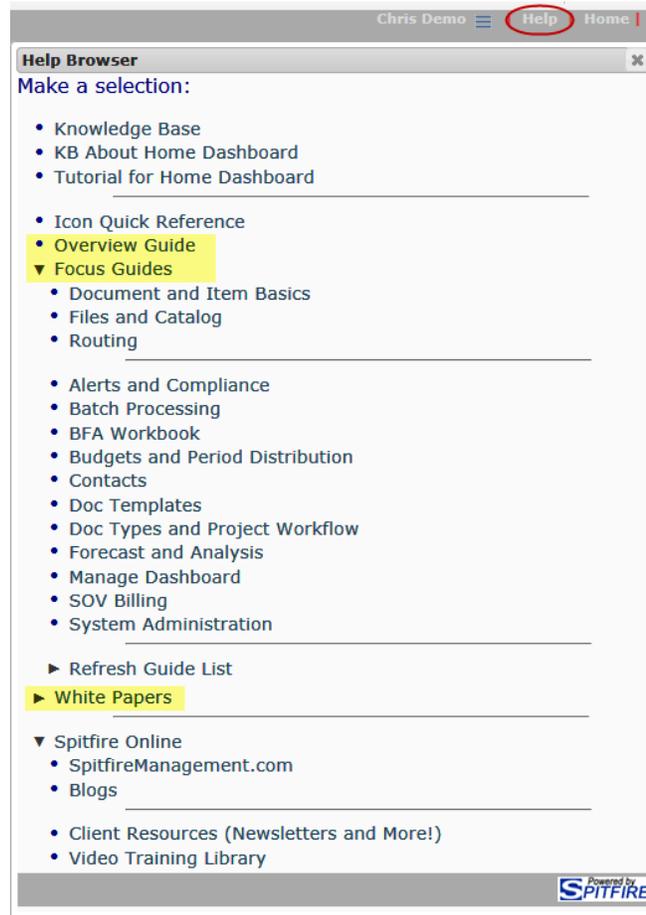
- Unstructured Output Worksheets 33
- Cascading Output Worksheets 34
- Output Page Total Rows..... 35
- Data Flow..... 37
- Printing..... 37
 - Things to Consider 38
- Uploading Your PAPT Into Spitfire 39**
- Saving the Print Output..... 40**
 - Some Considerations 40

Introduction

This technical white paper describes how to create Pay Application Print Templates (PAPTs) used to present and print the data created in the Pay Application's SOV workbook. You are encouraged to review this entire white paper prior to beginning a practical exercise.

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

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



Note: This paper also assumes you know to use Microsoft Excel to copy worksheets, create formulas, set up filters and more. Anyone without a good understanding of Microsoft Excel should take the time to learn the ins and outs of that application before attempting to create a PAPT.

Note: New information added to the TWP since V4.1 appears in **green text**. Also, icons are shown in size 16 only; larger icons are similar but not identical.

Overview

The goal of the Pay Application Print Template (PAPT) is to take data from the SOV workbook and the project in general and format it as you desire for display and print purposes.

The image displays two overlapping Excel windows. The background window is 'sfSOVBilling1 - Microsoft Excel', showing a spreadsheet with columns A through N and rows 1 through 28. The spreadsheet contains project information such as 'Project No. GC-003' and 'App. No. 0001'. The foreground window is 'PAPT 3.2 Spitfire Sample AIA With Tax format.XLT [Compatibility Mode] - Microsoft Excel', which is a print template for an 'APPLICATION AND CERTIFICATION FOR PAYMENT'. The template includes fields for 'To (OWNER)', 'FROM CONTRACTOR', and 'CONTRACT FOR'. It also features a 'CHANGE ORDER SUMMARY' table and a detailed financial breakdown of the contract sum, including original sum, change orders, and retainage. The financial breakdown table is as follows:

| Line Item | Description | Amount |
|-----------|--|--------------|
| 1 | ORIGINAL CONTRACT SUM | \$750,000.00 |
| 2 | Net Change By Change Orders | |
| 3 | CONTRACT SUM TO DATE (LINE 1+2) | \$750,000.00 |
| 4 | TOTAL COMPLETE & STORED TO DATE (Column D on G702) | \$12,600.00 |
| 5 | RETAINAGE: | |
| a. | 10% of Completed Work (Column D + E on G702) | \$1,250.00 |
| b. | 10% of Stored Material (Column F on G702) | |
| | Total Retainage (lines 5a + 5b or Total in Column I of G702) | \$1,250.00 |
| 6 | TOTAL EARNED LESS RETAINAGE (Line 4 less Line 5 Total) | \$11,250.00 |
| | Sales Tax: 0.038% | \$1,100.00 |
| | | \$12,350.00 |
| 7 | LESS PREVIOUS CERTIFICATES FOR PAYMENT (line 6 from prior Certificate) | |
| 8 | CURRENT PAYMENT DUE | \$12,350.00 |
| 9 | BALANCE TO FINISH INCLUDING RETAINAGE (Line 3 less Line 6) | \$738,750.00 |

The print template also includes a 'CHANGE ORDER SUMMARY' table and a 'CONTRACTOR' section with fields for name, address, and contact information. The document is titled 'APPLICATION AND CERTIFICATION FOR PAYMENT' and includes a footer with the Spitfire logo and contact information.

Planning

Your first step should be to determine how many output worksheets are required to present your SOV data in a clear and precise manner. For example, you may want to imitate the AIA standard, which includes a cover sheet, a schedule for Original Contract items, a schedule for Change Orders and a schedule of Subtotals by phase or area, as shown in the example below.

The image displays three overlapping application forms from the Spitfire Project Management System. The top form is the 'Contractors' Application For Payment', which includes a header with project details and a table for item tracking. The middle form is 'CHANGE ORDERS PAGE 3.1', and the bottom form is 'SUBTOTAL PAGE 4.1'. Each form contains a table with columns for Item NO., Description of Work, Scheduled Value, Work Completed (Previous Applications, This Application), Total Complete and Stored To Date (D+E+F), % G/C, Balance to Finish (C-G), and Retainage. The tables are currently empty, showing only the headers.

Output Worksheets

Output Worksheet Design

If you already use Microsoft Excel for your Pay Applications, you can modify your existing worksheets to use as your output worksheets.

If you are starting without any Microsoft Excel worksheets, you will need to plan each output worksheet carefully.

Each output worksheet requires thought and elements of design to provide the maximum flexibility while at the same time maintaining a minimum print footprint. The best way to accomplish this is to pull out a sheet of paper equal in size to the desired final product and sketch away.

1. Jot down all the information needed.
2. Organize it logically and keep global project, contact and factual information separate from SOV line items. A good place to start is to review Spitfire's SOV workbook. The Application worksheet on the SOV workbook covers details related to the line items. (See the [Focus on Schedule of Values \(SOV\) Billing](#) guide for more information about the Application worksheet.) You will also be able to get information from the Pay Application and Project Setup documents.
3. Take one page at a time and mark it up. Once complete, get others to review the pages and comment on them. You want to ensure that you have all the information in the right places.

Structured vs. Unstructured

You should also decide if you want your output worksheets to be structured or unstructured. Structured worksheets have a set number of rows. If you think you will need more rows than those that fit on one structured worksheet, you will need to provide multiple structured worksheets for your schedule. For example, you might need three original SOV item sheets. (See also the section on [cascading output worksheets](#) on page 34). On the other hand, unstructured worksheets allow for a large number of rows and then use filters to control how many rows are actually printed. (See also the section on [unstructured output worksheets](#) on page 33).

SOV Headers and Subtotals

Each time a Header or Subtotal row is created in the SOV worksheet, the user will be prompted to answer

- if the created row should be treated like a original contract item or a Change Order item,
- if the PAPT has a schedule specifically for subtotals,
- if the created row should be included in the rows copied to the subtotals schedule. The SOV Billing module follows these directions while copying the data to the output workbook.

Great care is required for each output worksheet to ensure the SOV Subtotal amounts are not included in any type, page, or project totals. Each row on the SOV worksheet is defined by type expressed as a number in the **Row Type** column of the App Detail worksheet. Microsoft Excel offers several functions to filter the rows included in the total. (See the section on [output page totals rows](#) on page 35 for more information.)

Where Spitfire Data Will Go

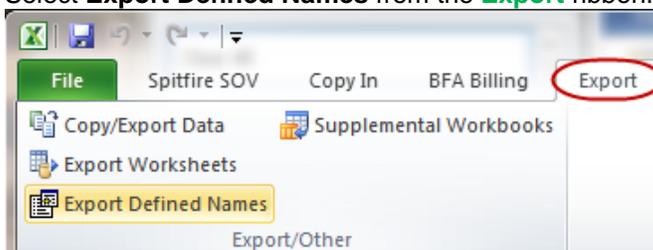
You should plan where the data that will come from your Spitfire project will go. This includes both data from the specific Pay Application and also more general project data. It is good practice to type in “dummy” data right on your output worksheets as placeholders for the formulas and cell references that will ultimately go there. However, you can enter cell references right at the start if you are comfortable doing so.

Exporting Defined Names

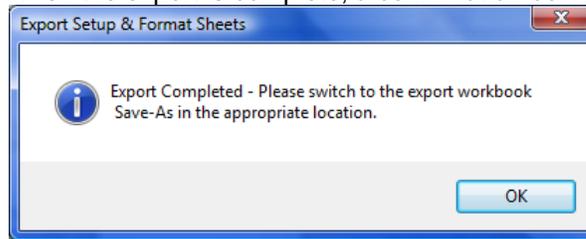
Microsoft Excel supports defining ranges by name. A range consists of a group of cells contained within a top left cell reference and a bottom right cell reference. Using named ranges within formulas makes the formulas easier to read. You may prefer to use named cell ranges in your formulas and cell references. You can export all the defined names used by the SOV Billing module onto a separate workbook for easier reference.

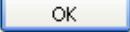
To export defined names:

1. Open an SOV workbook from a Pay Application document.
2. Select **Export Defined Names** from the **Export** ribbon.



When the export is complete, a confirmation box will appear:



3. Click .
4. Unless the worksheet opens automatically, find your copied workbook (with a name such as Book1) on your computer's desktop and open it.

You can save this workbook on your computer with any name you want.

| B1 | | Defined Name | |
|----|-------|---|---|
| | A | B | C |
| 1 | Index | Defined Name | Range |
| 2 | 2 | _xlnf.IFERROR | =#NAME? |
| 3 | 3 | AccountCategory | =Application Worksheet!\$HB\$5:\$HB\$20 |
| 4 | 1 | Application Worksheet!_FilterDatabase | =Application Worksheet!\$IJ\$1:\$IJ\$3 |
| 5 | 96 | Application Worksheet!Print_Titles | =Application Worksheet!\$GS:\$GS |
| 6 | 4 | Application_Date | =ExportProjectDetails!\$B\$8 |
| 7 | 5 | Application_No | =ExportProjectDetails!\$B\$7 |
| 8 | 6 | Architects_No | =ExportProjectDetails!\$B\$3 |
| 9 | 7 | Balance_to_Finish_with_Retenition_Spelled | =ExportProjectDetails!\$B\$44 |
| 10 | 8 | Balance_to_Finish_with_Retenition_w_tax_Spelled | =ExportProjectDetails!\$B\$45 |
| 11 | 9 | BalanceToFinishAmount | =Application Worksheet!\$HU\$5:\$HU\$20 |
| 12 | 10 | BillingActualToDate | =Billings!\$M\$5:\$M\$1002 |
| 13 | 11 | BillingBFADeclaredPercentComplete | =Billings!\$P\$5:\$P\$1002 |
| 14 | 12 | BillingCode | =Application Worksheet!\$GZ\$5:\$GZ\$20 |
| 15 | 13 | BillingCommitmentApprovedAmount | =Billings!\$J:\$J |
| 16 | 14 | BillingCommitmentAutofill | =Billings!\$I\$5:\$I\$1002 |
| 17 | 15 | BillingCommittedToDate | =Billings!\$N\$5:\$N\$1002 |
| 18 | 16 | BillingCurrentBudget | =Billings!\$K\$5:\$K\$1002 |
| 19 | 17 | BillingCurrentPeriod | =Billings!\$O\$5:\$O\$1002 |
| 20 | 18 | BillingPreviousApplication | =Billings!\$H\$5:\$H\$1002 |
| 21 | 91 | Billings!Print_Area | =Billings!\$A\$1:\$AE\$65 |
| 22 | 19 | BillingsActualQty | =Billings!\$L\$5:\$L\$1002 |
| 23 | 20 | BillingScheduledValue | =Billings!\$F\$5:\$F\$1002 |
| 24 | 21 | BillingsPreviousQty | =Billings!\$G\$5:\$G\$1002 |
| 25 | 22 | BillingsScheduledQty | =Billings!\$D\$5:\$D\$1002 |
| 26 | 23 | BillingsScheduledRate | =Billings!\$E\$5:\$E\$1002 |

Existing vs. New Output Worksheets

Existing Output + Print Format Worksheets = PAPT

If you already have worksheets in Microsoft Excel that you use for your schedules and now want to incorporate those worksheets in your PAPT, you will need to

- Combine all your output worksheets into one workbook and save the workbook as a template (.xltx) in a folder specific to SOV Billing. Since this will be the basis of your PAPT, you will want to give it a suitable name that will identify it among other PAPT's you may create.

Note: You should save the workbook as a template because a template offers downstream benefits like safeguarding against unintentional changes. Once a workbook is a template file, you can open this file by finding it in your browser, right-clicking and selecting Open or opening Microsoft Excel and using the Open option. Do *not* double-click on the filename in a browser because double-clicking on the filename will create a new workbook using the template as its base, and this is not what you want to do.

- [Export the print format worksheets from your SOV](#) workbook (see page 13) into a temporary workbook. These worksheets—sfSOVSetup, Project Details and App Detail—are a necessary component of the PAPT.
- Copy the sfSOVSetup, Project Details and App Detail worksheets to your template workbook. You can rename the Project Detail and App Detail worksheets but do NOT rename sfSOVSetup because the Spitfire SOV Billing module specifically looks for this worksheet.
- Duplicate any output or print format worksheets needed and rename them as desired. For example, if you have structured output worksheets, you may want several sheets to accommodate many rows. Or you may want several App Detail worksheets (each with its own name) to hold SOV items, Change Order items and Headers/Subtotals separately.
- Fill out the [sfSOVSetup worksheet](#) (see page 21).
- Save your template as your new Pay Application Print Template (PAPT). Make sure it has an **.xltx** extension.

New Output + Print Format Worksheets = PAPT

If you do not have any Microsoft Excel worksheets to start with, your steps are slightly different.

- Plan your output worksheets.
- [Export the print format worksheets from your SOV](#) workbook (see page 13) into a new workbook. These worksheets—sfSOVSetup, Project Details and App Detail—are a necessary component of the PAPT.
- Add sheets to this new workbook according to how many output worksheets you need and give each worksheet a unique name.
- Format each worksheet's cells, using dummy data, so that you can see what it will look like.
- Fill out the [sfSOVSetup worksheet](#) (see page 21).
- Save your template as your new Pay Application Print Template (PAPT). Make sure it has an **.xltx** extension.

Creating the PAPT

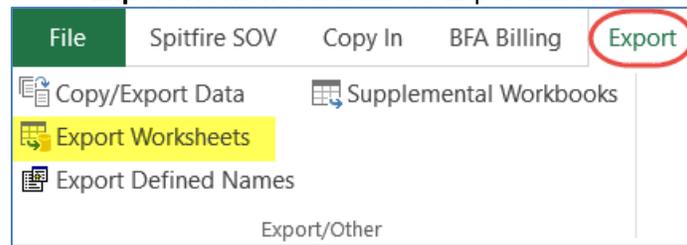
Exporting the Print Format Worksheets

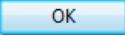
The worksheets (sfSOVSetup, Project Details and App Detail) that you will need in order to create your PAPT come from the SOV workbook. These worksheets, normally hidden in the SOV workbook, are considered the “print format” worksheets.

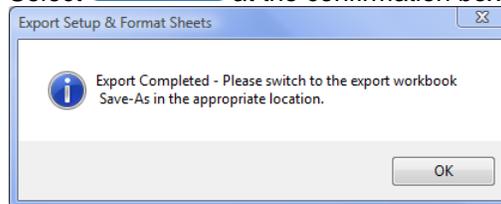
In order to access the SOV workbook, you need a Pay Application document; therefore, you need to start with a project that includes a Pay Application document. You can create a “dummy” project for this purpose, if you do not have or if you do not want to use a real, existing project.

To export the print format worksheets:

1. (optional) Create a Project Setup document, change its status to **Committed** and save. (For more specific instruction, see the [Focus on Doc Types and Project Workflow](#) guide.)
2. Create or open a Pay Application document.
3. Click  to open the SOV workbook. (For more information, see the [Focus on Schedule of Values \(SOV\) Billing](#) guide.)
4. Select **Export Worksheets** from the Export ribbon.



5. Select  at the confirmation box that appears:



6. If it does not open automatically, find and open the newly created workbook. This workbook contains the sfSOVSetup, App Detail and Project Detail worksheets. It will have a name such as **Book1**.



7. Save As this file with a better name in a suitable location. It should have an **.xltx** extension.

The Print Format Worksheets

| Spitfire Setup Sheet | | |
|---|-------|---|
| Description | Value | Comments |
| Project Data Sheet Name | | Enter the sheet/tab name where the Project header details will be copied to. |
| Paste Project Data in cell | | Enter the top left cell reference where the block Project Data will be pasted. |
| Original SOV Data Sheet Name. | | Enter the sheet/tab name where the Original SOV Data will be copied to. |
| PasteOriginal SOV data on cell | | Enter the top left cell reference where the block Original SOV Data will be pasted. |
| Separate Change Orders from Original data? | | Yes: SOV will paste Change Orders into a separate worksheet than Original SOV data. No: SOV data on the Original SOV sheet. |
| Change Order Data Sheet Name | | Enter the sheet/tab name where the Change Order Data will be copied to. |
| Paste Change Order data in cell | | Enter the top left cell reference where the block Change Order Data will be pasted. |
| Unique Subtotals Page? | | Yes: Will place the Subtotal rows and Headers on a separate worksheet - Useful for high level |
| Subtotal Data Sheet Name | | Enter the sheet/tab name where the Subtotal and Header Data will be copied to. |
| Paste Subtotals data in cell | | Enter the top left cell reference where the block Subtotals Data will be pasted. |
| Just Pass the Data | No | Yes: Pass the data ONLY. Printing will be controlled by the user elsewhere. No: SOV will p control printing. |
| Preview and Print | | |
| Page and Pages | | Enter the profile for the page numbering using the # for the page and #s for the number of p Blank to exclude page printing) |
| Cover Sheet Name | | Enter the sheet/tab name of the Summary Cover Sheet. This will be the first page printed the the pages of schedules |
| Cover Sheet Page Print Cell Reference | | Enter the cell reference where the will be pasted |
| Cover Sheet Distribution Designation sheet name | | Enter the sheet/tab name where the distribution "who to" value is copied to |
| Cover Sheet Distribution Cell Reference | | Enter the cell reference where the distribution "who to" value is copied to. |
| Cover Sheet Land on Cell Reference | | Optional: Enter the cell to set as active during Print Preview. |
| Schedule 1 Sheet Name | | Enter the sheet/tab name of the first schedule to be printed. |
| Page Print Cell Reference | | Enter the cell reference where the will be pasted |
| Page Sum Cell Reference | | Enter the cell reference where the Sum of this page exist. If the value in this reference equa be counted nor will it print. |
| Single Page Output - Set auto filter | | Enter "Yes" to filter out blank rows when all the printable rows are on ONE worksheet. The s column can be at the top or at the bottom. |
| Single Page Output - Blank Rows Cell Reference | | Enter the Column (cell reference) to evaluate as empty to eliminate blank rows. Suggestion: the right of print area, enter 1 for all rows to be printed, and if statement for conditional row blank Columns in Print Area. |
| Repeatable Structured Page | | Enter "Yes" if this is a structured format to be repeated to fit total count of rows. If "Yes of Items, Count of Items on Page and Page Cell Reference must be completed. |
| Source of Items | | Enter the Source Worksheet Name (Original, Change Order or Subtotal worksheet as li determine total count of items. Total Count of Items/ Count of Items per page = Count c This does NOT change the individual worksheet references to original data |

Project Details

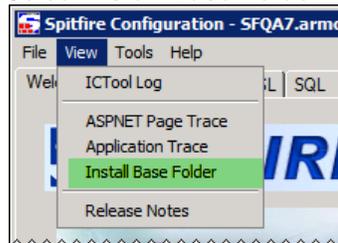
The Project Details worksheet holds global information about the project that can be used by the PAPT.

| 1 | ProjectData | Description | Identifier | AddrType Description | Prime Contact | Company/Description |
|----|-----------------------------|-------------|------------|----------------------|---------------|---------------------|
| 2 | Project No: | | O | Owner | | |
| 3 | Architects No: | | PC | Project Customer | | |
| 4 | Contract For | | GC | GC | | |
| 5 | Contract Date | | A | Architect | | |
| 6 | Contract Biller | | CM | CM | | |
| 7 | Application No | | L | Lender | | |
| 8 | Application Date | | B | Bonder | | |
| 9 | From Date | | P | Project | | |
| 10 | To Date | | PM | PM | | |
| 11 | Prior Period Application | | ACC | Accountant | | |
| 12 | Work Retention % | | APM | Alternate PM | | |
| 13 | Materials Retention% | | ASC | Associate | | |
| 14 | Original Contract Amount | | DM | Development Manager | | |
| 15 | Net CO Change | | EX | Executive | | |
| 16 | Total Completed & Stored | | OP | Operations Manager | | |
| 17 | Work Retention | | S | Staff | | |
| 18 | Material Retention | | SU | Superintendent | | |
| 19 | Invoice Number | | PCO | Project Company | | |
| 20 | Contract Type | | IA | Invoice Address | | |
| 21 | ThisApplicationAmount | | FA | From Address | | |
| 22 | Sales Tax ID | | TA | To Address | | |
| 23 | Sales Tax Rate | | SA | Ship To Address | | |
| 24 | Sales Tax Amount | | SC | Source Contact | | |
| 25 | Sales Tax Prior Amount | | RP | Responsible Party | | |
| 26 | Project Description | | OA | Owner Approver | | |
| 27 | Project Source # | | ACM | Alternate CM | | |
| 28 | Customer ID | | | | | |
| 29 | Pay Application Description | | | | | |
| 30 | Parent Project Name | | | | | |

More information about where the Project Details information comes from and how it can be used in the PAPT is available in a file called *Pa-Papt Worksheet details.xlsx*.

To access PA-PAPT WorkbookDetails.xlsx:

1. Open ICTool on your computer. **Note:** if ICTool is not installed on your computer, see your System Administrator.
2. Select **Install Base Folder** from the View menu:



3. Navigate to **ImplementationResources | SOVPrinting** and find **Pa-Papt Worksheets details.xlsx**.
4. Open the file or copy the file to your computer to save it.

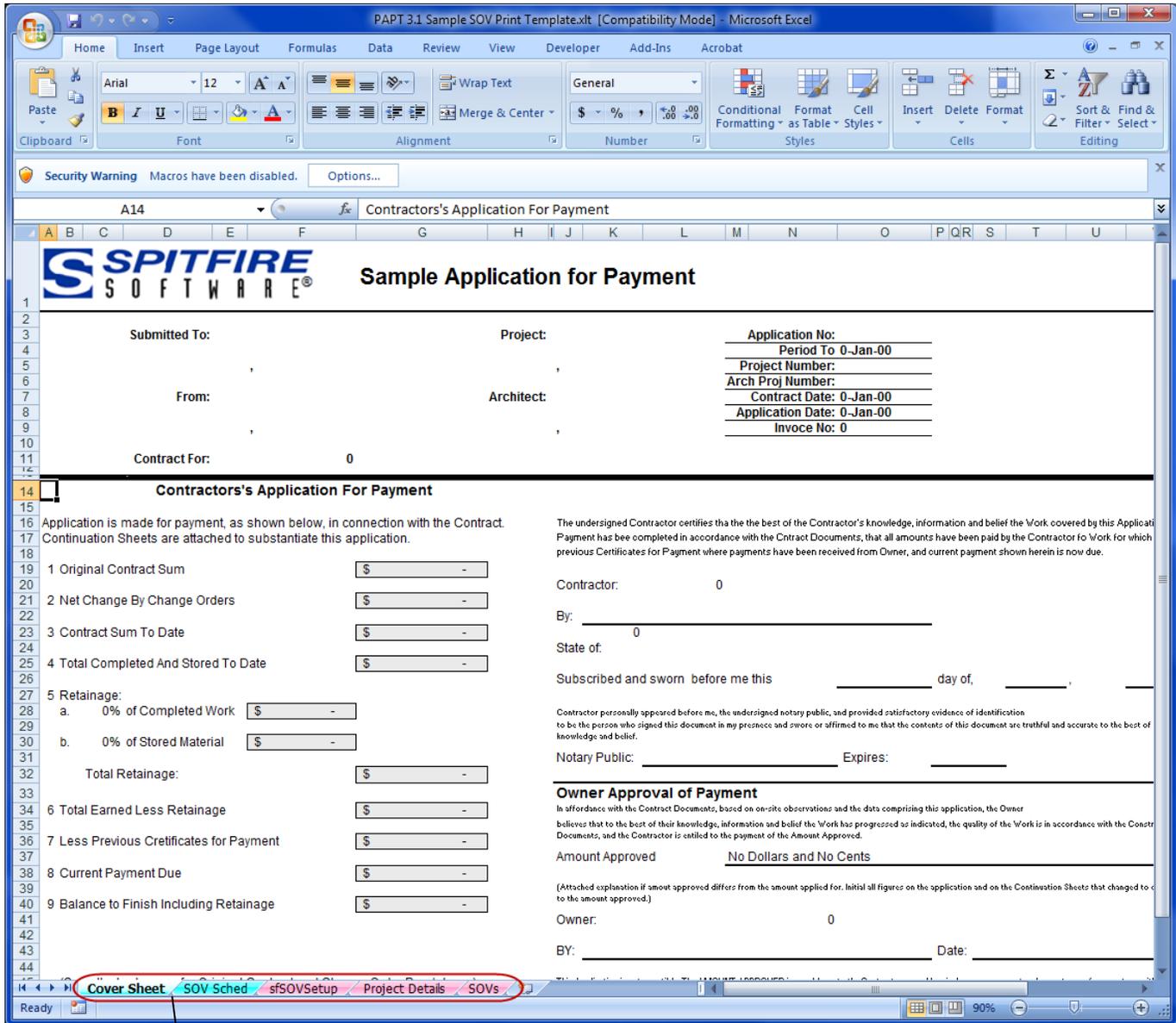
Combining the Print Format Worksheets with Output Worksheets

Whether you start with your existing output worksheets combined into a template workbook or with the print format worksheets, you need to end up with one file—your PAPT—that includes the sfSOVSetup, App Detail and Project Detail worksheets as well as all your output worksheets. Because the print format worksheets receive data from Spitfire, they are considered “receiving” worksheets.

- If you have existing output worksheets, copy the three print format worksheets onto your template workbook then save your resulting PAPT. Make sure it has the **.xltx** extension.
- If you do not have existing output worksheets, add as many output worksheets as needed to the workbook that contains the print format worksheets, then save your resulting PAPT. Make sure it has the **.xltx** extension. The output worksheets can look any way you want them to. Use your knowledge of Microsoft Excel plus your planning sheets to design your output worksheets.
- You may need to copy the App Detail (receiving) worksheet more than once if you want to hold your original SOV items, Change Order items and Headers/Subtotals on separate worksheets.
- Each worksheet on your PAPT should have its own distinct name.

Examples

The following pages show a few examples of PAPT's in terms of worksheets included.



- | | |
|------------------------|---|
| Cover Sheet | A formatted Pay Application cover sheet [output] |
| SOV Sched | A formatted SOV items schedule [output] |
| sfSOVSetup | The Setup instruction sheet |
| Project Details | General project data [receiving] |
| SOVs | All SOV data, including Change Orders and Headers/Subtotals (a renamed App Details worksheet) [receiving] |

The screenshot shows an Excel spreadsheet with the following content:

APPLICATION AND CERTIFICATION FOR PAYMENT AIA DOCUMENT G702 Page 1 of 2 Pages

OWNER: PROJECT: APPLICATION NUMBER: 0
 INVOICE NUMBER: 0
 APPLICATION DATE: 0-Jan-00

CONTRACTOR: ARCHITECT: PERIOD FROM: 0-Jan-00
 PERIOD TO: 0-Jan-00

PROJECT NO:
 CONTRACT NUMBER: 0
 CONTRACT DATE: 0-Jan-00

CONTRACTOR'S APPLICATION FOR PAYMENT

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown herein is now due.

CONTRACTOR: _____
 By: _____ Date: _____

State of: _____ County of: _____
 Subscribed and sworn to before me this _____ day of _____ 2009
 Notary Public: _____

My Commission expires: _____

CERTIFICATE FOR PAYMENT

In accordance with the Contract Documents, based on on-site observations and the data comprising the application, the Architect certifies to the Owner that to the best of the Architect's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

AMOUNT CERTIFIED . . . No Dollars and No Cents

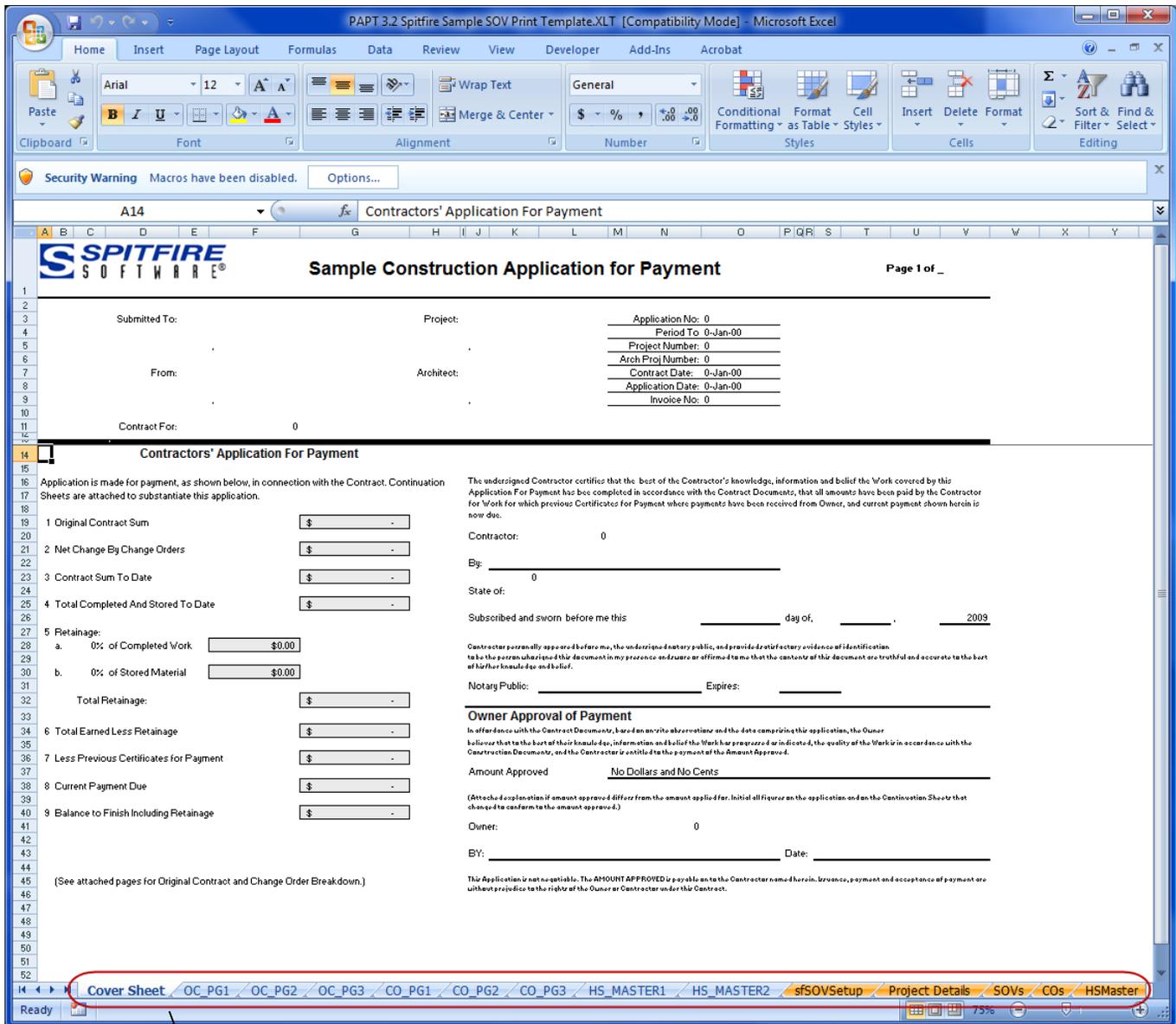
(Attach explanation if amount certified differs from the amount applied. Initial all figures on this Application and on the Continuation Sheet that are changed to conform with the amount certified.)

ARCHITECT: _____

At the bottom of the spreadsheet, a red circle highlights the sheet tabs: **G702**, G703, Lien Retention, sfSOVSetup, Project Details, and App Detail.

| | |
|------------------------|---|
| G702 | A formatted sheet called G702 [output] |
| G703 | A formatted sheet G703 [output] |
| Lien Retention | A formatted "Continual Release of Lien and General Release" page [output] |
| sfSOVSetup | The Setup instruction sheet |
| Project Details | General project data [receiving] |
| App Details | All SOV data, including Change Orders and Headers/Subtotals [receiving] |

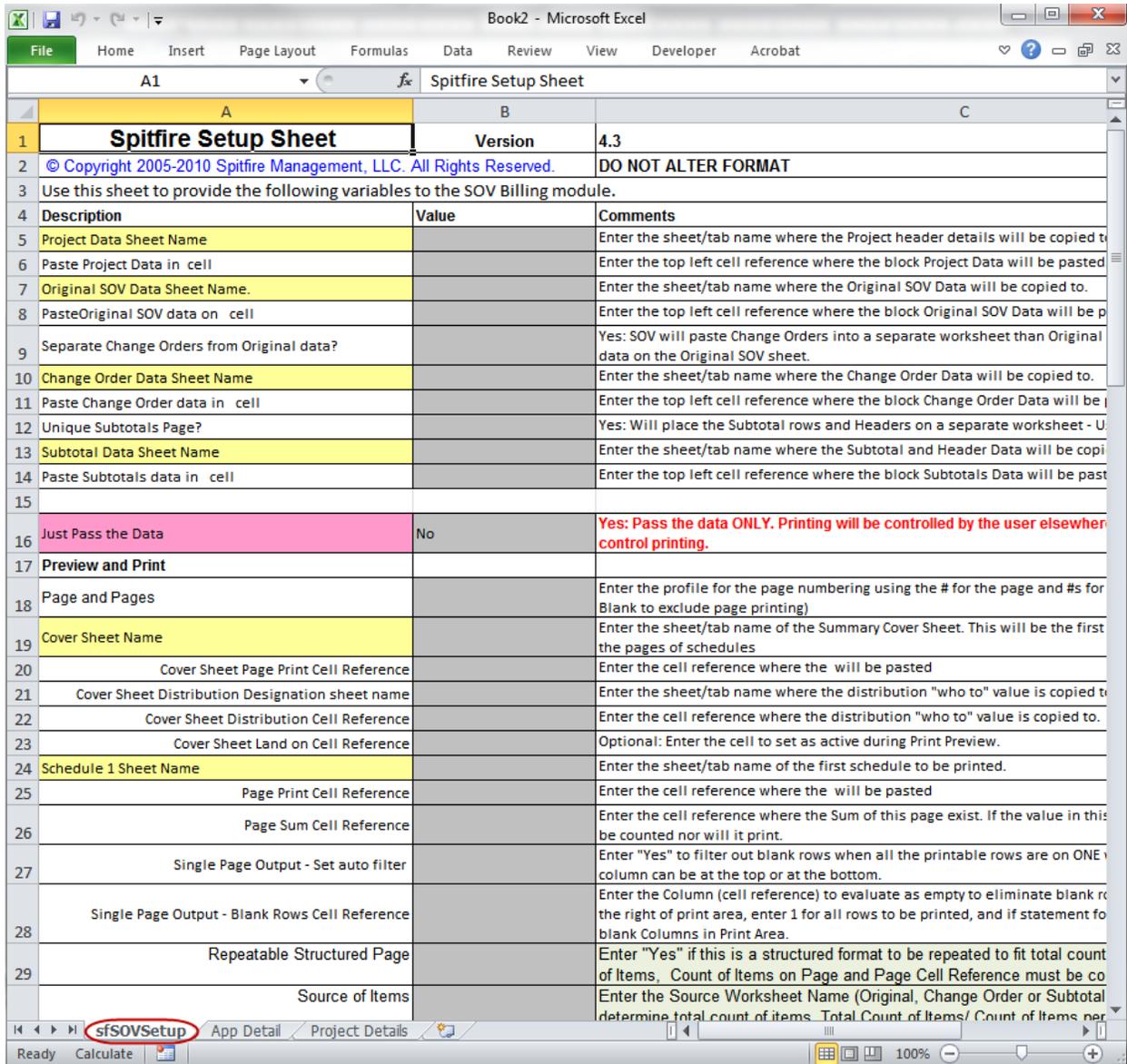
Note: the examples above and on the previous page use an unstructured worksheet (SOV Sched and G703 respectively) to hold SOV items, whereas the example on the next page uses eight structured worksheets to hold and display the SOV items by type as well as a summary page with Header and Subtotal data.



| | |
|------------------------|--|
| Cover Sheet | A formatted Pay Application cover sheet [output] |
| OC_PG1 | A formatted first page of the Original Contract schedule [output] |
| OC_PG2 | A formatted second page of the Original Contract schedule [output] |
| OC_PG3 | A formatted third page of the Original Contract schedule [output] |
| CO_PG1 | A formatted first page of the Change Order schedule [output] |
| CO_PG2 | A formatted second page of the Change Order schedule [output] |
| CO_PG3 | A formatted third page of the Change Order schedule [output] |
| HS_MASTER1 | A formatted first page of the Header/Subtotals schedule [output] |
| HS_MASTER2 | A formatted second page of the Header/Subtotal schedule [output] |
| sfSOVSetup | The Setup instruction sheet |
| Project Details | General project data [receiving] |
| SOVs | Data for Original SOV items (a renamed App Details worksheet) [receiving] |
| COs | Data for Change Order items (a renamed App Details worksheet) [receiving] |
| HSMaster | Data for Headers and Subtotals (a renamed App Details worksheet) [receiving] |

PAPT Setup

The setup instructions for your PAPT are entered in the sfSOVSetup worksheet. This worksheet must be included in your PAPT.



- Fill out this setup worksheet as follows.

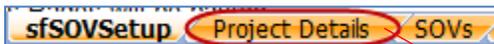
Your Input

TIP

The examples shown here correspond to the [PAPT shown](#) on page 20.

5. Project Data Sheet Name

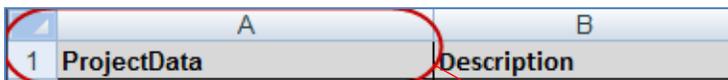
Indicate the receiving worksheet that will hold your global project information (i.e., data that is not line item specific.) Normally this is the Project Details worksheet. Enter **Project Details** or the name of your renamed worksheet in the Value column. For example,



| Description | Value |
|-------------------------|-----------------|
| Project Data Sheet Name | Project Details |

6. Paste Project Data in *Project Details* cell

Notice that the name of your Project Data worksheet entered in row five is now used in the description. In the Value column enter the cell reference that represents the top-left corner where the block of data copied from the Project Details worksheet should be copied. For example,



| | |
|--|----|
| Paste Project Data in Project Details cell | A1 |
|--|----|

7. Original SOV Data Sheet Name

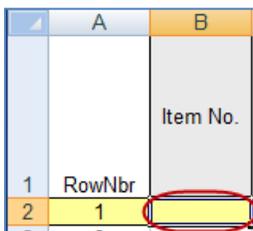
What did you name the worksheet (originally App Details) that will hold original contract/SOV items? In the Value column enter the name of this worksheet. For example,



| | |
|-------------------------------|------|
| Original SOV Data Sheet Name. | SOVs |
|-------------------------------|------|

8. Paste Original SOV data in *SOVs* cell

Notice that the name of your Original SOV Data worksheet entered in row seven is now used in the description. In the Value column, enter the cell reference that represents the top-left corner where the SOV data should be copied to on the SOV Data worksheet. For example,



| | |
|-------------------------------------|----|
| PasteOriginal SOV data on SOVs cell | B2 |
|-------------------------------------|----|

9. Separate Change Orders from Original Data?

This is a simple Yes or No answer. Does your PAPT include different App Detail worksheets for original SOV items and for Change Order items? If so, the answer is Yes. A Yes answer will cause the SOV Billing module to write the Change Orders to a different worksheet. For example,

| | |
|--|-----|
| Separate Change Orders from Original data? | Yes |
|--|-----|

10. Change Order Data Sheet Name

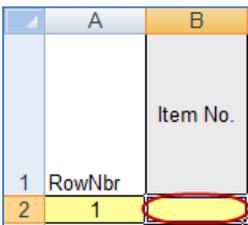
If your answer to the previous question is No then leave this Value column blank. If your answer to the previous question is Yes, then enter the worksheet name (originally App Details) that will hold Change Order items. For example,



| | |
|------------------------------|-----|
| Change Order Data Sheet Name | COs |
|------------------------------|-----|

11. Paste Change Order data in COs cell

Notice that if you entered a Change Order Data Sheet name in row ten, it is now used in the description. In the Value column enter the cell reference that represents the top-left corner where the Change Order data should be copied to on the Change Order Data Sheet. For example,



| | |
|-------------------------------------|----|
| Paste Change Order data in COs cell | B2 |
|-------------------------------------|----|

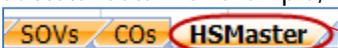
12. Unique Subtotal Page?

If you do not use Headers and/or Subtotals in your Spitfire SOV workbook, just leave the Value blank and skip to "16. Just Pass the Data". If you do use Headers and/or Subtotals AND your PAPT has a separate worksheet for the SOV Headers and Subtotals, enter Yes in the Value column. Otherwise, enter No. For example,

| | |
|------------------------|-----|
| Unique Subtotals Page? | Yes |
|------------------------|-----|

13. Subtotal Data Sheet Name

If your answer to the previous question is No then leave this Value column blank. If your answer to the previous question is Yes, then enter the worksheet name (originally App Details) to hold the SOV Header and Subtotal data. For example,



| | |
|--------------------------|----------|
| Subtotal Data Sheet Name | HSMaster |
|--------------------------|----------|

14. Paste Subtotals data in *HSMaster* cell

Notice that if you entered a Subtotal sheet name in row 13, it is now used in the description. In the Value column, enter the cell reference that represents the top-left corner where the Header and Subtotal data should be copied to on the Subtotal worksheet. For example,

| | A | B |
|---|--------|----------|
| 1 | RowNbr | Item No. |
| 2 | 1 | |

Paste Subtotals data in *HSMaster* cell B2

16. Just Pass the Data

If you enter No in the Value column, the rows after "Just Pass the Data" will tell the PAPT how to print the output worksheets that you have included. If, however, you do not want any pages to print automatically, but would rather give print control to the user, enter Yes in the Value column. If "Just Pass the Data" = Yes, a button will appear on the Project Summary/SOV Print form in the SOV workbook, allowing the user to open the Microsoft Excel printout and select which pages to print. For example,

Just Pass the Data Yes

If you enter Yes, you are finished with the sfSOVSetup worksheet. Save your PAPT. If you enter No, you need to fill out the remaining rows.

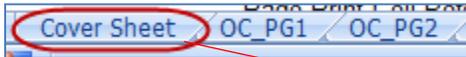
18. Page and Pages

Microsoft Excel controls the page count by worksheet. Therefore, if the PAPT has multiple output worksheets, the first printed page from each worksheet would start with page 1. Additionally, if multiple project partners are selected in the SOV Print Form, the cover sheet page numbering would reflect the distribution count and not the page count. To overcome this issue, the SOV Billing Module generates the page count on the fly. This is a “what you see is what you get” entry. It is defaulted to “Page # of #s Pages” where “#” is the page number and “#s” is the total page count. This follows the similar structure and outcome to the Headers and Footers entry in Microsoft Excel. Delete the default entry and leave it blank if you do not want page numbers on your printouts.

| | |
|----------------|--------------------|
| Page and Pages | Page # of #s Pages |
|----------------|--------------------|

19. Cover Sheet Name

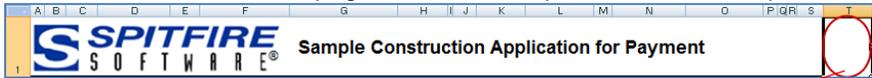
If you created an output worksheet for your cover sheet, enter this sheet/tab name in the Value column. If “Just Pass the Data” = No, this will be the first page printed. For example,



| | |
|------------------|-------------|
| Cover Sheet Name | Cover Sheet |
|------------------|-------------|

20. Cover Sheet Page Print Cell Reference

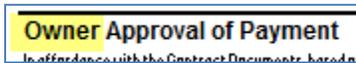
If the “Page and Pages” value is not blank, enter the cell reference on the cover sheet where the page format will be printed. For example,



| | |
|---------------------------------------|----|
| Cover Sheet Page Print Cell Reference | T1 |
|---------------------------------------|----|

21. Cover Sheet Distribution Destination Sheet Name

Most often this is the same worksheet name as the cover sheet name. It identifies which output worksheet will be updated with the SOV Billing distribution name, such as owner, contractor, architect, etc. For example,



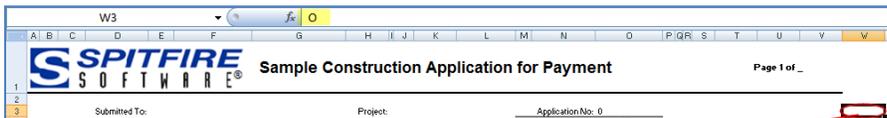
| | |
|---|-------------|
| Cover Sheet Distribution Designation sheet name | Cover Sheet |
|---|-------------|

TIP

You can place information on your output worksheets that will not get printed. One way to do this is to make the text the same color as the background (white).

22. Cover Sheet Distribution Cell Reference

Enter the cell that will be updated with the SOV Billing distribution name code. For example,



| | |
|---|----|
| Cover Sheet Distribution Cell Reference | W3 |
|---|----|

23. Cover Sheet Land on Cell Reference

Enter the cell reference that best positions your cover sheet for viewing whenever the print preview is selected from the SOV Print form in the SOV workbook. This cell will be guaranteed to be visible in print preview. For example,

Cover Sheet Land on Cell Reference | G36

24. Schedule 1 Sheet Name

What output worksheet should be displayed/printed after the cover? Enter this output worksheet name in the Value column. For example,

Schedule 1 Sheet Name | OC_PG1

25. Page Print Cell Reference

If the "Page and Pages" value is not empty, enter the cell reference on the first schedule output worksheet where the page format will be printed.

Page Print Cell Reference | J2

26. Page Sum Cell Reference

Pick a cell on the first output worksheet that would indicate if there is data on this schedule. This is usually a cell in a total row. How it works: If there is no SOV data, the total would be zero or blank. As such, the SOV Billing module would check the specified cell and, not finding data, would not print the schedule.

| | A | B | C |
|----|----|-----------------------------------|---|
| 34 | 23 | | |
| 35 | 24 | | |
| 36 | 25 | | |
| 37 | 26 | | |
| 38 | 27 | | |
| 39 | 28 | | |
| 40 | | Original Contract Page 2.1 Totals | |
| 41 | | Original Contract Totals | |

| | |
|-------------------------|-----|
| Page Sum Cell Reference | C40 |
|-------------------------|-----|

27. Single Page Output – Set AutoFilter

AutoFilter is an advanced Microsoft Excel function that allows you to choose specific rows for review from a group of rows on the worksheet. Spitfire uses this feature specifically with PAPT's that contain unstructured worksheets. Unstructured worksheets should be configured to handle more than the maximum number of SOV items ever to appear on a project. By deploying Microsoft Excel's AutoFilter based on the existence of amounts on each row, the output will automatically set the dimension of the worksheet to match the number of SOV items and remove all blank rows. (See page 33.) Enter **Yes** on the Value column if you want to filter out blank rows from the one printable worksheet. Enter **No** if you have several structured worksheets to accommodate more rows than fit on one printout page. For example,

| | |
|-------------------------------------|-----|
| Single Page Output - Set autofilter | Yes |
|-------------------------------------|-----|

28. Single Page Output – Blank Rows Cell Reference

Used with the prompt above this is the cell reference which identifies the column that is evaluated by the AutoFilter criteria. Spitfire defaults the AutoFilter criteria to only those rows containing actual values. Doing so eliminates all blank rows. For example,

TIP

You can hide the column that will be evaluated by the AutoFilter so that users do not see it. In addition, the AutoFilter criteria can be an actual number or a formula that returns either a number or a blank based on the existence of an amount in another cell on that row.

| | J | K | L |
|----|--------------|---------|---------|
| 1 | f 2 Pages | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | RETAINAGE | | Visible |
| 9 | (IF VARIABLE | Comment | 1 |
| 10 | RATE) | | 1 |
| 11 | | | 1 |
| 12 | | | 1 |
| 13 | 0.00 | | 1 |
| 14 | 0.00 | | 1 |
| 15 | 0.00 | | 1 |
| 16 | 0.00 | | 1 |
| 17 | 0.00 | | 1 |
| 18 | 0.00 | | 1 |
| 19 | 0.00 | | 1 |
| 20 | 0.00 | | 1 |
| 21 | 0.00 | | 1 |
| 22 | 0.00 | | 1 |
| 23 | 0.00 | | 1 |

Single Page Output - Blank Rows Cell Reference L8

Note: only Schedule 1 and Schedule 2 are AutoFilter capable.

29. Repeatable Structured Page

Enter “Yes” if this is a structured format to be repeated to fit the total count of rows. If you enter “Yes” then you must also enter the **Source of Items, Count of Items on Page** and **Page Cell Reference for initial row Item Number cells** (below).

| | |
|----------------------------|-----|
| Repeatable Structured Page | Yes |
|----------------------------|-----|

30. Source of Items

Enter the source worksheet name.

33. Schedule 2 Sheet Name etc.

What output worksheet should be displayed/printed after the first schedule? Enter this output worksheet name in the Value column then fill out the “Page Print Cell Reference,” “Page Sum Cell Reference,” “Single Page Output – Set autofilter,” and “Single Page Output – Blank Rows Cell Reference” rows as described above for your second schedule. For example,



| | |
|--|--------|
| Schedule 2 Sheet Name | OC_PG2 |
| Page Print Cell Reference | J2 |
| Page Sum Cell Reference | C40 |
| Single Page Output - Set autofilter | No |
| Single Page Output - Blank Rows Cell Reference | |

66. Prompt-To-Print options

For each of your output worksheets, enter “Yes” if you want to prompt the user to print the worksheet “on the fly.” In order to be printed, the worksheet requires a Schedule Sheet Name and a Page Sum Cell Reference, and the value in the Page Sum Cell Reference must be greater than zero. By default, this option is No, which means “do not prompt.”

| Prompt-To-Print options | |
|-------------------------|-----|
| Schedule 4 Sheet Name | Yes |

Complete the sfSOVSetup worksheet using the references from the PAPT to identify additional schedules.

Remember to save often while entering your information and when you are finished.

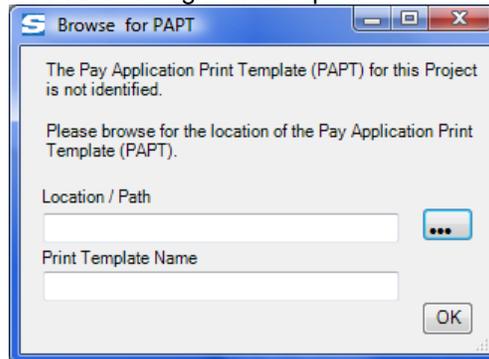
Testing and Mapping

Once you have entered all your information in the sfSOVSetup worksheet and have included all corresponding worksheets in your PAPT, you are ready to test the PAPT.

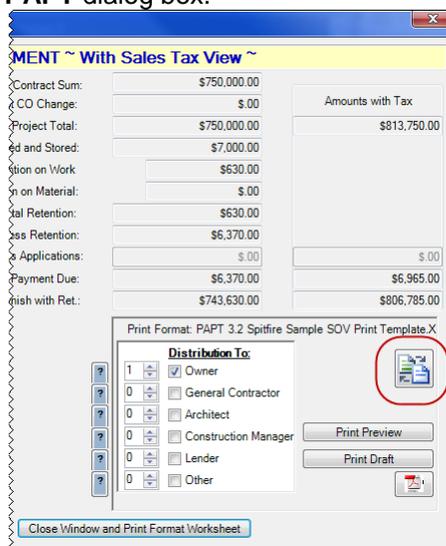
Unless you already have mapped cell references in your output worksheets, your PAPT will likely include static data. After verifying that your output looks the way you want it to, you will map the correct cell references so that your PAPT can correctly access the data from your Spitfire Pay Application and corresponding SOV workbook.

To test your PAPT:

1. Open a Pay Application document.
2. Open the SOV workbook for that document.
3. Select **SOV Print** from the **Spitfire SOV** ribbon. The **Browse for PAPT** dialog box will open.



Note: if the **Browse for PAPT** dialog box does not appear and instead the SOV Print Form opens, click the “Change Print Format” button on the SOV Print form to open the **Browse for PAPT** dialog box.



- On the **Browse for PAPT** dialog box, browse for your newly created PAPT file, then click **OK**.

Note: If the SOV Billing Module experiences errors opening the PAPT, it may identify the errors in a message box. If the error is not disabling, it may be able to complete the opening but not complete the data transfer. If the error is disabling, it will abort the opening and the print distribution area of the SOV Print form will be disabled. If you experience an error, review your work and correct the cause of the error.

- If there are no errors, your output workbook will open. This workbook contains your formatted output worksheets along with data. You may need to find it on your task bar. Look for your PAPT filename then click to bring the workbook to the foreground.

The screenshot displays a Microsoft Excel spreadsheet titled "PAPT 3.2 Spitfire Sample SOV Print Template". The main content is a "Sample Construction Application for Payment" form. The form is divided into several sections:

- Submitted To:** Adventure Works, 450 Shattuck Ave South, Portland, OR 98777
- From:** Spitfire Construction, 80 Business Park Drive STE 104, Armonk, NY 10504-2222
- Project:** 98777
- Application No.:** 1
- Period To:** 27-Feb-09
- Project Number:** AD0002
- Arch Proj Number:** 0
- Contract Date:** 0-Jan-00
- Application Date:** 27-Apr-09
- Invoice No.:**

The form also includes a table for payment details:

| Item | Amount |
|--|---------------|
| 1 Original Contract Sum | \$ 750,000.00 |
| 2 Net Change By Change Orders | \$ - |
| 3 Contract Sum To Date | \$ 750,000.00 |
| 4 Total Completed And Stored To Date | \$ 7,000.00 |
| 5 Retainage: | |
| a. 9% of Completed Work | \$ 630.00 |
| b. 9% of Stored Material | \$ 0.00 |
| Total Retainage: | \$ 630.00 |
| 6 Total Earned Less Retainage | \$ 6,370.00 |
| 7 Less Previous Certificates for Payment | \$ - |
| 8 Current Payment Due | \$ 6,370.00 |
| 9 Balance to Finish Including Retainage | \$ 743,630.00 |
| 10 Applicable Sales Tax | \$ 595.00 |

The form also includes a section for "Owner Approval of Payment" with a signature line for Chris Demo and a date line. A red arrow points to the "PAPT 3.2 Spit..." tab in the task bar.

Look at the output workbook name. Notice that it is similar to your PAPT filename but ends with a number, like 1. Also notice that it is NOT a template but an ordinary worksheet with the extension of **.xlsx**.

- Examine each of your worksheets by clicking on tabs on the bottom of the workbook.

- Keep the output workbook open while you map cells or make other changes to your PAPT as described in the next section.

Connecting the Dots

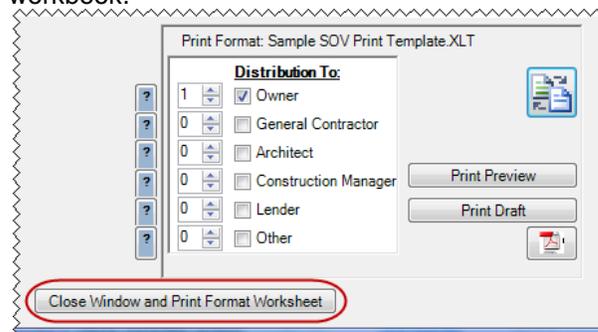
While you have your output workbook open, you will make changes to your PAPT. This process is easier if you have two monitors.

To modify your PAPT and map data:

- Open your PAPT file in Microsoft Excel outside of Spitfire.
- Wherever you have static data in your output worksheets, delete the data, position the cursor on the corresponding variable data cell and then enter the address for the corresponding data. This is usually a “point and shoot” exercise. Select the variable cell, enter “=” (the equal key), then use the mouse to change to the output worksheet (in Spitfire), navigate to and highlight the target cell, then press the Enter key.
 - Most of the output Cover page data will be found on the Project Detail worksheet.
- When you are satisfied with your changes, save your PAPT file (the file that you opened outside of Spitfire). Remember that you can go back to it and make further changes as needed.
- In Spitfire, click the **Close Window and Print Format Workbook** button on the SOV Print form to close your output workbook.

TIP

A way to verify that you have opened the template file is to check the name in the title bar. It should have the .xltx extension. If it has the PAPT name with a 1 suffix, then you have opened a new workbook from the template instead. Close it and open the template as described.



- You can also close the SOV workbook and Pay Application document.

Repeat the process of using your PAPT from an SOV workbook, checking the resulting output workbook, and making necessary changes to the PAPT.

Fine-tuning

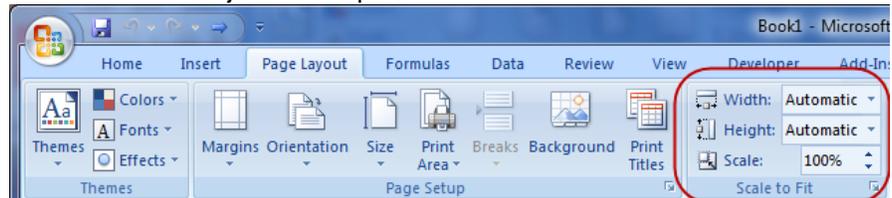
Unstructured Output Worksheets

Many output workbooks consist simply of a cover page and one schedule. Construction of that schedule requires additional configuration within the PAPT.

Steps to consider:

1. Create the output worksheet with the desired columns and titles starting with the first row and working down. As you transition from column labels and titles to item rows, remove any blank rows. Microsoft Excel prefers no blank rows when using the AutoFilter option.
2. Create more than ample line item rows. If a typical SOV workbook has 50 items, then double the number of probable rows. If you are consistently up in the hundreds of items, add 100 rows to the average SOV item count. More is better, and more will not dramatically impact the operation or performance, although reasonableness should prevail.
3. Add the page total rows at the end of the item rows. Enter the appropriate sum formula.
4. Map each cell in the first item row on the output worksheet to the first row and appropriate column on the receiving worksheet (for example, the App Detail worksheet). Review each cell reference. Since the next step copies the reference down to the next row, make sure the reference is structured to change when copied. For example, a reference of `=A2` will always point to column A on row 2 regardless of where you copy it. Remove the `$` from either the column or row and a copy will maintain the "Relative Position". Therefore, if the cell holding the reference formula `=A2` is 5 columns to the right and 3 rows below, and you copy and paste the reference formula to another location, the cell you paste the formula in will reference a cell 5 columns to the left and 3 rows above. Since we are copying down, remove any `$` in front of the numbers. `=$A2` is the objective.
5. Depending on the output worksheet format, highlight the entire first item row starting where the mapping begins and copy it down to the last row before the page total rows. Repeat as necessary copying the mapped references for each column to cover all the item rows.

6. Configure the Page Setup.
 - o Using the Microsoft Excel Page Layout options, set the orientation, margins, and scaling to get all printable columns on one page width. Using the “Scale to Fit” options, set the Width to 1 and set the Height to a number equal to or greater than the number of pages needed to accommodate the desired print area. If you leave the Height as Automatic, Microsoft Excel will adjust the output.



- o On the sheet tab, set the print area to include all printable columns and rows 1 through to the last output page total row.
 - o Select the rows to repeat at top to include the label and title rows.
 - o Page order should be down, then over.
7. Set up the AutoFilter column. The objective here is to select a column where the cell content is dependent on the existence of an SOV item. One example would be the “Schedule of Values” column. If the SOV item exists then one can assume the “Schedule of Values” column would have an entry. Whereas, the column containing “This Application Work Completed” amount may or may not have an amount. In some cases, you may elect to reference a no-print column. This column could force a minimum number of blank rows to be printed on the first page, then use a formula to check the existence of cell content to see if it should add additional rows creating additional pages.
 8. As a final step be sure to include the page subtotal rows as “always print” rows.

Cascading Output Worksheets

Print formats can use multiple, very similar worksheets that cascade item rows from one worksheet to the next at the time of creation.

How it works is not all that complicated and could be the best solution for your print format requirements.

Steps to consider:

1. Create the schedule for original items with the required column labels and titles. Include [page total rows](#) (see page 35) and enough item rows so that the worksheet prints as one page on the desired paper size.

2. Copy this worksheet within the PAPT as needed to cover possible items. Give each worksheet a distinct name.
3. In a similar manner, create the output schedule worksheet for Change Order items and copy that worksheet as needed within the PAPT. Remember to give each worksheet a distinct name.
4. If desired, create the output worksheets for Headers and Subtotals also.
5. Map each output worksheet to the source (receiving) print format worksheet. The item rows mapping for the original SOV items goes from the first output worksheet to the second output worksheet to the third, etc. For example, if items 1 to 25 are on schedule 1, items 26 to 50 are on schedule 2, and so on. Use the same process for cascading Change Order and other schedules if applicable.
6. The order in which the output worksheets are printed is defined on the sfSVOSetup worksheet.
7. An important component of this setup is the use of the “Page Sum Cell Reference” where only those output worksheets meeting the criteria will be printed. For example, if you have three original SOV item schedules (listed as Schedule 1, 2 and 3 on the sfSOVSetup worksheet) in the PAPT, and the SOV application has only enough items to fill one output page, then the original SOV item schedules 2 and 3 would not print. Yet, if the Change Order schedules (listed as Schedule 4 and Schedule 5 on the sfSOVSetup worksheet) were to follow and Change Orders did exist on this SOV application, then the appropriate number of Change Order schedules would print.

Output Page Total Rows

Often referred to as “footers,” these rows usually display the sum of the amounts in the rows above. These total rows may separate original items from Change Order items as subtotals while other rows may include all items. The difficulty is determining which item row to include where. What tools are available to help in identifying which rows should be in which totals? Microsoft Excel offers a “sumif” function that evaluates each row for a user-defined condition and, if the condition is satisfied, the target amount is included in the sum. You can use this function to evaluate and distinguish the item row as an original item, Change Order, Header or Subtotal row.

Steps to consider:

1. Take a moment and review the columns in the App Detail worksheet. Column AH is defined as **Row Type**. When populated by the SOV Billing module, the values in this column will range from 0 to 6 for each item row, as described on the next page.

- 0 = regular item row
- 1 = change order row
- 2 = header row
- 3 = subtotal row
- 4 = reserved
- 5 = distributed change order row
- 6 = special sales tax row

2. On the output worksheet, create a non-print column titled **RowType** and map the output worksheet item row cell for this column to the corresponding **Row Type** column on the receiving worksheet.
3. Copy the mapping through to the last item row before the totals rows.
4. In your subtotal of items row (on your output worksheet) change each cell formula to read **=sumif(Range,Criteria,SumRange)** where *Range* is the RowType column inclusive of item row 1 through item row xx (xx being 1 less than the totals row); *Criteria* is input as "0" including the ""; and *SumRange* is the current column inclusive of item row 1 through item row xx. For example,

| | | C40 | | | | |
|----|----|-----------------------------------|--------------|------------|-------------|---|
| | A | B | C | D | E | F |
| 38 | 27 | | | | | |
| 39 | 28 | | | | | |
| 40 | | Original Contract Page 2.1 Totals | \$750,000.00 | \$1,250.00 | \$14,250.00 | |
| 41 | | Original Contract Totals | \$750,000.00 | \$1,250.00 | \$14,250.00 | |

5. In your subtotal of Change Order items row (on your Change Order output worksheet), change each formula to read **=sumif(Range,Criteria,SumRange)**. Use the same Range and SumRange as in the Original Items for this column. Change the Criteria to 1. For example,

| | | C38 | | | |
|----|--|-------------------------------|--|--|--|
| 25 | | | | | |
| 26 | | | | | |
| | | Change Orders Totals Page 3.1 | | | |
| | | Change Order Grand Totals | | | |

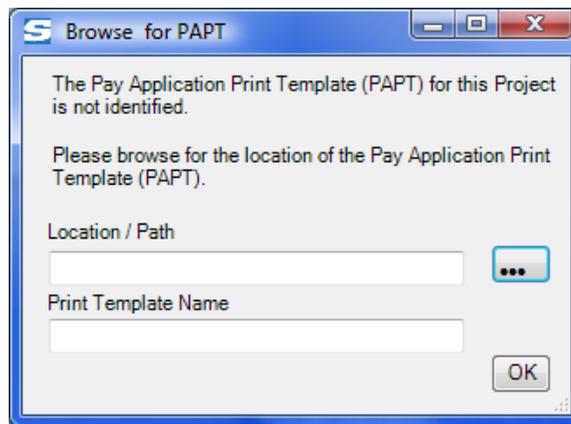
6. If you create Subtotal rows, then you need to exclude amounts in these rows from the grand total. In your Grand Total row change the formula to read **=sumif(Range,Criteria,SumRange)**. Use the same Range and SumRange as in the original items for this column, but change the criteria to read "<2". This eliminates all other types of row (Subtotal, Distributed Change Orders, Sales tax, etc.) from the sum.

Data Flow

You will want to ensure that your output worksheets contain the correct data from your Pay Application and project. In order to test this, you will need a project with Pay Application data. If necessary, create a “dummy” project and enter data in the SOV workbook before testing your PAPT.

To test data flow in the PAPT:

1. Open an SOV workbook. This workbook should have enough data to test all the output worksheets.
2. Select **SOV Print** from the Spitfire Menu. The output workbook created from your PAPT should open.
Note: if you get the Browse for PAPT dialog box instead, browse for your PAPT file and click .

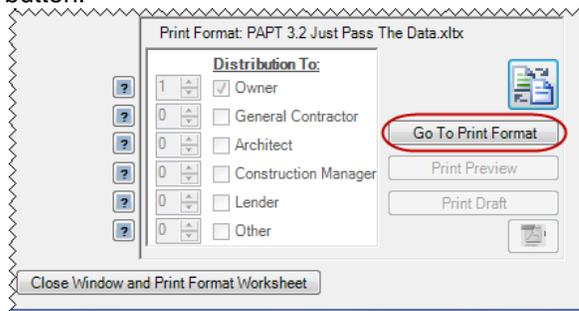


3. Check all data in the output worksheets. If you find incorrect data, you should [open the PAPT file](#) in a separate Microsoft Excel session (as described on page 32) and make your changes directly on the PAPT.

Printing

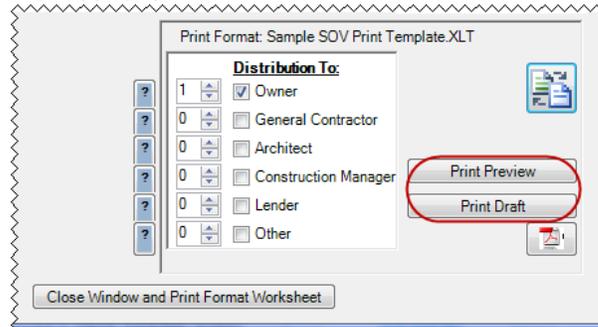
To print or preview your printouts:

1. If your PAPT includes the instruction to “[Just Pass the Data](#)” (see page 24), your SOV Print form shows the **Go to Print Format** button.



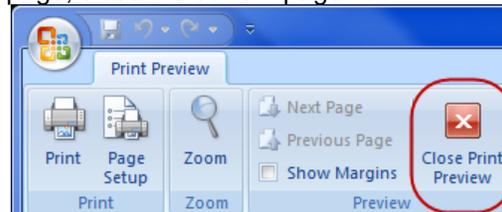
Click the button to go to the output workbook and print / preview whatever sheets you want using regular Microsoft Excel options.

2. If your PAPT does *not* include the instructions to “Just Pass the Data”, your SOV Print form shows the **Print Preview** and **Print Draft** buttons.



Click the **Print Preview** button to see what your output sheets will look like when printed or the **Print Draft** button to print your application.

Note: if you look at the Print Preview, the first page (normally your Cover sheet) will be the only one visible. To see the next page, close the current page:



Things to Consider

- Each schedule identified in the sfSOVSetup worksheet is evaluated for preview/print in sequential order, for example, Cover, Schedule 1, Schedule 2, Schedule 3, Schedule 4, etc.
- Only those worksheets which meet the sfSOVSetup criteria are printed. A non-print schedule will not prevent subsequent schedules from printing.
- If a schedule is designed to have multiple pages it must support the AutoFilter feature. ([See page 33.](#))
- Page and Page counts are not required on each schedule. Leaving the Page Print Cell Reference blank will prevent page printing on that schedule; however, the SOV Billing module will count each schedule being printed.

Uploading Your PAPT Into Spitfire

When the PAPT is ready for use, you can upload it into your system so that it is available to all who wish to print from the SOV workbook.

To upload your PAPT into Spitfire:

1. In sfPMS, go to the Templates tool on either the Manage or System Admin Dashboard.
2. Select **PAPT** as the Type and **Pay Application** as the Doc Type. If there are any PAPT's already in Spitfire, they will be listed. You can have multiple PAPT's in your system; users will be able to select the one they want to use at any particular time.

| TEMPLATES | | | | | | | | |
|-------------|----------------------|-------|------|-------------|----------|---------|----------|--------------|
| NAMES LIKE: | <input type="text"/> | TYPE: | PAPT | | | | | |
| DOC TYPE: | Pay Application | | | | | | | |
| | Doc Type | Name | Type | Description | Division | Doc Ref | Customer | Project Type |

3. Click to add a new row.
4. In the **Name** field, enter a name for your PAPT.
5. Enter a **Description** for this PAPT. The description will help users identify it as the one they want later.

| TEMPLATES | | | | | | | | |
|-------------|----------------------|------------|------|-------------------------|----------|---------|----------|--------------|
| NAMES LIKE: | <input type="text"/> | TYPE: | PAPT | | | | | |
| DOC TYPE: | Pay Application | | | | | | | |
| | Doc Type | Name | Type | Description | Division | Doc Ref | Customer | Project Type |
| | Pay Application | Structured | | AIA-Like Print Template | | | | |

6. Click to accept your information.
7. Click to save the row. A will appear on your row.
8. Click to open the Template Maintenance dialog box.
9. Click to browse for your **PAPT** file on your computer. (It should have an .xltm extension).
10. Click to select your file.
11. Back on the Template Maintenance dialog box, click .
12. When the Template Maintenance dialog box says "Upload successful," click to close it.
13. Back on the Templates tool, click to save it again.

Saving the Print Output

When you create print output of your SOV workbook, should you save that output? There is no definitive answer to this question. Since all project data is copied to the output workbook, the output workbook could be saved as a stand-alone workbook, separate from Spitfire.

Some Considerations

- The output can always be recreated from the original Pay Application document using the data stored in the SQL database. Saving the output may be redundant.
- Saving the output saves both the data and the workbook increasing the file size and storage requirements. For example, a typical output workbook without data is 110K in size and with data, 128K in size (roughly 18K of data for 55 line items). While 128k is miniscule, the storage requirements to save the workbook with the data are seven times greater.
- If the SOV Billing module controls the print flow, attempting to recreate such from a saved output may be troublesome. Page counts, AutoFilter for blank rows, printing of empty schedules are just a few considerations.
- Another option is to print the output to a PDF file using the PDF button on the SOV Print form and save the file on your computer:

The screenshot shows the 'Project Summary' window for 'NORTHERN LIGHTS'. The window is divided into several sections:

- Project Information:** Project: Northern Lights Office Bldg, Project No: GC003, 1000 Electric Lane, Portland, OR, 10504.
- Financial Summary:** Original Contract Sum: \$750,000.00, Net CO Change: \$0.00, Project Total: \$750,000.00, Total Completed and Stored: \$1,250.00, Retention on Work: \$125.00, Retention on Material: \$0.00, Total Retention: \$125.00, Total Earned Less Retention: \$1,125.00, Less Previous Applications: \$0.00, Current Payment Due: \$1,125.00, Balance to Finish with Ret.: \$748,875.00.
- Contract Details:** Application No: 1, Invoice No: (blank), App. Date: 3/10/2010, From: 11/6/2006, Contract Date: 11/5/2004, To: 11/30/2006, Contract For: General Construction, Biller: Elizabeth Keyser-Rubble.
- Submitted To:** Northern Lights, 1234 River Gorge, Roseburg, OR, 97470.
- From:** Spitfire Construction, 80 Business Park Drive STE 104, Armonk, NY, 10504-2222.
- Architect:** York Architects, Inc., 9812345-1987, 555 Madison Ave., New York, NY, 10012.

The 'Distribution To' dialog box is open, showing a list of roles with checkboxes: Owner (checked), General Contractor, Architect, Construction Manager, Lender, and Other. A 'Print' button is circled in red in the bottom right corner of the dialog box.

You could then attach the PDF file to the Pay Application document and add it to the Spitfire Catalog. The PDF file could then be printed on demand without launching the SOV workbook.

Note: if you click the PDF button when the Pay Application is Invoiced, the PDF file will be automatically attached to the Pay Application document as well as saved on your computer.