

Viewing Changes through sfChest



This technical white paper is designed for Spitfire Project Management System users. It describes sfChest, Spitfire's change history and search tool.

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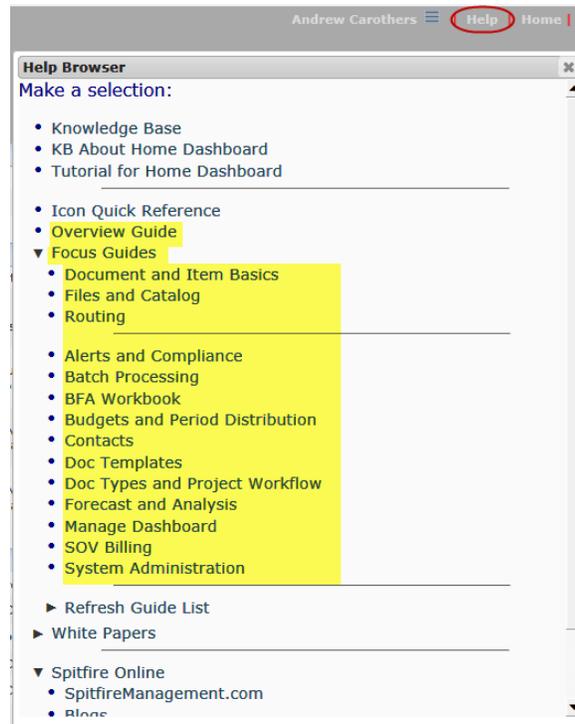
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Introduction

This technical white paper describes sfChest, Spitfire's change history and search tool. sfChest can be used to see when changes were made and by whom to documents, Contacts and rules.

This technical white paper assumes you have a basic understanding of sfPMS and its dashboards, as described in the [Overview Guide](#). Documentation referred to within this technical white paper can be found on the Spitfire Help menu.

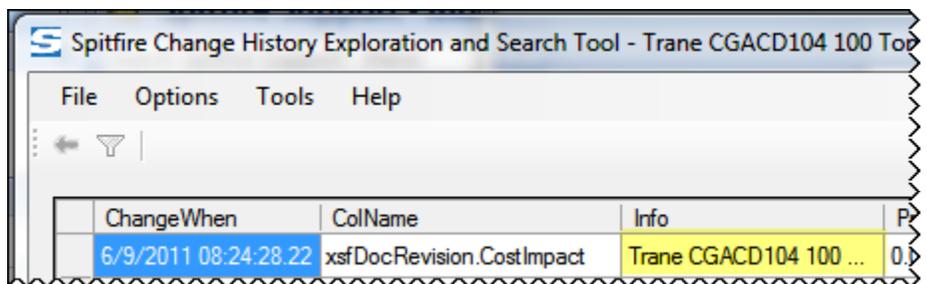


Note: aside from a few updated pictures, the documentation in this guide is the same as the documentation in the V4.4 technical white paper. Also, icons are shown in size 16 only; larger icons are similar but not identical.

Concepts

Audit trails are very useful in project management systems. Audit trails are records that show who accessed the system and what changes were made by that person during a given period of time. sfPMS has always provided an audit trail for document changes, but sfPMS V4.0 introduced the sfChest tool as an easier and more powerful way to access data. In V4.1, the scope of changes shown in sfChest was expanded to include changes made to Contacts and rules.

Some of the information displayed in sfChest are GUIDs. GUIDs are Globally Unique Identifiers—unique numbers used to identify components, entries or users in the system. When possible, GUIDs are translated into what they identify. For example, instead of displaying the GUID **ed022618-0fac-4195-8a18-2969a99875d1** as the document in the Info column, sfChest displays the document's title:



The screenshot shows a software window titled "Spitfire Change History Exploration and Search Tool - Trane CGACD104 100 Top". The window has a menu bar with "File", "Options", "Tools", and "Help". Below the menu bar is a toolbar with a left arrow and a funnel icon. The main area contains a table with the following data:

ChangeWhen	ColName	Info	P
6/9/2011 08:24:28.22	xsfDocRevision.CostImpact	Trane CGACD104 100 ...	0.3

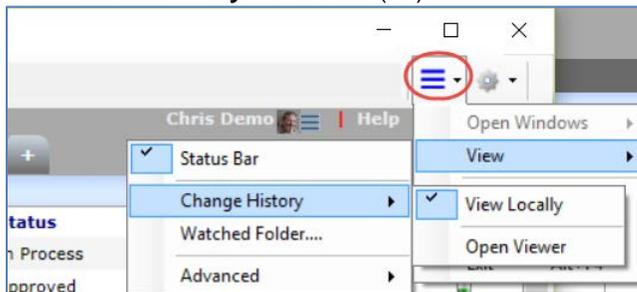
Especially for documents, information from many data tables will likely be displayed. The various data tables can be thought of as parts of a document. ([See the Appendix](#) on page 19 for information on how tables correlate to aliases).

Installing sfChest

sfChest needs to be installed on your workstation before you try to open it.

To install sfChest on your workstation:

1. Select **Change History** from Spitfire's View menu.
2. Select **View Locally** to check it (on).

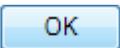


TIP

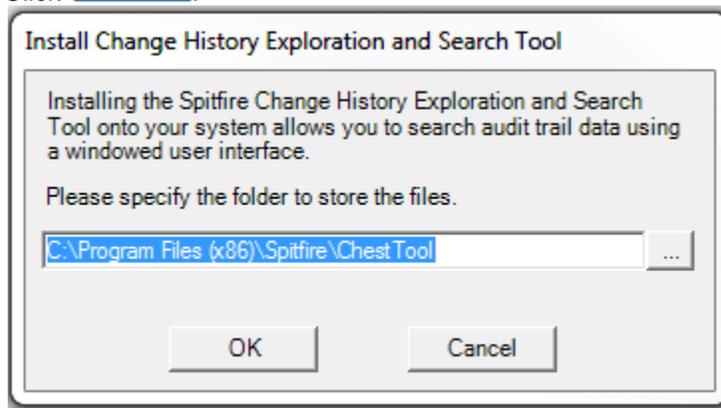
If you select the **Open Viewer** option, the sfChest window will open to show all (up to two thousand) changes made to Contacts, documents and rules within the default timeline. We suggest you then use filters or change the timeline, as explained in this technical white paper, to limit your results.

You will be asked to specify a folder for the sfChest files, although a default location will be offered.

3. (optional) Change the default folder.



4. Click



Accessing sfChest

sfChest can be opened from wherever you see the  icon. The  icon also opens sfChest. The information displayed in the main sfChest window depends on where you opened sfChest. If there have been no changes, sfChest will indicate **Nothing found**

From Contacts

You can open sfChest from the Contacts Dashboard, either from the list of Contacts or the list of Companies.



CONTACT LIST		
Name	Company	Email
Jack McSwag	Spitfire Construction	support@spitfireconstru
Jason Sunderson		
Chris Demo		

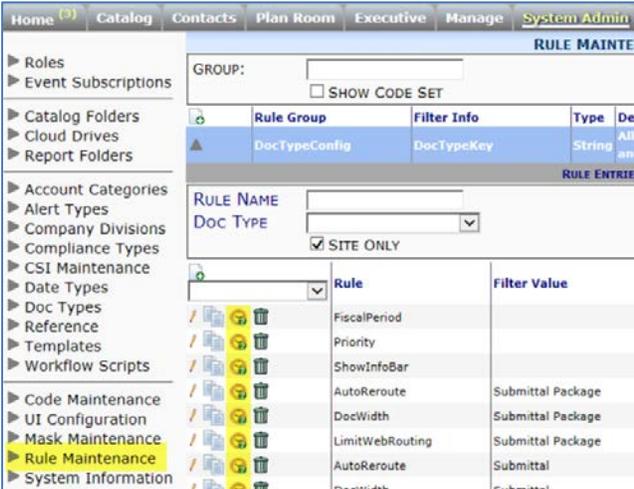


COMPANY LIST		
Name	Phone	Fax
Northwind Computers	(555) 555-1212	(555) 5
The Phone Company - Kent		
Trey Processing		
Margie's Travel		

- If opened through , sfChest displays changes made **by** the Contact.
- If opened through , sfChest displays changes made **to** the Contact record.

From Rules Maintenance

You can open sfChest from the Rules Maintenance tool's grid view. The  icon appears on rows that were added by a user.



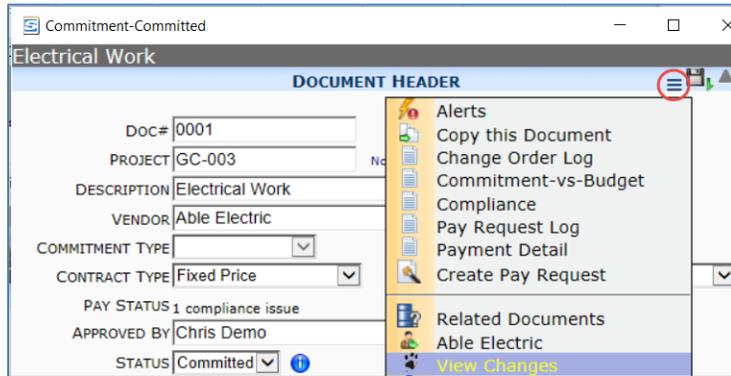
Rule Group	Filter Info	Type	Des
DocTypeConfig	DocTypeKey	String	Allo and

Rule	Filter Value
FiscalPeriod	
Priority	
ShowInfoBar	
AutoReroute	Submittal Package
DocWidth	Submittal Package
LimitWebRouting	Submittal Package
AutoReroute	Submittal
DocWidth	Submittal

When opened, sfChest displays changes made to the rule value (row).

From a Document

You can open sfChest from a document's Options menu.



When opened, sfChest displays changes made to the document.

The sfChest Window

The top screenshot shows a window titled "Spitfire Change History Exploration and Search Tool - by Chris Demo". It displays a table with 13 rows of change history for "16000 Electrical". The columns are ChangeWhen, ColName, Info, PriorValue, NewValue, and UserName. A warning at the bottom states "Warning: only partial results could be retrieved".

ChangeWhen	ColName	Info	PriorValue	NewValue	UserName
5/31/2011 14:43:16.28	xsfUser.Email	Jason Sunderson	jtaffler@spitfiremanagement.com	jsunderson@ableelectric.com	Chris Demo
5/31/2011 10:38:28.67	xsfRoute.RouteID	16000 Electrical	(record added)	60A2E81E-02E8-46EB-B585-08A5DD20F928	Chris Demo
5/31/2011 10:38:28.67	xsfRoute.DocMasterKey	16000 Electrical	<null>	225E6875-810A-4E53-A556-1A6AEB65836F	Chris Demo
5/31/2011 10:38:28.67	xsfRoute.UserKey	16000 Electrical	<null>	->Elizabeth Keyser-Rubble	Chris Demo
5/31/2011 10:38:28.67	xsfRoute.Stage	16000 Electrical	<null>	1	Chris Demo
5/31/2011 10:38:28.67	xsfRoute.Sequence	16000 Electrical	<null>	2	Chris Demo
5/31/2011 10:38:28.67	xsfRoute.GroupNo	16000 Electrical	<null>	0	Chris Demo
5/31/2011 10:38:28.67	xsfRoute.FromUser	16000 Electrical	<null>	->Chris Demo	Chris Demo
5/31/2011 10:38:28.67	xsfRoute.Status	16000 Electrical	<null>	P	Chris Demo
5/31/2011 10:38:28.67	xsfRoute.UserDocEdit	16000 Electrical	<null>	0	Chris Demo
5/31/2011 10:38:28.67	xsfRoute.SendAlerts	16000 Electrical	<null>	0	Chris Demo
5/31/2011 10:38:28.67	xsfRoute.ReplyTo	16000 Electrical	<null>	0	Chris Demo

The bottom screenshot shows a window titled "Spitfire Change History Exploration and Search Tool - Submittal 0001". It displays a table with 13 rows of change history for "Submittal 0001". The columns are ChangeWhen, ColName, Info, PriorValue, NewValue, and UserName. A status bar at the bottom indicates "Found 29 changes".

ChangeWhen	ColName	Info	PriorValue	NewValue	UserName
6/6/2011 11:20:47.97	xsfRoute.Viewed	Submittal 0001	<null>	Jun 6 2011 11:20AM	Chris Demo
5/26/2011 13:31:57.88	xsfRoute.Viewed	Submittal 0001	<null>	May 26 2011 1:31PM	Chris Demo
5/25/2011 11:30:18.07	xsfDocSession.LastSave	Submittal 0001	May 25 2011 11:04AM	May 25 2011 11:30AM	Chris Demo
5/25/2011 11:30:18.07	xsfDocSession.ApproxDeltas	Submittal 0001	19	20	Chris Demo
5/25/2011 11:30:18.07	xsfDocSession.ApproxSaveTx	Submittal 0001	4	5	Chris Demo
5/25/2011 11:04:09.57	xsfDocSession.LastSave	Submittal 0001	May 25 2011 11:03AM	May 25 2011 11:04AM	Chris Demo
5/25/2011 11:04:09.57	xsfDocSession.ApproxDeltas	Submittal 0001	18	19	Chris Demo
5/25/2011 11:04:09.57	xsfDocSession.ApproxSaveTx	Submittal 0001	3	4	Chris Demo
5/25/2011 11:03:52.20	xsfDocSession.LastSave	Submittal 0001	May 25 2011 11:00AM	May 25 2011 11:03AM	Chris Demo
5/25/2011 11:03:52.20	xsfDocSession.ApproxDeltas	Submittal 0001	15	18	Chris Demo
5/25/2011 11:03:52.20	xsfDocSession.ApproxSaveTx	Submittal 0001	2	3	Chris Demo
5/25/2011 11:00:34.07	xsfDocSession.LastSave	Submittal 0001	May 25 2011 10:59AM	May 25 2011 11:00AM	Chris Demo

- **ChangeWhen** – indicates the date and time when the change was made.
- **ColName** – indicates the *table.field* in which the value is stored in sfPMS.
- **Info** – indicates related information (such as Contact record, rule name or Doc No) about where the change took place.
- **PriorValue** – indicates the prior value for the field. If there was no prior value, <null> appears instead. Values preceded by ->> indicate that a GUID has been replaced by the information it identifies.
- **New Value** – indicates the value after the change. Values preceded by ->> indicate that a GUID has been replaced by the information it identifies.
- **UserName** – indicates who made the change.

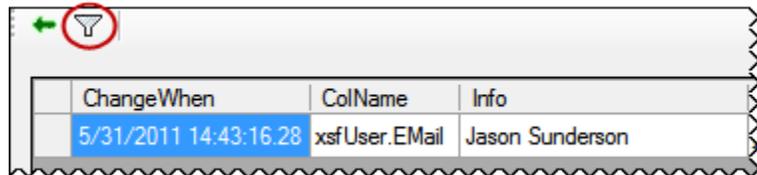
Right Click Options

When you right-click your mouse while in a particular column and row on the sfChest window, drop-down options appear.

ChangeWhen

ChangeWhen	ColName	Info	PriorValue	
6/6/2011 11:20:47.97	xsfRoute.Moved	Submittal	0001	<null>
5/26/2011 13:31:57			0001	<null>
5/25/2011 11:30:18			0001	May 25 2011 11:04AM
5/25/2011 11:30:18			0001	19
5/25/2011 11:30:18				4/27/2011 11:20 AM
5/25/2011 11:04:09.57	xsfDocSession.LastSave	Submittal		6/6/2011 11:20 AM

- **Include in Filter** – filters your results on the selected date and time. To clear the filter, click .



Note: to return to a previous filter, click .

- **Use as End Time** – displays results up to the selected date and time.
- **Use as Start Time** – displays results starting from the selected date and time.
- **Current Selection Timespan** – indicates the start and end times bookending the displayed results.

TIP

You can view other timespans also. [See page 12.](#)

ColName

ColName	Info	PriorValue
xsfUser.Email	Jason Sunderson	itaffler@spitfiremanagement.com
xsfRoute.I		

- **Include in Filter** – filters your results on the selected table.field.
- **Include Table in Filter** – filters your results on the selected table.
- **Exclude Column Name** – removes the selected *table.field* from the displayed results.

- **Exclude Table** – removes all rows with the selected table from the displayed results.
- **Exclude this database record** – removes all results associated with the Contact/document/rule from the sfChest display.
- **New Window with Changes to this specific value...** – opens another sfChest window with only the results associated with the *table.name* for the specific piece of the data (e.g., a specific route, document item or Contact attribute.) For example, you can use this option to see the different statutes on a routing record over time.
- **New Window with Changes to this record...** – opens another sfChest window with only the results associated with the specific piece of the data (e.g., a specific route, document item or Contact attribute.)

Info

Info	PriorValue	NewValue
Jason Sunderson	jtaffler@spitfiremanagement.com	jsunderson@
16000 E		

Include in Filter

Open Document

New window with Changes to this document...

- **Include in Filter** – filters your results on the selected Contact/document/rule.
- **Open Document** – opens the selected document (if applicable).
- **New window with Changes to *this document*...** – opens another sfChest window with changes to the selected Contact/document/rule.

PriorValue, NewValue

There are no right-click options on these columns.

UserName

UserName
Chris D
Chris D
Chris D
Chris D

Include in filter

Exclude User

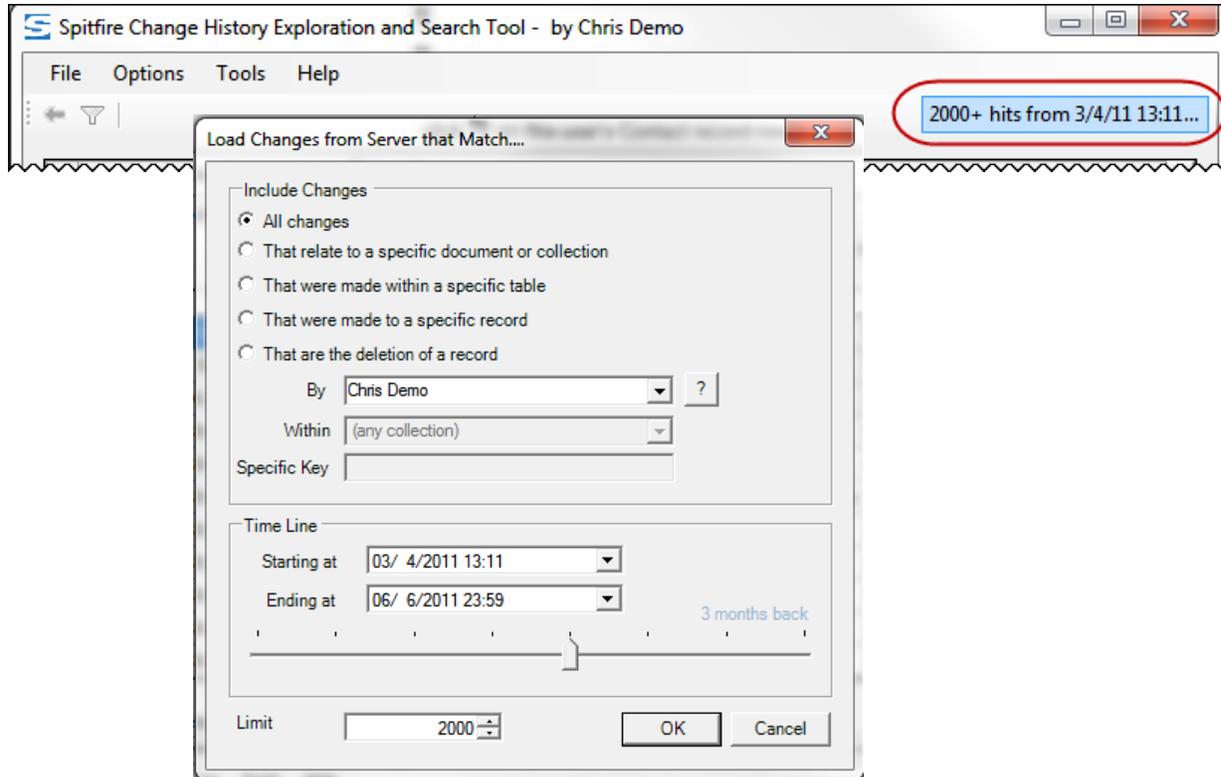
New window with Changes by this user...

- **Include in Filter** – filters your results on the selected user.
- **Exclude User** – removes the selected user from the displayed results.
- **New Window with Changes by this user** – opens another sfChest window with changes made by the selected user.
Note: the results on this new window are the same as when you click  on this user's Contact record row.

Selection Criteria Options

You can change the selection criteria being used in the sfChest window.

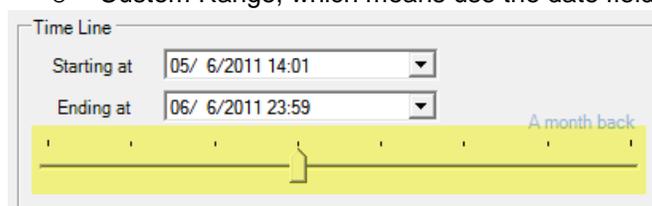
- Click the information above the results to change criteria.



Time Line

The pop-up window that appears is used mostly to change the start and end points for the results. You can do this in two ways:

- Use the slider to change how far back the results should start. Your choices on the slider are
 - 24 hours back
 - 48 hours back
 - A week back
 - A month back
 - 3 months back
 - A year back
 - 2 years back
 - Custom Range, which means use the date fields.



- Click the drop-down arrow at the Starting at and/or Ending at fields to select dates from a calendar. The time will remain the same unless you change it.

The screenshot shows a 'Time Line' section with two date pickers. The 'Starting at' field is set to '03/ 4/2011 13:10' and has a red circle around its drop-down arrow. The 'Ending at' field is set to 'March, 2011' and has a calendar pop-up. The calendar shows the month of March 2011 with the 4th highlighted. Below the calendar, there is a 'Limit' field and a 'Today: 6/6/2011' indicator with a red circle around it.

Note: when you change the start and/or end dates, the slider will automatically move to the last (custom) position.

Limit

You can indicate the maximum number of resulting rows to display in the main sfChest window.

- Type a number or use the spinners to change the **Limit**.

The screenshot shows a 'Limit' field with a text input containing the number '2000' and a spinner control to its right.

Include Changes

You can indicate that the results on the sfChest window should include

- All changes,
- Changes that relate to a specific document or collection (indicated as a GUID on the **Specific Key** field or selected from the **Within** drop-down),
- Changes that were made within a specific table (indicated as a GUID on the **Specific Key** field or selected from the **Within** drop-down),
- Changes that were made to a specific record (indicated as a GUID on the **Specific Key** field),
- Deletions of a specific record (indicated as a GUID on the **Specific Key** field),

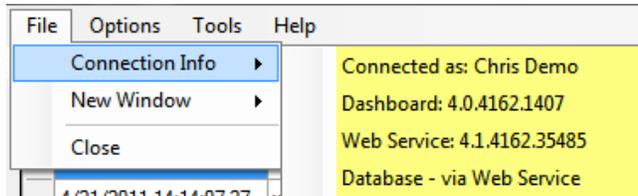
You can also indicate if you want to change the user responsible for the changes.

The screenshot shows the 'Include Changes' dialog box. It has five radio button options: 'All changes' (selected), 'That relate to a specific document or collection', 'That were made within a specific table', 'That were made to a specific record', and 'That are the deletion of a record'. Below these are three fields: 'By' with a dropdown set to 'Chris Demo', 'Within' with a dropdown set to '(any collection)', and 'Specific Key' with an empty text input.

sfChest Menus

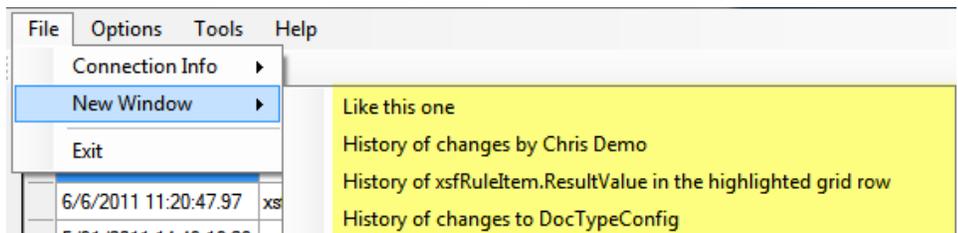
File

Connection Info



This option displays information about the current connection.

New Window



This option opens another sfChest window based on your selection:

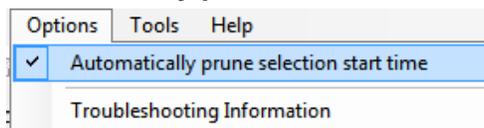
- **Like this one** – a duplicate of the sfChest window already open.
- **History of changes by user** – only changes made by the indicated user.
- **History of ColName in the highlighted grid row** – only changes made to the specified *table.field*.
- **History of changes made to Contact/document/rule** – only changes made to the specified Contact/document/rule.

Close/Exit

This option closes the sfChest window.

Options

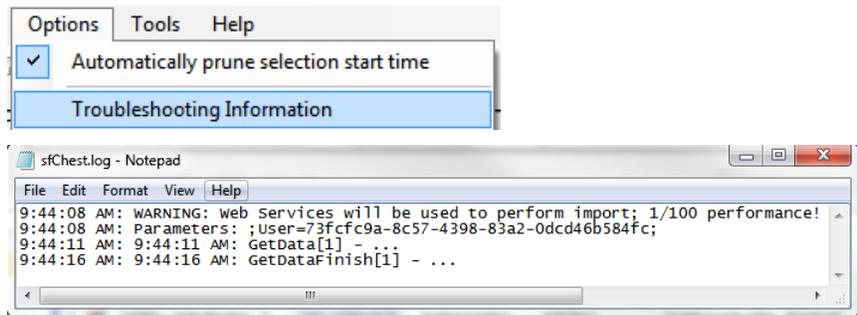
Automatically prune selection start time



This option sets the start date/time to match the earliest actual result within the default 3 month range. Pruning the start date/time (for example, changing from 3 months ago to 2 weeks ago) makes subsequent searches faster.

Note: this option is ON by default.

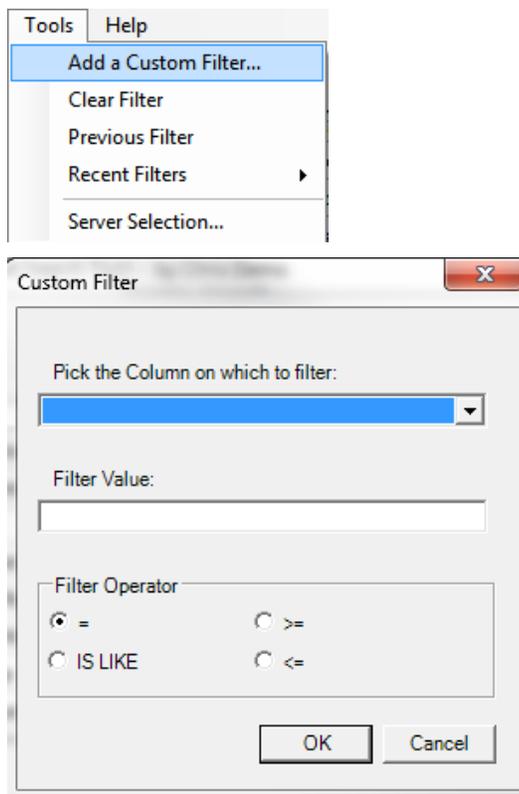
Troubleshooting Information



This option opens Notepad with information that can help troubleshoot or debug a problem.

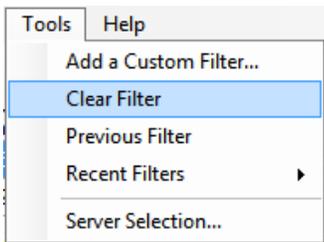
Tools

Add a Custom Filter...



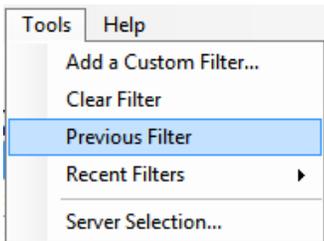
This option allows you to select a **Column** (from a drop-down list), enter a **Value** and select an **Operator** to create a custom filter for the sfChest window.

Clear Filter



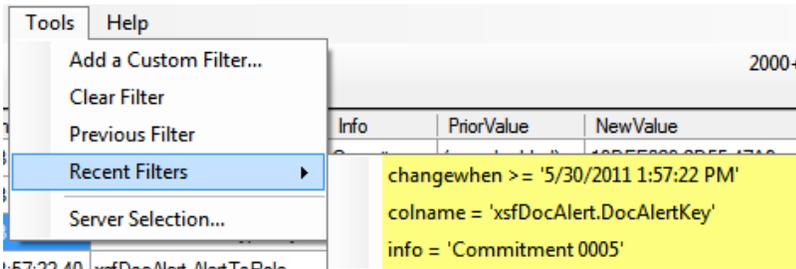
This option clears all filters. It is equivalent to using the  icon.

Previous Filter



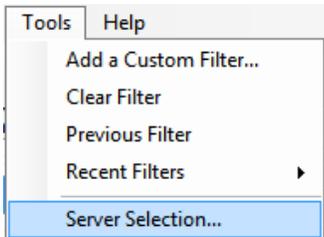
This option uses the previous filter, if applicable, to display results. It is equivalent to using the  icon.

Recent Filters



This option displays the last 12 Filters used on this sfChest window.

Server Selection

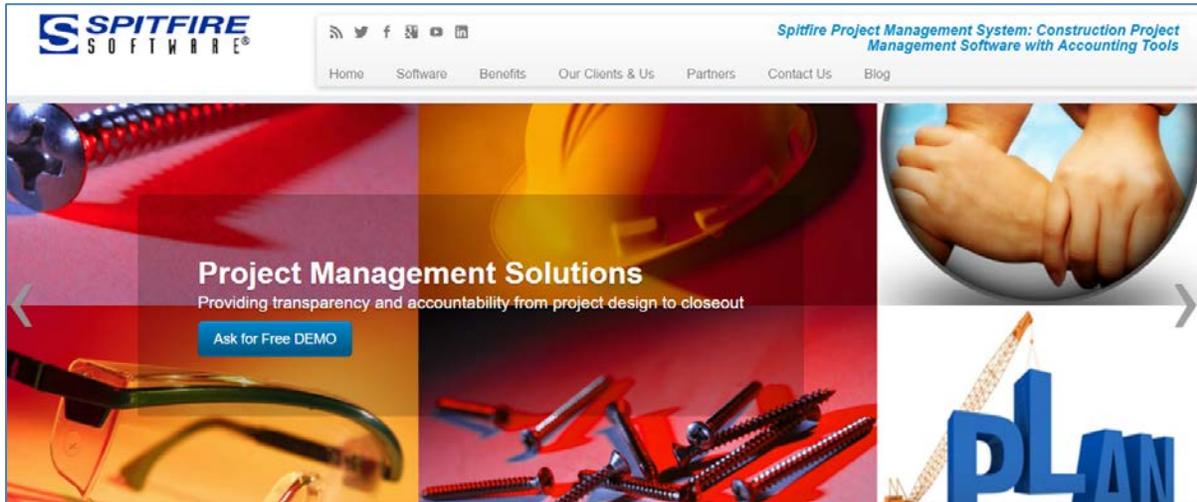


This option opens the [criteria selection pop-up window](#), described on page 12.

Help

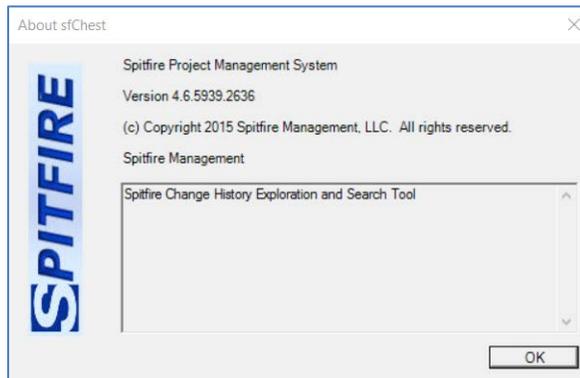
Spitfire Website

This option takes you to the Spitfire website.



About

This option displays information about your version of sfChest.



FAQ

Q: How can there ever be times when the “prior” value of a given change doesn’t exactly match the “new” value of the preceding change.

A: Spitfire’s web application audits all changes made through the user interface, but if a change is made through a custom save extension or backend SQL access, there may be a gap in the audit trail.

Q: How long is audit data kept?

A: Currently, forever. Or until manually pruned through SQL commands.

Q: How many entries are there?

A: Likely millions.

Q: How much space is used?

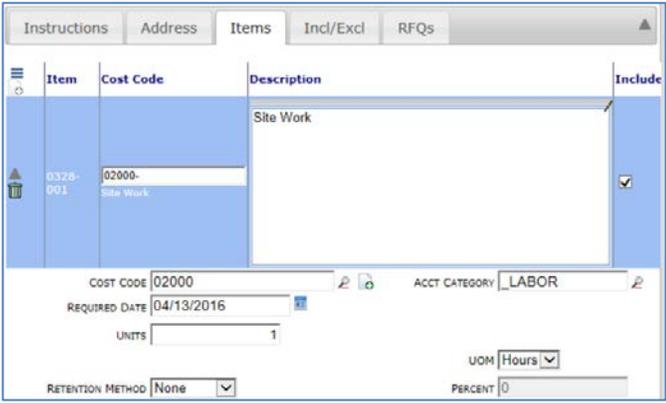
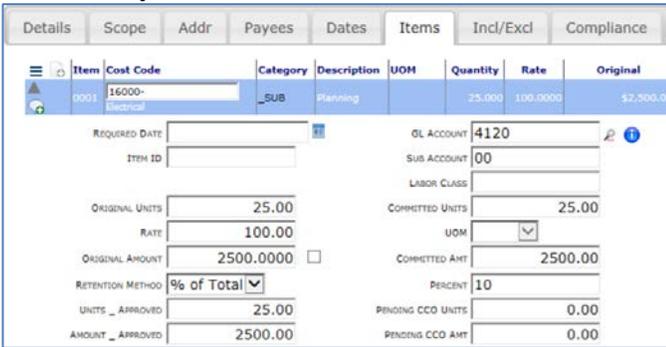
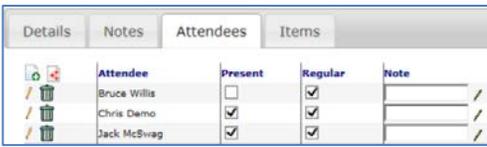
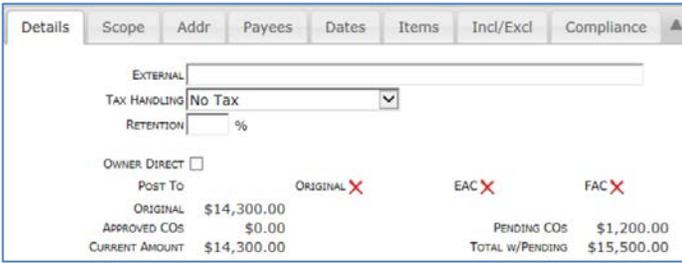
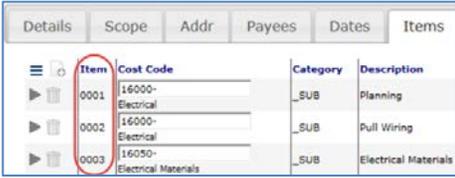
A: That depends on the size of the prior and new values. Approximately 250,000 records can be stored per GB.

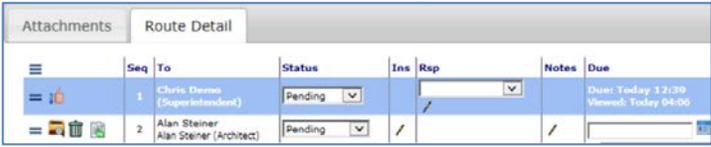
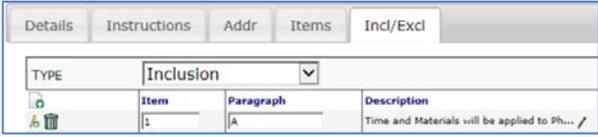
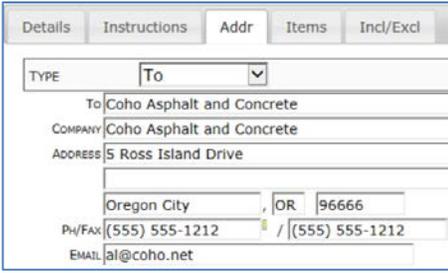
Q: How can I determine my daily audit trail volume?

A: Run the Work Accomplished Summary report for a given day (or week, etc.) and check the Audited Data Changes value on the report.

Appendix

Table in sfChest	Alias	Refers to
xsfComment	CommentList_	<p>Remarks</p>
xsfFileAttach	DocAttachedFile_	<p>Information related to files and documents attached to a document.</p>
xsfCompliance	DocCompliance_	<p>Information on a document's Compliance tab</p>
xsfDocDates	DocDates_	<p>Information on a document's Dates tab</p>
xsfDocHeader	DocHeader_	<p>Information on a document's Document Header</p>
xsfAttribute	DocInstruction_	<p>Information on a document's Attribute/Instruction tab</p>

<p>xsfDocItem</p>	<p>DocItem_</p>	<p>Basic information on a document's Items tab</p> 
<p>xsfDocItemTask</p>	<p>DocItemTask_</p>	<p>More financially-oriented information on a document's Items tab</p> 
<p>xsfDocMeetingAttendee</p>	<p>DocMeetingAttendee_</p>	<p>Information on a document's Attendee/Liens tab</p> 
<p>xsfDocRevision</p>	<p>DocRevision_</p>	<p>Information (sometimes computed dynamically) on a document's Details tab</p> 
<p>xsfDocRevItem</p>	<p>DocRevItem_</p>	<p>The Item number</p> 

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<p>xsfInclusion</p>	<p>Exclusion_ Inclusion_ LegalAtt_ OtherClause_</p>	<p>Information on a documents Incl/Excl tab</p>  <table border="1"> <thead> <tr> <th>Item</th> <th>Paragraph</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>A</td> <td>Time and Materials will be applied to Ph...</td> </tr> </tbody> </table>	Item	Paragraph	Description	1	A	Time and Materials will be applied to Ph...															
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<p>xsfDocAddr</p>	<p>FromAddr_ ToAddr_</p>	<p>Information on a document's Addr tab</p>  <p>TYPE: To</p> <p>To: Coho Asphalt and Concrete</p> <p>COMPANY: Coho Asphalt and Concrete</p> <p>ADDRESS: 5 Ross Island Drive</p> <p>Oregon City, OR 96666</p> <p>PH/FAX: (555) 555-1212 / (555) 555-1212</p> <p>EMAIL: al@coho.net</p>																					