

## S2T Salesforce to HP TRIM Integration



## S2T USG

### FuseIT Contact Details

Fuse Information Technologies Ltd  
7 Forests Road  
Stoke, Nelson  
New Zealand 7011  
☎ +64 3 547 8200  
✉ +64 3 547 8209

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### 1 Introduction

This document describes how to use S2T, the Salesforce to HP TRIM integration from FuseIT. For information about installing or updating S2T please see the document, S2T\_Installation\_Document.pdf.

S2T is a one way integration that lets Salesforce users push record attachments and chatter documents to HP TRIM. Pushing a document means it is stored in both HP TRIM and Salesforce.

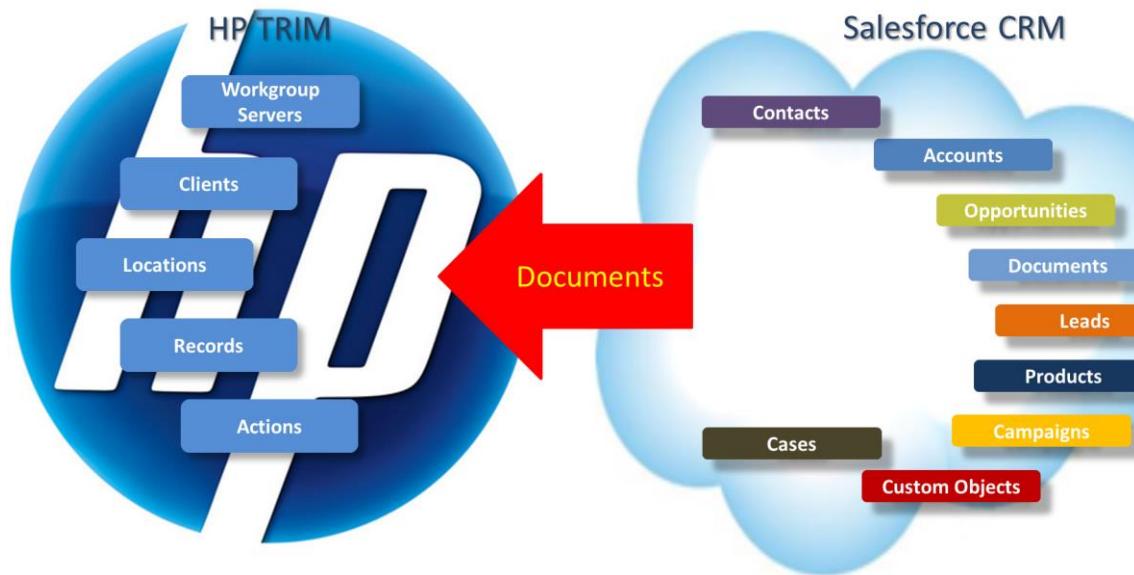


Figure 1 – Document Direction

FuseIT have two other products in this space that allow documents to be sent in both directions (bidirectional).

- [T4S](#) is Salesforce centric and pushes documents to and pulls documents from HP TRIM using HP TRIM Web Services and an intermediate Windows server. Documents can be stored in HP TRIM and Salesforce, or only in TRIM and link referenced from Salesforce. T4S can send larger files than S2T which, because of Salesforce imposed limits to callout requests, has file size constraints.
- [TRIM4S](#) is HP TRIM centric and adds document links to Salesforce that allow users to access those files from Salesforce. This makes HP TRIM the single repository for documents.

The differences between products can be seen on the FuseIT [website](#). This document provides details of S2T only.

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### 2 S2T Features and Constraints

The S2T connector adds advanced record and data residency capabilities to Salesforce.com by integrating with HP TRIM. S2T is a native Salesforce.com application that allows users to push individual documents to HP TRIM at the click of a button. S2T utilises standard HP TRIM Web Services.

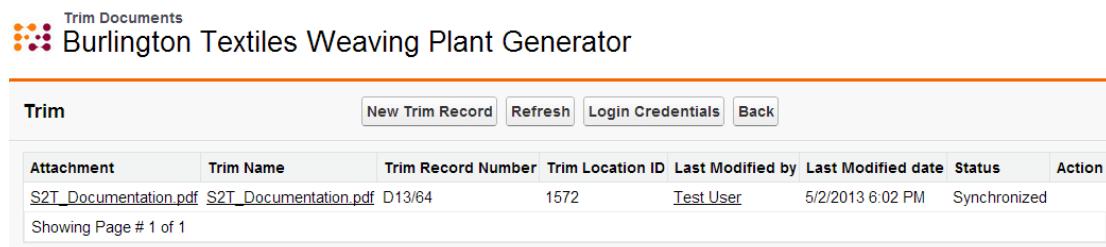
The document handling and governance features of S2T include:

- Onshore record retention solution.
- Documents reside in both HP TRIM and Salesforce.
- Create, update or delete HP TRIM documents from Salesforce.
- Upload documents to customizable container destinations in HP TRIM.
- Save Salesforce records to HP TRIM as PDF documents.
- Add direct links to HP TRIM documents in Salesforce.
- Control access with Salesforce roles and HP TRIM permissions.
- Save and view records using your personal HP TRIM credentials.
- Two way SSL connection between Salesforce and HP TRIM.

S2T helps organisations meet data residency requirements by onshoring documents to HP TRIM. The attachments and chatter documents associated with Salesforce standard and custom objects can be saved in HP TRIM. Strong encryption techniques ensure that the document data is never compromised.

As well as attachments and chatter documents, S2T provides conversion features to push individual Salesforce records to HP TRIM as PDF documents. This makes it easy to quickly take a snapshot of key information and save it to HP TRIM creating an audit and evidence trail.

Documents pushed from Salesforce to HP TRIM have their locations tracked in Salesforce. This means both the HP TRIM and cloud copies of any document can be viewed in Salesforce (see below).



Attachment	Trim Name	Trim Record Number	Trim Location ID	Last Modified by	Last Modified date	Status	Action
S2T_Documentation.pdf	S2T_Documentation.pdf	D13/64	1572	Test User	5/2/2013 6:02 PM	Synchronized	S2T Documentation.pdf

Figure 2 – Document Viewing

S2T tightly controls document permissions using HP TRIM's in-built security model coupled to the extensive security offered by Salesforce. By using HP TRIM web services S2T enforces the same security constraints as those imposed in HP TRIM itself. S2T offers very secure connection options including:

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- Restrict page access using Salesforce roles.
- Generic HP TRIM access using stored credentials.
- Override generic access using individual credentials.

S2T uses Salesforce callouts to pass information to HP TRIM so it has the following [constraints](#) imposed by Salesforce.

- Maximum size of a callout request is 3 MB. This relates to the total size of the binary data in the callout. In reality the maximum document size that can be transferred to HP TRIM is more like 2.2 MB.
- Maximum timeout for all callouts in a request is 120 seconds.

For customers requiring higher volumes of a bidirectional connector please refer to our [T4S](#) product.

Since S2T is a Salesforce.com managed application it can easily be upgraded as new features are added.

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### 3 S2T Functionality

S2T enables existing Salesforce Attachments and Chatter Documents to be pushed into HP TRIM. If the reader is unfamiliar with HP TRIM please read the overview in Appendix A.

#### 3.1 S2T Salesforce Tabs

The S2T package installs two custom tabs in Salesforce, Trim and Trim Records. Each has a corresponding sObject, Trim\_\_c and Trim\_Record\_\_c.

Tab Name	Custom Object Name
Trim	Trim__c
Trim Records	Trim_Record__c.

Table 1 – S2T Tabs

#### Trim Tab

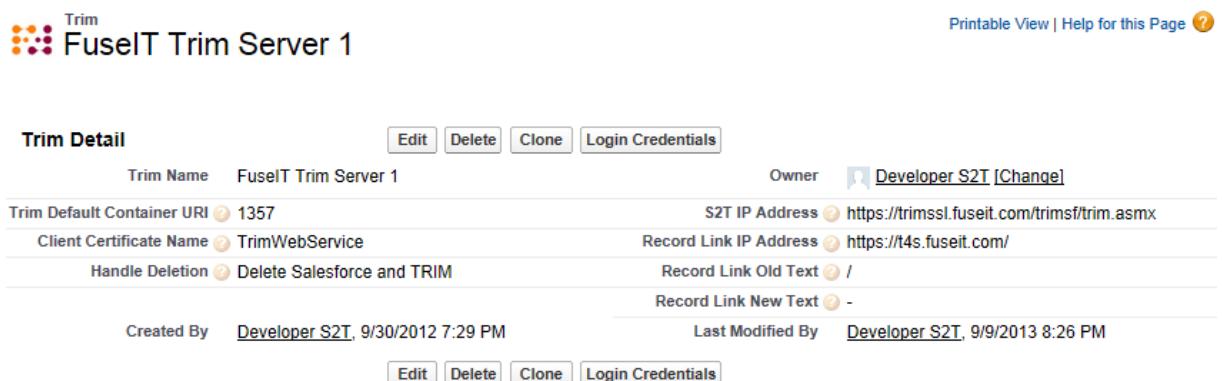
The Trim Tab is for the HP TRIM Server settings, and is not necessary for regular Salesforce Users.



Trim Name	Trim Default Container URI	S2T IP Address
FuseIT Trim Server 1	1357	https://trimssl.fuseit.com/trimsf/trim.asmx

Figure 3 – TRIM Tab

Trim\_\_c contains the information about the TRIM server i.e. TRIM Web Service URL, Default TRIM container ID, TRIM login Username etc.



Trim Detail	Owner
Trim Name	Developer S2T [Change]
Trim Default Container URI	1357
Client Certificate Name	TrimWebService
Handle Deletion	Delete Salesforce and TRIM
Created By	Developer S2T, 9/30/2012 7:29 PM
Last Modified By	Developer S2T, 9/9/2013 8:26 PM

Figure 4 – TRIM Detail

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It is possible to have more than one TRIM server record in any Salesforce Org so, for example, two HP TRIM servers in different work areas can use the same Salesforce Org (instance).

Field Name	Description
Trim Name	A name given to identify this TRIM Server
Trim Default Container URI	A TRIM Container URI that is used as the default container to save records to. If the Container URI be missing or blank when a new Record is saved to the TRIM Server, the TRIM Record will be saved to the top level of the Repository.
Client Certificate Name	The Salesforce Certificate created within your Org to allow two-way SSL connection to your TRIM Server.
S2T IP Address	Your SSL IP address to your TRIM Web Services.
Handle Deletion	There are 3 options to handle what should happen globally when a Salesforce Attachment is deleted. <ol style="list-style-type: none"> <li>1. No (do not handle deletions)</li> <li>2. Delete Local (Salesforce Trim Record is deleted along with the Attachment)</li> <li>3. Schedule for Deletion (Salesforce Trim Record is marked for deletion, on the next synchronization Salesforce and TRIM Server Record are deleted.)</li> </ol>
Record Link IP Address	If your Users have access to a URL that allows them to open TRIM Documents directly, then you can enter the URL here.  When a URL is entered it will enable links in S2T that Users can click.
Record Link Old Text	Some Record Link URLs need to be formatted before they can be used, enter the text character within the Record Number that needs to be modified i.e. "/"
Record Link New Text	This is the character that will replace the char within the Record Number so the Record Link URL is correctly formulated.

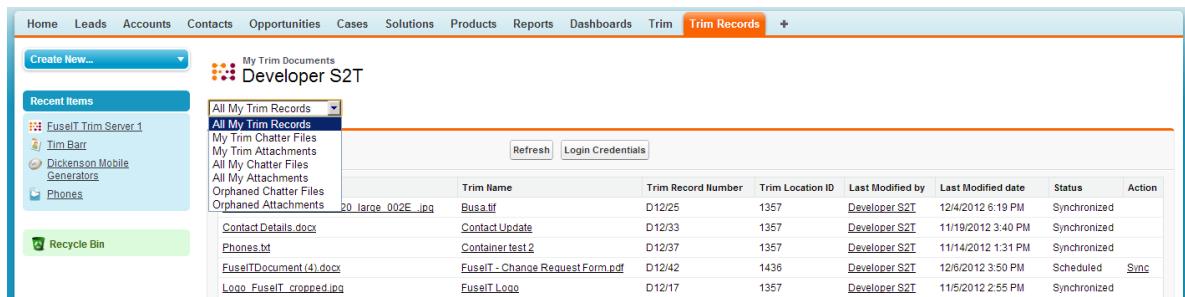
Table 2 – S2T Trim Tab Field Details

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### Trim Record Tab

Trim\_Record\_\_c is the relationship record between Salesforce Documents and TRIM Documents.

The following image is a list showing the synchronization state of each User's document. T2S document synchronization with TRIM is done manually by clicking the Synch link in the Action column. Note the document list can be shortened by filtering using a dropdown list of document types.

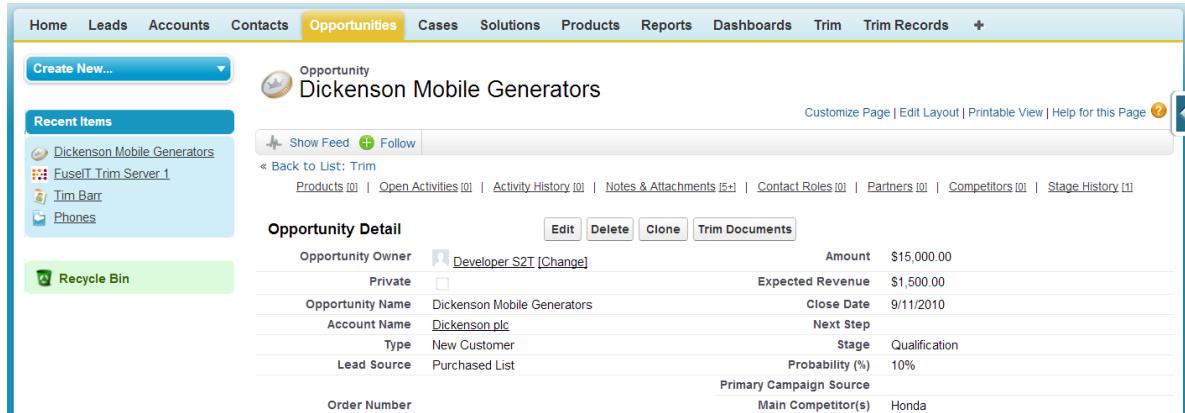


The screenshot shows the 'Trim Records' tab in the FuseIT interface. The top navigation bar includes 'Home', 'Leads', 'Accounts', 'Contacts', 'Opportunities', 'Cases', 'Solutions', 'Products', 'Reports', 'Dashboards', 'Trim', and 'Trim Records'. The 'Trim Records' tab is active. On the left, there is a sidebar with 'Recent Items' (including 'FuseIT Trim Server 1', 'Tim Barr', 'Dickenson Mobile Generators', and 'Phones') and a 'Recycle Bin' button. The main content area is titled 'My Trim Documents' and 'Developer S2T'. It features a dropdown menu for filtering documents by type, with 'All My Trim Records' selected. Below this are buttons for 'Refresh' and 'Login Credentials'. A table lists documents with columns: Trim Name, Trim Record Number, Trim Location ID, Last Modified by, Last Modified date, Status, and Action. The table includes rows for '20\_large\_002E.jpg', 'bus.tif', 'Contact Update', 'D12/25', '1357', 'Developer S2T', '12/4/2012 6:19 PM', 'Synchronized'; 'Contact Details.docx', 'D12/33', '1357', 'Developer S2T', '11/19/2012 3:40 PM', 'Synchronized'; 'Phones.xls', 'D12/37', '1357', 'Developer S2T', '11/14/2012 1:31 PM', 'Synchronized'; 'FuseITDocument (4).docx', 'D12/42', '1436', 'Developer S2T', '12/6/2012 3:50 PM', 'Scheduled'; and 'Logo\_FuseIT\_cropping.jpg', 'D12/17', '1357', 'Developer S2T', '11/5/2012 2:55 PM', 'Synchronized'.

Figure 5 – Document Synchronization

### Trim Documents Button

The TRIM functionality is accessed via a “Trim Documents” button on the Salesforce object page or the Trim Records Tab for an overview of all Trim Records, Attachments and Chatter Files.



The screenshot shows an 'Opportunity' page for 'Dickenson Mobile Generators'. The top navigation bar includes 'Home', 'Leads', 'Accounts', 'Contacts', 'Opportunities' (which is active), 'Cases', 'Solutions', 'Products', 'Reports', 'Dashboards', 'Trim', and 'Trim Records'. The 'Opportunities' tab is active. On the left, there is a sidebar with 'Recent Items' (including 'Dickenson Mobile Generators', 'FuseIT Trim Server 1', 'Tim Barr', and 'Phones') and a 'Recycle Bin' button. The main content area shows 'Opportunity Detail' for 'Dickenson Mobile Generators'. It includes fields for 'Opportunity Owner' (Developer S2T [Change]), 'Amount' (\$15,000.00), 'Expected Revenue' (\$1,500.00), 'Close Date' (9/11/2010), 'Next Step', 'Stage' (Qualification), 'Probability (%)' (10%), 'Primary Campaign Source', and 'Main Competitor(s)' (Honda). Below the detail section is a table of attachments with columns: Name, Type, and Description. The table includes rows for 'bus.tif' (Image, 20\_large\_002E.jpg), 'Contact Details.docx' (Word Document, Contact Update), 'Phones.xls' (Excel Document, Container test2), 'FuseITDocument (4).docx' (Word Document, FuseIT - Change Request Form.pdf), and 'Logo\_FuseIT\_cropping.jpg' (Image, FuseIT Logo).

Figure 6 – Trim Documents Button

Clicking the “Trim Documents” button opens a page the Visualforce page that displays the current attachments for the associated page e.g. Opportunity, and corresponding TRIM details if the attachment has been synced with TRIM. It also allows new Attachments to be uploaded and added to TRIM.

The “Trim Documents Button” is available to be included on any Salesforce objects page layout that uses Attachments e.g. Opportunity, Contact, Lead or custom page layout. (Chatter Files can be added directly from the Trim Records Tab)

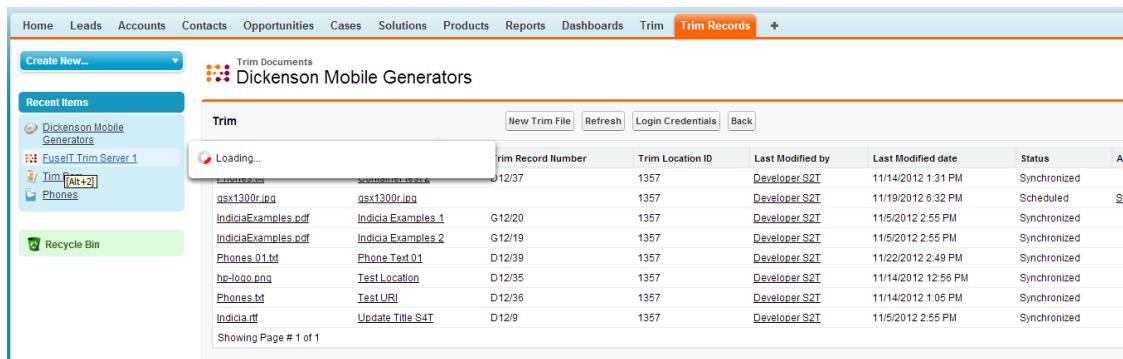
The button can also be duplicated and added to any Custom Object layout. A

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simple change is required for this to work with any new objects by duplicating an existing Trim Documents Button, and changing the sObject reference within the JavaScript to the object type it is being used for

```
...
/apex/fuseit_s2t__TrimAttachmentsSection?parentId={!Account.Id}&parentTitle={!Account.Name}
...
```

For example, switch “Account” reference to the name of a custom object and then include the new button on the custom object layout.



The screenshot shows the 'Trim Records' page for an opportunity named 'Dickenson Mobile Generators'. The page has a header with 'Trim Records' and a 'New Trim File' button. On the left, there's a sidebar with 'Recent Items' and a 'Recycle Bin' section. The main content area is titled 'Trim' and shows a table of attachments. The table columns are: Trim Record Number, Trim Location ID, Last Modified by, Last Modified date, Status, and Action. The attachments listed are:

Trim Record Number	Trim Location ID	Last Modified by	Last Modified date	Status	Action
gsx1300r.jpg	D12/37	Developer S2T	11/14/2012 1:31 PM	Synchronized	
IndiciaExamples.pdf	G12/20	Developer S2T	11/19/2012 6:32 PM	Scheduled	
IndiciaExamples.pdf	G12/19	Developer S2T	11/5/2012 2:55 PM	Synchronized	
Phones 01.td	Phone Text 01	D12/39	11/22/2012 2:49 PM	Synchronized	
hp-logo.png	Test1Location	D12/35	11/14/2012 12:56 PM	Synchronized	
Phones.td	Test1URI	D12/36	11/14/2012 1:05 PM	Synchronized	
Indicia.tif	Update Title S4T	D12/9	11/5/2012 2:55 PM	Synchronized	

Showing Page # 1 of 1

Figure 7 – Attachment Status

The figure above shows the attachments associated with an Opportunity and their status. Clicking on the attachment name goes to the default Attachment page. Clicking on the Trim Name (or “New Trim File”) goes to the “TrimRecord” page

### 3.2 TrimRecord Page

This page covers two scenarios.

#### 1. Adding an Existing Attachment or uploading a new attachment

Click on the “New Trim File” link or “Change Attachment” on the Visualforce page then browse and select a new Attachment from your local file system, or select an existing available Attachment from the attachments list that has not already been associated with a TRIM Record.

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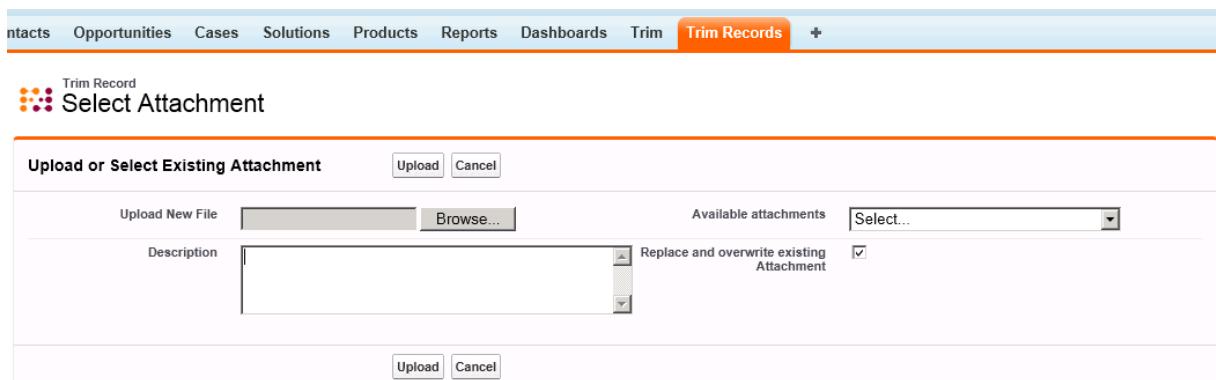


Figure 8 – Selecting Files or Existing Attachments

### 2. Editing Existing TRIM Record

Click on the TRIM Record Name and change any data or upload new Attachment & save.

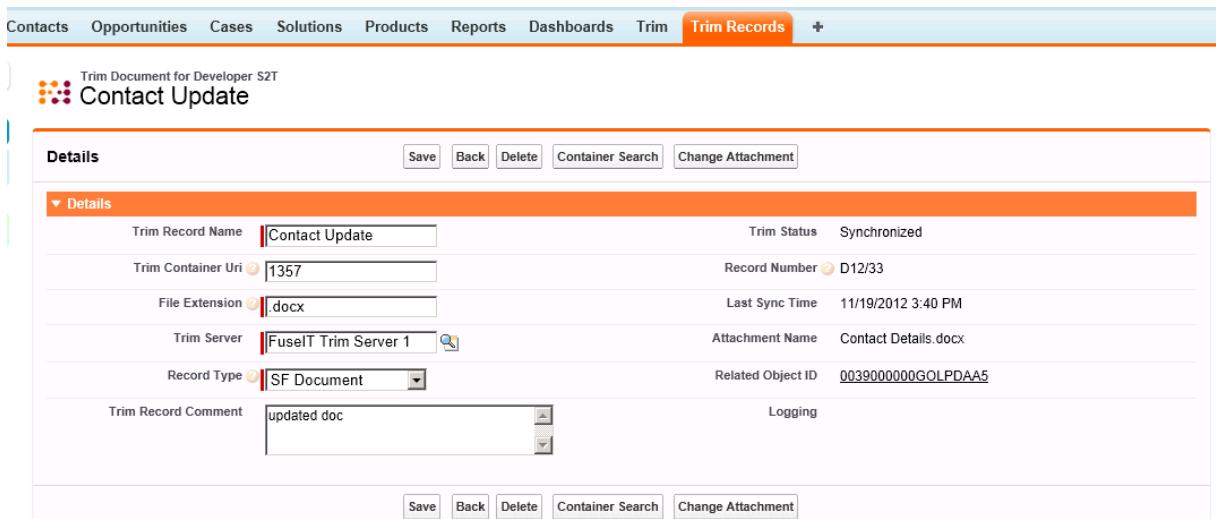


Figure 9 – Editing Existing TRIM Records

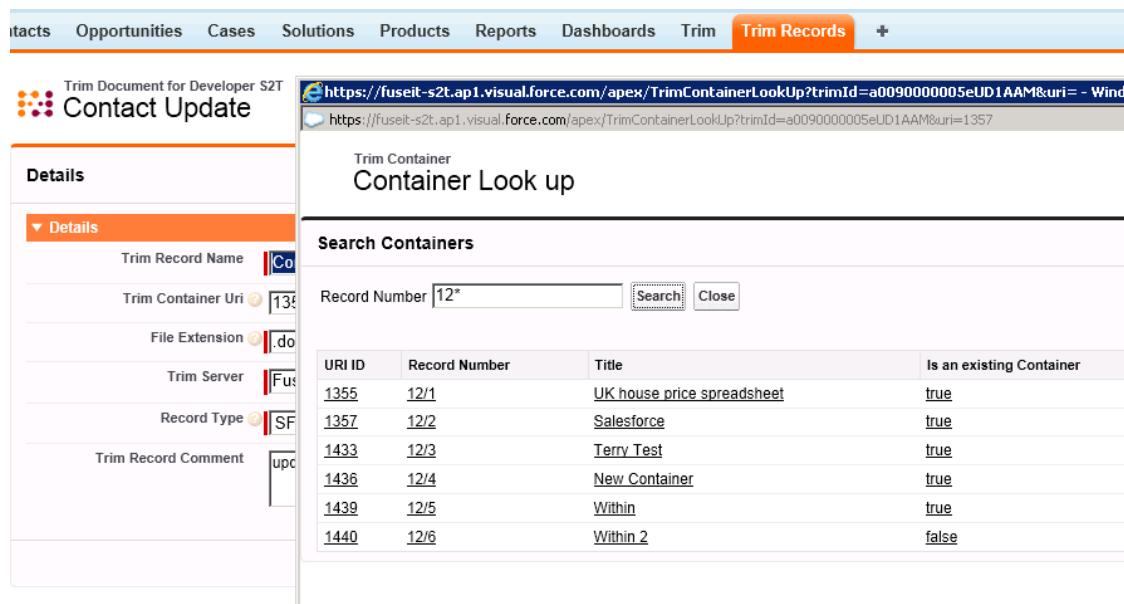
The example above will mark the TRIM Records as “Scheduled” upon Save or Delete.

### 3.3 TRIM Container Search

Each TRIM record needs to be saved to a location on TRIM. With the “Container Search” you can find the TRIM Container URI by searching for a TRIM Record number.

Selecting a container from the results updates the TRIM Record “Trim Container Uri” field.

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URI ID	Record Number	Title	Is an existing Container
1355	12/1	UK house price spreadsheet	true
1357	12/2	Salesforce	true
1433	12/3	Terry Test	true
1436	12/4	New Container	true
1439	12/5	Within	true
1440	12/6	Within 2	false

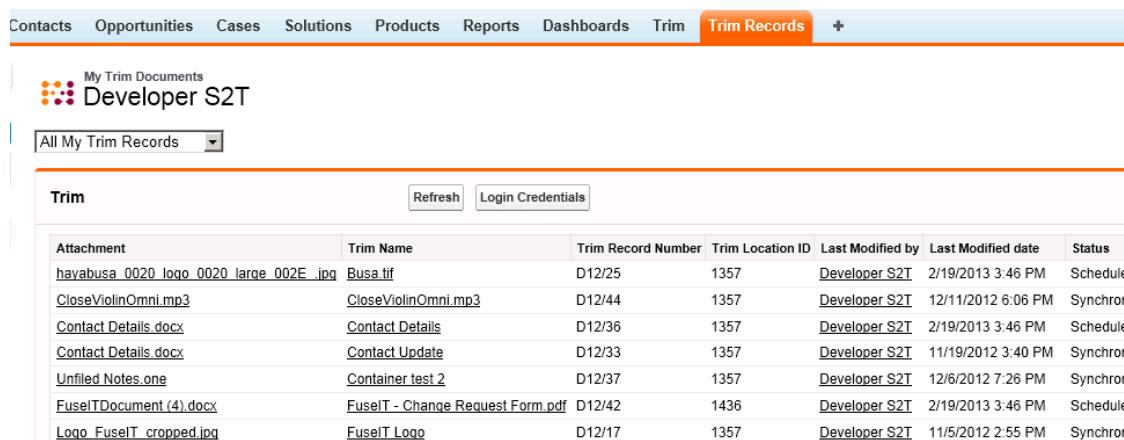
Figure 10 – TRIM Container Lookup

### 3.4 Synchronizing TRIM Records

Once a TRIM Record has been marked as “Scheduled” for synchronization by saving the TRIM Record or deleting the TRIM Record, the record can then be synchronized with TRIM.

Beside each “Scheduled” TRIM Record will be a “Sync” Action that fires the synchronization process.

At the top of the TRIM Records page is a Refresh button that allows you to refresh the page to see the results as the synchronization process. This may take time depending on the action and the size of the Attachment or Chatter File.



Attachment	Trim Name	Trim Record Number	Trim Location ID	Last Modified by	Last Modified date	Status
hayabusa_0020_logo_0020_large_002E.jpg	Busa.tif	D12/25	1357	Developer S2T	2/19/2013 3:46 PM	Schedule
CloseViolinOmni.mp3	CloseViolinOmni.mp3	D12/44	1357	Developer S2T	12/11/2012 6:06 PM	Synchron
Contact Details.docx	Contact Details	D12/36	1357	Developer S2T	2/19/2013 3:46 PM	Schedule
Contact Details.docx	Contact Update	D12/33	1357	Developer S2T	11/19/2012 3:40 PM	Synchron
Unfiled Notes.one	Container test 2	D12/37	1357	Developer S2T	12/6/2012 7:26 PM	Synchron
FuseITDocument (4).docx	FuseIT - Change Request Form.pdf	D12/42	1436	Developer S2T	2/19/2013 3:46 PM	Schedule
Logo_FuseIT_cropped.jpg	FuseIT Logo	D12/17	1357	Developer S2T	11/5/2012 2:55 PM	Synchron

Figure 11 – Synchronizing TRIM Records

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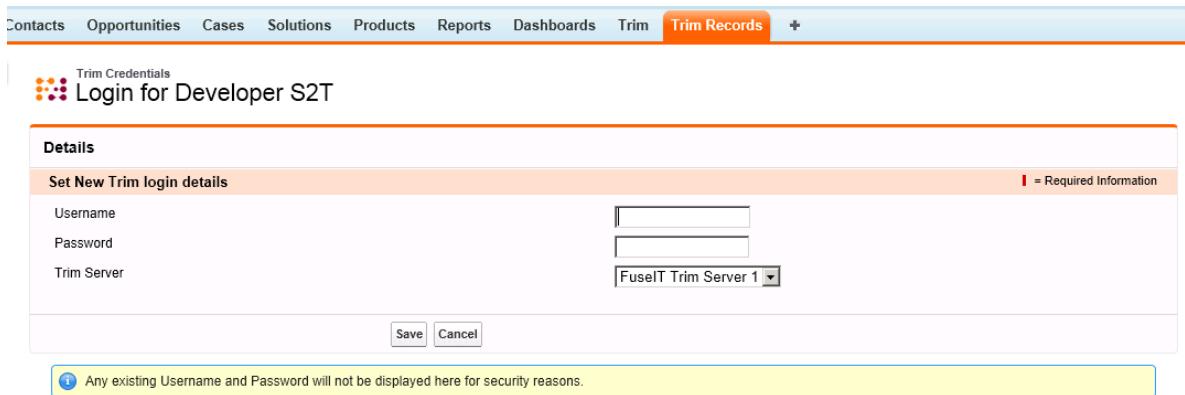
### 3.5 Authentication

Each Salesforce S2T end user has the ability to use their own TRIM credentials to synchronize their records with TRIM, or use the default credentials set against the TRIM server record.

To set your own TRIM Credentials use the “Login Credentials” button found on the TRIM Records page.

This allows you to securely enter your TRIM credentials which are 256bit AES encrypted and stored using Salesforce recommended password procedure.

Different credentials can be stored against each TRIM Server instance and these only need to be set once – see the following figure.



The screenshot shows the Salesforce Trim Records page. At the top, there is a navigation bar with links: Contacts, Opportunities, Cases, Solutions, Products, Reports, Dashboards, Trim, Trim Records, and a plus sign. The 'Trim Records' link is highlighted with a red box. Below the navigation bar, there is a sub-navigation bar with links: Trim Credentials, Login for Developer S2T, and a plus sign. The 'Login for Developer S2T' link is highlighted with a red box. The main content area has a title 'Set New Trim login details' with a note 'Required Information' indicated by a red vertical bar to the right. There are three input fields: 'Username' (empty), 'Password' (empty), and 'Trim Server' (set to 'FuseIT Trim Server 1'). At the bottom of the form are 'Save' and 'Cancel' buttons. A note at the bottom of the page states: 'Any existing Username and Password will not be displayed here for security reasons.'

Figure 12 – S2T Authentication against a TRIM Server

### 3.6 Updated Records

Once the TRIM document has been saved, updated or deleted by S2T, the results of the sync can be seen in TRIM

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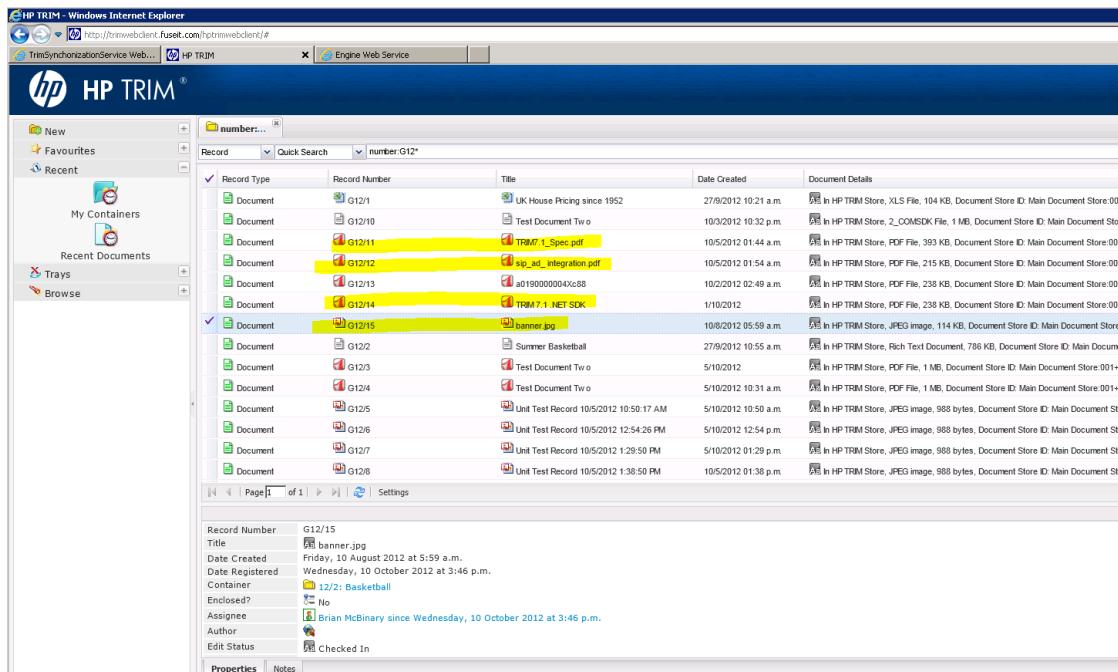


Figure 13 – TRIM View of Synchronized Documents

### 3.7 My Trim Documents Page

The Trim Records Tab enables a view of all the related TRIM records in one place. It also allows the assignment of existing Attachments and Chatter Files to TRIM records and mark them as scheduled for Synchronization.

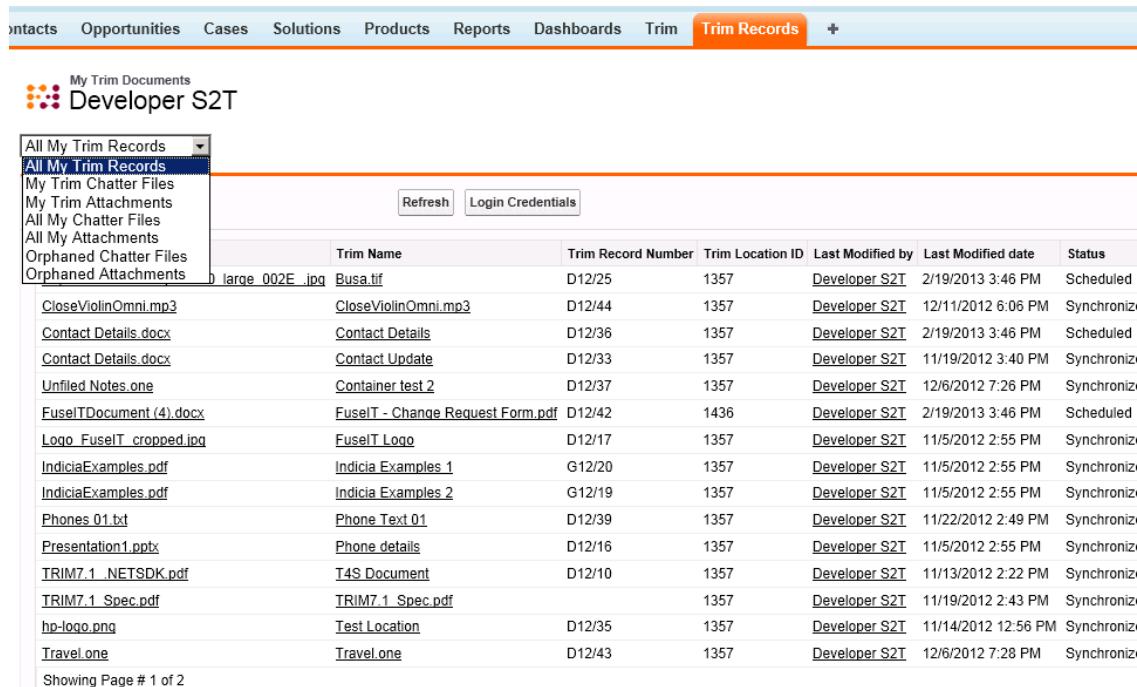


Figure 14 – S2T Document Filtering on My Trim Documents

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### 3.8 Linked Records

It's possible to create Salesforce Trim Records without uploading files into Salesforce. When creating a new Trim Record there is the option to select a "Linked" record. You will then be able to search HP TRIM for the existing TRIM Record and make a Likened record from there. This will enable Salesforce objects to be associated with TRIM Records that do not exist in Salesforce.

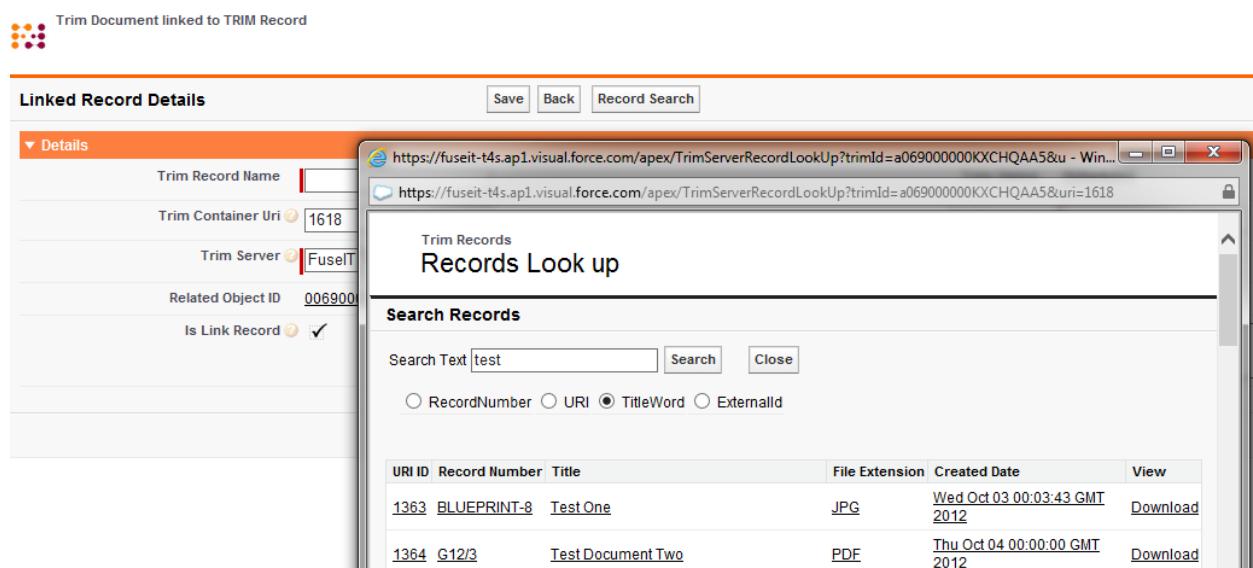


Figure 15 – Records Lookup

### 3.9 Public API

S2T has a public api that allows you to build your own custom functionality that meets your requirements

The public api has a number of global methods that you are able to call from your own Visualforce or Apex classes.

- Create Container
- Look Up Container
- Look Up TRIM Record
- Download TRIM Record binary data
- Synchronize TRIM Record with TRIM

Each method has the ability to take a list of TRIM Specification Properties used when synchronizing a Record or creating a Container, or returning meta data along with a result.

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### 3.10 Troubleshooting

Please see the Troubleshooting Section of the Installation document if any error messages appears

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### 4 Support Information

#### 4.1 Support Matrix

The following support matrix specifies the environment required for S2T.

System	Detail	Supported
Infrastructure	Cloud based Force.com	Required
S2T Host Environment	Salesforce.com	Required
S2T Operating System	Not applicable	
S2T Database	Not applicable	
Internet Browser	IE 6+	Yes
	Firefox 3.5+	Yes
	Chrome	Yes
	Safari 4+	Yes
	Opera 9+	Yes
HP Software Integration	HP TRIM Web Services Version 7.02	Yes

Table 3 – S2T Support Matrix

#### 4.2 Support Contacts

Please email the following contacts for more information about S2T or any other HP TRIM product from FuseIT:

- Terry Humphris: [terry@fuseit.com](mailto:terry@fuseit.com)
- William Boyd: [wiliam.boyd@fuseit.com](mailto:wiliam.boyd@fuseit.com)

## Appendix A - HP TRIM Record Management Overview

Records management best practices dictates information should be placed into a shallow container structure (one level deep). This completely eliminates nested containers, like that of a computers file system so alternative systems are required. HP TRIM is one such system.

To ensure files are stored so they can be easily found, while still maintaining best practices, HP TRIM uses concepts such as classifications that can be applied to substitute for a nested structure. The following diagram shows the organizational items in TRIM.

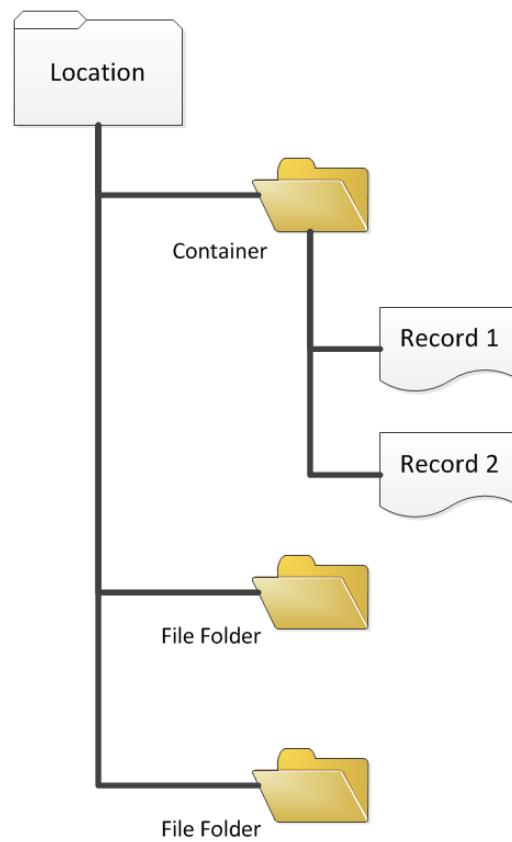


Figure 16 – TRIM Organizational Structure

**Location** (assignee) is the top level structure and has one of the following location types:

- Group
- Organization
- Position Person
- Project Team
- Committee
- Venue
- Work Group

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Locations must have a:

- Name
- Location Type

**Container** is a record with record type equal to File Folder. It must contain records to be a container otherwise it is just a file folder.

**Record** is metadata about a record. The record type is typically Document, Standard Document, or File Folder (which are called Containers if they contain records). Records must have an:

- Assignee e.g. Boyd, William
- Record Number e.g. D12/40
- URI e.g. uri:1434
- Title e.g. Test Record
- Record Type e.g. SF Document

**Document:** Electronic binary information or physical object which is the actual evidence or article.