



Scottish Care Information

SCI Store

Installation & Configuration Guide

Clinical Documents Interface

For SCI Store Release 8.5

SCI-DPUG-005

| | | |
|----------|---|-----------|
| 1 | Introduction | 3 |
| 1.1 | Document purpose | 3 |
| 1.2 | Intended Audience | 3 |
| 1.3 | Scope | 3 |
| 1.4 | References | 3 |
| 2 | Clinical document in SCI Store..... | 4 |
| 2.1 | Document Sources..... | 4 |
| 2.2 | Document types | 4 |
| 2.3 | Document storage | 4 |
| 2.4 | Identifying the Patient, and linking Patient and Document | 5 |
| 2.5 | Document Revisions | 5 |
| 2.6 | Moving documents to history | 5 |
| 2.7 | XML Metadata Record | 5 |
| 3 | Document Upload Service Definition | 6 |
| 3.1 | Creating the Document Upload Service..... | 6 |
| 3.2 | Remote Database for Document Storage..... | 11 |
| 3.3 | File Server for Document Storage | 11 |
| 3.4 | Permission Settings for a Remote File Server | 12 |
| 3.5 | Warning | 15 |
| 4 | Running a Document Upload Service | 16 |
| 4.1 | Testing..... | 16 |
| 4.2 | Running a Production Document Upload Service..... | 18 |
| 5 | Managing Document Upload Exceptions | 19 |
| 5.1 | Overview | 19 |
| 5.2 | Document source table | 19 |
| 5.3 | Document upload service status | 19 |
| 5.4 | Configuring user permissions..... | 19 |
| 5.5 | Exceptions Management..... | 20 |
| 5.6 | Documents Uploaded Search | 20 |
| 5.6.1 | <i>Search Options.....</i> | <i>21</i> |
| 5.6.2 | <i>Patient details search criteria.....</i> | <i>21</i> |
| 5.6.3 | <i>Document Details Criteria.....</i> | <i>21</i> |
| 5.6.4 | <i>File Actions.....</i> | <i>22</i> |
| 5.7 | Document Upload Details Screen | 23 |
| 5.7.1 | <i>Actions</i> | <i>24</i> |
| | Appendix A: Link an Uploaded Document to a Patient..... | 25 |
| | Prerequisites | 25 |
| | Procedure..... | 25 |
| | Appendix B: Action for “New” DocumentStatus | 26 |
| | Revisions of the Document exist on file | 26 |
| | One or more Revisions of the Document exist on file | 26 |
| | Appendix C: Action for “Amend” DocumentStatus | 27 |
| | No Revisions of the Document exist on file | 27 |
| | One or more Revisions of the Document exist on file | 27 |
| | Appendix D: Action for “Delete” DocumentStatus..... | 28 |
| | Appendix E: Action for “DeleteAll” DocumentStatus | 29 |
| | No Revisions of the Document exist on file | 29 |
| | One or more Revisions of the Document exist on file..... | 29 |
| | Document Control..... | 30 |
| | Document information | 30 |

CHANGE LOG**Error! Bookmark not defined.**

1 Introduction

1.1 Document purpose

SCI Store provides a mechanism whereby clinical documents for a patient may be uploaded, and the uploaded documents may be searched and displayed. Each document is associated with an XML metadata record which identifies the patient and provides patient-document link information. A detailed description of the facilities and options is given.

The purpose of this document is to provide information on how create and use a Service to take a variety of Clinical documents (e.g. Referral and Discharge letters) and automatically upload the documents and attach them to the corresponding patients' records on SCI Store.

1.2 Intended Audience

This document is aimed at SCI Store Administrators who wish to create and manage a SCI Store document upload service, and at Users who wish to make use of the facilities provided by such a service.

1.3 Scope

This document will detail:

- The options to search for, select and view documents are described.
- The facilities to identify and manage exceptions are described.

1.4 References

- Clinical Documents - User Guide
- Store Patient Data Matching - Reference Guide

2 Clinical document in SCI Store

2.1 Document Sources

Clinical documents may arise from a variety of sources, e.g. Patient Referral Letter, (In-patient) Immediate Discharge and Final Discharge Letters, and (Outpatient) Clinic Letters. They may be supplied in any of the common industry-standard formats, such as Microsoft Word (.doc) or Adobe Acrobat (.pdf), or in a non-proprietary format such as Rich Text Format (.rtf), HTML (.htm, .html) or XML (.xml).

2.2 Document types

Documents in Office Word and PDF formats may have embedded graphics, which will be preserved. It must be recognised that these will substantially increase the size of the documents being stored and may have an adverse effect on system response times and performance. Users need to balance the benefit of graphics against the effect on performance.

Note: Adobe PDF viewer, particularly version 6, is slow to load initially.

RTF documents cannot contain graphics. HTML and XML documents can in theory contain graphics, but in the current implementation of the document upload mechanism these will not be recognised. RTF and HTML documents have their display characteristics (font size, layout etc.) defined when the document is initially produced. XML documents on the other hand have a separate Style sheet which determines how the information is presented, and in principle this can be different for different Users.

2.3 Document storage

There are three options for the storage of documents, and one of these options must be selected when a Service for the upload of documents is created. The options are:

- Saving to a local database
- Saving to a remote database
- Saving to a file server

Saving to a database creates a binary (image) field in a database table; saving to a file server simply creates a copy of the original file. No interpretation of the contents of the document is performed.

2.4 Identifying the Patient, and linking Patient and Document

Details of the patient are not extracted from the document; indeed if the document is itself an Image, it may have no details capable of extraction. Instead, details of the patient and of the document to be uploaded are provided in a XML (eXtensible Markup Language) file. The structure of this file and specific recommendations for its use are given in Section 3.

Definition of a Document Upload Service is described in Section 4. It is the responsibility of the User to deliver the Documents and associated XML metadata files, to designated locations on a server from which the Upload Service may detect and act upon the records. The Upload Service operates in five stages:

- 1 Obtain an XML metadata record and store it on the database
- 2 Parse the XML record and extract the constituent details, storing that on the database
- 3 Using the supplied details, identify and upload the document to the destination defined by the Upload Service (database or file server)
- 4 Using the supplied details, carry out Patient Matching using the rules specified for the Upload Service, identifying an existing patient on SCI Store or (if the Matching rules permit) creating a new patient record. Details of the Healthcare Professionals identified in the XML metadata are also matched against existing information in SCI Store
- 5 Finally, a link is set between the uploaded document and the identified (or new) patient within SCI Store.

Note: At each of these stages, exceptions may occur. The identification and management of exceptions is covered in Section 5.

2.5 Document Revisions

There can only be one “Current” Revision of a document (and there may be none).

2.6 Moving documents to history

In the process of moving a document from “Current” to “History”, the document itself is not moved. However, the database search control record relating to this document is moved from a table of “Current” records to a table of “History” records, and appropriate database adjustments are made.

2.7 XML Metadata Record

As previously described, each Document to be uploaded must be accompanied by an XML record containing metadata identifying the patient and providing linking and search criteria for the document. It must be recognised that the content of the documents themselves will not be searchable.

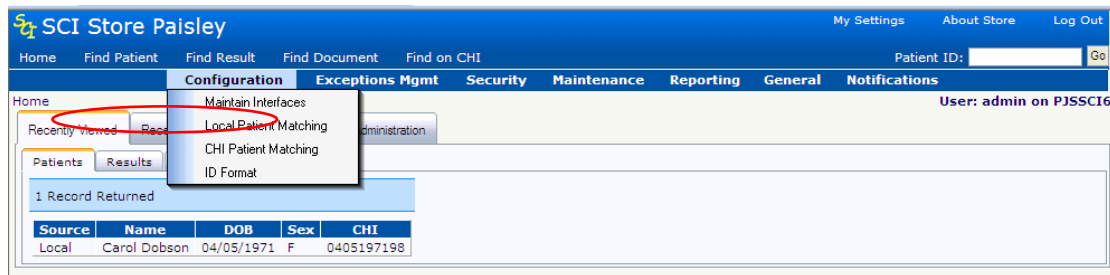
The construction and content of the XML metadata is described in detail in the document “SCI Store Clinical Document Input Requirements User Guide”, and examples are given.

3 Document Upload Service Definition

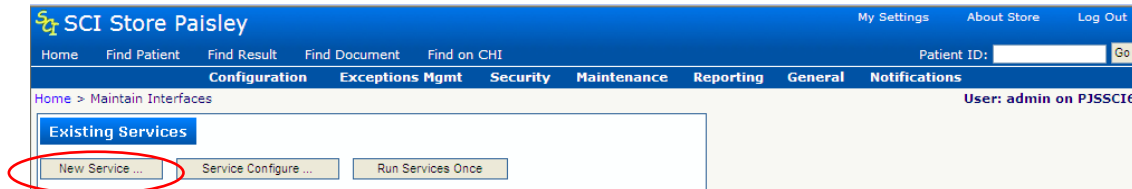
3.1 Creating the Document Upload Service

Each SCI Store site may have a number of clinical document sources and may require to configure a number of Document Upload Services. Services may be configured by the site SCI Store Administrator.

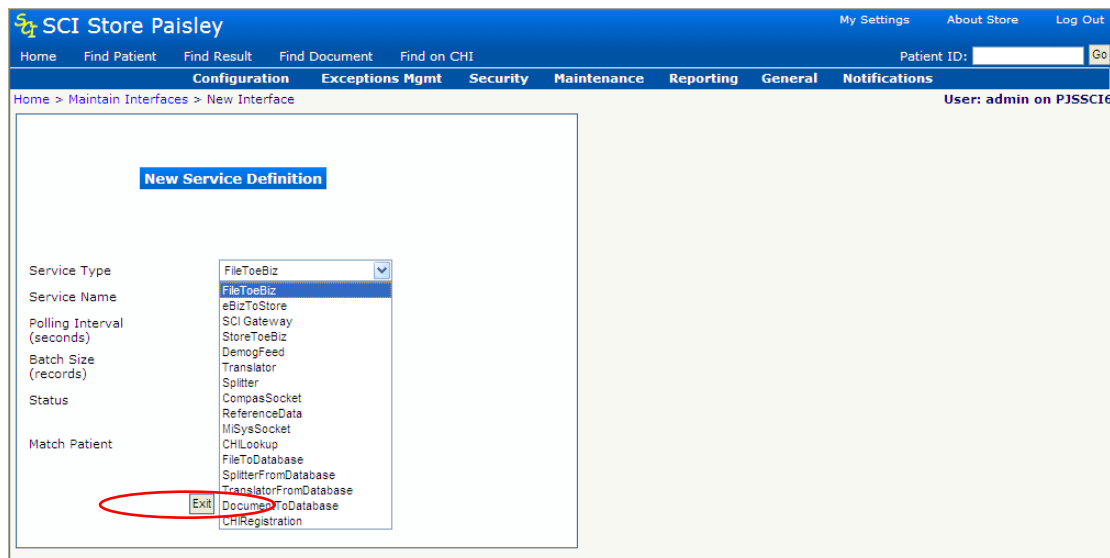
- From the “Configurations” Menu, select “Maintain Services



- 4.2.2 On the Service list screen, click “New Service”...



- From the drop-down list of Service Types, select “DocumentToDatabase”...



- Enter a distinct Name for the Service Name, e.g. “General Medicine Discharge Letters”.

Note: “Polling Interval” and “Batch Size” should be set having regard to any other Services which may be running (e.g. Laboratory results reporting). “Polling Interval” determines how long the Service Manager process will wait before again looking to see if there are any documents to upload. “Batch Size” determines how

many documents may be uploaded before the Service Manager is released to perform work on another Service. Clearly, too short a “Polling Interval” or too large a “Batch Size” will adversely affect the availability of the Service Manager to carry out other tasks. The values may need to be adjusted to obtain optimum performance overall.

“Status” is by default configured “On”, i.e. included in the Service schedule. Setting the “Status” to “Off” will exclude the Document Upload service from the automatic Service schedule.

Note: “Match Patient” determines which set of Patient Matching rules are used to compare the Patient Demographics information supplied in the XML metadata with the existing patients in SCI Store. **It cannot be over-emphasised that definition/selection of appropriate patient matching rules is fundamental to the success of SCI Store.**

- When all the values have been entered, click “Save” to save the details and to return to the maintain services screen...

The screenshot shows the 'New Service Definition' form in the SCI Store Paisley application. The form is titled 'New Service Definition' and contains the following fields and options:

- Service Type: DocumentToDatabase (dropdown menu)
- Service Name: New Doc Interface (text input)
- Polling Interval (seconds): 10 (text input)
- Batch Size (records): 2 (text input)
- Status: On (radio button, selected) / Off (radio button)
- Match Patient: CHI Update (dropdown menu)

At the bottom of the form, there are two buttons: 'Exit' and 'Save'.

- Click on the newly-listed Service to open the Amend Service Definition screen

The screenshot shows the 'Amend Service Definition' screen. The top navigation bar includes 'Home', 'Find Patient', 'Find Result', 'Find Document', 'Find on CHI', 'Patient ID', and 'Go'. Below this is a menu with 'Configuration', 'Exceptions Mgmt', 'Security', 'Maintenance', 'Reporting', 'General', and 'Notifications'. The breadcrumb trail is 'Home > Maintain Interfaces > Amend Interface'. The user is identified as 'admin on PJSSCI6'. The main form contains the following fields and controls:

- Service ID: 27
- Service Type: DocumentToDatabase (dropdown)
- Service Name: New Doc Interface
- Polling Interval: 10
- Batch Size: 2
- Status: On (radio button selected)
- Match Patient: CHI Update (dropdown)
- CHI Update (checkbox)
- CHI Demographics? (checkbox)

Buttons at the bottom include 'Delete', 'Exit', 'Save', and 'Configure'.

- Click “Configure” to open the “DocumentToDatabase” Service configuration screen.

The screenshot shows the 'Document To Database' configuration screen. The top navigation bar and menu are identical to the previous screenshot. The breadcrumb trail is 'Home > Maintain Interfaces > Amend Interface > Amend Doc to DB'. The user is identified as 'admin on PJSSCI6'. The main form contains the following fields and controls:

- Document Source: (text input)
- Document Path: (text input)
- XML Path: (text input)
- Stylesheet Path: (text input)
- Document Extension: (text input)
- Document Size Limit: 0 kB
- Default Patient Consent: No (dropdown)
- Allow Future Attestation Date: No (dropdown)
- Default Sensitivity: Sensitive (dropdown)
- Schema Version: V22 (dropdown)
- Schemes And Mappings: Default (dropdown)
- Document Storage: Local SCI Store (radio button selected), Remote SCI Store DB, File Server

Buttons at the bottom include 'Exit', 'Save', 'Default Values', and 'Test Process'.

Document Source

This identifies the origin of documents (e.g. Outpatients) and will be a search option for a user.

Document Extension

Each Document Source may be expected to produce documents in a limited range of formats, e.g. Microsoft Word (.doc), Adobe (.pdf), HTML (.htm, .html) etc. In order to prevent the upload of inappropriate items (e.g. executables - .exe, .msi), the list of acceptable document types for each Document Upload service will be configured, in the form of a comma-separated list, e.g. .doc,.pdf,.htm,.jpg (or *.doc,*.pdf,*.htm,*.jpg)

Note: Documents with an unlisted document extension will be reported as an exception. Facilities will be provided to deal individually with such exceptions, allowing acceptance despite the configured list (although executables will never be accepted). The SCI

Store administrator must ensure that appropriate display mechanisms exist for any document type uploaded.

- Having entered Document Source and Document Extension, click the “Default Values” button. This will provide a set of default path names and values as shown:

The screenshot shows the 'Document To Database' configuration page in the SCI Store Paisley interface. The page includes the following fields and options:

- Document Source: MySource
- Document Path: C:\SCI Store\Version 2.1\Data\MySource\Document
- XML Path: C:\SCI Store\Version 2.1\Data\MySource\XML
- Stylesheet Path: C:\SCI Store\Version 2.1\Data\MySource\Styles
- Document Extension: .pdf, .doc, .txt, .rtf, .xml
- Document Size Limit: 25 kB
- Default Patient Consent: No
- Allow Future Attestation Date: No
- Default Sensitivity: Highly Sensitive
- Schema Version: V22
- Schemes And Mappings: Default
- Document Storage options:
 - Local SCI Store
 - Remote SCI Store DB
 - File Server

Buttons at the bottom include: Exit, Save, Default Values, and Test Process.

These default pathnames may be changed as required:

| | |
|----------------------|--|
| <p>Document Path</p> | <p>This is the location at which SCI Store will expect to find documents for upload. It is specifically the User’s responsibility to deliver, or to instruct the supplier of the User’s documentation system to deliver, documents to this location. The default directory for a Document Source “MySource” will be:</p> <p>c:\SCI Store\Version 2.1\Data\MySource\Document</p> <p>Users must ensure that documents have a unique file name, not simply within each Document Source, but also within SCI Store as a whole. How this is done is for each User’s system to define, but a possible method is to concatenate Document Source with Date and Time (down to milliseconds). It is required that the title also include a revision control indicator (Rxxx), eg</p> <p>MySourceyyyyymmddhhmmsssssRrrr.doc</p> <p>It is recommended that to eliminate potential problems which could arise from processing XML before the associated document has been provided, the document is delivered to the location specified by “Document Path” <u>before</u> the associated XML is delivered to the location specified by “XML Path”.</p> |
| <p>XML Path</p> | <p>This is the location at which SCI Store will expect to find the XML metadata records describing documents for upload. It is specifically the User’s responsibility to deliver, or to instruct the</p> |

| | |
|-------------------------|---|
| | <p>supplier of the User's documentation system to deliver the XML metadata records to this location. The default directory for a Document Source "MySource" will be:</p> <p>c:\SCI Store\Version 2.1\Data\MySource\XML</p> <p>The extension of all the XML records must be ".xml". It is also the User's responsibility to ensure that there is an exact 1:1 correspondence between the XML metadata records and the Documents to which they relate.</p> |
| Stylesheet Path | <p>This item is only relevant, and using the "Default Values" button will only be populated, if the Document Extension list includes ".xml". The path specifies the location at which a stylesheet for displaying a document which is itself XML may be found for uploading to the SCI Store stylesheet collection. It is specifically the User's responsibility to ensure that Stylesheets are uniquely named. (See also para 3.4.3).</p> |
| Document Size Limit | <p>Each Document Source may be expected to produce documents in a fairly consistent range of size. In order to prevent SCI Store being overloaded by excessively large documents, an upper document size limit will be configured for each Document Upload service. Documents which exceed this size will be reported as an exception. Facilities will be provided to deal individually with such exceptions, allowing acceptance despite the restriction, or rejection. The SCI Store Administrator must recognise that regular acceptance of "oversize" documents may affect the performance of SCI Store as a whole and the Users' database size calculations. The maximum value permitted is 1000 (kb).</p> |
| Default Patient Consent | <p>The metadata for each Document to be uploaded may include an item relating to Patient Consent for the information to be shared beyond the originating sub-specialty and originating organisation. In the event that this item is missing from the metadata, a default is required, and this can be configured for each Document Source as either "Y" (Yes) or "N" (No). The "Default Values" button setting is "N".</p> |
| Default Sensitivity | <p>The metadata for each Document to be uploaded may include an item relating to Sensitivity of the information from a Healthcare Professional viewpoint. In the event that this item is missing from the metadata, a default is required, and this can be configured for each Document Source as either "S" (Sensitive) or "HS" (Highly Sensitive). The "Default Values" button setting is "HS".</p> |
| Document Storage | <p>Configuration may select one of three options:</p> |

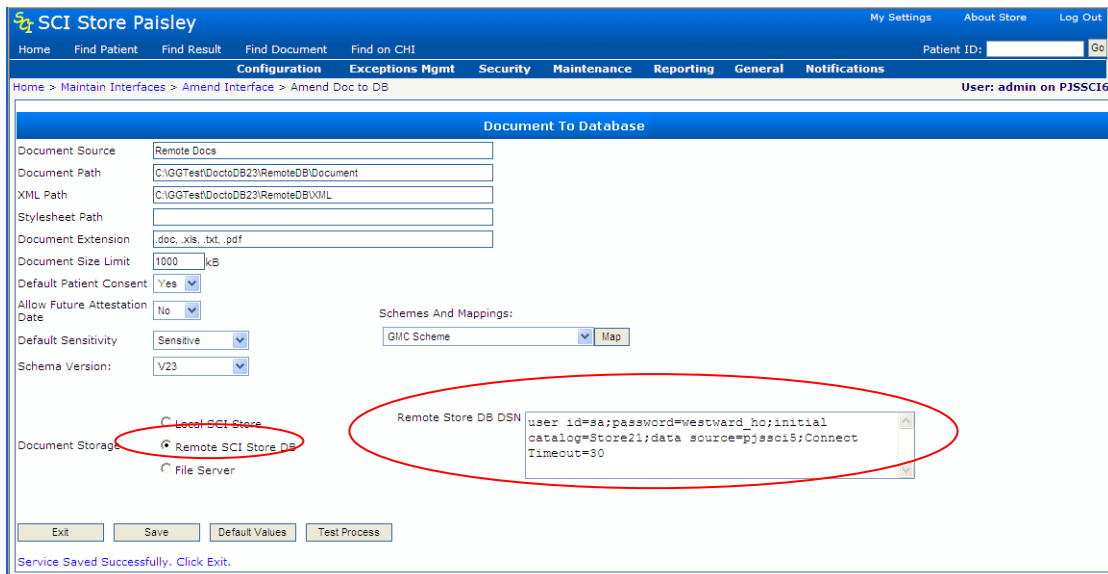
- Store in the local SCI Store database
- Store in a specified remote SCI Store database - see 4.3 below.
- Store at a specified File Server - see 4.4 below.

Note: In the case of a Remote Database or a File Server it is only the Document that is stored remotely (this being the largest element involved). All other information is held on the local SCI Store database.

When all the details have been entered, click “Save” and, when confirmation that the details have been saved is obtained, click “Exit” to complete the Document To Database service setup

3.2 Remote Database for Document Storage

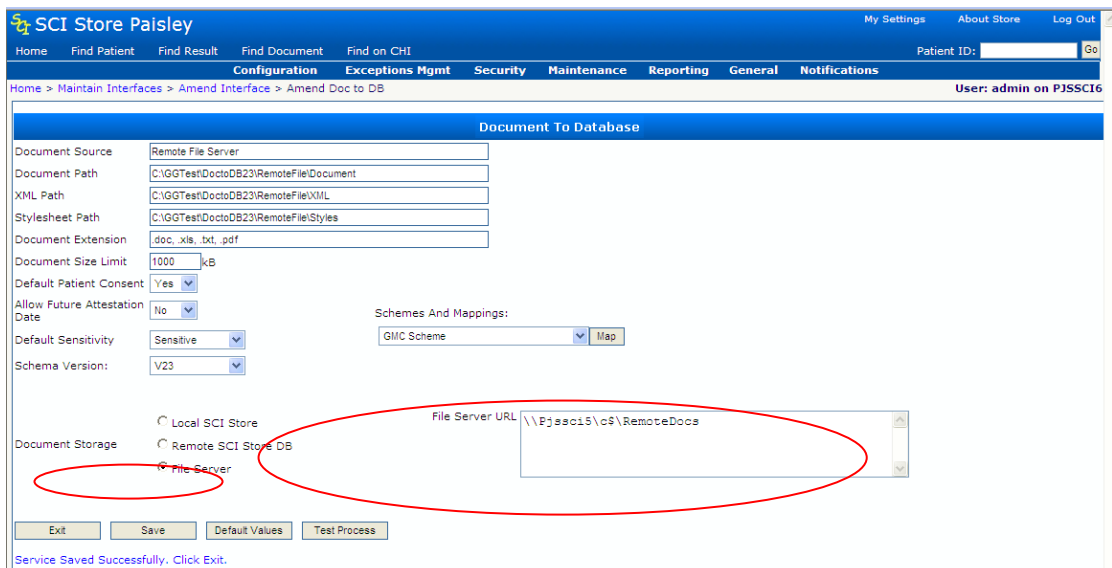
- Create the document to database service as per section 4.2
- Select “Remote SCI Store DB” radio button and input the database connection string in to the “Remote Store DB DSN” text box...



- Then click “Save” to save the changes and to complete the setup.

3.3 File Server for Document Storage

- Create the document to database service as per section 4.2
- Select “File Server” radio button and input the `\\Server\Folder` path to the relevant folder on the File server.



- Then click “Save” to save the changes and to complete the setup.

3.4 Permission Settings for a Remote File Server

If the File Server is a remote machine from the Web Server, access to this machine will be required. To enable this, the credentials of an account with the appropriate permissions will need to be assigned to the Web Server and the Windows Service.

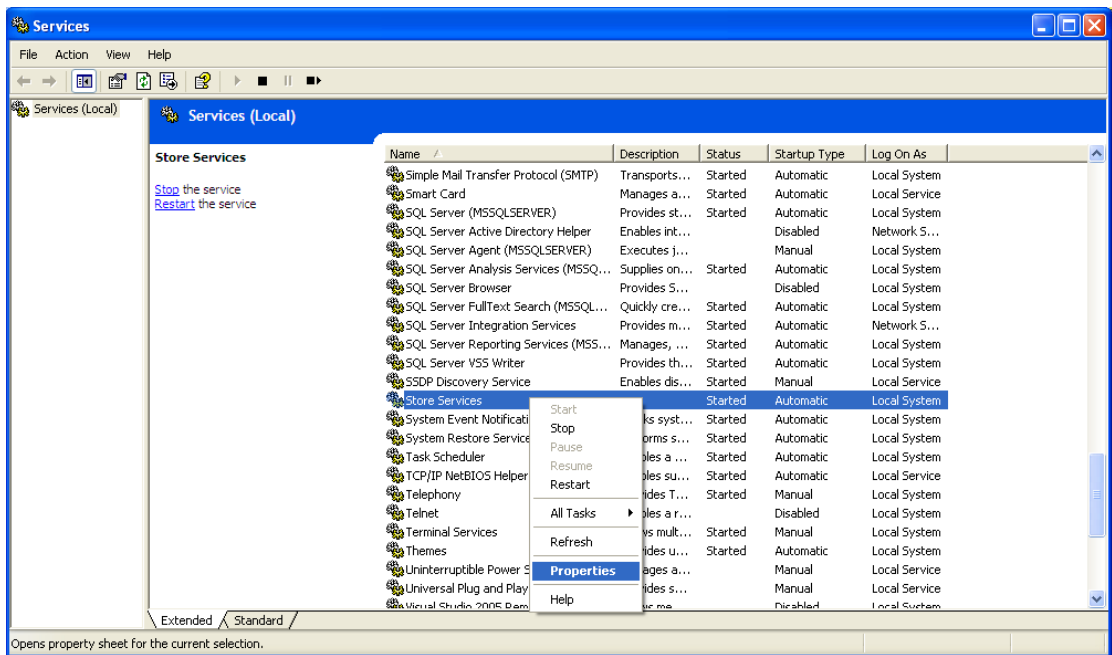
- In the Web.config file (usually found in C:\Program Files\SCI\SCIStore\StoreWeb) find the following line....

```
<system.web>
  <!--
    Use to allow Clinical Letters to be held on a remote Store
    <identity impersonate="true" UserName="domain\username" password="password"/>
  -->
```

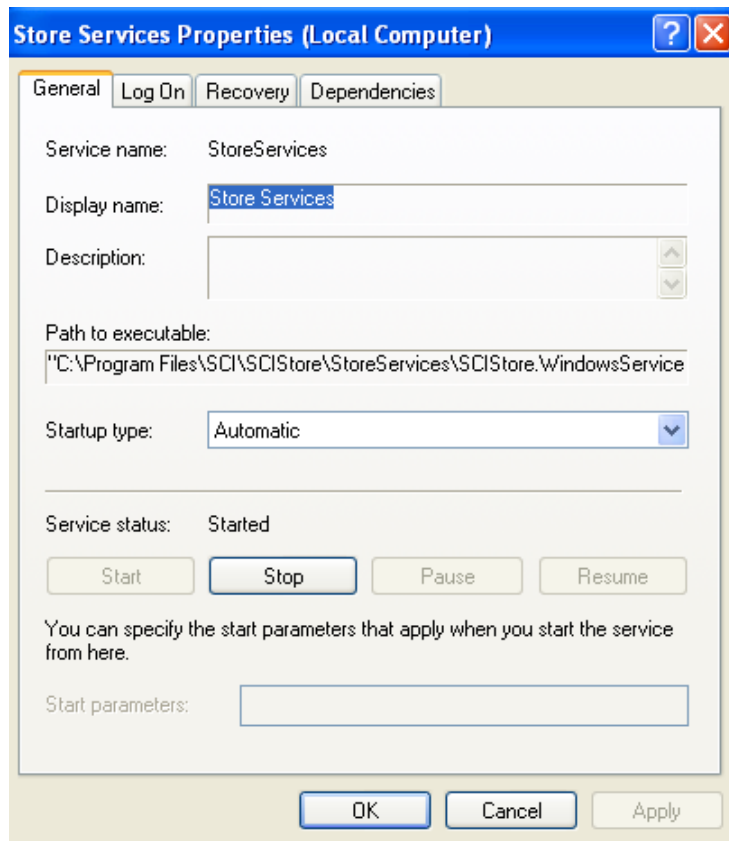
- Un-comment the “Identity” line, and enter a domain, username and password of an appropriate account.

```
<system.web>
  <!--
    Use to allow Clinical Letters to be held on a remote Store -->
  <identity impersonate="true" userName="domain\username" password="password" />
```

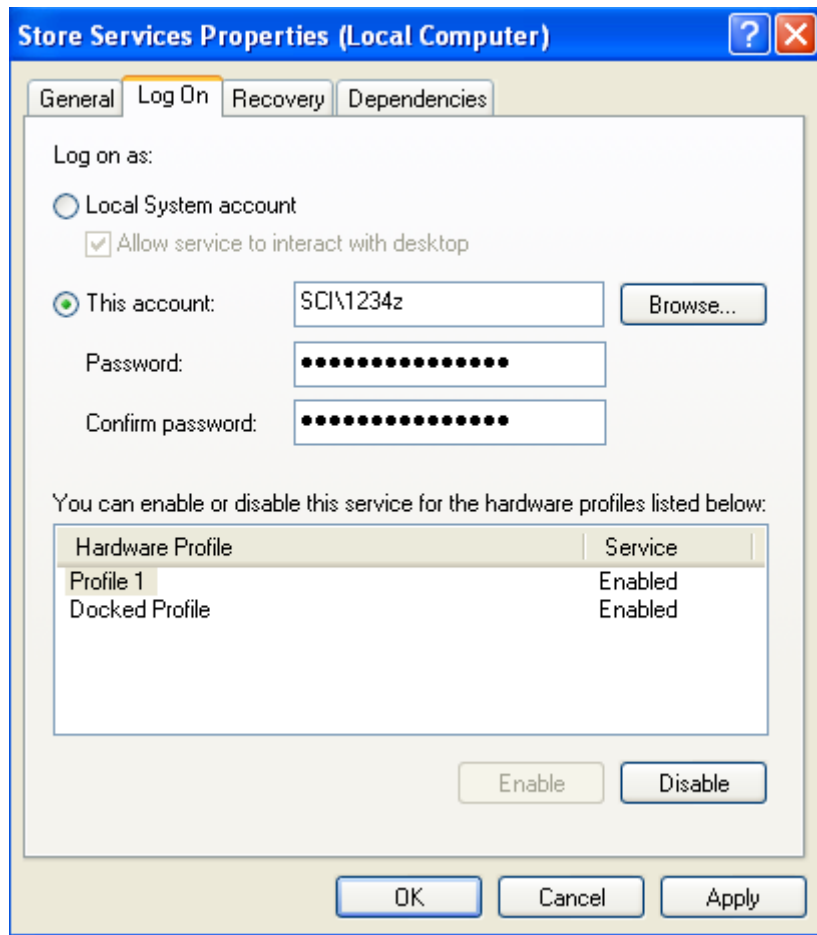
- Save the file and then restart IIS to complete the Web.Config setup.
- Navigate to the Windows Services list – Control Panel\Administrative Tools\Services. Right click on “Store Services” and select “Properties”...



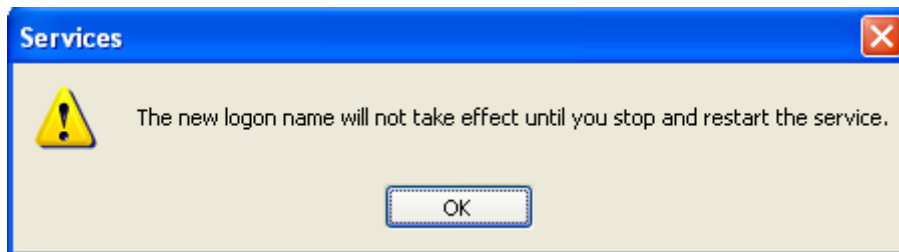
To open....



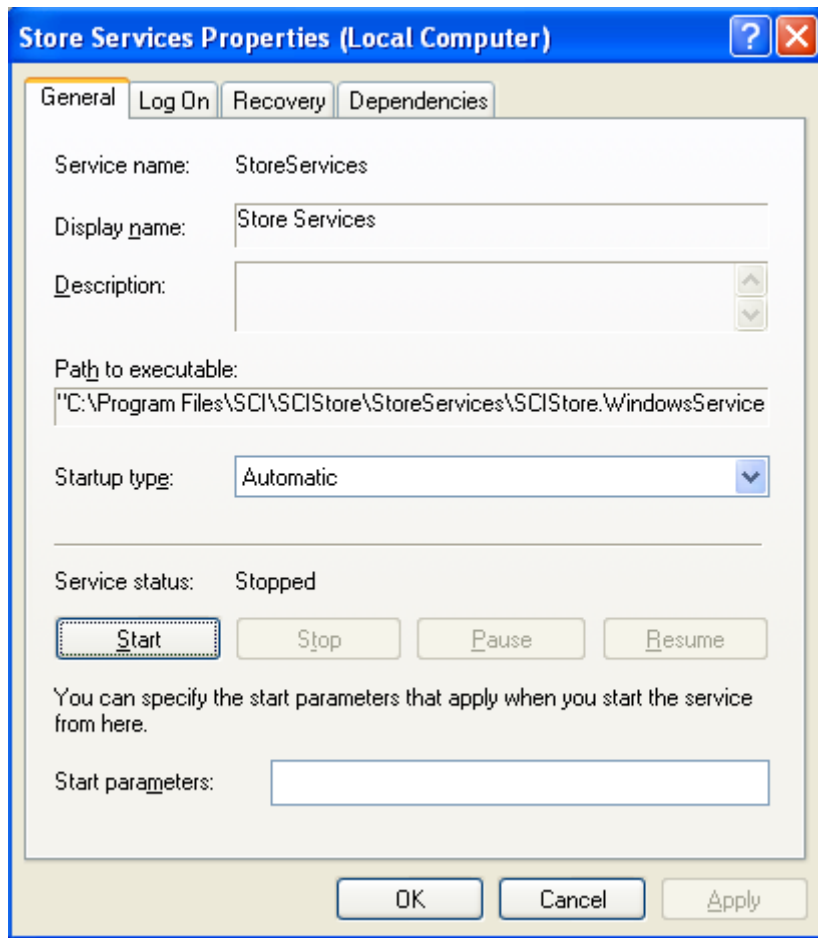
- Click "Stop" to stop the windows service.
- Select the Log On tab. Change the "Log on as" from the Local System account to another account with the appropriate permissions.



- Click “Apply” and if the account is OK the following message is displayed...



- Click the “General” tab, then click the “Start” button to start the Service.



- Finally Click “OK” to complete the Store Services setup.

3.5 Warning

Having created and started to use a Document Upload Service, under no circumstances should the Document Storage option be changed; If this were done, the reference information which is used to retrieve Documents would be altered and access to documents stored using the previous option would be lost. If a User wishes to use a new storage option, a new Document Upload Service should be created. A disused service may be removed from the active list by changing its Status to “No”.

4 Running a Document Upload Service

4.1 Testing

Facilities are provided to test a Service Definition, created as described in Chapter 3.

- To do this, first navigate to the “Amend Service Definition” screen and set “Status” to “Off”, then click “Save” to save the change. This will isolate the Service from the automatic (Windows) Store Services system. In testing, the “Polling Interval” parameter is ignored, but the “Batch Size” parameter will be used to determine the number of documents processed in the test.

The screenshot shows the 'Amend Service Definition' screen in the SCI Store Paisley application. The interface includes a navigation menu with options like Home, Find Patient, Find Result, Find Document, and Find on CHI. The main content area displays the following fields:

- Service ID: 21
- Service Type: DocumentToDatabase (dropdown)
- Service Name: Local_DocToDBv23
- Polling Interval: 20
- Batch Size: 20
- Status: Off (radio button selected)
- Match Patient: Greater Glasgow Match (dropdown)
- Greater Glasgow Match: Greater Glasgow Match (dropdown)
- CHI Demographics?:

Buttons at the bottom include Delete, Exit, Save, and Configure.

- Return to the “Amend Service Definition” screen and click “Configure” to view the Service configuration screen.

The screenshot shows the 'Document To Database' configuration screen in the SCI Store Paisley application. The interface includes a navigation menu with options like Home, Find Patient, Find Result, Find Document, and Find on CHI. The main content area displays the following fields:

- Document Source: Local Docs v2.3
- Document Path: C:\GGTest\DoctoDB23\LocalDocs\Document
- XML Path: C:\GGTest\DoctoDB23\LocalDocs\XML
- Stylesheet Path: C:\GGTest\DoctoDB23\LocalDocs\Xslt
- Document Extension: doc, xls, txt, pdf, xml, tif, htm
- Document Size Limit: 1000 kB
- Default Patient Consent: Yes (dropdown)
- Allow Future Attestation Date: No (dropdown)
- Default Sensitivity: Highly Sensitive (dropdown)
- Schema Version: V23 (dropdown)
- Schemes And Mappings: GMC Scheme (dropdown) / Map
- Document Storage: Local SCI Store (radio button selected)
- Remote SCI Store DB (radio button)
- File Server (radio button)

Buttons at the bottom include Exit, Save, Default Values, and Test Process.

- Load the appropriate document(s) and corresponding XML metadata file(s) to the specified locations (and Stylesheet(s) if the document(s) are themselves XML).
- Click the “Test Process” button to run the Document Upload service on a single batch of documents. The result of the test is displayed as a message below the line of buttons.

If the document(s) is/are processed without any problem arising, the message will be of the form:

```
1 File processed with 0 errors.
```

If errors are found, the total number of documents processed and the number of errors found will be reported with a message like:

```
1 File processed with 1 error.
```

If an attempt is made to process documents without having loaded any XML metadata files, the message will be:

```
There we no XML Metadata files present to process.
```

4.2 Running a Production Document Upload Service

How often the Document Upload input directories are examined to determine whether there is anything to be uploaded is determined by a combination of the Polling Interval for the Upload Service and the total of all Polling Intervals for all the separate Services being run. There is considerable scope for the local SCI Store Administrator to tune these parameters to achieve the optimum throughput.

The first stage in the upload process is examination of the Directory specified by the “XML Path” to ascertain if there is any data to be uploaded. The Upload Service examines the XML metadata record to determine which document is to be uploaded and attempts to do so. If no such document is found, an exception will be reported. It is recommended that to eliminate this type of problem, the document is delivered to the location specified by “Document Path” before the associated XML is delivered to the location specified by “XML Path”. (Facilities to recover from this type of problem are described in the next chapter, but require manual intervention for each case).

5 Managing Document Upload Exceptions

5.1 Overview

There are five distinct stages to the Document Upload process:

- Finding and reading an XML metadata record
- Parsing the metadata
- Locating and loading the document specified by the metadata
- Matching the Patient and Hcp (Healthcare Professional) details given in the metadata with existing information on SCI Store
- Linking the document with a patient on the SCI Store database

5.2 Document source table

At each stage problems can occur. The progress of every document is tracked at every stage in a single database table (**DocumentSource**). SCI Store Users with specific Administrator rights have access to a Menu option which provides facilities to review and manage all exceptions found.

Note: Please refer to the Exceptions Management Installation Guide (Appendix B), for detailed information about document upload exception status definitions.

5.3 Document upload service status

For all users, the current status of the Document Upload Service may be displayed on the Home page, and shows the position for successfully uploaded documents.

| Name | Title | Revision | Category | Sub-Category | Specialty | Uploaded | Sensitivity | Info | Linked |
|--------------------|---|----------|----------------------|-----------------|------------------|------------|-------------|---------|--------|
| James Dell | ManualDocumentUploadForms | 001 | Charts & Forms | ED Card | Allergy | 19/01/2010 | S | | - |
| All MinDocToDB23 | PDF Testdocument for Min DocToDB23 revision 1 | 001 | Reports | OOH report | X-Ray | 13/01/2010 | S | | - |
| Willbe Secondary | Compas Merge Willbe Secondary | 001 | Correspondence | Clinical letter | Haematology | 13/01/2010 | S | | - |
| Don McDiarmid | DonMcDairmidReferralDocument2 | 001 | Correspondence | Referral letter | General Medicine | 13/01/2010 | HS | | ✓ |
| Carol Dobson | Web Service Test0001's Word Doc Test | 001 | Clinical Letter Test | | Haematology | 13/01/2010 | S | | - |
| Alan Brown | Web Service Test0002's Word Doc Test | 001 | Clinical Letter Test | | Radiology | 13/01/2010 | S | Retired | - |
| NegativeValues Doc | -35 | 001 | Correspondence | Transfer letter | -35 | 13/01/2010 | S | | - |
| Don McDiarmid | DonMcDairmidReferralDocument | 001 | Correspondence | Referral letter | General Medicine | 13/01/2010 | HS | | ✓ |
| Jimmy Black | Upload Document Test | 003 | Correspondence | Clinical letter | Cardiology | 13/01/2010 | HS | | - |
| James Dell | Upload Document Test | 003 | Correspondence | Clinical letter | Cardiology | 13/01/2010 | HS | | - |
| Jimmy Black | Upload Document Test | 010 | Correspondence | Clinical letter | Cardiology | 13/01/2010 | HS | | - |
| Goingtobe Master | Compas Merge Goingtobe Master | 001 | Correspondence | Clinical letter | Haematology | 13/01/2010 | S | Retired | - |
| HasToBe Cascaded | Compas Merge HasToBe Cascaded | 001 | Clinical Letter Test | | Haematology | 13/01/2010 | S | | - |
| All Doc | Stylesheet Testdocument for Full Doc revision 1 | 001 | Assessments | CPA assessment | X-Ray | 13/01/2010 | HS | | - |
| Bulk Load | BulkLoad New Document | 040 | Correspondence | Transfer letter | Cardiology | 13/01/2010 | S | | - |

5.4 Configuring user permissions

The SCI Store Administrator will configure the settings for each User individually depending on their requirements. Whether or not individual documents and patients can be accessed from the Home page will depend on whether or not the User

concerned has appropriate security permissions. These are discussed in a later Chapter.

5.5 Exceptions Management

The management process is accessed by selecting “Exception Management”, then “Documents Uploaded. See below.

| Name | Title | Revision | Category | Sub-Category | Specialty | Uploaded | Sensitivity | Info | Linked |
|--------------------|---|----------|----------------------|-----------------|------------------|------------|-------------|---------|--------|
| James Dell | ManualDocumentUploadForms | 001 | Charts & Forms | ED Card | Allergy | 19/01/2010 | S | i | - |
| All MinDocToDB23 | PDF Testdocument for Min DocToDB23 revision 1 | 001 | Reports | OOH report | X-Ray | 13/01/2010 | S | i | - |
| Willbe Secondary | Compas Merge Willbe Secondary | 001 | Correspondence | Clinical letter | Haematology | 13/01/2010 | S | i | - |
| Don McDiarmid | DonMcDiarmidReferralDocument2 | 001 | Correspondence | Referral letter | General Medicine | 13/01/2010 | HS | i | ✓ |
| Carol Dobson | Web Service Test0001's Word Doc Test | 001 | Clinical Letter Test | | Haematology | 13/01/2010 | S | i | - |
| Alan Brown | Web Service Test0002's Word Doc Test | 001 | Clinical Letter Test | | Radiology | 13/01/2010 | S | Retired | - |
| NegativeValues Doc | -35 | 001 | Correspondence | Transfer letter | -35 | 13/01/2010 | S | i | - |
| Don McDiarmid | DonMcDiarmidReferralDocument | 001 | Correspondence | Referral letter | General Medicine | 13/01/2010 | HS | i | ✓ |
| Jimmy Black | Upload Document Test | 003 | Correspondence | Clinical letter | Cardiology | 13/01/2010 | HS | i | - |
| James Dell | Upload Document Test | 003 | Correspondence | Clinical letter | Cardiology | 13/01/2010 | HS | i | - |
| Jimmy Black | Upload Document Test | 010 | Correspondence | Clinical letter | Cardiology | 13/01/2010 | HS | i | - |
| Goingtobe Master | Compas Merge Goingtobe Master | 001 | Correspondence | Clinical letter | Haematology | 13/01/2010 | S | Retired | - |
| HasTobe Cascaded | Compas Merge HasToBe Cascaded | 001 | Clinical Letter Test | | Haematology | 13/01/2010 | S | i | - |
| All Doc | Stylesheet Testdocument for Full Doc revision 1 | 001 | Assessments | CPA assessment | X-Ray | 13/01/2010 | HS | i | - |
| Bulk Load | BulkLoad New Document | 040 | Correspondence | Transfer letter | Cardiology | 13/01/2010 | S | i | - |

The system navigates to the Document Uploaded Search Screen. See below.

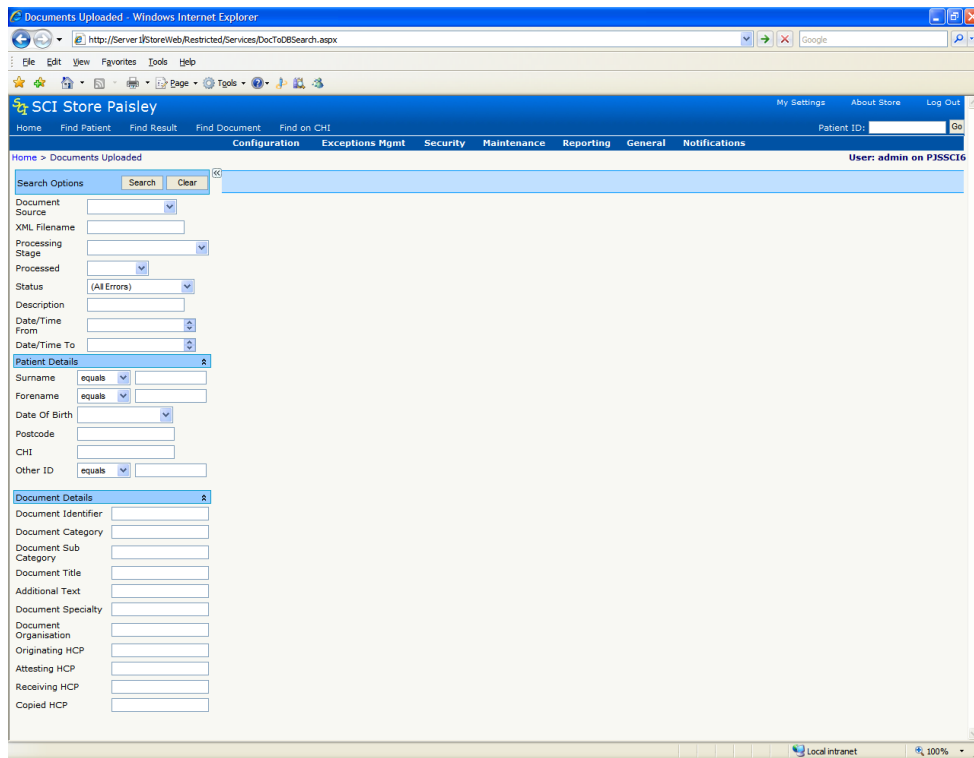
5.6 Documents Uploaded Search

The Documents Uploaded search screen allows the user to check the status of any documents that are uploaded and manage any exceptions that occur.

This “Documents Uploaded Search” screen provides a set of selection options to allow problems to be studied.

For general review purposes, selection of a “Document Source” from the drop-down list, together with entry of “Date/time From” and “Date/time To” will provide a list of all items processed.

Note: It is important to recognise that the date value in this case has to be one which exists before the metadata and document is processed and does not depend on the metadata content (in case the XML fails to parse). For this reason, the XML File date is used. This is the date that would be shown in a Windows Explorer directory listing of the XML metadata file, under the heading “Modified”. Thus in normal processing it will be the date (and time) the XML metadata file is written.





To search, enter one or more of the following search criteria and click the “search” button.

5.6.1 Search Options

- Document Source (Name of the Document to Database interface)
- XML Filename
- Processing Stage (detailed in Appendix B)
- Processed
- Status
- Description (Content of the message associated with the status of the uploaded document e.g. Completed successfully)
- Date/Time From (Date/Time Processed From)
- Date/Time To (Date/Time Processed To)

5.6.2 Patient details search criteria

The patient details search criteria is hidden from view. If hidden (by default), select “” to show the search options, or if shown, select “” to hide the search options.

Note: All values taken from XML Metadata file

- CHI
- Other ID
- Other ID Type
- Surname
- Forename
- Date of Birth
- Postcode

5.6.3 Document Details Criteria

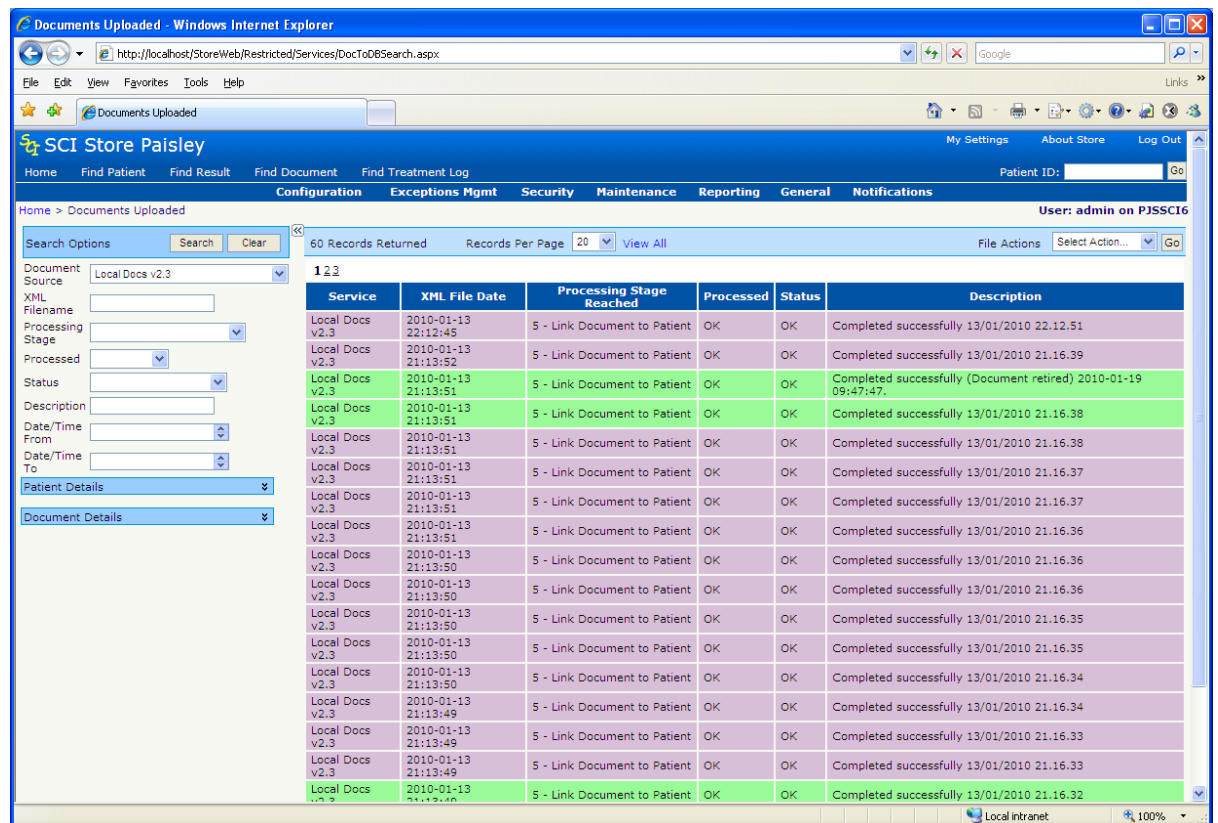
The document details search criteria is hidden from view. If hidden (by default), select “ v ” to show the search options, or if shown, select “ ^ ” to hide the search options.

Note: All values taken from XML Metadata file

- Document Identifier
- Document Category
- Document Title
- Additional Text
- Document Specialty
- Document Organisation
- Organisation Type
- Originating HCP
- Attesting HCP
- Receiving HCP
- Copied HCP

Note. If no search criteria are entered, all the results in the database will be returned (depending on whether the “SearchLimit” system setting has been set).

The search results will then be returned as follows:



Clicking on the **Clear** button will clear the search results and criteria and restore the search defaults.

5.6.4 File Actions

The following functions can be accessed from the “File Actions” drop down list.

Flag as actioned

As per the Uploaded Files and Parsed Files Search screens, the messages that the search returns can then be flagged as “Actioned” by selecting “Flag As Actioned” option from the Actions drop down and clicking “Go”

By flagging as “Actioned” it is assumed that some sort of user action has been carried out, for example, the user has viewed the record and concluded that there is nothing that can be done to the file.

Note: Only files that have errors (E.g. in processing stage 1-4) will be “flagged as actioned”. Once “go” is selected by the user, the system will display an information message that shows the number of files that were flagged as actioned.

5.7 Document Upload Details Screen

Clicking on one of the messages returned in the documents uploaded search will then display the following screen:

Document Upload Details

| | | | | |
|---------------------------|--|----------------------|--|--|
| Document Source | Local Docs v2.3 | XML File Path | d:\Reg_Interface\DoctoDB23\LocalDocs\XML | |
| Stage Reached | 5 - Link Document to Patient | XML File Name | xml_WillBeSecondaryMergeDoc.xml | |
| Processed | 1 - Processing Complete | XML File Date | 05/06/2009 01:37:55 | |
| Status | 1 - Processing successful | Status Date | 05/06/2009 01:40:24 | |
| Status Description | Completed successfully 05/06/2009 01:40:24 | | | |

Document Parsing Details

| | | | |
|------------------------------|-------------------------------|--------------------------------|---------------------------|
| Parse Date & Time | 05/06/2009 01:40:24 | Document Status | New |
| Document Title | Compas Merge Willbe Secondary | Document Specialty | Haematology |
| Document Revision | 001 | Document Organisation | Glasgow Western Infirmary |
| Document Category | Correspondence | StyleSheet | N/A |
| Document Sub-Category | Clinical letter | Sorting Date & Time | 20/03/2006 15:55:00 |
| Patient Consent | Y | Sensitivity | S |
| Additional Text | N/A | | |

Patient Parsing Details

| | | | | | |
|----------------------|------------------|----------------------|-----------|------------------------|-------------------|
| Patient Name | WillBe Secondary | CHI | N/A | Patient Address | 46 East Perm Road |
| Patient Sex | M | Other ID | RCH280414 | | Edinburgh |
| Date of Birth | 23/01/1967 | Other ID Type | CRN | Post Code | N/A |

Matching Details

Document Upload Details

XML File

This screen displays details relating to the progress of the Document Upload process for the selected record.

This includes:

- Document parsing details (upload stage & status)
- Patient Parsing details (patient information parsed from the XML metadata file)
- Matching Details (mapping and matching information)

- Document upload Details
- The XML metadata file that has been uploaded

5.7.1 Actions

The following actions can be performed from this page

- **Flag as Actioned:** Flag the message as “Actioned”, only available if the record has not been successfully processed.
- **Manual Match:** Navigates to the Manual Match screen so that records can be matched to a patient
 - ⇒ Only available if the status flag is “PatientMatch Error”, “CHI Match Error” or “Duplicate Patient”.
 - ⇒ Explained in more detail in section 6
- **Reprocess Document From Current Stage:** The system will attempt to re-process the record from its current state. This action should be undertaken after the user has fixed the original cause of the exception e.g. after:
 - ⇒ fixing any mapping issues
 - ⇒ manually matching the record to a patient
 - ⇒ copying a missing document into the correct directory

If the record is processed successfully the user will also be able to:

- **View Patient:** View the patient record
- **View Document:** View the uploaded document, unless the document has been deleted

If more than one record has been returned by the original search, the user can navigate through the list of Document Upload records using the standard navigation toolbar in the top left of the screen.

Appendix A: Link an Uploaded Document to a Patient Prerequisites

#####To be verified#####

Linking a document to a patient may be attempted under the following conditions:

- Upload XML Metadata has completed
- Parse XML Metadata has completed

AND

The “DocumentStatus” element in the XML Metadata is

- “New”; or
- “Amend”

Procedure

- Upload Document
- Perform Patient (Demographics) Match,
- Perform HCPs Match/Mapping’ and
- Perform DocumentSpecialty Match/Mapping

The actions to be carried out depend on:

- <DocumentStatus> value which can be one of
 - ⇒ “New”,
 - ⇒ “Amend”,
 - ⇒ “Delete” and
 - ⇒ “DeleteAll”
- <DocumentRevison> value
 - ⇒ any previously-loaded Revisions of this document that have existed on SCI Store

Appendix B: Action for “New” DocumentStatus Revisions of the Document exist on file

The document is always linked to the patient.

One or more Revisions of the Document exist on file

Revision of incoming Document < highest Revision number on file

Exception reported: “Document rejected: Higher revision already on file”

Revision of incoming Document = highest Revision number on file

Exception reported: “This revision already on file”

Revision of incoming Document > highest Revision number on file

The document is linked to the patient

Appendix C: Action for “Amend” DocumentStatus

No Revisions of the Document exist on file

The document is always linked to the patient (i.e. treated as “New”).

One or more Revisions of the Document exist on file

Revision of incoming Document < highest Revision number on file

- Exception reported: “Document rejected: Higher revision already on file”

Revision of incoming Document = highest Revision number on file

- Existing document with this Revision moved to “History”
- Metadata updated
- New document is linked to the patient

Revision of incoming Document > highest Revision number on file

- Existing “Current” document moved to “History”
- Metadata updated
- The document is linked to the patient

Appendix D: Action for “Delete” DocumentStatus

No Revisions of the Document exist on file

Exception reported: “There is no existing Document on file to Amend or Delete”.

One or more Revisions of the Document exist on file

Revision in XML Metadata < highest Revision number on file

Exception reported: “Document rejected: Higher revision already on file”

Revision in XML Metadata = highest Revision number on file

“Current” Document moved to “History”

User Note added to corresponding “History” metadata

(Patient will have no occurrence of this document as “Current”, but will retain “History”, the highest revision marked as “Deleted”)

Revision in XML Metadata > highest Revision number on file

Exception reported: “Document rejected: Cannot delete a revision greater than the highest on file”

Appendix E: Action for “DeleteAll” DocumentStatus

No Revisions of the Document exist on file

Exception reported: “There is no existing Document on file to Amend or Delete”.

One or more Revisions of the Document exist on file

Revision in XML Metadata < highest Revision number on file

Exception reported: “Document rejected: Higher revision already on file”

Revision in XML Metadata = highest Revision number on file

“Current” Document moved to “History”

User Note added to corresponding “History” metadata

User Notes added to any other revisions of this document in “History”

(Patient will have no occurrence of this document as “Current”, but will retain

“History”, all labelled as “Deleted”)

Revision in XML Metadata > highest Revision number on file

Exception reported: “Document rejected: Cannot delete a revision greater than the highest on file”

Document Control

Document information

| | |
|---------------|---|
| Name: | Clinical Documents - Installation and Configuration |
| Issue: | 2.0 |
| Location: | Linwood |
| Identifier: | SCI-DPUG-005 |
| Filename: | SCI Store - Clinical Documents - Installation and Configuration.doc |
| Format: | Microsoft Office Word 2003 |
| Owner: | Campbell Roberts |
| Status: | Draft |
| Distribution: | SHOW |

Change log

Issue: 1.0
Date: 03/07/2009
Changed by: Campbell Roberts
Details: Final version for V5.1 of SCI Store

Issue: 2.0
Date: 30/09/2013
Changed by: Campbell Roberts
Details: Final release for V8.3 Of SCI Store