



Scottish Care Information

SCI Store

Installation & Configuration Guide

CHI Interfaces

For SCI Store Release 8.3

25/02/2013

SCI-DPUG-013

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1 Introduction

1.1 Purpose

This document provides an overview of the installation and configuration option for the SCI Store CHI interfaces.

1.2 Intended Audience

This document is aimed at Local IM&T staff at a trust that runs the SCI Store.

Specifically it will be of benefit to staff that may be required to install or re-install the CHI Initial download, CHI Broadcast or CHI Registration interfaces or those who may have to change the configuration of any of these within the SCI Store server.

1.3 Overview

Every patient contained in SCI Store should relate to a corresponding record in the CHI mainframe system. The demographic data in Store can be updated to reflect changes to items in the CHI system.

This can be achieved by processing text files generated by the CHI system. The two types of files pertinent to Store are the “Initial Download File” and the “Daily Broadcast File”. Both contain Patient Demographics.

The Initial Download File can be used to “seed” Store with the most recent Patient Demographics for a particular Health Board.

Thereafter, Broadcast Files will be generated daily from the mainframe and transferred to a standard server where Store can pick them up (see Figure 1). These contain updates to existing Patient Demographics as well as inserts for new patients newly added to the health board.

These Demographic changes are only received if the Patient on CHI has been “flagged” using the ACSC code assigned to that particular health board. The CHI ASCS Registration interface can be set up to ensure that all new patients added to store from interfaces other than CHI have an ACSC registration.

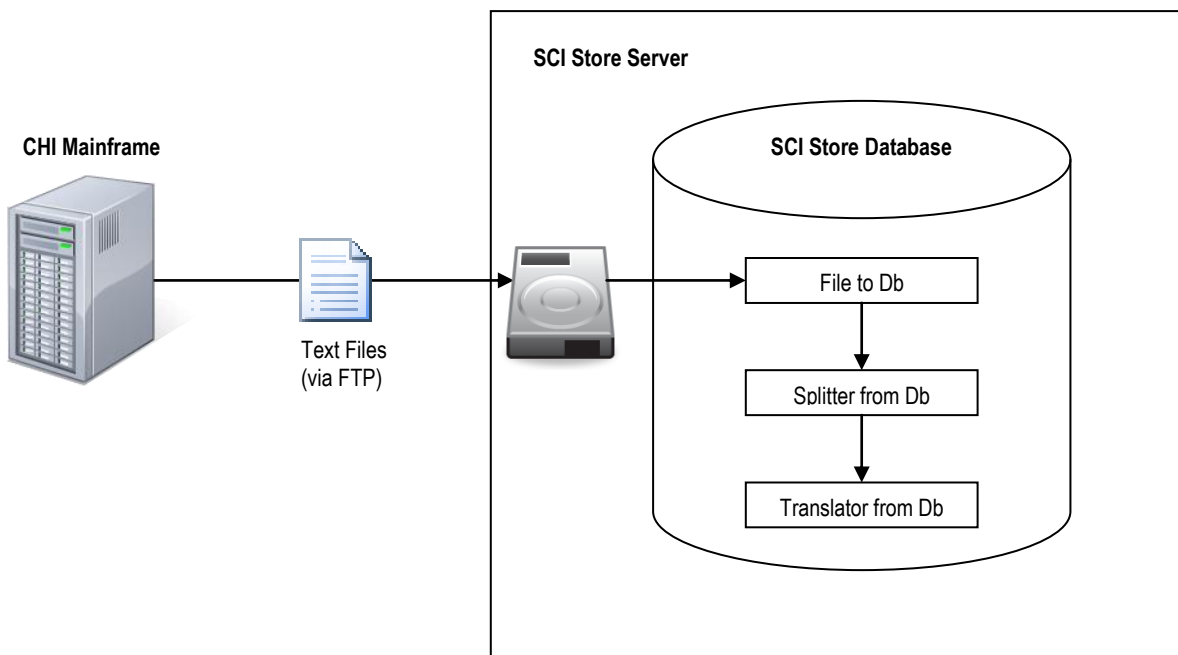


Figure 1: Generic Flow of data from CHI Mainframe to SCI Store Interface

1.4 Compatibility

The CHI Initial, CHI Broadcast and CHI Registration functionality is supported in SCI Store version 2.1 onwards.

1.5 References

The following documents provide additional information:

Document	Document Number
SCI Store - Interface - Installation and Configuration	NHSiS-GID-00112
SCI Store – Data Matching Guide	NHSiS-GID-00168
SCI Store – Exceptions Management Guide	NHSiS-UGD-00094

2 CHI initial download

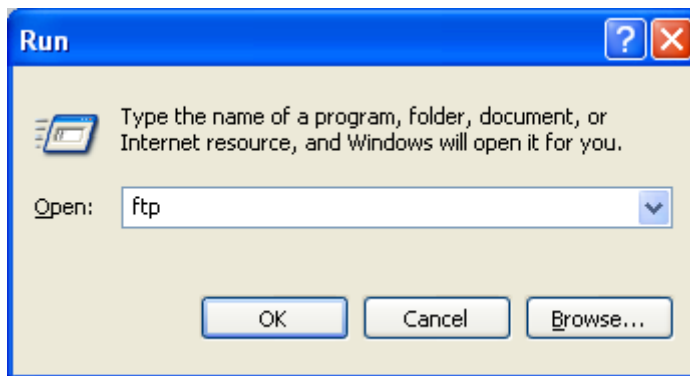
2.1 Overview

The CHI Initial download file can be used to populate a SCI Store database with patient demographic details for all patients within a particular health board. A request should be made to the CHI team for the creation of this file. Once available, a copy of the file can be sent using FTP from the CHI server to the local SCI Store server. Before processing in to SCI Store, the file should be split up in to manageable ‘chunks’ and these then fed to SCI store in a controlled manner. The initial download file is too big to process directly in to Store and if attempted, the SCI Store Windows Service will crash.

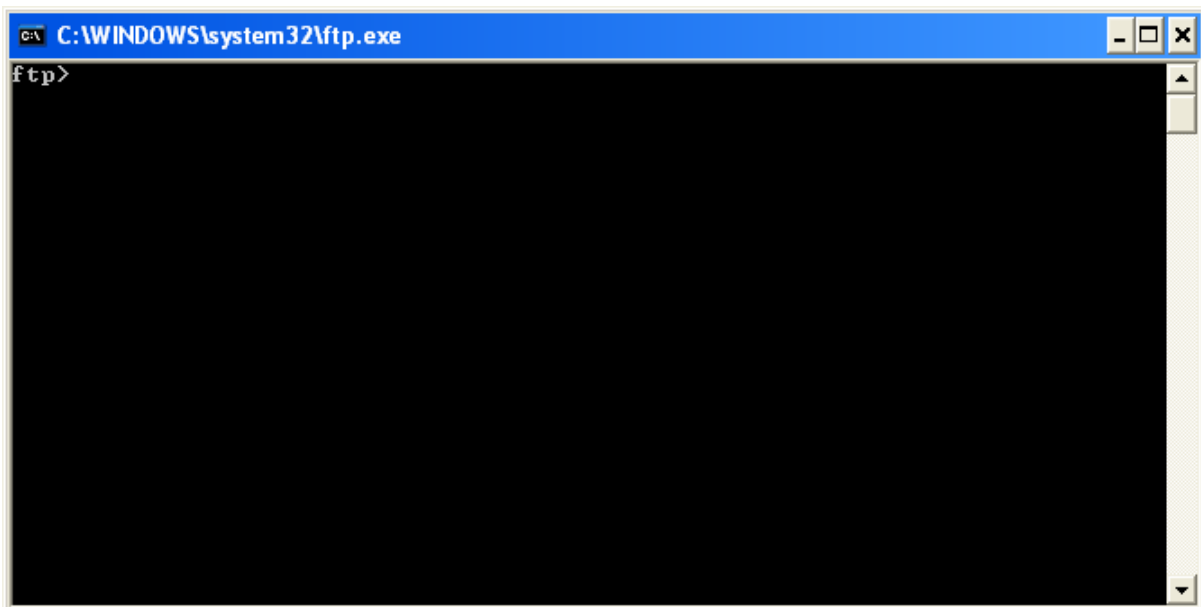
2.2 File Retrieval

The following steps detail how to establish an FTP connection to the CHI Mainframe and then how to transfer the file to the local SCI Store server.

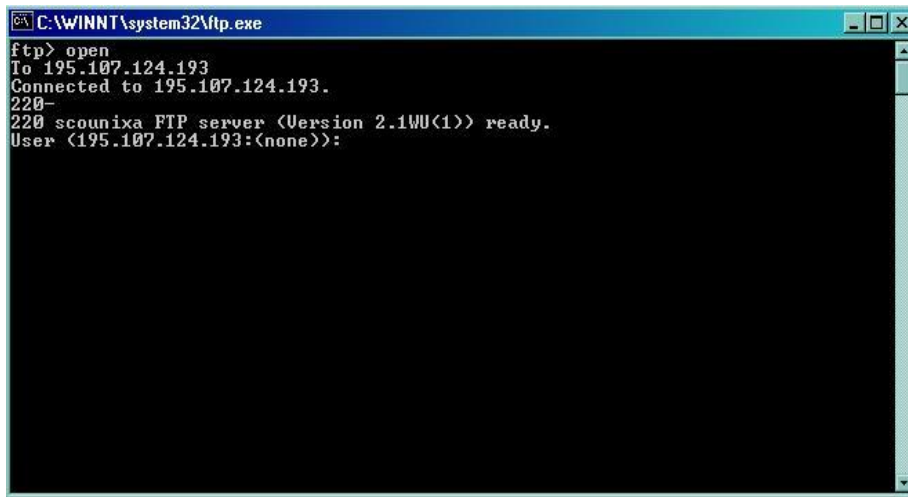
1. Click Start > Run to open the FTP command prompt:



2. The following window is displayed:



3. Type in the Command “OPEN” and press Return. When Prompted for the “To” connection. Type in the IP address of the box that the Initial Download File was copied to and press Return. This information can be sourced from the CHI team.

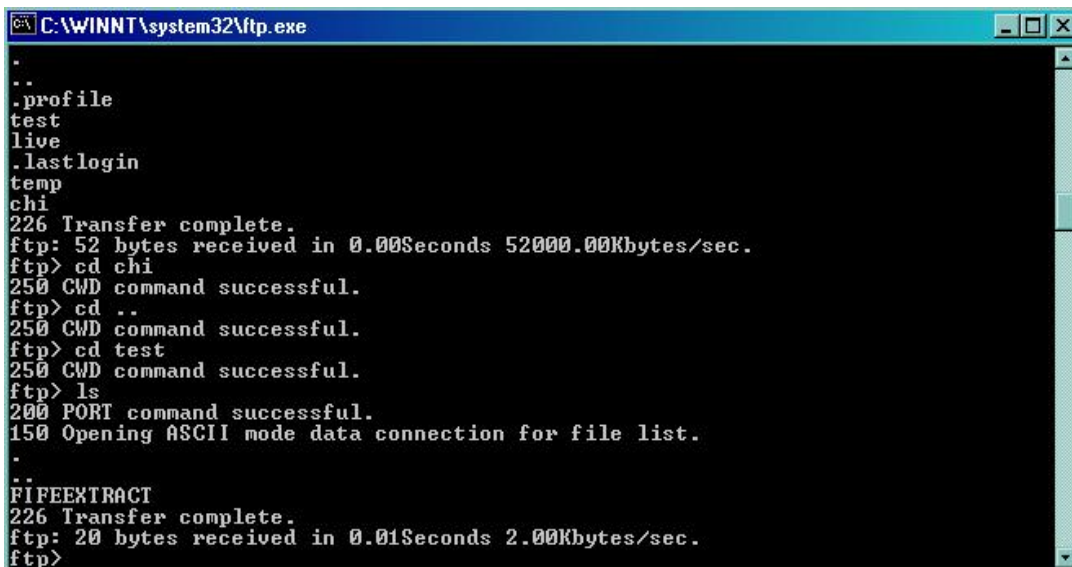


```
C:\WINNT\system32\ftp.exe
ftp> open
To 195.107.124.193
Connected to 195.107.124.193.
220-
220 scounixa FTP server (Version 2.1WU(1)) ready.
User (195.107.124.193:(none)):
```

4. You should now be connected to the FTP Server. Next supply a username and password. You should now be logged into the FTP Server.

NOTE: You must confirm the name of the Initial Download File and the directory where it was placed. This information can be obtained from the CHI Team.

5. Standard DOS commands can be used to navigate to the directory where the Initial Download file exists.



```
C:\WINNT\system32\ftp.exe
.
..
.profile
test
live
.lastlogin
temp
chi
226 Transfer complete.
ftp: 52 bytes received in 0.00Seconds 52000.00Kbytes/sec.
ftp> cd chi
250 CWD command successful.
ftp> cd ..
250 CWD command successful.
ftp> cd test
250 CWD command successful.
ftp> ls
200 PORT command successful.
150 Opening ASCII mode data connection for file list.
.
..
FIFEXTRACT
226 Transfer complete.
ftp: 20 bytes received in 0.01Seconds 2.00Kbytes/sec.
ftp>
```

6. Before downloading the file, create a new folder on the SCI Store Server.
 - e.g. C:\InitialDownloadTemp\
7. Next, in the FTP command window. Change the “Working Directory” to equal the directory you have just created on the SCI Store Server. This can be done by typing in the following command:
 - e.g. LCD “C:\InitialDownloadTemp”

A message should now be displayed reading, “Local Directory is now InitialDownloadTemp”

8. To copy the file, type in the following command, GET and press Return. When prompted for the “Remote File” type in the name of the Initial Download File and press Return.

The file should now be copied to the SCI Store Server into the directory detailed in Step 7.

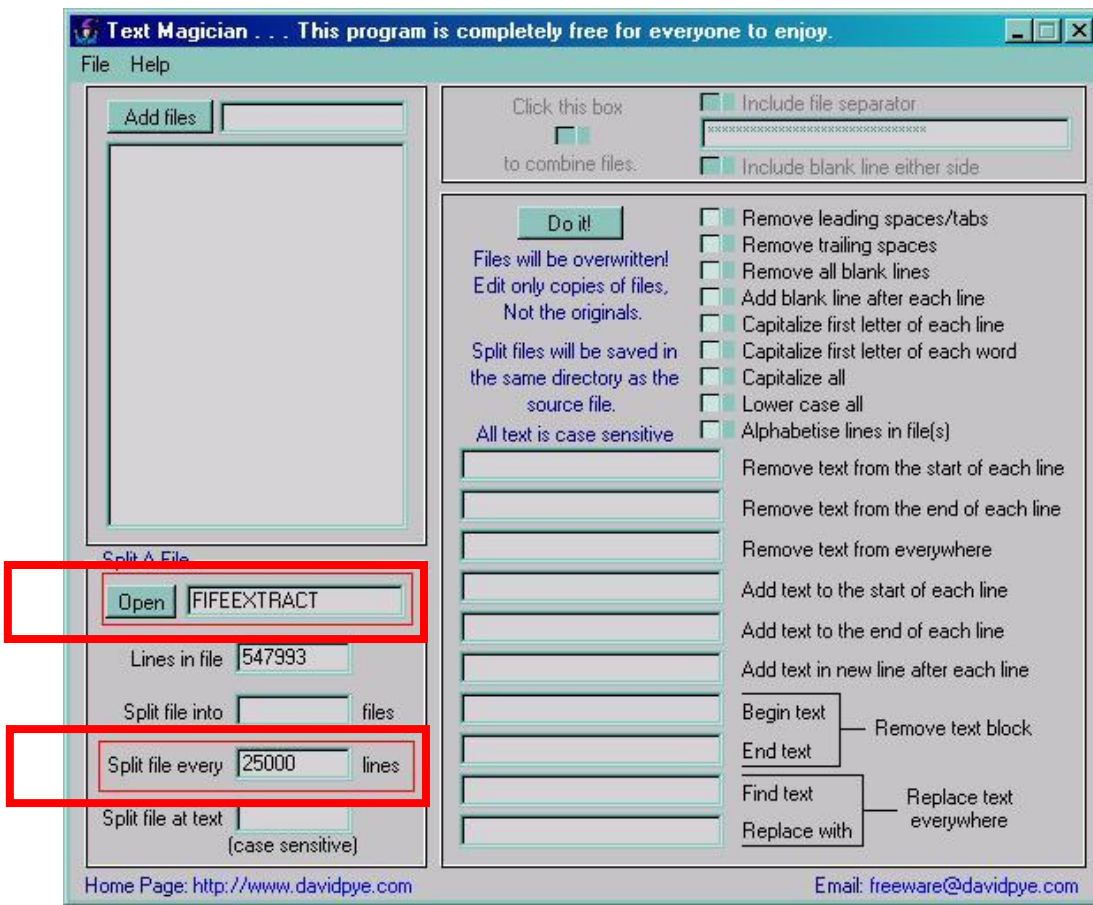
2.3 File splitting process

Problems were experienced during testing due to the size of the Initial Download file; it's recommended that it be split into several smaller files. As a guide, the Initial Download File should be split every 25,000 lines / records.

This splitting could be done manually, however a Freeware application can be found in the SCI Store installation media in the following folder:

- <CD ROM>\Install\Extras\Text Magician

The following diagram illustrates this process:



The new 'split' files will be created in the directory where the Initial Download File copied to in Step 8 i.e.:

- C:\InitialDownloadTemp\.

2.4 File Processing in to SCI Store

A CHI Initial Download interface should be created in SCI Store. The interface will consist of a file to database service, a splitter from database service and a translator from database service.

- **FileToDatabase.** This takes a file (which may contain one or more records) and writes a corresponding record into the database.

- **SplitterFromDatabase.** Normally records are batched together. The SplitterFromDatabase creates a series of single records from the batch.
- **TranslatorFromDatabase.** This component parses each record and writes a PatientMaster object to the database.

Further information regarding the configuration of these services can be found in the following document 'SCI Store - Interface - Installation and Configuration Guide', ref no NHSIS-GID-00112.

The split files (previously created in step 2.3) should then be copied to the 'source directory' as detailed in the file to database configuration. These will then be picked up and processed in to store.

Note: Refer to Appendix A for detailed information on the format of the CHI Initial Download file.

3 CHI daily broadcast

3.1 Overview

Having requested a CHI initial download from CHI, broadcast files will be created on a daily basis. These will contain any changes to existing patient demographic information and will also contain new patient inserts for patients that have been newly added to the health board.

Similar to the Initial Download files, the daily broadcast files will require to be transferred from the CHI server to the local SCI Store server. A batch file can be created on the SCI Store server to perform this task and should be scheduled to run daily at a predefined time.

The Batch File can be found on the following folder in the SCI Store installation media:

- <CD ROM>\Install\Extras\GetBroadcastFiles.Bat

NOTE: The batch file will have to be amended as per site configuration

3.2 Batch File Setup

Amendments should reflect installation paths on the SCI Store Server and the ACS Code assigned to that particular Health Board. ACS Codes can be obtained from the CHI Team in Dundee.

The batch file contains the following commands:

1. %windir%\system32\ftp.exe -s:%0
2. OPEN 195.107.124.193
3. [enter username]
4. [enter password]
5. BINARY
6. CD chi
7. PROMPT
8. LCD C:"\SCI Store\Data\CHIBroadcast\1-Source\Temp"
9. MGET f959c*
10. CD done
11. MPUT f959c*
12. CD ..
13. MDELETE f959c*
14. BYE
15. COPY /Y C:"\SCI Store\Data\CHIBroadcast\1-Source\Temp*.*" C:"\SCI Store\Data\CHIBroadcast\1-Source\Archive\
16. COPY /Y C:"\SCI Store\Data\CHIBroadcast\1-Source\Temp*.*" C:"\SCI Store\Data\CHIBroadcast\1-Source\
17. ERASE /Q C:"\SCI Store\Data\CHIBroadcast\1-Source\Temp*.*"

The following table details each step:

Step	Description
1	Executes the FTP application
2	Opens a connection to the CHI Mainframe
3	Supplies the username
4	Supplier the password
5	Sets the transfer type to binary
6	Changes the directory
7	Turns “prompting” off
8	Changes the “working directory” on the SCI Store to the defined path. (..\Temp)
9	Copies remote files from the CHI Server to the SCI Store – using a wildcard
10	Changes the directory
11	Copies files from the SCI Store to the a remote directory on the CHI Server
12	Changes the directory
13	Deletes files on the CHI Server using a wildcard
14	Closes the FTP connection
15	Archives (copies) the files on the SCI Store to the “archive” folder
16	Copies the files to the directory where the CHI Broadcast can pick them up
17	Removes the files from the specified directory (..\Temp)

Items in the batch file that require amending have been highlighted in the table above.

Step 8	This should reflect the path on the local SCI Store Server.
Step 9	The wildcard should be amended to reflect the ACS Code assigned to the Health Board.
Step 11	The wildcard should be amended to reflect the ACS Code assigned to the Health Board.
Step 13	The wildcard should be amended to reflect the ACS Code assigned to the Health Board.
Step 15	The paths / folders should exist on the SCI Store Server or amend as required.
Step 16	The paths / folders should exist on the SCI Store Server – or amend as required.
Step 17	The path / folder should exist on the SCI Store Server – or amend as required.

3.3 File Processing in to SCI Store

A CHI Daily Broadcast interface should be created in SCI Store. The interface will consist of a file to database service, a splitter from database service and a translator from database service.

FileToDatabase. This takes a file (which may contain one or more records) and writes a corresponding record into the database.

SplitterFromDatabase. Normally records are batched together. The SplitterFromDatabase creates a series of single records from the batch.

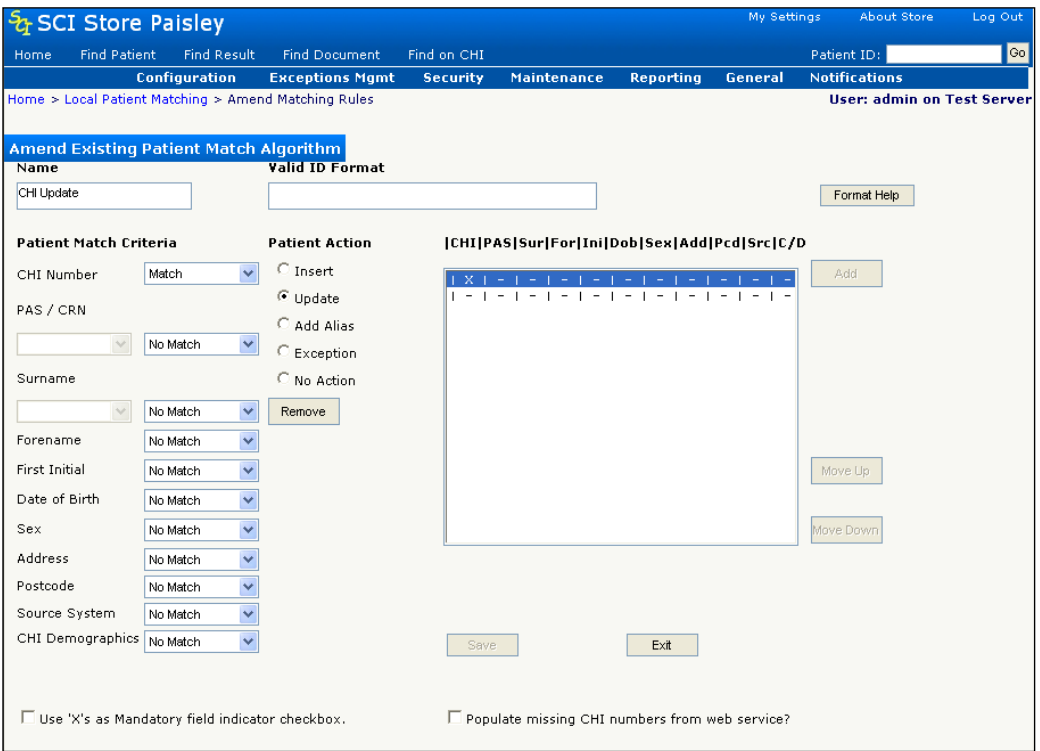
TranslatorFromDatabase. This component parses each record and writes a PatientMaster object to the database.

Note: Further information regarding the configuration of these three parts can be found in: 'SCI Store - Interface - Installation and Configuration Guide', ref no NHSIS-GID-00112.

3.4 SCI Store Daily Broadcast Interface Matching Rule

When configuring matching rules for the CHI Daily Broadcast interface, you should create a single rule with the settings shown in the screenshot/table below.

Note: The document 'SCI Store – Data Matching Guide', ref no NHSIS-GID-00168, provides more details on creating matching rules.



<p>Patient Match Criteria</p>	<p>Set CHI Number to 'Match' but leave all other criteria as 'No Match'.</p> <p>Rationale: The CHI Daily Broadcast file only sends down the data items which have changed as part of the transaction reported. e.g. surname is only included in an amendment transaction if it was the data item that changed. The only guaranteed data item is the 'New' CHI Number and it is not possible to reliably match on</p>
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	<i>any other criteria.</i>
Patient Action	Set the action to 'Update'. <i>Rationale: The action to be performed (INSERT, AMEND, CHANGE, TRANSFER, LINK, UNLINK, DELETE) is determined by the transaction codes in the CHI Daily Broadcast file and the patient action setting is ignored. 'Update' is used as the default.</i>
Default No Match Rule	You will also need this – leave it as it is.

Note: the CHI Initial Download format is listed in Appendix B.

4 CHI ACSC REGISTRATION

4.1 Overview

If a new Patient arrives in Store from an interface other than CHI, then it won't be included in the Daily Broadcast files that Store is currently receiving.

The CHI ACSC Registration Interface sends XML messages at a specified interval to the CHI Mainframe. The messages contain information with regard to new Patients that have arrived in Store. If the XML message is processed successfully on the CHI Mainframe, updates for the new Patient will be included in subsequent Daily Broadcast files.

Each XML message must contain a valid CHI Number. Without this, the message cannot be sent and an error will be recorded.

4.2 CHI ACSC Registration Interface Setup

From the "Interfaces" menu, select "Configuration" then "Maintain Services". From this Web Page, select New Service; create a New Service with a "Type" of "CHI Registration".

Supply the following settings:

- Service Name
- Polling Interval
- Batch Size
- Status **(Ensure this is set to Off until the setup is complete)**

This type of Interface doesn't use Patient Matching rules or Mappings. Click "Save" when done.

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

- Service Type:** A dropdown menu set to 'CHIRegistration'.
- Service Name:** A text input field containing 'My Test CHI Registration'.
- Polling Interval (seconds):** A text input field containing '60'.
- Batch Size (records):** A text input field containing '10'.
- Status:** Radio buttons for 'On' and 'Off', with 'Off' selected.
- Match Patient:** A dropdown menu set to 'Default Match Patient'.

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

Next select and click on the new "CHI Registration" Interface that has just been created.

SCI Store CHI Interfaces – Install & configure

TranslatorFromDatabase	HomerTranslator	10	10	Off
DocumentToDatabase	Local_DocToDB	20	10	Off
DocumentToDatabase	Local_DocToDBv23	20	20	Off
FileToDatabase	MasterlabFile2DB	10	100	Off
SplitterFromDatabase	MasterlabSplitter	10	100	Off
TranslatorFromDatabase	NashMasterlabTranslator	10	100	Off
TranslatorFromDatabase	MasterlabTranslator	10	100	Off
FileToDatabase	MedipathFile2DB	10	10	Off
SplitterFromDatabase	MedipathSplitter	10	100	Off
TranslatorFromDatabase	MedipathTranslator	10	10	Off
FileToDatabase	MISYSFile2DB	20	20	Off
TranslatorFromDatabase	MISYSTranslator	20	20	Off
FileToDatabase	iLabFile2DB	20	20	Off
SplitterFromDatabase	iLabSplitter	20	20	Off
TranslatorFromDatabase	iLabTranslator	20	20	Off
ReferenceData	ReferenceDataImport	10	100	Off
DocumentToDatabase	Remote_DocToDB	20	20	Off
DocumentToDatabase	Remote_File_Server	1	17	Off
FileToDatabase	TelepathFile2DB	10	10	Off
SplitterFromDatabase	TelepathSplitter	10	10	Off
TranslatorFromDatabase	NashTelepathTranslator	10	100	Off
TranslatorFromDatabase	TelepathTranslator	10	100	Off
FileToDatabase	XMLFile2DB	10	10	Off
TranslatorFromDatabase	XMLTranslator	10	10	Off
FileToDatabase	XML31File2DB	10	10	Off
TranslatorFromDatabase	XML31Translator	10	10	Off
FileToDatabase	XML40File2DB	10	10	Off
TranslatorFromDatabase	XML40Translator	10	10	Off
CHIRegistration	My Test CHI Registration	60	10	Off

Next click “Configure”. The CHI Registration Interface configuration screen should now be displayed

Using the Drop down list control on the Web Page allows you to configure either “Logon” settings or “Transaction” settings.

“Logon” Settings must be amended to reflect the information as supplied by the CHI team and are highlighted in the above diagram.

“Transaction” Settings must also be amended.

Amend StoreToCHI (ACSC Registration)

Type: Transaction

Patient Request Header

Originating System: Testing
 Originating User: Tester
 Transaction ID: InsertContact
 User Role: Testing
 Location ID: Y201H

CHI Header

Origin Code: Y201H
 Operator Number: ZA
 User ID: 12345
 Client Operator Number: A1
 Hospital / ACSC Code: Y990C
 Password: PASS

Buttons: Save, Defaults, Test, Exit

The Interface also requires the creation of a new System Setting named “InsertACSC”. This setting has two possible states - “True” or “False”. This can be set in the “Administration” menu, “General Admin.” Then “System Settings”.

This must be set to “True” to allow records to be inserted into the database table “ACSCRegistration”. Information is extracted from this table and used to generate an XML Message that is then passed onto the CHI Web Service.

NOTE: To preserve system resources, the XML message will only be sent if the Patient has a valid CHI number.

If processed successfully, the Patient will be “registered” on CHI and the SCI Store will receive updates to the Patient in the form of Daily Broadcast Files.

4.3 CHI ACSC Registration Interface Exceptions Management

The exceptions management screen can be accessed from the Exceptions mgmt menu.

Exceptions Mgmt

Administration

5 Records Returned

Source	Name	CHI
Local	ChiTest surname54	M 0511671413
Local	ChiTest surname54	25/06/1951 M 0511671411
Local	ChiTest53 surname53	25/06/1951 M 0511671312
Local	ChiTest53 surname53	25/06/1951 M 0511671311
Local	ChiTest51 surname51	25/06/1951 M 0511671211

This Web Page allows users to check if a particular Patient(s) in the SCI Store has been marked on the CHI Mainframe to be included in Daily Broadcast Files.

Note: Refer to document 'SCI Store – Exceptions Management Guide', ref no NHSiS-UGD-00094 for details on ASCS Registrations exceptions management.

APPENDIX A: CHI INITIAL DOWNLOAD RECORD SPECIFICATION

File Name

The file name for the initial patient download is UPIB027YYMMDDhhmm24 where YYMMDD is the date of the file creation and hhmm is the time of the file creation.

RECORD LAYOUT FOR FULL CHI PATIENT DOWNLOADS

We only require CURRENT records in this file

Field	Fixed or Variable	Length	Notes
UPI Number	F	11	Mandatory DDMMYYnnnn (followed by ~)
CHI Number	F	11	Mandatory DDMMYYnnnn (followed by ~)
CHI Identifier	F	2	Mandatory: B, E, G, H, C, N, S or W (followed by ~)
CHI/UPI status	F	2	Mandatory: "C"= current owner; space = current (single record); "H" = historical, "Y" = local copy; "R" – redundant (followed by ~)
Deletion indicator	V	1-2	Optional "D" for deleted. Otherwise null. (followed by ~)
Date of Birth	F	9	Mandatory DDMMCCYY (followed by ~)
Sex	F	2	Mandatory M or F (followed by ~)
Area of residence	F	1-2	Optional: Health Board Cipher (may be null). Only different from 1st char of GP Ref. where Hosp/Comm user disagrees. Or may be present where no GP Ref. (followed by ~)
GP Reference Number	F	1-6	Optional: 1st char. = HB cipher. May be null (followed by ~).
GP Date of Acceptance	F	1-9	Optional: DDMMCCYY (null if GP Ref. spaces) (followed by ~)
Reason for Registration	F	1-2	Optional: See CHIDATA doc. for values (followed by ~)
NHS number	V	1 – 17	Optional (includes ~ at end)
Surname	V	3 - 21	Mandatory (includes ~ at end)
First forename	V	1 - 16	Mandatory, but some missing (includes ~ at end)
Alternative forename	V	1 - 16	Optional (includes ~ at end)
Second forename	V	1 - 16	Optional (includes ~ at end)
Other initials	V	1 - 5	Optional (includes ~ at end)
Previous surname	V	1 - 21	Optional (includes ~ at end)

Birth surname	V	1 - 21	Optional (includes ~ at end)
Current Address line 1	V	3 - 36	Mandatory – 1st line of CHI address followed by ~
Current Address line 2	V	1 - 36	Optional – 2 nd line of CHI address followed by ~ (corrected rel 1141)
Current Address line 3	V	1 - 36	Optional – 3 rd line of CHI address followed by ~
Current Address line 4	V	1 - 36	Optional – 4 th line of CHI address followed by ~
Current Postcode	V	1 - 8	Optional (includes ~ at end)
Date address changed from previous to current	V	1 or 9	Optional: DDMMCCYY Optional (includes ~ at end)
Previous address Line 1	V	1 – 36	Optional: 1st line of CHI previous address followed by ~
Previous address Line 2	V	1 – 36	Optional: 2 nd line of CHI previous address followed by ~
Previous address Line 3	V	1 – 36	Optional: 3 rd line of CHI previous address followed by ~
Previous address Line 4	V	1 – 36	Optional: 4 th line of CHI previous address followed by ~
Previous postcode	V	1 to 8	Optional: Includes ~ at end
Date of transfer out or removal	V	1 or 9	Optional: DDMMCCYY, Includes ~ at end
Reason for Transfer Out	V	1 – 2	Optional: followed by ~
New Area Code	V	1 – 4	Optional: followed by ~
Date of Transfer in	V	1 or 9	Optional: DDMMCCYY, Includes ~ at end
Old Area Code	V	1 – 4	Optional: followed by ~
Immigrant code	V	1 - 3	Optional: 2 character code (“I “ or “In” where n is an integer)
Date of Death	V	1 or 9	Optional: DDMMCCYY, includes ~ at end
Source of Death Details	V	1 or 2	Optional: followed by ~ C = CENTRAL REGISTER D = GP (I.E. DOCTOR) G = G.R.O. H = HOSPITAL N = COMMUNITY NURSING O = OTHERS R = RELATIVE X = DATE OF DEATH

			APPROXIMATE - SOURCE NOT RECORDED
Namesake Type	V	1 or 2	Optional: If present: “N” (namesake) or “M” (multiple birth) or “Z” (unknown namesake) Includes ~ at end
Namesake Confirmation Indicator	V	1 or 2	Optional: “C” (confirmed) or “U” (unconfirmed), followed by ~
Namesake’s CHI Number	V	1 or 11	Optional: If present, CHI Number followed by ~
Date of Surname Change	V	1 or 9	DDMMCCYY Optional (includes ~ at end)
Marital Status	V	1 or 2	Optional, (includes ~ at end)
Confirmed Date of Birth Indicator	V	1 or 2	Optional B = BIRTH CERTIFICATE SEEN C = DATE CONFIRMED BY COMMUNITY ORIGIN H = DATE CONFIRMED BY HOSPITAL ORIGIN P = DATE CONFIRMED BY PRIMARY CARE R = DATE CONFIRMED BY REGISTER CONTROLLER 9 = DATE OF BIRTH CONFIRMED BY CONSORTIUM CONTROLLER I = USED ONLY WHERE THE CHI NUMBER IS A 'LOCAL CONSORTIUM' NO. (facility not used) X = RANDOMLY ALLOCATED DATE OF BIRTH T = TEMPORARY CHI NUMBER (LATER PHASE IMPLEMENTATION) (I.E. GENERATED BY COMPUTER WHERE DATE OF BIRTH NOT KNOWN ON PATIENT REGISTRATION. Z = DATE CONFIRMED CORRECT ON 1900 SYSTEM (I.E. IT IS THEREFORE NOT POSSIBLE TO IDENTIFY THE SOURCE OF CONFIRMATION (includes ~ at end)
District of Residence	V	1 or 2	Optional, (includes ~ at end)
Title	V	1 - 31	Optional, (includes ~ at end)

CHI Identifier: “B” (Borders), “E” (Tayside, Fife & Forth Valley), “G” (Glasgow), “H” (Highland), “C” (Lanarkshire), “N” (Grampian, Orkney & Shetland), “S” (Lothian), “W” (Argyll & Clyde, Ayrshire & Arran, Dumfries & Galloway and the Western Isles).

GP Reference Number will be included for transferred out and deceased patients.

Records marked as deleted will be included for completeness, but should be ignored for matching purposes (deletion indicator set to “D” instead of space). Records marked as non-

current will be included for completeness, but should be ignored for matching purposes (UPI Status indicator set to “H” or “Y” or “R”).

The CHI Address data will be split into 4 fields of up to 35 characters each.

- Postcode will be structured. Structured (postal area 2 characters, postal district 2 digits, postcode sector 1 digit, then the properties identifier 2 characters. (First 4 characters are the “out-code”, the last 3 the “in-code) (e.g.: “G 013QR” for “G1 3QR”)

The GP Reference Number supplied will consist of first character equal to the patient’s area of residence (according to Primary Care), followed by the 4 digit numeric GP reference Number (excluding the check digit).

Where a variable length field does not exist, only a “~” sign will be present in the field.

Records on the downloaded file will be of variable length. Every field will be followed by an additional “~” (tilda) character. Maximum field length in characters of variable length fields in the table above includes the “~” character.

APPENDIX B: CHI BROADCAST RECORD SPECIFICATION

File Name

The file name for the initial patient download is UPIB027YYMMDDhhmm24 where YYMMDD is the date of the file creation and hhmm is the time of the file creation.

RECORD LAYOUT FOR PATIENT DAILY UPDATES

Field	Length	Notes
Date of Transaction	9	CCYYMMDD, Mandatory– followed by ~
Time of Transaction	7	HHMMSS, Mandatory – followed by ~
Origin of Transaction	6	XnnnA, Mandatory, where X is the Health Board Cypher of the user. Exceptionally, the Origin Code might be 9999Z. – followed by ~
Record Type	2	Value P where P = patient data update followed by ~
Update Type	2	I = insert A = Amend V = V-transfer amendment (see notes below) D = Delete L = Link U = Unlink C = Change of CHI Number due to Date of Birth or Sex change followed by ~
“Old” CHI Number	1 or 11	Optional. Only present if Update type is L, U or C
“New” CHI Number	1 or 11	Mandatory.
Deletion indicator	1 or 2	“D” for deleted. followed by ~
Date of Birth	1 or 9	DDMMCCYY followed by ~
Sex	1 or 2	M or F followed by ~
Area of residence (Hospital/Community)	1 or 2	Health Board CIPHER (may be space). Only different from 1st char of GP Ref. where Hospital or Community user disagrees with PSD. Or may be present where no GP Ref. followed by ~

GP Reference Number	1 or 6	1st char. = HB cipher (i.e. Patient Area of Residence), characters 2 – 5 contain the GP Reference number (the check digit is not included). May be all spaces. – followed by ~
GP Date of Acceptance	1 or 9	DDMMCCYY (spaces if GP Ref. spaces) followed by ~
Reason for Registration	1 or 2	See CHIDATA doc. for values followed by ~
NHS number	1 – 17	followed by ~
Surname	1 – 21	followed by ~
First forename	1 – 16	followed by ~
Alternative forename	1 - 16	followed by ~
Second forename	1 - 16	followed by ~
Other initials	1 - 5	followed by ~
Previous surname	1 - 21	followed by ~
Birth surname	1 - 21	followed by ~
Current Address Line 1	3 – 36	followed by ~
Current Address Line 2	1 – 36	followed by ~
Current Address Line 3	1 – 36	followed by ~
Current Address Line 4	1 – 36	followed by ~
Current Postcode	1 - 8	followed by ~
Date address changed from previous to current	1 or 9	DDMMCCYY (includes ~ at end)
Previous address Line 1	1 – 36	followed by ~
Previous Address Line 2	1 – 36	followed by ~
Previous Address Line 3	1 – 36	followed by ~
Previous Address Line 4	1 – 36	followed by ~
Previous postcode	1 to 8	followed by ~
Date of transfer out or removal	1 or 9	DDMMCCYY followed by ~
Reason for Transfer	1 or 2	followed by ~
New Area Code	1 – 4	followed by ~
Date of Transfer In	1 or 9	No longer used – no data provided followed by ~
Old Area Code	1 – 4	followed by ~
Immigrant code	1 or 3	followed by ~ 2 character code (“I “ or “In” where n is an integer)
Date of Death	1 or 9	DDMMCCYY

		followed by ~
Source Of Death	1 or 2	followed by ~ C = CENTRAL REGISTER D = GP (I.E. DOCTOR) G = G.R.O. H = HOSPITAL N = COMMUNITY NURSING O = OTHERS R = RELATIVE X = DATE OF DEATH APPROXIMATE - SOURCE NOT RECORDED
Namesake Type	1 or 2	followed by ~ If present: "N" (namesake) or "M" (multiple birth) or "Z" (unknown namesake)
Namesake Confirmation indicator	1 or 2	followed by ~ "C" (confirmed) or "U" (unconfirmed)
Namesake's CHI Number	1 or 11	followed by ~ CHI Number
Date of Surname Change	1 or 9	DDMMCCYY followed by ~
Marital Status	1 or 2	followed by ~
Confirmed Date of Birth Indicator	1 or 2	followed by ~ C = Confirmed
District of Residence	1 or 2	followed by ~
Title	1 – 31	followed by ~
GP's Forename	1 – 16	followed by ~ Only present if GP Reference is present
GP's Initials	1 – 3	followed by ~ Only present if GP Reference is present
GP's Surname	1 – 21	followed by ~ Only present if GP Reference is present
GP's Practice Code	1 or 6	followed by ~ Only present if GP Reference is present 4 digits plus check digit on right (no HB Cypher)
GP's GMC Number	1 or 9	followed by ~ Only present if GP Reference is present
Surname Correction Indicator	1 or 2	followed by ~ C = correction. If present, the Previous Surname is not updated.
Address Correction Indicator	1 or 2	followed by ~ C = correction If present, the Previous Address is not updated.

Daily updates will be downloaded for current CHI Numbers only. These will include person's marked deceased and / or transferred off, but will not include records for which there is a more recent UPI Number.

Patient Data to be downloaded:

Record Type will always = "P" for patient data.

The value '/' indicates deletion of a field. I.e. the field previously had a value, now it does not.

In all cases the header data of Date Of Transaction, Time Of Transaction, Origin Of Transaction, Record Type, and Update Type will be specified.

On patient amendment, the 'New' CHI Number will always be present. The rest of the data, after the header data, will only be present if it has been changed on CHI.

An exception to this is a V-type transfer on CHI, where the person has moved from one CHI area to another. It is not possible in that circumstance for us to compare the 'before' and 'after' data and send only changes. In this case, all the patient data fields will be populated. Those with no information will be set to '/', indicating deletion of that field on the client system (even though it may be null already on the client system).

This is an interim measure only. By early 2004, the Daily Update files will be generated from SCI Index and the concept of V-type transfer will not be an issue.

Update Type and other corresponding fields will be set as follows:

Update Type = "I" - for new registrations.	Only those fields present on CHI will be populated. Client systems should interpret non-present fields as Null.
Update Type = "A" - for amendment transactions.	Only changed data will be included.

The "New" CHI Number will contain the identifier of the person. The "Old" CHI Number will not be populated. Only changed fields will be populated.

For example, if only the person's NHS Number is updated then the only fields populated will be the "New" CHI Number and the NHS Number.

The Surname and the Address may be changed or corrected. The Surname Correction Indicator and the Address Correction Indicator will define which it is.

Note: change of Surname (not correction) will also incur a change of Previous Surname. Change of address (not correction) will also incur a change of Previous Address.

Update Type = "V" - for V-type transfer amendment transactions.

The "New" CHI Number will contain the identifier of the person. The "Old" CHI Number will not be populated.

All patient data fields will be populated.

Those with no information will be set to '/', indicating deletion of that field on the client system (even though it may be null already).

The Surname and the Address Correction Indicators will be set to Null.

Update Type = “D” for final erasures

Where the record is erased from the CHI database. The “New” CHI Number field will be set = the CHI Number of the record to be deleted.

No other fields will be populated.

Update Type = “L” – CHI Number linkage transactions

To correct the situation where 2 records wrongly existed for the same person

The “New” CHI Number field will be set = the Current CHI Number. The “Old” CHI Number will be set = the now non-current CHI Number. No other fields will be populated. The client system should interpret this as a deletion of the non-current record or as a merging of the two records.

If the client system prefers to retain the record, it should be marked as non-current and ignored in searches.

Update Type = “U” - for unlinkage transactions

Where a record previously wrongly marked as non-current, linked to a current number, has been reinstated as a current record.

The “New” CHI Number will be set = the CHI Number of the reinstated record. The “Old” CHI Number will be set = the CHI Number of the record to which the reinstated record was linked prior to the reinstatement.

The Patient data fields will be populated with the patient data. The client system should interpret this as an insertion of the new CHI Number.

Update Type = “C” - for transactions where the patient’s Date Of Birth or Sex have changed.

Note that the CHI Number is dependent on the Date of Birth and Sex of the patient and is therefore changed.

The “New” CHI Number field will be set = the Current CHI Number. The “Old” CHI Number will be set = the now non-current CHI Number. The person’s Date of Birth or Sex fields that have changed will be populated. No other fields will be populated. The client system should interpret this as a CHI Number change, with an update to Date of Birth and / or Sex.

Filenames

File names: The patient update daily broadcast file for the whole of Scotland will be named NHS24YYMMDDhhmm where YYMMDD is the date of the file creation and hhmm is the time of the file creation.

The format of the name of the filtered files for each client system requiring patient update downloads based on ACSCs is XnnnCYMMDDhhmm (where X is the main or first specified HB for whom relevant ACSCs are recorded; nnnC is the generic ACSC for the application concerned; YYMMDD is the date of file creation in years, months and days; hhmm is the time of file creation in hours and minutes).

The file will be created daily, 7 days per week, including bank holidays. The receiving system should expect to get a file every day. Note however that the name of the file will be dependent on the time that the job is run. So the file of updates processed on Monday 12th May 2003 will have file name XnnnC030512hhmm if it is created before midnight, but XnnnC030513hhmm if it is created after midnight. Where this Monday file was created after midnight, the file processed on Tuesday 13th May 2003 could have the same date but a later time. Where the file date is after midnight but before 07:00 then the client application should accept this as having been created for the previous day's processing.

Document Control

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