



***Health and Social Care  
Information Centre***

**HRG GROUPE SOFTWARE**

**USER MANUAL**

## PURPOSE OF THIS DOCUMENT

The purpose of this document is to assist the National Health Service in using the Health and Social Care Information Centre Healthcare Resource Grouper Software.

Authors	Woodward Associates (UK) Ltd 3 Clarence Crescent Windsor, Berkshire, SL4 5DT  <a href="http://www.woodwardassoc.co.uk">http://www.woodwardassoc.co.uk</a>
Further copies from:	Health and Social Care Information Centre  Service Desk phone: 0845 300 6016 Service Desk email: enquiries@ic.nhs.uk  <a href="http://www.ic.nhs.uk/our-services/standards-and-classifications/casemix">http://www.ic.nhs.uk/our-services/standards-and-classifications/casemix</a>
Date of Issue:	December 2007

## HRG GROUPER SOFTWARE

### Introduction

This document is a user manual and technical reference guide aimed at people responsible for grouping hospital data using the HRG Grouper software program. It has been designed to enable new and existing users to group Minimum Dataset records quickly and accurately. The grouper software is the heart of the HRG Toolkit, encapsulating the clinical and statistical design of the HRG classification.

### Purpose

The purpose of this software manual is to enable users to produce activity information which can be expressed in terms of Healthcare Resource Groups. This information will be used to understand the treatments you provide or purchase, to compare yourself or your providers, to other units in terms of length of stay efficiency and casemix complexity and importantly to support the costing and pricing of activity.

It is important for you to check the data produced by this program to ensure that the results are based on good quality patient data and that the correct grouping tables have been used. A high percentage of records falling into the Undefined Groups may indicate a problem with your source data which, if left unresolved, may result in the information being discredited or, more seriously, lead to inappropriate decisions being taken.

### Previous versions of Healthcare Resource Groups

New releases of the Grouper software are designed to enable users to access older versions of HRG should you wish to do so. The software is shipped as standard with the access to these older versions *DISABLED*. This is to help prevent the inadvertent use of these versions particularly where the latest HRG information would be expected, e.g. in costing and pricing data.

To enable access to previous versions, you will need the original HRG data files (as installed by the respective Grouper Software). These will need to be located in the same directory as the HRG data files. You will also need to modify the "hrguser.ini" file installed with the latest Grouper Software (see page 6 of this manual).

If you are installing the HRG Grouper for the first time and do not have the previous installation media but wish to produce older groupings for comparison, then contact the Health and Social Care Information Centre Service Desk who will be able to supply you with the relevant media.

# Contents

<b>HRG GROUPER SOFTWARE.....</b>	<b>0</b>
<b>USER MANUAL .....</b>	<b>0</b>
<b>PURPOSE OF THIS DOCUMENT .....</b>	<b>1</b>
<b>HRG GROUPER SOFTWARE.....</b>	<b>2</b>
Introduction.....	2
Purpose .....	2
Previous versions of Healthcare Resource Groups .....	2
<b>WELCOME TO HEALTHCARE RESOURCE GROUPS.....</b>	<b>4</b>
On-line help .....	4
Licence conditions.....	5
Helpdesk.....	5
<b>GUIDE TO INSTALLATION.....</b>	<b>6</b>
<b>STARTING UP THE GROUPER.....</b>	<b>7</b>
Using the keyboard .....	7
<b>SELECTING WHICH HRG VERSION TO USE .....</b>	<b>8</b>
Previous versions of HRG .....	8
<b>GROUPING YOUR DATA.....</b>	<b>9</b>
Summary .....	9
1. Extracting the data from your PAS system .....	9
2. Define the format of your data to the Grouper in a Record Definition File.....	10
3. Link your Preferred Record Definition File (RDF) to the Grouper.....	10
4. Process the file with the Grouper (starting the batch process) .....	11
4a and 4b. Creating and using an export file .....	12
5. Checking results.....	13
6. Returning data to your main computer system .....	14
<b>OTHER FUNCTIONS .....</b>	<b>15</b>
Viewing the codes database .....	15
The log file - hrg.log.....	15
Command line options.....	16
<b>CODING ISSUES .....</b>	<b>17</b>
<b>TROUBLESHOOTING .....</b>	<b>18</b>
Space problems .....	18
Grouping problems.....	18
Displaying a batch file that does not look as you had expected .....	18
Process Batch File - not enough fields defined.....	19
Error messages produced by the HRG Grouper.....	19
<b>WORKSHEET 1 - DEFINING THE FORMAT OF DATA FROM YOUR PAS SYSTEM .....</b>	<b>20</b>
<b>WORKSHEET 2 - WORKING ON A RECORD DEFINITION FILE .....</b>	<b>21</b>
<b>BATCH GROUPER DATE FORMATTING .....</b>	<b>24</b>
Default format.....	24
Defining the format .....	24
Pivot year.....	24
<b>GLOSSARY.....</b>	<b>25</b>

## WELCOME TO HEALTHCARE RESOURCE GROUPS

The program you are about to use, the Healthcare Resource Group Grouper (HRG Grouper), offers you the following facilities:

- It works out the HRG for an episode of patient data (the grouping process)
- It works out related items, such as the dominant procedure for a given episode
- It creates a file that can be passed through the **HRG Report Generator** or to applications such as spreadsheets

This manual is aimed at getting you 'grouping' as quickly as possible. There are examples with sample data that should help you to pick up what you need to do.

The convention used here is that:

- Commands you might type are in **bold**
- Menu items selected from the screen are in **[bold]** with brackets
- Useful information is *highlighted in italics*
- Underlined text is defined in the Glossary at the end of this manual.

### On-line help

During your use of the Grouper you have access to the on-line help system at any time. You can:

- Select **[Help]** from the main menu
- Press **F1** for context sensitive access to the Help system

There is a *Glossary* at the end of this manual for any terms that you do not understand.

## Licence conditions

**This software is the Copyright of the Health and Social Care Information Centre.**

## Helpdesk

Between 9am and 5pm each working day you can get help for both technical and general queries from the Health and Social Care Information Centre on:

Health and Social Care Information Centre

Service Desk phone: 0845 300 6016

Service Desk email: [enquiries@ic.nhs.uk](mailto:enquiries@ic.nhs.uk)

<http://www.ic.nhs.uk/our-services/standards-and-classifications/casemix>

## GUIDE TO INSTALLATION

The HRG Grouper software is available from the HSCIC website at:  
<http://www.ic.nhs.uk/our-services/standards-and-classifications/casemix>

Simply register on the site and download the appropriate file.

For Windows users, installation is managed automatically. Simply:

1. Extract the files from the Zip file using WinZip 8.1 or similar.
2. Double click on the programme named 'Setup.exe'
3. Follow the instructions presented to you

***Please note the following:***

***If you intend to use the current HRG Grouper to produce older versions of HRG data you must install this software to the directory containing the original HRG Grouper files (see page 6 of this manual).***

***If you encounter problems importing the Zip file to your machine please check with your technical support department that there are no restrictive Firewall settings in place.***

***If you have problems installing the software please check with your technical support department that there are no restrictions in place to prevent you from installing applications.***

1. Check you have at least 5Mb free disk space
2. Create a directory on your disk (e.g. c:\vrg)
3. Copy the contents of the distribution CD into the new directory
4. Decompress the files you have copied from the CD

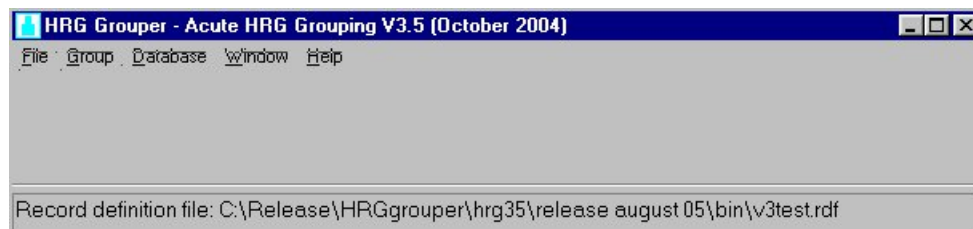
If you wish you can delete the compressed files you copied in step 3 from your hard disk (e.g. C:\HRG - the location of compressed file)

Note: You will need to have additional space on your disk for any data you process.

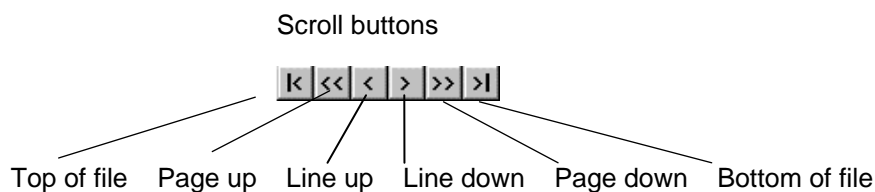
## STARTING UP THE GROUPER

Starting the Grouper by **double clicking** on the icon created during installation

After the program starts up you will see the main menu:



Each menu option is referred to in detail below, but for now you may like to select **[Help]** and look through the information available.



On some of the forms you will come across scroll buttons rather than scrollbars: they operate as indicated in this diagram.

## Using the keyboard

If you want to use the keyboard keys in addition to, or instead of the mouse, the following tables will help:

### Windows

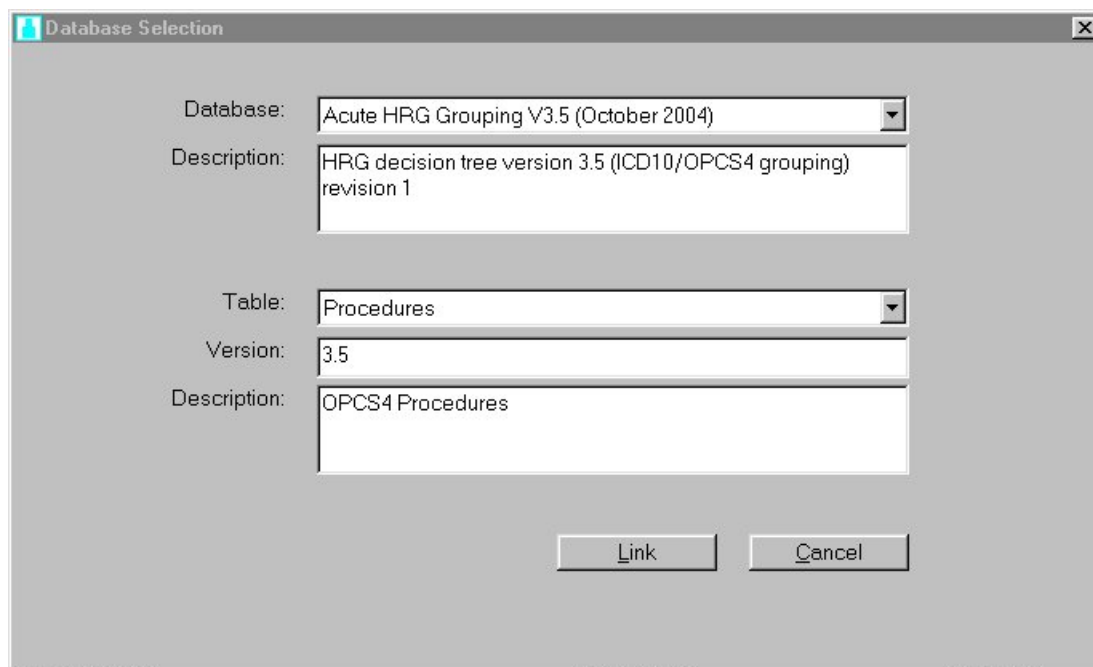
Alt-Tab	Next application current
Alt-Space	Display system button menu
Alt	Select/deselect menu
Alt-<underlined letter of menu option>	Display submenu
Ctrl-Tab	Next window current
F1	Help
Return	Select highlighted option
(Shift)Tab	Highlight (previous) next field / control / button.



## SELECTING WHICH HRG VERSION TO USE

The Grouper is able to process data to allocate various versions of HRG.

From the main menu select **[Database], [Select...]** and you will see the following form:



Most of what is displayed is for information only. However, you can select the database to be used for grouping by selecting the one you want from the Database drop-down list.

(click on the  next to **Database:**)

Note: your version when installed will be set up to use the latest HRG coding schema.

### Previous versions of HRG

It is possible to group using previous versions of HRG if you already have older versions of the HRG Grouper installed on your PC, but you must make manual changes to the file hrguser.ini. **You must save this as a text file**, so use a standard text editor such as *notepad*.

Change the following line from:

**RELEASE=LATEST**  
to  
**RELEASE=ALL**

This tables gives you access to will depend upon your existing installation. Please call the Helpdesk if you require more information.

## GROUPING YOUR DATA

### Summary

Having defined which HRG/ICD version you want to use in the previous section, these are the main stages to grouping your data:

1. Extract the data from your system: this will become your *input* file
2. Define the format of this file in a Record Definition File for the Grouper (you only have to do this once)
3. Link your preferred Record Definition File to the Grouper
4. Process the file with the Grouper, creating an *output* file to return the data to your original system or import it to another application optionally,
- 4a. In addition to the output file, use the Grouper to create an *export* file to pass to the HRG Report Generator
- 4b. Process that file with the Report Generator to get statistical information for casemix analysis, service agreement administration and the production of standard HRG costing reports, as requested by the Costing Initiative.
5. Checking Results
6. Returning Data to your System

We will take each of these in order:

### 1. Extracting the data from your PAS system

First check which data items you need to download from your main computer system. The simplest way to do this is to select the **[File][New]** option from the main menu. This displays a Record Definition file, explained in detail below, in which all the data items you are required to provide will be displayed. Once you have worked out what you need, select **[File][Close]** from the Main menu.

Examples of the items you will need to provide are:

- Diagnoses
- Procedures
- Items such as the age, sex, episode duration and legal status of the patient.

Once you have the list of the data items, you may need to arrange for the data to be passed down from your main computer system, in which case talk to your systems administrator.

You may also need to define the format of that data, in which case **see Worksheet 1 on how to define the format of the data coming from your main computer system.**

## 2. Define the format of your data to the Grouper in a Record Definition File

Select **[File][Open...]** and pick one of the **.rdf** files available and the Grouper will display a Record Definition File.

Field name	Col title	Field No	Start	Length	Picture	Extract
Proc1	Proc1					
Proc2	Proc2					
Proc3	Proc3					
Proc4	Proc4					
Proc5	Proc5					
Proc6	Proc6					
Proc7	Proc7					
Proc8	Proc8					

<ctrl><insert>: insert line; <ctrl><delete>: delete line

This form allows you to define the format of your input file.

See **Worksheet 2** on how to use the RDF form to define the format of your data.

**Please Note:** From HRG Grouper V2006.2.0 (April 2006) onwards the variable **LOS** (length of stay) is replaced by the definitive term **EpiDur** (Episode Duration).

The keystrokes:

**<Ctrl> Insert** Inserts a new line following the line on which the cursor is placed

**<Ctrl> Del** Deletes the line on which the cursor is placed

This window is controlled through the **[File]** menu items:

**[New]** creates a new RDF file with the minimum variable set required for the HRG version you are currently using.

**[Open...]** allows you to open and modify an already existing RDF file

**[Close]** closes the current rdf form

**[Save]** saves the current RDF form as a RDF file

**[Save As...]** save the current RDF form under a new RDF file name

The **[Test]** button allows you to check that the fields that have been defined are the minimum required for the HRG version you are using.

Each file you have open will be listed under the main **[Window]** menu option.

## 3. Link your Preferred Record Definition File (RDF) to the Grouper

Having defined the format of your incoming data you must **[File][Link]** this RDF file so that the Grouper can use it when processing your data.

#### 4. Process the file with the Grouper (starting the batch process)

Select **[Group][Process Batch File...]** and the Grouper will display the following form:

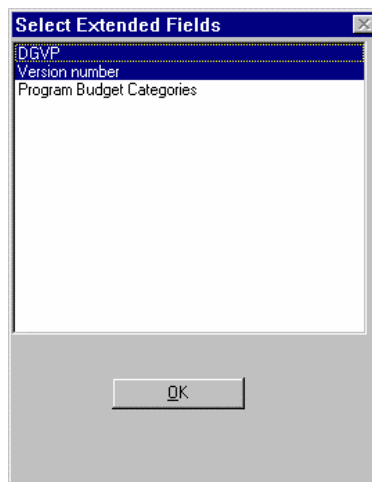
Use the **[Browse]** buttons to select the filenames to process and create. You can, if necessary, select a different Record Definition File against which to process your file.

When you click on the **[Process]** button, the Grouper will inform you of its progress through your file. If you have any problems at this point, please refer to the Troubleshooting section (page 18).

The **[Set...]** button is used to select Extended Fields for Batch Processing. These are fields which you may choose to append to the record once it has been grouped. The fields you can choose from are listed in the **[Select Extended Fields]** dialog box. Fields appearing in this dialog box are of two kinds:

- **Default options :** **[Version Number]** and **[Program Budget Categories]** will always be available as Extended Field options
- **Extended fields:** these are optional items of information from the HRG Algorithm that you may wish to access. The Extended fields you can choose from will depend upon the version of HRGs you are grouping to but may include *DGVP*, *HRG Version number* and *PBC (Program Budget Code)*.

To append Extended Fields to your grouped record, highlight one or more items in the **[Select Extended Fields]** dialog box and click **[OK]**.



Your selections will appear in the **[Extended Fields]** display area of the **[Batch Process Request]** screen.

The order in which these items will be appended to your data will be the same as the order in which they are displayed.

No export file will be produced unless the **[Write export file]** checkbox is selected.

#### 4a and 4b. Creating and using an export file

An export file can be used either by the HRG Report Generator, or in standard applications such as spreadsheets. It is a comma separated value file that contains additional items that are determined during processing. You can also specify your own fields that will be picked out from the input file by defining those you want in the Record Definition File used to process your data.

The export file will contain different fields, depending on the HRG version, but for example the export file would contain:

- Age, length of stay, legal status, sex and method of discharge
- Dominant grouping procedure and primary diagnosis
- HRG
- Any additional variables defined by you in the Record Definition File used to process your input file

**Note that if you are creating the export file for use in a spreadsheet, select the [with headings] checkbox, and relevant headings will be added to the top of the export file.**

If you wish to create the file for the HRG Report Generator (available as a download from the HSCIC), please refer to the documentation that comes with that application.

## 5. Checking results

There are two ways you can check the results the Grouper is giving you: the batch display form and the single episode display form.

The batch display form will be displayed when you select **[Group][Display Batch File...]**. Select either an input or output file from the list presented to you.

Batch File Display - test.out.v35

Proc1	Proc2	Proc3	Proc4	Proc5	Proc6	Proc7	Proc8	Proc9	Proc10	Proc11	Proc12
E032	X461	A011	S493	B169	G253	K588					
X381	A839	X558	L861	X383	A849	X469	X312	X311			
X381	A839	X558	L861	X383	A849	X469	X312	X311			
X381	A839	X558	L861	X383	A849	X469	X312	X311			
L318	J573	L024	T263	X023	A012	J629	X378	V114	V331		
L318	J573	L024	T263	X023	A012	J629	X378	V114	V331		
W091	E442	A012	G289								

Display: All records [Select fields] [Detail] [Cancel]

If the display looks odd - maybe the codes do not look meaningful - then check you are linked to the correct Record Definition File, or look up the Troubleshooting section in this document (page 18).

On this form you can select the fields for display, display all or particular record types, and highlight individual records to view details of a single episode.

The Single Episode form - which is also available by selecting **[Group][Single Episode]** appears as follows:

Single Episode

Proc1	Proc2	Proc3	Proc4	Proc5	Proc6	Proc7	Proc8	Proc9	Proc10	Proc11	Proc12
E032	X461	A011	S493	B169	G253	K588					

[Group Episode] A03 Intracranial Procedures Except Trauma - Category 3 [Cancel]

You can experiment with the values displayed here and press **[Group Episode]** to see which HRGs would be assigned given different circumstances. Note though, that changes you make here will **not** be saved back to your file.

## 6. Returning data to your main computer system

Output files created by the Grouper contain the original data from your input file, but with the relevant HRG attached to the end of each line. In comma separated value files the HRG is preceded by a comma.

An example **input** record looks like this:

Comma separated data	100,30,1,X338,A044,R309,X461,T520, M90X, B948, A031, M722, A982, 2
Fixed format data position	100301X338A044R309X461T520 M90X B948 A031 M722 A982 2 123456789112345678921234567893123456789412345678951234567896 0 0 0 0 0 0

will end up as an **output** record looking like:

Comma separated data	100,30,1,X338,A044,R309,X461,T520, M90X, B948, A031, M722, A982, 2,A02
Fixed format data position	100301X338A044R309X461T520 M90X B948 A031 M722 A982 2A02 123456789112345678921234567893123456789412345678951234567896 0 0 0 0 0 0

This information will be required by your system administrator for the HRG to be passed back to the main computer system.

This completes the description of how to get data to and from the HRG Grouper. The next section deals with additional functions available from this program.

## OTHER FUNCTIONS

### Viewing the codes database

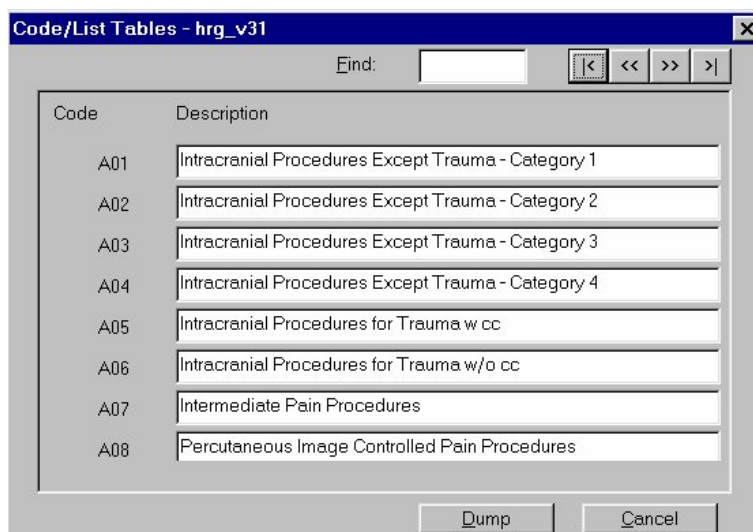
You can view the codes database used by the Grouper. To do this select **[Database][Tables>]** option from the main menu bar.

You can view:

**procedure codes**  
**diagnosis codes**

**HRG codes and descriptions**  
**comorbidities and complications**

**exception lists**



The 'Enter' key actions the 'Find' box.

The **[Dump]** button creates a comma separated value ASCII file of all the codes contained in the file shown.

Complication and exception lists are prefaced by chapter and group references.

### The log file - hrg.log

Each time you start the Grouper up and perform a significant operation, such as processing a file, an entry is added to the log file (**hrg.log**). It is there to remind you:

- What files you processed
- When you processed them
- Whether the processing was successful

Occasionally you might wish to clear out this file using the menu option **[File][Clear Log]**.

**hrg.log** is a standard text file, so you can read it with almost any editor or word processing package (Notepad, Word, WordPerfect, Edit, Vi and so on).



## Command line options

You can run the Grouper from the command line in order to process a file without the user interface being displayed. The arguments to the program are as follows:

`<program> -i<input file> -o<output file> -d<record definition file> -e<report file> -s<database> -v -p`

`-v` adds the HRG version number to the end of each record. (optional).

`-p` adds the calculated PBC (Program Budget Category) to the end of each record (optional).  
If both `-v` and `-p` are selected, the version number is appended before the PBC.

`-r` adds the Special Service Code to the end of each record. (optional).  
If `-v` or `-p` are selected, the Special Service Code is appended after these fields.

`-g` adds the DGVP to the end of each record. (optional).  
If `-v`, `-p` or `-r` are selected, the DGVP is appended after these fields.

`-?` will show you the command line options available on the version you are running.

For example:

**`dhrgr -i data.inp -o data.out -d icd10.rdf -e data.rep -s hrg_v35.tre`**

The databases that have been released to date are listed by selecting **Help** then **About** from the main menu.

## CODING ISSUES

The program uses variables from the **Contract Minimum Dataset**.

The following coding guidelines should help to minimise problems when grouping:

- If codes contain decimal points, read the section on the Record Definition File carefully as to how to allow the Grouper software to handle them correctly
- The primary diagnosis code should be that which the clinician considers, with hindsight, to have been the cause of the patient's admission to hospital. This is not necessarily that of the greatest severity, nor that for which the patient is actually admitted in the first instance
- The primary procedure is likely to be the most resource intensive operation performed during the episode. However, this is often difficult to determine. If there is more than one procedure, the Grouper will identify the code to be used as the primary for grouping purposes from the procedure hierarchy list (the Code to Group Tables list the hierarchy value for all codes). If procedures of equal resource intensity are listed then the first in the list is considered
- Age should be in years between 0 and 130.

For **Version 2 ICD-10/OPCS-4**, the following rules hold:

- Neonatal episodes are indicated by a suffix to the age and should be between 0 and 9. Values of 1, 2 and 3 indicate a patient is less than 29 days old
- Method of discharge status will affect the assignment of some records where the patient has died. The field value for this is 4

For **Version 3 and above** the following rules hold:

- Unlike Version 2, the field '*subsidiary diagnosis*' is used and is treated as the first secondary diagnosis when available
- Sex: the valid values are 1 (Male), 2 (Female) or 3 (Intermediate or anticipated sex change). Any other value, or a missing value, will not affect the HRG assignment (and so will be equivalent to 1 (Male))
- Length of stay: the valid range is 0 to 99999 days
- Legal status: a two digit field takes the values 01 to 20, or 30 to 32
- Method of discharge: this will affect the assignment of some records where the patient has died. The field value for this is 4 or 5.
- The following fields are **not used**: *neonatal indicator* and *specialty*

## TROUBLESHOOTING

### Space problems

You may run short of disk space if you are grouping large input batch files. This is because the output file which you are creating during the batch grouping process is slightly larger than your input file. If you do run out of disk space the Grouper will stop and display an error message indicating that this has happened. When this happens you should clear some space on the disk and re-run the grouping process.

If you find that you are having space difficulties, you could also check the size of the log file. You might find that, if you have not cleared the log file for some time, it has grown quite large. You can recover this space by clearing the log file using the File Menu **[Clear Log]** facility.

If space is still a problem, divide your input batch file into a number of smaller files and submit these to the Grouper separately.

### Grouping problems

It is possible that all the episodes in an input batch file will be rejected as ungroupable by the software. This is likely to be due to an inaccurate Record Definition File having been used to process the input file.

The following steps can be taken to correct this problem:

- Check that you have correctly described your input batch file as either comma-separated or fixed format
- If you have described your input batch file as fixed format, check that the field positions you have described (i.e. the position of the first character of the field in the record) are correct
- Check that the picture and extract fields in your input batch file description are correct
- Use the Display Batch File screen to look at the input batch file. If you notice any errors with the data displayed on the screen, then there is likely to be a problem with the way you had described the input file in your RDF description
- Extract a few records from your input batch file into a separate file, and submit this small file to batch file grouping as a test file. This will ensure that, if there are still problems, time is not wasted waiting for the whole of your input batch file to be grouped. If the small file groups successfully, you can safely submit the original file using the correct record description. If the small file does not group successfully, examine the structure carefully again and repeat the steps outlined above

***Use single episode grouping to test a few records***

### Displaying a batch file that does not look as you had expected

If the data displayed in the Display Batch File screen is not as you would have expected given the way that you have described the input batch file in your Record Definition File, then it is likely that there is an error in the Record Definition File, or you are not linked to the right one. You should use the main menu **[File] [Open...]** facility to view the record description and make changes as necessary or **[File] [Link]** to link to the correct Record Definition File.

## Process Batch File - not enough fields defined

If an error message is displayed at the start of the Process Batch File process indicating that not enough fields are defined, then this indicates that one or more of the Minimum Dataset fields has been omitted in the Record Definition File. You should use the main menu bar **[File] [Open...]** facility to view the record description and make changes as necessary. Using the **[Test]** button will tell you which fields are missing.

## Error messages produced by the HRG Grouper

The following messages may be produced by the Grouper. They are listed in alphabetical order. Many simply prompt you to provide or check information, but those with more complex actions to perform are identified below:

Message	Action
Are you sure you want to delete file <filename>?	If you do, click <b>[Yes]</b> , otherwise click <b>[No]</b> .
Cannot read the record definition file<filename> please link to a valid file	Use the option <b>[File] [Link]</b> to link the Grouper to a valid Record Definition File. You must first link to a Record Definition File (under menu option <b>[File][Link]</b> ).
Confirm quit? Any changes you have made will not be saved.	If you do not want to save your latest changes, click <b>[Yes]</b> , otherwise click <b>[No]</b> .
Database file <filename> failed open.	If this occurs during program start-up, reinstall the product. If the problem continues contact support.
Error reading decision tree, believed to be due to: <message>	Reinstall the product. If the problem continues contact support.
Field <field name> has an invalid length field (<length>).	You must enter a number here.
Field <field name> has an invalid/duplicate field no (<field number>).	Make sure all the field numbers are unique.
Field <field name> has an invalid/duplicate start position (<start position>).	Make sure two fields do not overlap.
Field <field name> has duplicate field no (<field number>).	Make sure all the field numbers are unique.
Field <field name> is defined more than once.	Make sure all the field names are unique.
Field <field name> overlaps another variable at, or near position <position>.	Make sure the two fields do not overlap.
Field <field name>, length of picture must be equal to length (<length>).	The field length must be the same as the length of the picture you have defined.
Field name <field name> must not contain spaces or tabs.	Remove any tabs or spaces from the field identified.
Maximum no of windows open.	Close some windows you have open.
No filename has been specified.	Specify a filename.
No more memory.	Restart the Grouper.
Overwrite file <filename>?	If you want to overwrite the file, click <b>[Yes]</b> , otherwise click <b>[No]</b> .
The file <filename> could not be deleted.	Is the file in use elsewhere?
The file <filename> could not be found.	Check the filename you have given.
The file <filename> could not be opened.	Is the file in use elsewhere?
The file <filename> could not be saved.	Is the file in use elsewhere?
The file <filename> is already open.	Close the file first.
The highlighted field must be filled in.	Fill in the field in which the cursor is placed.
The Record Definition File <filename> is not compatible with the database, check the variables it defines	Display the Record Definition File and use the <b>[Test]</b> button to confirm which fields must be defined.

## WORKSHEET 1 - DEFINING THE FORMAT OF DATA FROM YOUR PAS SYSTEM

You need to create a file that contains the data from your Patient Administration System.

The format of this file is very simple:

1. One line of text is one record
2. The layout of the record is optional, so either a *comma separated record* or a *fixed format record* would be fine, but only one format must be used within a single file
3. Simply make sure that all the items required for the Grouper appear in each record

For example, the following rather poorly patient will be classified as HRG A02 (Intracranial Procedures except Trauma - Category 2) has:

Age Legal status Sex Diagnoses 1, 2, 3, 4, 5, 6 Procedure 1, 2, 3, 4 Discharge method

Comma separated data 100,30,1,X338,A044,R309,X461,T520, M90X, B948, A031, M722, A982, 2

Fixed format data 100301X338A044R309X461T520 M90X B948 A031 M722 A982 2

position 123456789112345678921234567893123456789412345678951234567896  
0 0 0 0 0 0

NOTE: The Grouper comes with sample Record Definition Files that are ready to use. Either:

1. Modify one of these to suit your data, or
2. Use an unmodified one to work out the format of the data you want to present.

Once you know you are presenting all the data needed for the grouper, move on to Creating the Record Definition File which is covered in Worksheet 2.

## WORKSHEET 2 - WORKING ON A RECORD DEFINITION FILE

The following guidelines will help you enter or modify the fields on this form.

Each of the columns needs to be completed, but first note:

- If the input file is a *comma separated value file (.csv)* then the *Field No* column must be completed
- if the input file is a *fixed format file* then the *Start* and *Length* columns must be completed

The columns are as follows:

- **Field name:** this name is used internally by the Grouper. Each name must be unique. You are not allowed to modify this field if it is required by the database you set up in the **[Database][Select...]** form
- **Col title:** this will be displayed at the top of the relevant column on the Batch File Display form. Something like 'Proc1' as column title for the first procedure code would be sensible
- **Field No (csv files only):** this is the field number as given by the number of commas that will have preceded it in any batch file record. For example, if your batch file looks like this:

```
J021,J073,,,1210,5710,,,,,29,8
```

then:

Proc1 (i.e. J021) is Field No 1

Proc2 (i.e. J073) is Field No 2

Age (i.e. 29) is Field No 11

- **Start (fixed format only):** if your batch file has fixed length records then set this field to the position of the first character in the field. Start counting from 1
- **Length (fixed format only):** enter here the length of the field in the input file
- **Picture:** this allows you to provide filtering instructions to the Grouper by describing a 'picture' of the field. During the batch file process the Grouper will apply this picture to the field. Only use the characters which you have specified for this. Some examples will illustrate how you use this facility:

Example 1: entering a Picture of 'AAA.AA' instructs the Grouper that the first three and last two characters of the field should be used. The fourth character is ignored.

Example 2: entering a Picture of '.A.AAA' instructs the Grouper that the second character and last three characters should be used and the first and third characters should be ignored.

Example 3: entering a Picture of '.A.' indicates that the Grouper should use the second character only and ignore the first and last characters.

Note that when entering the Picture fields the characters which you enter should not be separated by spaces, and the number of characters making up the Picture should equal the value entered in the Length field. So in the examples above you will have entered the values '6', '6' and '3' respectively in the Length field.

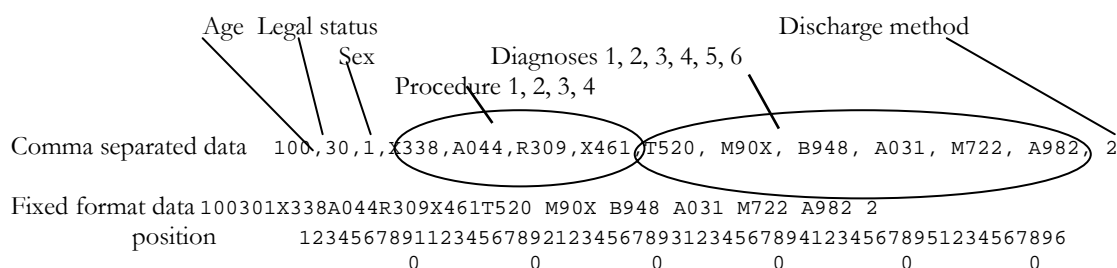
- **Extract:** this also allows you to provide filtering instructions to the Grouper by describing an 'Extract' instruction. During the batch file process the Grouper will apply this Extract instruction to the field and only use the characters which you have specified for this. An example will illustrate how you use this facility:

Example: entering an Extract instruction of "." informs the Grouper that all occurrences of "." should be ignored when processing that field. This is a convenient way for you to remove decimal points from fields in the input batch file.

Note that when entering the Extract instruction, you can inform the Grouper that more than one character should be stripped from the field. For example by entering a value of ".\$" in this field informs the Grouper that both the "." character and "\$" character should be ignored by the Grouper when processing that field.

Note that it is not currently possible to extract the "," (comma) character using this facility.

So in our previous example:



The Record Definition File will have the following fields for a comma separated value file:

Field Name	Col Title	Field No	Start	Length	Picture	Extract
Proc1	Proc	4				
Proc2	Proc	5				
Proc3	Proc	6				
Proc4	Proc	7				
PDiag	PDiag	8				
Diag1	SDiag1	9				
Diag2	SDiag2	10				
Diag3	SDiag3	11				
Diag4	SDiag4	12				
Diag5	SDiag5	13				
Age	Age	1				
Sex	Sex	3				
Discharge	Disch	14				
Legalstatus	Legal	2				
Group	Group	15				

and for a fixed format file:

Field Name	Col Title	Field No	Start	Length	Picture	Extract
Proc1	Proc		7	4		
Proc2	Proc		13	4		
Proc3	Proc		15	4		
Proc4	Proc		19	4		
PDiag	PDiag		23	5		
Diag1	SDiag1		28	5		
Diag2	SDiag2		33	5		
Diag3	SDiag3		38	5		
Diag4	SDiag4		43	5		
Diag5	SDiag5		48	5		
Age	Age		1	3		
Sex	Sex		6	1		
Discharge	Disch		53	1		

Legalstatus	Legal		4	3		
Group	Group		54	3		

Note there is always a special entry for **Group**. This allows the Batch File Display form to show you the HRG from the output file you will be creating. The field number value or field position and length values will need to be updated by you. The HRG will always be added to the end of the input record. Therefore these values should be one higher than the values of the last field in your RDF file.

The table below is for you to photocopy and adapt to your own needs.

Field Name	Col Title	Field No	Start	Length	Picture	Extract
Proc1						
Proc2						
Proc3						
Proc4						
Proc5						
Proc6						
Proc7						
Proc8						
Proc9						
Proc10						
Proc11						
Proc12						
PDiag						
Diag1						
Diag2						
Diag3						
Diag4						
Diag5						
Diag6						
Diag7						
Diag8						
Diag9						
Diag10						
Diag11						
Diag12						
Diag13						
Age						
Neonatal <sup>2</sup>						
Discharge						
Specialty <sup>2</sup>						
LoS <sup>3</sup>						
Sex <sup>3</sup>						
Legal Status <sup>3</sup>						
Group						

<sup>2</sup> used for Version 2 HRG only

<sup>3</sup> used for Version 3 HRG and above only



## BATCH GROUPER DATE FORMATTING

For some data sets the Grouper supports date fields.

This does not currently apply for Admitted Patient Care (Acute) HRGs or to A&E HRGs.

### Default format

The default format for dates depends upon the incoming data.

If the date is delimited by a '/' the assumed format of the date is M/D/Y.

If the date is delimited by a '-' the assumed format of the date is DD-MMM-YYYY.

If no delimiter is apparent the assumed format of the date is YYMMDD.

### Defining the format

You may redefine the format of dates in the .rdf file by setting the appropriate **picture** field.

The following formats are supported:

A single letter defines a free format date; the element may or may not have a leading 0

e.g. D/M/Y (the letters can be put in the appropriate order)

3/4/03 or 03/04/03 or 03/04/2003

note: you cannot use free format/fixed format indicators together

e.g. D/MMM/YY will produce undefined results.

A double (or for the year four letters) letter defines a fixed length integer

e.g. DD/MM/YY (12/04/03) or DD/MM/YYYY (12/04/2003)

For months, three letters identify a fixed format string.

e.g. DD-MMM-YY (12-Apr-03) or DD-MMM-YYYY (12-Apr-2003)

If no delimiters are expected do not add it to the picture field, e.g. DDMMYY and DDMMYYYY

### Pivot year

The pivot year for dates is 20 by default.

To change this add the following to the file hrguser.ini:

**DATE\_PIVOT\_YEAR=nn**

Where **nn** is the required value.

## GLOSSARY

<b>cc</b>	Complications and comorbidities
<b>DGVP</b>	Dominant Group Variable Procedure
<b>diag</b>	Diagnosis
<b>export file</b>	File created during processing used by the Report Generator
<b>hrguser.ini</b>	The HRG program initialisation file
<b>FCE</b>	Finished Consultant Episode
<b>HRG</b>	Healthcare Resource Group
<b>ICD-10</b>	10 <sup>th</sup> revision of the International Classification of Diseases
<b>OPCS-4</b>	4th revision of Office of Population Censuses and Surveys Classification of Operations and Procedures
<b>PBC</b>	Program Budget Categories
<b>PDdiag</b>	Primary diagnosis
<b>PProc</b>	Primary procedure
<b>Proc</b>	Procedure
<b>rdf or RDF</b>	Record Definition File
<b>Record Definition File</b>	The file defining the format of the data you are presenting to the Grouper
<b>Report Generator</b>	Analysis tool available from the HSCIC
<b>SSC</b>	Special Service Code attached to a FCE or Spell
<b>w</b>	with
<b>w/o</b>	without
<b>WHRG</b>	Windows version of the HRG Grouper