
THE ELECTRONIC STAFF RECORD PROGRAMME



NATIONAL HEALTH SERVICE

ESR-NHS0106 GENERIC OUTBOUND RETRO FIT INTERFACE DATA SET

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1 Document Control

1.1 Change Record

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1.2 Reviewers

Organisation	Reviewer	Job Title
NHS	Adrian Storey	ESR NHS Interface Team Technical Analyst
NHS	Mike Rigby	ESR NHS Change & Support Manager

1.3 Distribution

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1		
2		

1.4 Related Documents

Document Title	Control No.

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3 Introduction

The purpose of this document is to define the Generic Outbound Retro Fit Interface. This is an outbound interface supplied by the NHS ESR Interface Team to NHS Organisations and approved external Third Party Systems.

The data in the NHS Interface Hub Data Store is updated on a daily basis to reflect changes made to ESR on the previous working day. The GO Retro Fit interface will provide users with a daily file extract.

This document specifies the data elements available through the interface. The data layout includes each data item, its description, data type, formatting restrictions if any, and the maximum length.

This document also describes details about the data flow, the file naming conventions and the file formatting principles.

This specification is the base agreement to which all parties commit.

4 Data Flow

The NHS Interface Hub will act as a postmaster for interface files flowing between ESR and a Trust FTP Account.

- ESR will offload details of new or changed data items on the Generic Outbound Interface overnight which is delivered to the NHS Interface Hub.
- The NHS Hub Data Store is updated with the changes from ESR.
- Once the NHS Hub Data Store has been updated, the processing to create the interface files for individual NHS Organisations or Suppliers commences.
- The handling of the overnight files arriving on the NHS Interface Hub, the updating of the NHS Hub Data Store and the subsequent generation of the outbound interfaces from the store is fully automated.
- The Outbound interface will run in changes mode, offloading details of any changes to the Trust data in ESR since the last execution of the interface.
- Outbound Interface files will be placed in an ftp account for collection by the Trust's ftp system.

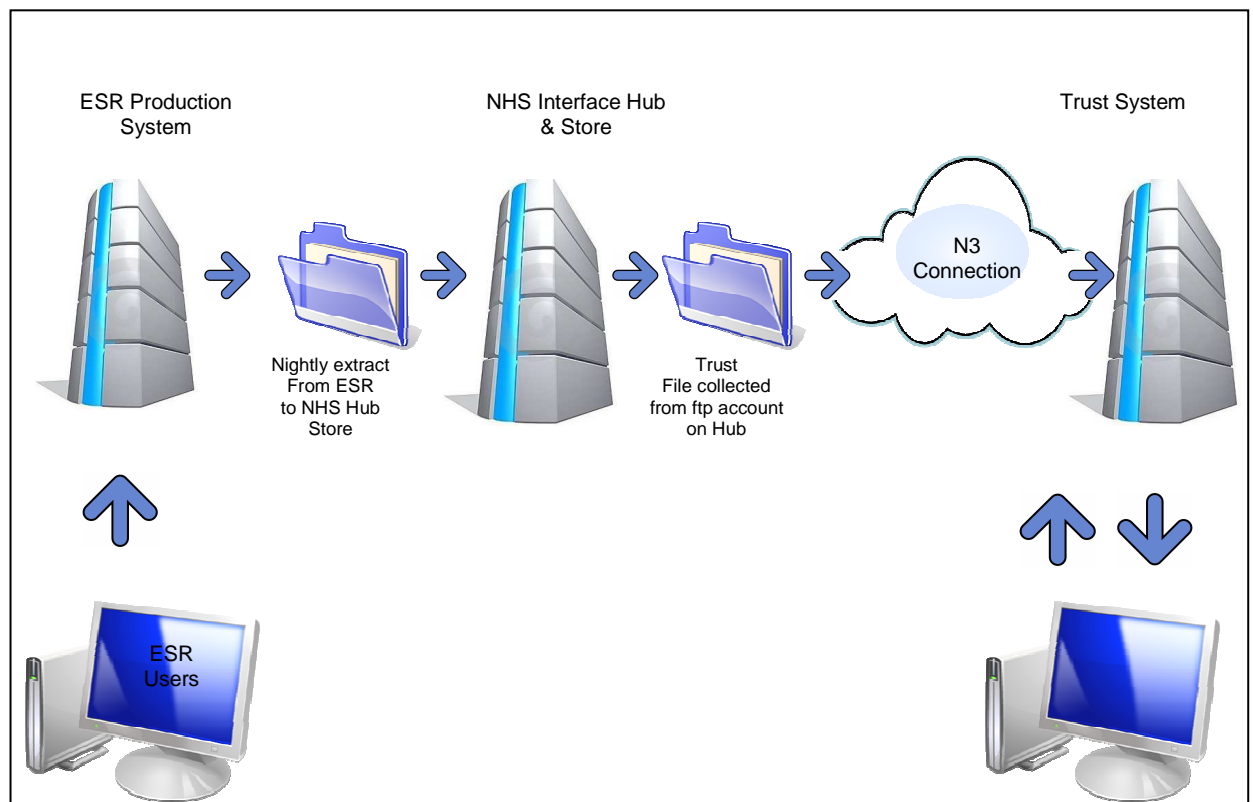


Figure 1 – Overview of the data flow in the GO interface.

4.1 File Processing and Delivery Timings

The following table gives an indication of the automated nightly processing schedule that will produce the required file.

Expected Timeline	Process
02:00 – 04:00	The ESR Production System offloads the daily changes to the NHS Interface Hub.
04:00 – 07:00	The NHS Interface Hub processes the daily changes file from ESR, updating the master “store” on the NHS Hub
07:00 – 08:00	The NHS Interface Hub produces the interface files for local sites.
08:00	The local interface files for sites are available for collection from the relevant ftp account on the NHS Hub.

5 Outbound Interface File

5.1 Assignment File Transfer Process

This section summarises the processing steps involved in the transfer of an Assignment File from ESR to External Third Party Systems.

The Assignment File contains assignment and personal information. This file allows External Third Party Systems to maintain up to date information about NHS employees without the need for manually re-keying.

The Assignment File can be executed in two modes: Changes Only or Full Refresh Mode

- Changes Only Mode – only changes since the previous execution are sent. This is the normal steady state mode of operation.
- Full Refresh Mode – all active records are resent. This mode of operation is activated manually, and would normally only be used when processing a Trust “Go live” event, or in the event that a full refresh is required.

Each Trust will receive a separate file containing its Trust specific data. When data for a Trust is sent for the first time or when a refresh is carried out, all relevant information is sent. Thereafter new employees or changes to existing information are sent combined. Any change to a person’s details will result in the resending of all his details.

Due to the potentially large data volumes, processing for various Trusts may be scheduled at different times during the week in order to distribute the workload.

5.2 Selection Criteria

Personal Details

A person will be extracted if an assignment record can be found matching the criteria below. Personal details are only included in the extract once even if a person has several assignments.

- The person is an “active” employee for some part to the *Run Period*.
- The personal details are extracted once, even if a person has more than one assignment.
- The Person Type is one of
 - Trainee
 - Seconded (To Professional Training)
 - Seconded (Non Paid from External Body)

- Shared Appointment
- Employee (i.e. Employee, or Employee and Applicant)
- Contractor No PAYE
- Contractor PAYE
- External Supervisor
- Honorary
- Shared Appointment
- Volunteer
- Applicant (but only where the assignment type is 'Offer Accepted' and a projected hire date has been entered.)

Assignment Details

An assignment is extracted if an assignment record can be found with the following conditions.

- The Assignment is "active" for some part to the Run Period.
- The Assignment is associated to a Person as defined above
- The Assignment Status is one of the following
 - 'Acting Up'
 - 'Active Assignment'
 - 'Assignment Costing Deletion'
 - 'Career Break'
 - 'Internal Secondment'
 - 'Maternity'
 - 'Out on External Secondment – Paid'
 - 'Out on External Secondment – Unpaid'
 - 'Suspend Assignment'
 - 'Suspend No Pay'
 - 'Suspend With Pay'
 - 'Terminated'=Terminate Assignment, Terminate Process Assignment, End
 - 'Offer Accepted' (for applicants only and where projected hire date is set.)

T&A Flags

If the T&A flag is set it can be set at the following levels:

- The Interface EIT for the Assignment
- The Interface EIT for the current Position that the assignment is linked to
- The Interface EIT for the Trust level Organisation where the payroll segment matches the payroll the assignment is currently linked to

An assignment is extracted if any of the above attributes (on the assignment, on the position or on the Payroll as defined on the Trust Level Org) is set. Only assignments that are so enabled are extracted. Once sent, the flow of information is maintained until the assignment is terminated or the attribute is cleared.

An Assignment File is always created even if there are no data records to put in it, i.e. a file may contain only a header and trailer record but no data. There is no pre-defined maximum size restriction for an Assignment File.

5.3 File Naming Convention

Trust outbound files will be named using the following conventions:

GO_vvv_RET_ttt_yyyymmdd_99999999.DAT

Where:

vvv	The Trust Identifier or set to NHS for national files
yyymmdd	Interface Run Date corresponding to the date the file was created
ttt	RAFull or RBFull for a full file, and RACHanges or RBChanges for a changes file (RB files do NOT include field 31 on the ASG record for full backward compatibility)
99999999	A Unique Job Sequence Number, incremented for each file

5.4 General File Formatting Principles

The section describes general formatting requirements that should enable consistency in the processing for all files.

- All CSV files will be in ASCII format.
- The ASCII line feed character (Hex '0A') will terminate all records.
- It should ignore any files with the suffix “_txfr” as these are files that the NHS Interface Hub is in the process of creating.
- To ensure the integrity of files during transfer each file will include a header record, and a trailer record containing a record count.
- The header record must be the first record of a file; the trailer record must be the last.
- Data Items within a line will be delimited by a single comma “,” character (Hex 7E/ASCII 126). If a tilde character is contained within a data item, then it will be removed and replaced with a space (Hex 20) in order to maintain the field length.
- Null value fields are sent as either two comma characters side by side [,,] or nothing following the last comma separator in the case of the last field in a record.
- Numeric values may optionally have a preceding negative sign ('-').
- All dates must be valid dates and are restricted to the following fixed length format YYYYMMDD
Where, YYYY represents the 4-digit year, MM represents the 2-digit month, and DD represents the 2-digit day: E.g. 20040714 (14th July 2004) or 20040409 (9th April 2004).
- All timestamp values (date plus time) are sent in the fixed length format YYYYMMDD HH24MISS
Where, YYYYMMDD are as specified in the date format above, HH24 represents the 2-digit hour of a 24-hour clock, MI represents the 2-digit minute, and SS represents the 2-digit second. A single blank space separates the date portion of the timestamp from the time portion. E.g. 20040626 221652 (10:16:52: PM on 26th June 2004)

- In the record definition tables throughout this section, the following convention is applied for field lengths & data types:
 - ?(n), where 'n' is the (maximum) number of bytes occupied by the field and '?' is the field type indicator. The usage is as follows,
 - X(n) – variable length character field, of up to n characters
 - F(n) – fixed length character field, containing n characters as specified
 - N(n[,m]) – variable numeric field, of up to n digits, where n is the max number of digits and m is the optional number of digits after an optional decimal point
 - L(n[,m]) –fixed length numeric field, padded with leading zeros, where n is the total of digits and m may be optionally specified as the number of digits after a decimal point
- Mandatory data items are shown marked with a plus sign ('+') in the “Data Format” column of the tables below. Where a value is shown within single quotes (') it should be supplied exactly as indicated. E.g. the header record type is 'HDR'.

Additional, item specific validation rules are indicated as necessary in the “Comments” column.

6 Interface File Record Types & Names

The following section provides a list of record types that are available as part of the GO Retro Fit interface along with the individual data items for each record type.

The record types will be ordered within the outbound extract file as indicated in the table below.

Record Type	Record Name	Initial Data Population & Reconciliation
HDR	File Header Record	
PER	Person Record	Current and active records within the "Processing Window"
ASG	Assignment Record	Current and active records within the "Processing Window"
TRL	Trailer Record	

6.1 File Header Record

There must be one and only one Header record per file. It must be the first record in the file.

Item No.	Data Item	Data Format	Comments
1	Record Type	F(3) ⁺	Type of record Fixed value of 'HDR'
2	File Name	X(40) ⁺	The name of this file

6.2 Personal Details Record

The Personal Details for persons within the Trust. All persons are extracted provided they have an "active" assignment. Please see section 5.2 for details relating to the selection criteria for the PER record.

Item No.	Data Item	Data Format	Comments
1	Record Type	X(3) ⁺	Fixed value 'PER'
2	Person ID	N(10) ⁺	The ESR unique system generated internal Person Identifier
3	Employee Number	X(30)	The ESR unique Employee Number (This can be null for an applicant)
4	Title	X(30)	Person's Title e.g. 'Mr.', 'Mrs.', etc
5	Last Name	X(150) ⁺	Last Name of the Person

Item No.	Data Item	Data Format	Comments
6	First Name	X(150)	First Name of the Person
7	Middle Names	X(60)	Middle Name(s) of the Person
8	Maiden Name	X(150)	The Maiden Name as held in the Additional Person Details DFF.
9	Gender	X(30)	Person legal gender Valid Values 'Male', 'Female', Null=Unknown
10	Date of Birth	X(8)	The employee's Date of Birth, Format YYYYMMDD
11	National Insurance Number	X(30)	The UK National Insurance Number.
12	Hire Date	X(8)	The date the person was first hire for the current period of service. Format YYYYMMDD. (This is mandatory for an employee but can be null for an applicant)
13	Termination Date	X(8)	The employment terminated date of the person for the current period of service. Set only if person is terminated. Format YYYYMMDD
14	Current Employee Status Flag	X(3)	Person employee flag, indicates whether an active employee, valid values 'Yes' or null.
15	Employee's Address 1 st line	X(60)	The first line of the person home address.
16	Employee's Address 2 nd line	X(60)	The second line of the person home address.
17	Employee's Address Town	X(30)	The town or city of the person home address.
18	Employee's Address County	X(70)	The county of the person home address.
19	Employee's Address Postcode	X(30)	The postal code of the person home address.
20	Employee's Address Country	X(60)	The country of the person home address.
21	Personal e-Mail	X(60)	Person phone number where Phone Type = 'Personal E-Mail'.
22	Home Telephone Number	X(60)	Person phone number where Phone Type = 'Home' Telephone Number in any format.
23	Home Fax Telephone Number	X(60)	Person phone number where Phone Type = 'Home Fax'*.
24	Mobile Telephone Number	X(60)	Person phone number where Phone Type = 'Mobile' Telephone Number in any format.
25	Office e-Mail	X(240)	Email Address as displayed by the ESR application screen value People > Office Details > Email
26	Pager Telephone Number	X(60)	Person phone number where Phone Type = 'Pager' Telephone Number in any format.
27	Work Telephone Number	X(60)	Person phone number where Phone Type = 'Work'.
28	WTR Opt Out	X(3)	Additional Personal Details: WTR Opt Out Valid Values are 'Yes', 'No', or Null
29	Applicant Number	X(30)	This is mandatory for an applicant but can be null for an employee.
30	Current Applicant Status Flag	X(3)	Person applicant flag, indicates whether an active applicant, valid values 'Yes' or null.
31	Employee's Address 3 rd line	X(60)	The third line of the person home address.

6.3 Assignment Details Record

The Assignment Details for persons within the Trust. A single person may have multiple Assignment records. All "active" assignments are extracted. See section 5.2 with regards to the selection criteria for the ASG record.

Item No.	Data Item	Data Format	Comments
1	Record Type	X(3) ⁺	Fixed value 'ASG'
2	Assignment ID	N(10) ⁺	The ESR unique system generated internal Assignment Identifier
3	Assignment Number	X(30)	The ESR Unique Assignment Identifier (This will be null for an application)
4	Earliest Assignment Start Date	X(8)+	Earliest Assignment Start Date. Format YYYYMMDD
5	Final Assignment End Date	X(8)	Set only if assignment terminated. Format YYYYMMDD
6	Assignment Status	X(80)	<p>The Assignment Status is one of the following for an employee assignment</p> <ul style="list-style-type: none"> 'Acting Up' 'Active Assignment' 'Assignment Costing Deletion' 'Career Break' 'Internal Secondment' 'Maternity' 'Out on External Secondment - Paid' 'Out on External Secondment - Unpaid' 'Suspend Assignment' 'Suspend No Pay' 'Suspend With Pay' 'Terminated'=Terminate Assignment, Terminate Process Assignment, End <p>For an application the assignment status must be</p> <ul style="list-style-type: none"> 'Offer Accepted'
7	Payroll Pay Type	X(30)	<p>Indicates if assignment requires the submission of a time sheet for approval, derived from 'Timesheet Required' segment of Additional Payroll Details.</p> <ul style="list-style-type: none"> If Timesheet Required = 'Yes' then Payroll Pay Type = 'Timesheet' If Timesheet Required = 'No' or Null then Payroll Pay Type = 'Contracted'
8	Payroll Name	X(80)	Name of assignment payroll, e.g. '631 Monthly'
9	Payroll Period Type	X(30)	<p>Assignment Payroll Period Type, Value Values are</p> <ul style="list-style-type: none"> 'Bi-Week' 'Calendar Month' 'Lunar Month' 'Week'
10	Assignment Address 1st line	X(60)	The first line of the location address.
11	Assignment Address 2nd line	X(60)	The second line of the location address.
12	Assignment Address Town	X(30)	The town or city of the location address.
13	Assignment Address County	X(70)	The county of the location address.
14	Assignment Address Postcode	X(30)	The postal code of the location address.
15	Assignment Address Country	X(60)	The country of the location address.
16	Supervisor Flag	X(1)	<p>Denote whether person owning assignment is a supervisor for any other assignments, Value Values are</p> <ul style="list-style-type: none"> '1'=Supervisor '0'=Not a Supervisor
17	Supervisor Assignment Number	X(30)	The Assignment Number of the supervisor for this assignment

Item No.	Data Item	Data Format	Comments
18	Supervisor Employee Number	X(30)	The Employee Number of the supervisor for this assignment
19	Supervisor Full Name	X(240)	The Full Name of the supervisor for this assignment; a concatenation of last name, title, first name, middle names and the name the person is known by of assignment supervisor, if present.
20	Accrual Plan	X(80)	Accrual Plan name associated with this assignment taken from element entry where the name is like '%Accrual%', e.g. 'Annual Leave Accrual 1 NHS'.
21	Employee Category	F(2)	Assignment Employment Category as displayed on Assignment screen, Value Values are <ul style="list-style-type: none"> 'FT'=Full Time 'PT'=Part Time
22	Assignment Category	X(30)	Assignment category, Value Values are <ul style="list-style-type: none"> 'Bank' 'Fixed Term Temp' 'Honorary' 'Locum' 'Permanent' 'Retainer Scheme' 'Unknown' (if Null)
23	Primary Assignment	N(1)	Denotes whether assignment is a primary assignment, Value Values are <ul style="list-style-type: none"> '1'=Primary '0'=Not Primary
24	Normal Hours	N(22,3)	Normal working hours for assignment - zero if null.
25	Normal Hours Frequency	X(30)	Frequency of normal working hours for assignment, derived from assignment Frequency, Valid Values, <ul style="list-style-type: none"> 'W' (Week) 'Y' (Sessions/Week)
26	Grade Contract Hours	N(22,3)	Full time hours for assignment grade, derived from Additional Assignment Details: Override Std Grade Hours (if present) or Contract table values (i.e. Annual Hours/Period Divisor) where Exact = assignment Extra Details of Service: Contract Type.
27	No. of Sessions	N(22,3)	Number of sessions per week for 'Y' (Sessions/Week) frequency assignment, derived from Additional Assignment Details: Override Std Grade Hours (if present) OR assignment Working Hours.
28	Sessions Frequency	X(4)	Always 'Week' for 'Sessions/Week' frequency type assignments, otherwise null. Decoded Person Normal Hour Frequency.
29	Work Pattern Details	X(80)	Derived from assignment Extra Details of Service: Work Pattern.
30	Work Pattern Start Day	X(30)	Derived from assignment Extra Details of Service: Start Day.
31	Flexible Working Pattern	X(30)	Assignment work pattern, derived from Additional Assignment Details: Flexible Working Pattern (if present), Value Values are <ul style="list-style-type: none"> 'Annualised Hours' 'Other Flexible Working' 'Term Time' 'Vacation Working'
32	Availability Schedule	X(30)	Derived from People > Other > Availability Schedule, not used in ESR.
33	Organisation	X(240)	Name of assignment organisation.

Item No.	Data Item	Data Format	Comments
34	Legal Entity	F(3)	Costing Legal Entity segment of NHS Cost Allocation Flexfield for assignment payroll.
35	Position Name	X(240)	The Full Name of assignment Position. It consists of a Position Number, Position Title, Occupation Code, Area of Work, and Second Specialty concatenated together and separated by a pipe ' ' character. e.g. '102414 Nursing Band 3 N9A General Acute '
36	Job Role	X(60)	The Job Role is defined as the 2 nd segment of the Job Name e.g. 'Staff Nurse' Derived from 'Nursing and Midwifery Registered Staff Nurse'
37	Occupation Code	X(5)	The Occupation Code is defined as the 3 rd segment of assignment position flexfield e.g. 'N9A' Derived from '102414 Nursing Band 3 N9A General Acute '
38	Assignment Location	X(60)	Name of assignment location, e.g. '631 Teignbridge'.
39	Grade	X(240)	The Full Name of assignment Grade, It consists of a Trust Identifier, Payscale, and Payscale Description concatenated together and separated by a pipe ' ' character. e.g. 'NHS XR02 Review Body Band 2'
40	Job Name	X(120)	The Full Name of the job as displayed on the assignment screen. It consists of a Main Staff Group and a Job Role concatenated together and separated by a pipe ' ' character. e.g. 'Nursing and Midwifery Registered Staff Nurse'
41	Group	X(240)	The Full Name of the People Group (People Group Flexfield) as displayed on the assignment screen. It consists of Paypoint, Expense User Type, Time and Attendance System, and Data Entry Group e.g. 'Default Home Standard User UPT '
42	T&A Flag	X(240)	This will be the concatenation of the Interface EIT values set at Organisation, Position and Assignment levels for the assignment. The values at each level will be comma separated and the ' ' symbol will be used to separate the values at different levels. They values will always be in the order Organisation, Position then Assignment. e.g. 'GTA BNK,GT1,NET GT1,GT2' Where 'GTA' is set at organisation level for the payroll the assignment is linked to 'BNK,GT1,NET' are set against the position the assignment is linked to And 'GT1,GT2' are set on the assignment EIT.
43	Assignment Night Worker Attribute	X(3)	Assignment Night Worker attribute, Value Values are <ul style="list-style-type: none"> 'Yes' 'No' Null
44	Projected Hire Date	X(8)	The Projected Hire Date for a applicant for a specific application Must be set for an application to be included in the extract, will be null for an employee assignment. Format YYYYMMDD
45	Vacancy ID	N(15)	The vacancy the application has been made against – this will only be populated for an application.

6.4 File Trailer

There must be one and only one Trailer record per file. It must be the last record in the file.

Item No.	Data Item	Data Format	Comments
1	Record Type	X(3) +	Type of record Fixed value of 'FTR'
2	File Name	X(60)	The name of this file, e.g. GO_060_ASG_20061014_Full_123456.DAT
3	NUMRECORDS	N(10) +	Number of records in the file excluding the header and trailer records. Value Range 0 to 4294967295 (i.e. 4,294,967,295)

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