
National Patient Information Reporting System: National Data Warehouse

NDW Export Tracking Data Mart

User Guide

Version 2.0

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Version Control

Version	Date	Notes
1.0	April 2008	Initial version. FY08 Bridge Contract deliverable, D1.9.3 COTR approved May 14, 2008
2.0	April 2009	Changes due to implementation of Issue 327, Promoter Elimination, and NDW no longer rejects registrations or encounters. COTR approval April 3, 2009

Introduction

At the sending site, the source system creates a data export file of patient registrations and encounters, and sends the file to the IHS National Data Warehouse (NDW), where the data is loaded into the NDW database.

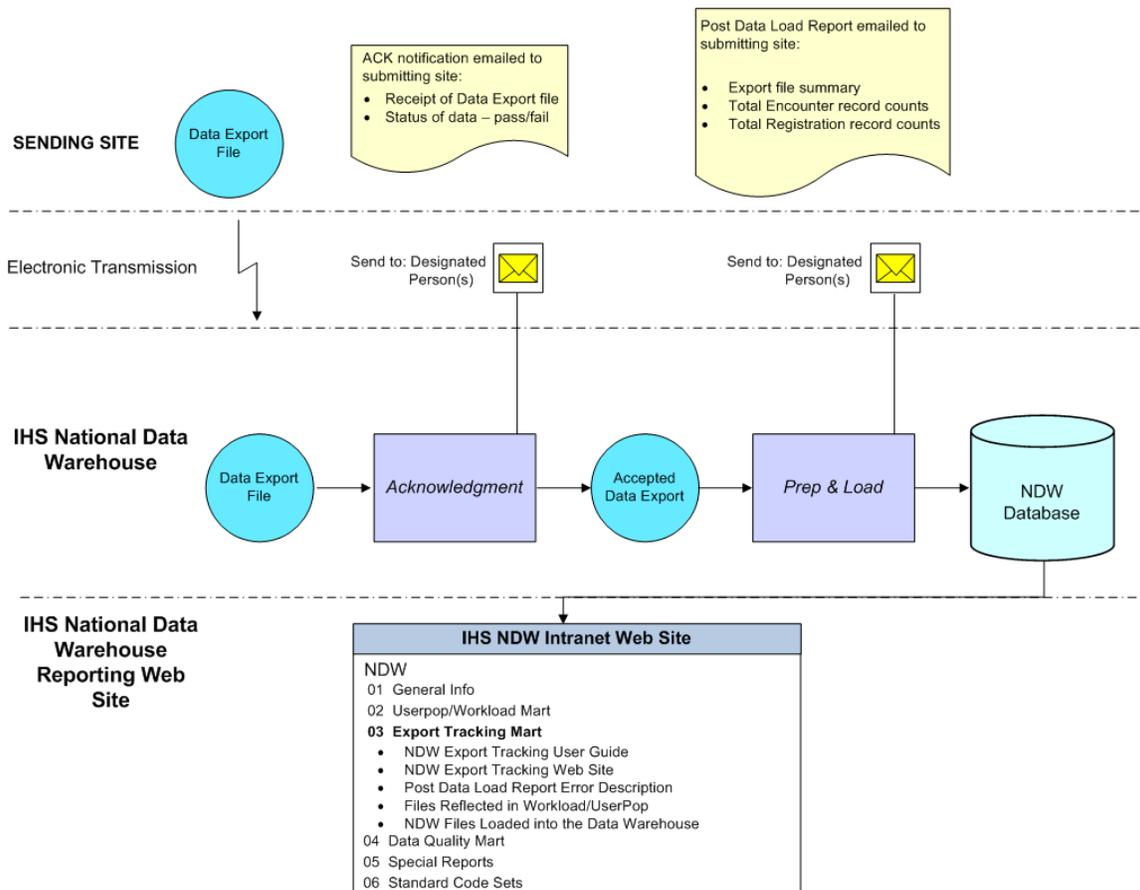


Figure 1. Data Export Process Flow

As the figure illustrates,

- When the data export file arrives in the NDW receiving area, it is checked to make sure the data transmission was successful. In the event of a file transmission failure¹, NDW staff will alert the sending site by email. For more information, see the next section, “Why Data Export File Transmissions Fail.”
- The successfully transmitted file then goes through the Acknowledgement process (or ACK process) and an automated notification is emailed to designated Area/site staff.
- Next, the exported data is prepared for loading into the NDW database. After the data is loaded into the database, an automated post-load report is emailed to the designated Area/site staff.
- In addition to the two email notifications, information related to data export files is available at the IHS National Data Warehouse Reporting web site, which is updated daily. Currently, the types of data export files that can be tracked via this web site include
 - RPMS and Non-RPMS HL7
 - Structured File Format (SFF)
 - Fiscal Intermediary (FI)
 - Contract Health Services ACHS and CHSSTAT

Why Data Export File Transmissions Fail

There are two general error categories related to data export file transmission failures:

- Transmission related, such as an empty (zero bytes) file, or a file with no header and/or no trailer, or data corruption that occurred during transmission. NPIRS staff will address such errors via email.
- Source system related, such as no delimiters, or no header or trailer record in the file. Again, NPIRS staff will respond via email if such errors are found. When file failures are related to the source system, contact the support staff for the sending site.

¹ For the NDW to be aware of a transmission failure, at least a portion of the transmission must have reached the NDW.

NDW Automated Data Export Status Email Notifications

The NDW generates two reports related to the status of the data export file:

- Data Transmission Log Report, or Acknowledgement Notification
- Post-Load Report

The NDW emails each of these reports automatically to the designated person(s) at the sending site.

About the NDW Email Notification List

While the NPIRS staff is responsible for the administration of this list, the currency of the list is the responsibility of the sending sites. To send updates to this list (additions, deletions), please send an email to

NDW-ACKREPLY@ihs.gov

Include the following information:

- Sending Site name and Facility ID
- Full name of the person to receive the NDW email notifications
- Email address
- Phone number

NDW Acknowledgement Notification Email

When the data export file arrives in the NDW, the file is checked to make sure it is complete and readable. If it is, an automatic notification, titled “NDW Data Transmission Log Report,” is emailed to the sending site. The following displays an example of an Acknowledgement notification for a successful file transmission:

```

* DATA WAREHOUSE *
NDW Data Transmission Log Report
Data Received Date: Mar 25, 2008

For more information please send an email to: NDW-ACKREPLY@ihs.gov

Export ID: 10113
Export file name: 663510308032408413.BDW
Static ASUFAC of exporting box: 663510
Beginning Date: Feb 26, 2008
Ending Date: Mar 23, 2008
Received by IE Date: Mar 24, 2008
Run Location: GREENVILLE RANCHERIA TRB HLTH
Transmission Status: No errors detected
Total Number of Registrations Received: 420
Total Number of Encounters Received: 1837

```

Figure 2. Acknowledgement notification example of a successful data file transmission

Also referred to as the “ACK,” this report provides the following information on the data export file:

Report Item	Description
Data Received Date	The date the ACK received the data export file.
Export ID	The unique ID assigned by the NDW to this file.
Export file name	The file name assigned to the data export by the source system.
Static ASUFAC of exporting box	The 6-character code that identifies the site that sent the file.
Beginning Date	The Date Last Modified begin date for this data export. Note: this date is determined by the default delay settings at the source data site.
Ending Date	This date represents the Date Last Modified ending date for this data export.

Report Item	Description
Received by IE Date	The date the NDW Integration Engine received the file, where the file is checked initially to make sure there are no errors serious enough to prevent the file from going on to the Acknowledgement process.
Run Location	The name of the site that sent the file.
Transmission Status	<p>No errors detected (pass), or Errors detected in file (fail). A failure status can be</p> <ul style="list-style-type: none"> • Record count discrepancy of 10 or more records • No records found in file • File was previously loaded • Area Code associated with the site cannot be determined • Too many sub-records of a specific type in a record. <p>Note: NPIRS staff will contact the Site/Area for any failure other than “no records” or “previously loaded.”</p>
Total Number of Registration Records Received	The number of Registration records counted by the ACK process.
Total Number of Encounter Records Received	The number of Encounter records counted by the ACK process.

If the Transmission Status is “Errors detected in file”

A Transmission Status of “Errors detected in file” indicates that the file failed. The reason for the failure is specified at the end of the notification. NPIRS staff will contact the Site/Area for any failure other than “no records” or “previously loaded.”

The following figure displays an example of an Acknowledgement notification for a file transmission that failed. In this case, the file transmission failed because of a discrepancy between the encounters total in the file’s trailer record and the total number of encounters received/counted by the NDW.

```

* DATA WAREHOUSE *
NDW Data Transmission Log Report
Data Received Date: Mar 25, 2008

For more information please send an email to: NDW-ACKREPLY@ihs.gov

Export ID: 10111
Export file name: 5562013080321235127.BDW
Static ASUFAC of exporting box: 556201
Beginning Date: Mar 08, 2008
Ending Date: Mar 14, 2008
Received by IE Date: Mar 24, 2008
Run Location: CARL ALBERT HOSP
Transmission Status: Errors detected in file
Total Number of Registrations Received: 1814
Total Number of Encounters Received: 12468

Discrepancy Noted: SENDER ENCTR COUNT EXCEEDS NDW COUNT BY > 10, FILE
REJECTED

Actual P000 count: 12468   Trailer PCC Enctr Qty : 12765

This file has been rejected because of a large difference between the
record count in the trailer record from your system and the physical
count of records the NDW received. Because it could point to something
seriously wrong with the settings at the Site, we will review this
situation, contact the appropriate parties, and seek a resolution.

Discrepancy Noted: SENDER REG+ENCTR COUNT EXCEEDS NDW COUNT BY > 10,
FILE REJECTED

Actual rec count : 14284   Trailer Src Fl Rec Qty : 14581
```

Figure 3. Acknowledgement notification example of a failed data file transmission

What to do if you don't get a timely acknowledgement

The person designated as the recipient of the automated NDW Acknowledgement notification should receive an ACK email within 24 hours (during a normal work week) of the data export file transmittal. If an ACK email does not arrive within the expected time, the site contact should check the status of the data export file by sending an email inquiry to:

NDW-ACKREPLY@ihs.gov

When sending the email inquiry, include the site facility code, the export date, and the file name (if known).

NDW Post Load Report Email

After the export data has been loaded into the NDW database, a Post-Load report, titled “NDW Post Data Load Report,” is generated and emailed automatically to the designated person(s) at the sending site. For example:

IHS NATIONAL DATA WAREHOUSE					
NDW Post Data Load Report					
Load Date: 03/16/2009					
For more information please send an email to: NDW-ACKREPLY@ihs.gov					
Export ID: 14561					
Export File Name: 3536013090316061128.BDW					
Static ASUFAC of exporting box: 353601					
Beginning Date: 10/29/2008					
Ending Date: 03/15/2009					
Run Location: MT. EDGE CUMBE HOSPITAL					
Load Status: Exceptions Detected					
Total Number of Encounters Received: 88520					
Total Number of Registrations Received: 13160					
<u>Encounters:</u>	<u>Add</u>	<u>Change</u>	<u>Delete</u>	<u>Rejected</u>	
77412		8584	2524	0	
<u>Registrations:</u>	<u>Add</u>	<u>Change</u>	<u>Delete</u>	<u>Rejected</u>	
669		12491	0	0	
<u>Error Description</u>	<u>Field Name</u>				<u>Count</u>
*** TRANSFORMATIONS ***					
DATA LENGTH EXCEEDS TARGET FIELD LENGTH, NOT STORED	HCPCS / CPT Code				2335
DATA LENGTH EXCEEDS TARGET FIELD LENGTH, NOT STORED	V A Drug Class Code				17
INVALID DATE, STORED AS DATE CHARACTER FORMAT	Date Moved To Community (character format)				205
INVALID DATE, STORED AS DATE CHARACTER FORMAT	Eligibility End Date (character format)				43
INVALID DATE, STORED AS DATE CHARACTER FORMAT	Eligibility Start Date (character format)				67
INVALID DATE, STORED AS DATE CHARACTER FORMAT	Last Menstrual Period (character format)				8311
PSEUDO SSN SENT, SSN NOT STORED	Social Security Number & Pseudo-SSN Flag				30

Figure 4. NDW Post Data Load Report example

The information in this report should match the Acknowledgement report information for the *same* data export file, with the following additions:

Report Item	Description
Load Date	The date that the data was loaded into the NDW database. The actual load date may vary, depending on scheduling.
Load Status	No exceptions or Exceptions Detected. Exceptions can be rejected records or transformations, and both types are listed at the end of the report.
Encounters	<p>The counts of records flagged as added, changed, deleted and rejected. Rejected records are those encounters that were rejected by the NDW during the Prep & Load processes.</p> <p>As of March 2009, all encounters from accepted exports are loaded to the NDW, including those with no matching registration.</p> <p>The sum of added, changed, deleted, and rejected counts should equal the Total Number of Encounter Records Received.</p>
Registrations	<p>The counts of records flagged as added, changed, deleted and rejected. Rejected records are those registrations that were rejected by the NDW during the Prep & Load processes.</p> <p>As of August 2007, all registrations from accepted exports are loaded to the NDW.</p> <p>The sum of added, changed, deleted, and rejected counts should equal the Total Number of Registration Records Received.</p>
Error Description, Field Name, Count	Any rejected records and/or transformation errors are listed in this section.

Information regarding unlinked encounters and the registrations that are required in order to link them will be available in the Data Quality Mart via the IHS National Data Warehouse Reporting web site.

For more information related to transformation errors, see the *Post Data Load Report Error Descriptions* PDF document on the IHS National Data Warehouse Reporting web site.

Using the IHS National Data Warehouse Reporting Web Site

The IHS National Data Warehouse Reporting web site (ROHAN) is available to those who have access to the IHS intranet.

Logging on to the IHS National Data Warehouse Reporting Web Site

A logon account is not required to view Export Tracking information. However, if you have a NDW intranet account, you may use it to log on to the web site.

To log on to the NDW Reporting web site,

1. Go to the following intranet web site:

<http://rohan.d1.na.ihs.gov/businessobjects/enterprise11/InfoView/main.aspx>

The Log On to BusinessObjects web page is displayed.

2. Click the **Guest Logon** button, located on the right panel of the web page.

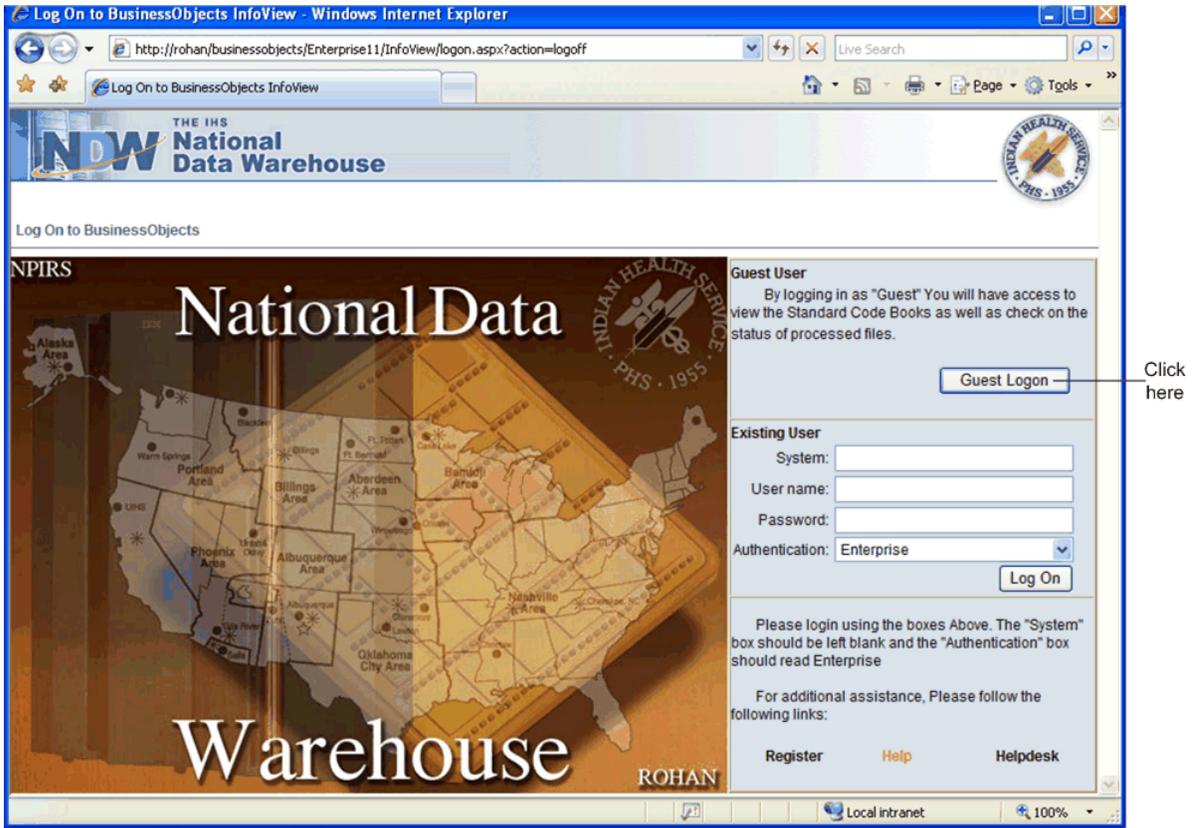


Figure 5. IHS National Data Warehouse Reporting Log On web page

Navigating the IHS National Data Warehouse Reporting Web Site

The IHS National Data Warehouse Reporting web site is divided into two panels: the Folders (left) panel and the Details or folder contents (right) panel.

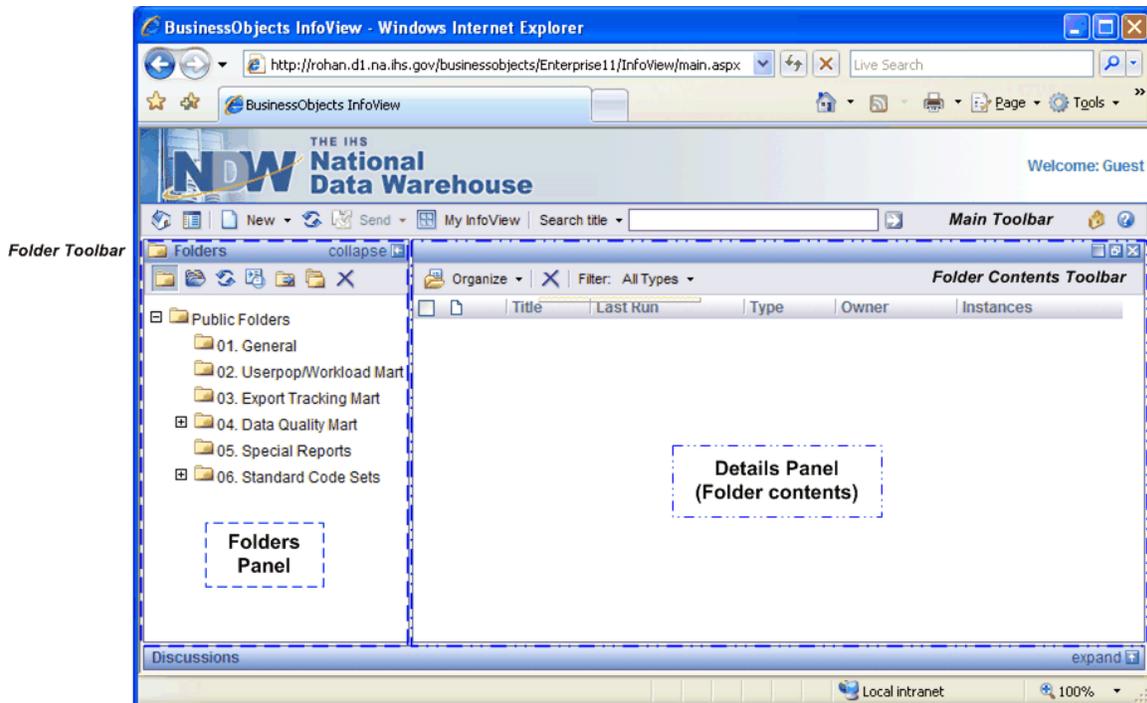


Figure 6. Layout of the IHS National Data Warehouse Reporting web site

The **Folders** panel contains a navigation tree of folders and sub-folders. The **Details** panel displays the contents of a folder or sub-folder. The contents, which are referred to as objects, may include reports, documents (.pdf, .doc, .xls), and/or links to other web sites.

The following table describes some navigational tools you may find useful.

Click	Location	To ...
	Main toolbar	Toggle between hiding/displaying the Folders panel.
	Right corner, above the Folder Contents toolbar	Maximize the display area of the Details panel (hide the Folder toolbar).
	Right corner, above the Folder Contents toolbar	Restore the original display of Details panel and Folders panel

Click	Location	To . . .
Any 	Folder tree	Display the contents (if any) in the folder.
	Main toolbar	Log off and return to the Log On to BusinessObjects web page.

Locating Export Tracking Information

To locate the Export Tracking information,

1. In the Folders panel, expand the **Public Folders** to display the folder tree.
2. Click the **03. Export Tracking Mart** folder to display its contents in the Details panel.

For example:

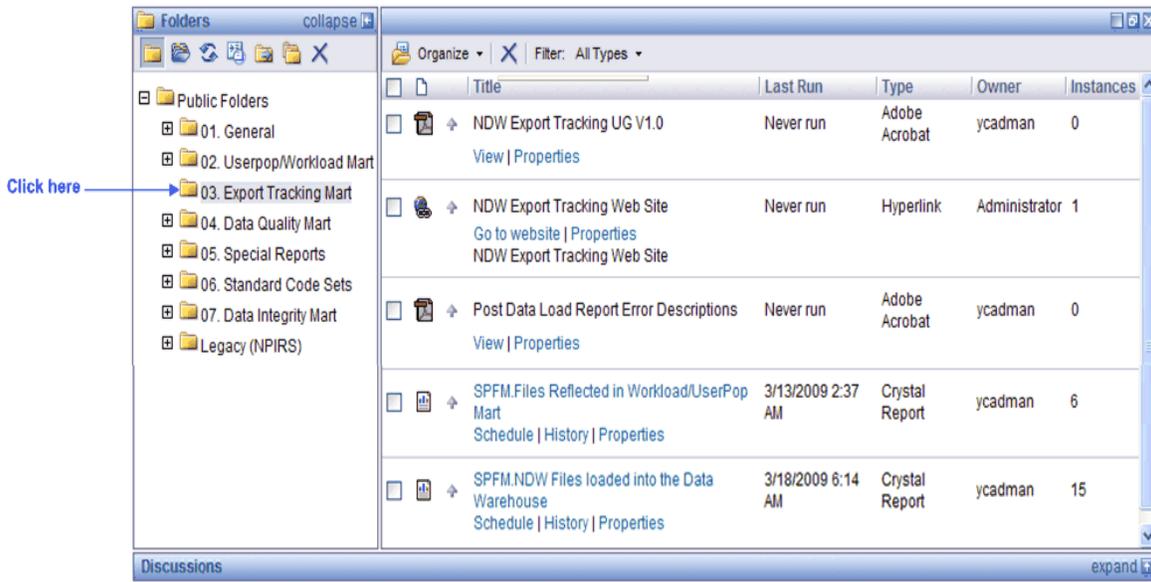


Figure 7. Location of Export Tracking information on the IHS National Data Warehouse Reporting web site

Getting a Copy of Post Data Load Report Error Descriptions

The bottom of the Post Data Load Report includes any error messages (Error Description), the Field Name to which the error applies, and the number of times the error occurred (Count). These error messages, along with descriptions of how/why the error occurred and actions to take to correct the error, are contained in the *Post Data Load Report Error Descriptions* PDF document.

To display, print, and/or save a copy of the error descriptions,

1. In the Details panel of the Export Tracking Mart folder, locate the **Post Data Load Report Error Descriptions** and click **View** to display the document. For example:

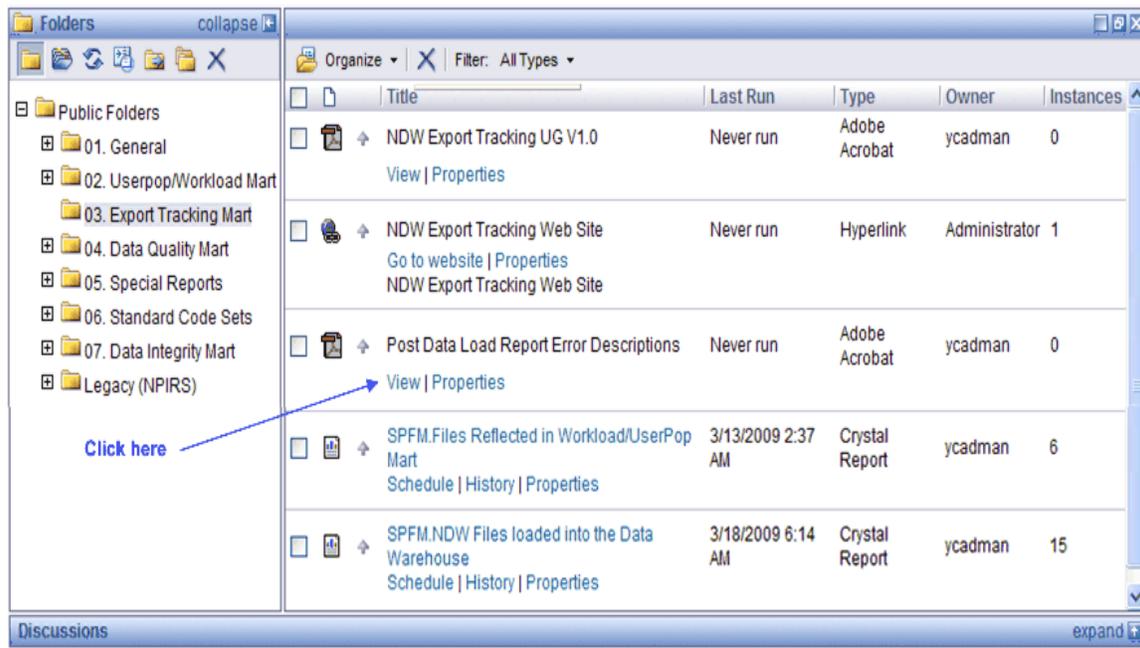


Figure 8. Location of error descriptions document

The Details panel displays the document in an Adobe viewer.

2. Using Adobe options, save the PDF file to your local drive or print a hard copy.
3. To return to the Export Tracking details panel, click the browser's Back Arrow button or the 03. Export Tracking Mart folder.

Using the NDW Export Tracking Web Site

The Export Tracking web site reports information related to your data export files.

Displaying the NDW Export Tracking Web Site

To display the NDW Export Tracking web site,

In the Details panel of the Export Tracking Mart folder, locate the **NDW Export Tracking Web Site** and click **Go to website**.

For example:

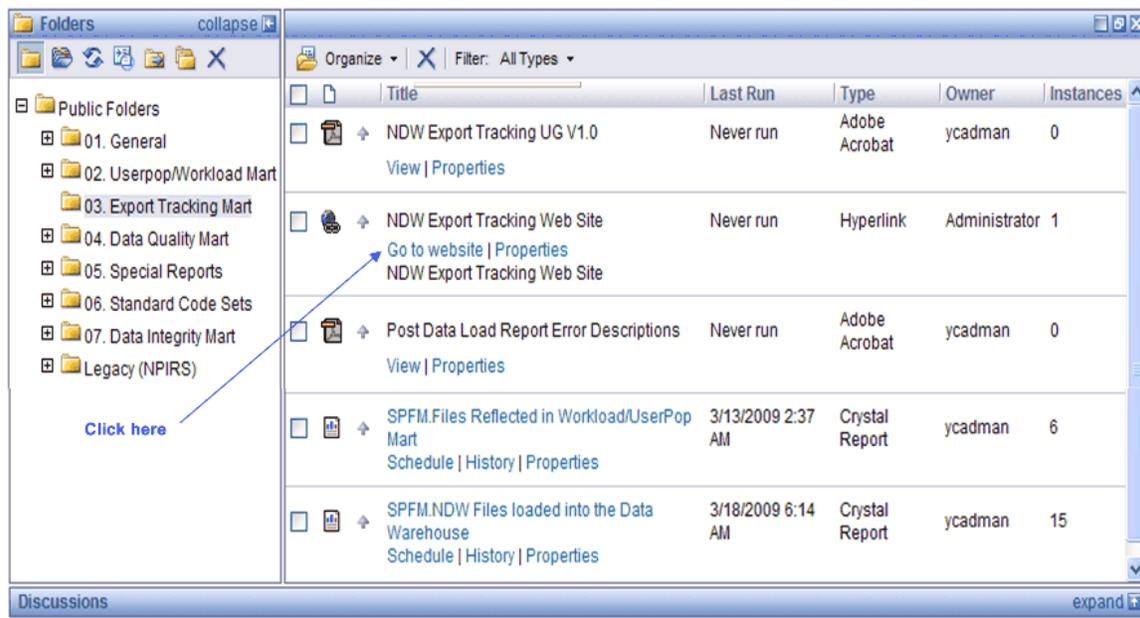


Figure 9. Displaying the NDW Export Tracking web site

The Details panel displays the NDW Export Tracking web site.

About the NDW Export Tracking Web Site

The NDW Export Tracking web site was designed to work in Microsoft's Windows® Internet Explorer®. If you use a different browser, you may need to click the “go” button to execute the search options. Based on a set of search parameters, the web page displays a report of one or more data export files.

The primary search option is the Area, then within an Area, a Site. Additionally, you can specify a “Received by IE Date range” and/or the Export ID assigned to a specific data export file.

This is the layout of the NDW Export Tracking web site:

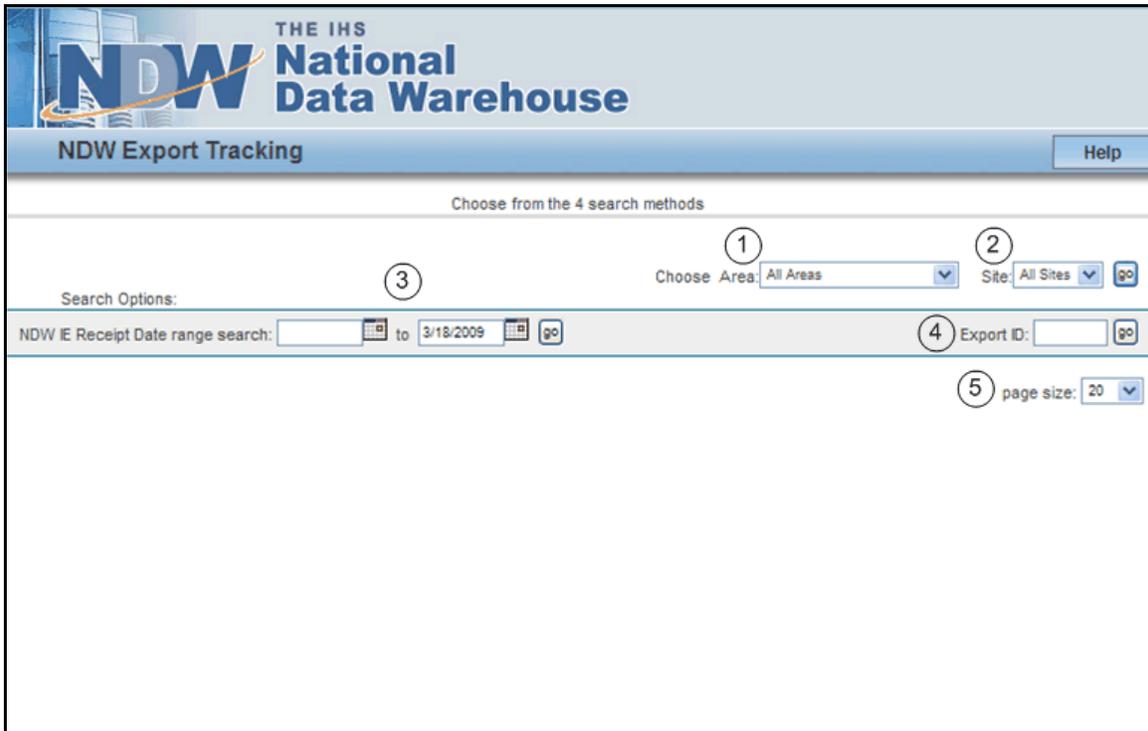


Figure 10. NDW Export Tracking web site

Item	Description
1, 2	Use Choose Area to select and display the export data files for All Areas and All Sites (default) or a specific Area and All Sites or a specific Site. The Fiscal Intermediary option displays all the Fiscal Intermediary (FI) files received by the NDW. Use Site to restrict the search to All Sites or a specific Site within an Area. Note: All searches are based first on the Area/Site selections.
3	Use the NDW IE Receipt Date range to limit an Area/Site search to export data files within a specified date range. These dates are the “Received by IE Date” on the ACK and Post Load report emails. You can use the calendars to select the dates.

Item	Description
4	Use the NDW Export ID assigned to a specific data export file to display only that data export file's information. The Export ID is reported on the ACK and Post Load report emails. If specifying an Export ID, All Areas and All Sites search options must be selected and the date range must include the file's IE Receipt Date.
5	Use the page size to limit the number of export files displayed on a page, from 10 to 100 per page. The default is 20.

Viewing Data Export File Information

The following example displays the list of export files received between March 8-9, 2009 from all Areas and sites.

THE IHS
NDW National Data Warehouse

NDW Export Tracking Help

Choose from the 4 search methods

Search Options: Choose Area: Site:

NDW IE Receipt Date range search: to Export ID:

Results 1 - 11 for Exported Date Range 03/08/2009 - 03/09/2009 page size:

Area	Export ID	ASUFAC	File Name	First/Last Mod Dates	Ack'd Loaded	Registration Reg Loaded	Encounter Enctr Loaded
POR	14524	757576	757576309030915545.BDW	F- 1/5/2009 L- 3/8/2009	A-03/09/2009 L-03/10/2009	146	5035
NSA	14523	510000	chsstat510000a.09068	F- N/A L- N/A	A-03/09/2009 L-03/10/2009	0	209
BJI	14522	183430	1834303090301071526.BDW	F- 2/2/2009 L- 2/28/2009	A-03/09/2009 L-03/10/2009	48	765
BJI	14521	183430	1834303090201071525.BDW	F- 1/12/2009 L- 1/31/2009	A-03/09/2009 L-03/10/2009	21	401
BJI	14520	183430	1834303090112142404.BDW	F- 1/1/2009 L- 1/11/2009	A-03/09/2009 L-03/10/2009	0	182
BJI	14518	183430	1834303081201071524.BDW	F- 11/1/2008 L- 11/30/2008	A-03/09/2009 L-03/10/2009	51	443
BJI	14517	183430	1834303090101071527.BDW	F- 12/1/2008 L- 12/31/2008	A-03/09/2009 L-03/10/2009	16	753
PHX	14516	600031	6000313090309092653.BDW	F- 2/11/2009 L- 3/8/2009	A-03/09/2009 L-03/10/2009	173	53
NSA	14515	585101	5851013090308033519.BDW	F- 2/23/2009 L- 3/7/2009	A-03/09/2009 L-03/10/2009	1729	12903

Figure 11. NDW Export Tracker Data Export File information display

Item	Description
1	<p>Results message indicates the total number of files found within the Date Range search options.</p> <p>When the results equal more than the selected page size, page numbers are displayed at the bottom of the current display. To move from page to page, click the next page number at the bottom of the list.</p> <p>Note: clicking “reset” displays all files received from all Areas and all sites.</p>
2	<p>The Area column displays the 3-character Area code from which the file was sent.</p>
3	<p>The Export ID displays the unique number assigned to the data export file by the NDW. This number appears on the ACK and Post-Load Report emails.</p>
4	<p>The ASUFAC column displays the 6-character numeric code of the site from which the file was sent, and labeled “Static ASUFAC of exporting box on the ACK and Post Data Load Report emails.</p>
5	<p>The File Name is the name of the file sent from the Area/ASUFAC and labeled “Export File Name” on the ACK and Post Data Load Report emails.</p> <p>Note: Any File Name displayed in red font, preceded by an R, indicates that the file was rejected, and the ACK email for such a file specifies why the file was rejected.</p>
6	<p>The First/Last Mod Dates column displays two dates; where the date preceded by F- is the Date Last Modified begin date, and the date preceded by L- is the Date Last Modified ending date for the listed data export file, when such dates are available. These dates correspond to the “Beginning Date” (F-) and the “Ending Date” (L-) specified on the ACK and Post Data Load Report emails.</p>
7	<p>The Date Acknowledged Loaded column displays two dates; where the date preceded by A- is the Received by ACK date specified on the ACK email, and the date preceded by L- is the Load Date specified on the Post Data Load Report email, for the listed data export file.</p>
8	<p>The Registration column displays the number of registrations that were loaded to the NDW for the listed data export file.</p> <p>The ‘Reg Loaded’ count corresponds to the sum of Registrations added, changed and deleted on the Post Data Load Report emails.</p>

Item	Description
9	The Encounter column displays the number of encounters that were loaded to the NDW for the listed data export file The 'Enctr Loaded' count corresponds to the sum of Encounters added, changed and deleted on the Post Data Load Report emails.

Exports that received a Transmission Status of “Errors detected in file” during the Acknowledgement process are rejected and not loaded into the NDW, pending resolution of the problem. These files are shown in red with an **R** in the export display. If the file is determined to be valid, it will be loaded into the NDW and will then display without the highlight and notation.

The screenshot shows the 'NDW Export Tracking' interface. At the top, it says 'THE IHS National Data Warehouse'. Below that is a search area with 'All Sites from All Areas' and dropdown menus for 'Choose Area: All Areas' and 'Site: All Sites'. There are search options for 'NDW IE Receipt Date range search' (11/13/2008 to 02/18/2009) and 'Export ID'. The results show 'Results 1 - 1 for Export ID 14545'. A table displays the following data:

Area	Export ID	ASUFAC	File Name	First/Last Mod Dates	Ack'd Loaded	Registration	Encounter
						Reg Loaded	Enctr Loaded
PHX	14545	600062	R 6000623081113141813.BDW	F- 10/15/2008 L- 11/12/2008	A-03/12/2009 L-		

The page size is set to 20.

Figure 12. Rejected export file example

If You Have Questions

If you have any questions or comments regarding NDW Export Tracking, please contact the NPIRS Help Desk at the following e-mail address:

NPIRSHD@ihs.gov