



National Livestock
Identification System Ltd

NLIS

XML Interface Specification

Part 1

Version 7.30

Last Updated 1 February 2011

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	Reviewed by:	Approved by: S. Doughty

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Change history

Version	Date	Change	By
1.0	2003	First Version	Steven Parkes
2.0	2003	Added details of XML (SOAP) Interface	Steven Parkes
2.1	2003	Added take/sell possessions to SOAP interface.	Steven Parkes
2.2	2003	Modified take/sell possession references to use standard receipt/transfer terminology	Steven Parkes
2.3	2003	Corrected field name for single form HTTP transfer (from filename to file Contents)	Steven Parkes
2.4	2003	Extended PIC validation algorithm to include new Victorian PICs	Steven Parkes
3.0	2003	Standardisation of upload file definitions across XML and HTTP. Singular upload pages for both types.	Steven Parkes
3.1	11 Feb 03	Corrected algorithm checks for Tasmanian PICs and emergency devices (any state or territory)	Steven Parkes
3.2	27 Oct – 03	Added New Transactions	Steven Parkes
4.0	16 Dec- 04	Included the XML Schema V4.0 - Refer to 2.1.5	Georgina Walker
5.0	06 Jan-05	Add new Tag – Message Type (RFC220); Add New Tag – Transaction Id (RFC219) Transaction Id is not stored in the database. It is accepted with the transaction and returned in the result set;	Georgina Walker
6.0	07-Feb-05	Added documentation for NLIS SOAP elements for ERP Exceptions.	Michael Leung
7.0	08-Feb-05	Added documentation for NLIS SOAP elements for Tag Upload, New PIC uploads, and Kill Upload.	Michael Leung
7.1	15-Feb-05	Documented new tags introduced for <nlis:Query> report requests.	Michael Leung
7.1 – Part1	18-Feb-05	Review changes. Split up document into 3 parts	Michael Leung
7.2	26-Sep-05	Updated document with CSV file formats for: Third Party Producer Transfer with non-written authority; Upload Deceased with PIC of Consignment; and Deceased Cattle Transfer.	Michael Leung
7.3	21-Oct-05	Updated document with CSV file format for PIC register upload. Amended Saleyard In and Saleyard Out transfer to include sale date and transfer type	Jo Quigley
7.4	11-Nov-05	Update Appendix 1: PIC algorithm check. This now includes NT PIC check and EUAB and EUSY PICs	Jo Quigley
7.5	21-Nov-05	Update Appendix 1: PIC algorithm check. This now includes 8As and 8Es.	Jo Quigley
7.6	21-Dec-05	Updated the CSV file format for <ul style="list-style-type: none"> • Update PIC ERP Status (TypeID 10); • Update Animal Extended Status (TypeID 11) Added CSV format for Device Status for a PIC	Michael Leung

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		Upload (TypeID 29)	
7.7	17-Jan-06	Updated PIC Register Upload. <ul style="list-style-type: none"> - Changed the position of manager email and manager phone number field. - Added Notes section. 	Michael Leung
7.8	24-Mar-06	Update PIC Statuses and Device Extended Statuses as per NLIS Terms of Use (Table 14.9)	Jo Quigley
7.9	04-Apr-06	Updated PIC Register Upload field description.	Michael Leung
7.10	29-May-06	Updated PIC Algorithm for SA – A-K is valid for second character	Jo Quigley
7.10	29-May-06	Deleted tags transaction – updated example data	Jo Quigley
7.10	29-May-06	SA Nightly Edition – corrected the typo in the webpage link	Jo Quigley
7.10	2-Jun-06	Modified the field length of the NVD/Waybill serial number on page 22. Was documented as 16 characters, but the database only stores 15.	Jo Quigley
7.11	20-Jul-06	Modified Transaction ID 17 to also refer to Transaction ID 30.	Jo Quigley
7.11	20-Jul-06	Updated ERP Program and Status Codes to include LPA status	Jo Quigley
7.12	17-Aug-06	Add new transaction 'Optional Animal Information' [ID=32]	Jason Zhang
7.12	31-Aug-06	Included Appendix C for Sex and Breed Code definitions	Jo Quigley
7.13	19-Mar-07	Inserted disclaimer	Jo Quigley
7.14	08-Jun-07	Added a new optional NVD field for Upload Deceased with PIC of Consignment	Dorathy Chow
7.15	14-Jun-07	Modified the new optional field that was added to Version 7.14 for Upload Deceased with PIC of Consignment to include National Vendor Declaration and Waybill number	Dorathy Chow
7.16	23-July-07	Revised "Optional Animal Information" transaction	Binh Tham
7.16	23-July-07	Added example for CSV SOAP Uploads	Binh Tham
7.17	11-Mar-08	Add new transaction NVD Add/Modify Image Upload [ID=33]	Nestor Jimenez
7.17	11-Mar-08	Add new transaction NVD Add/Modify Upload [ID=34]	Nestor Jimenez
7.17	11-Mar-08	Add new transaction NVD Add/Modify Generic Waybill Upload	Nestor Jimenez
7.17	11-Mar-08	Add new transaction NVD Delete	Nestor Jimenez
7.17	21-Apr-08	Updated PIC and Device Status code tables and Device Manufacturer codes.	Jo Quigley
7.18	21-Aug-08	Added new SightedCattleUpload transaction	Binh Tham
7.19	22-Sep-08	Added new NLIS ID Manufacturer code	Jo Quigley
7.20	1-Oct-08	Added NVD SOAP Download and NARM K3 status	Nestor Jimenez

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7.20	12-Dec-08	Added new PBT transfer upload transaction	Michael Yoo
7.21	13-Feb-09	Added new NVD Mob-Based Movement	Dilpesh Patel
7.22	24-Apr-09	Added new PIC and Device based status	Shamim Akm
7.23	22-Jun-09	Added NVD SOAP XML	Shamim Akm
7.24	01-Jul-09	Added data sample for CFB	Shamim Akm
7.24	06-Jul-09	Updated NVD Mob-based movement Transaction	Shamim Akm
7.25	08-Oct-09	Added Recovered Device upload transaction	Shamim Akm
7.26	17-Dec-09	Added Mob-based Kill upload transaction Added Mob-based Kill rollback transaction Added Mob-based off PIC transaction Added Mob-based Onto PIC transaction	Shamim Akm
7.27	25-Feb-10	Added new tag definition	Shamim Akm
7.28	20-May-10	Added New PIC and Device based statuses. Added New Mob-based movement Non-written Authority Transaction	Shamim Akm
7.29	10-Nov-10	Added brand information to PIC Register uploads	Stephen Doughty
7.30	1-Feb-11	Added comment field to Device Status Added comment field to ERP Status for properties	Aaron Kwan

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1 Introduction

1.1 Purpose

The purpose of this document is to define how third-party systems can communicate with the NLIS Database:

- to retrieve information from the database, and/or
- to update information on the database.

For the majority of users, the NLIS Database website (www.nlis.mla.com.au) will provide the primary mechanism for interacting with the database: for submitting updates to data, and for requesting data from NLIS. This document details those enquiry/update processes that can be initiated/integrated from outside that website. It provides all the information required for third-party software vendors/developers to integrate their systems with the NLIS Database. For example:

- a cattle management software package can update the database whenever any of the cattle it lists are sold or killed.
- an abattoir management package can automatically retrieve the ERP status of cattle it is about to process.

All the processes detailed in this document are provided to approved users of the NLIS Database, via direct user interaction. This document simply details alternative, programmable methods for obtaining the same results.

1.2 References

The **National Meat and Livestock Message Specifications** define the message structures for electronic data interchange within the Australian meat and livestock industry.

The **National Meat and Livestock Data Dictionary** defines the data values to be used with the Message Specifications.

Comparison with message specifications

The **National Meat and Livestock Message Specifications** provide a generic standard for electronic data interchange within the industry. The NLIS Database implements a targeted subset of those specifications.

The level of compliance between the NLIS Database and the Message Specifications varies by interface:

- for carcass data updates, the NLIS Database is closely aligned with the Message Specifications.
- for all other interfaces, the NLIS Database implements a greatly simplified version of the Message Specifications.

For these interfaces the following table outlines the major differences between the NLIS Database interface requirements and the **National Meat and Livestock Message Specifications**.

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Message Specification Requirement	NLIS Database Implementation
Compliance with ISO standards (2)	Full
Message Line Syntax (3)	Partial: <ul style="list-style-type: none"> quotes are not permitted in NLIS submissions NLIS defines additional file naming requirements
Message Structure (4)	Partial: <ul style="list-style-type: none"> message header not required message trailer not required user data segment header not required user data segment required user data segment trailer not required
Housekeeping Messages (5)	Not implemented/required
Message Groups (6)	<ul style="list-style-type: none"> The NLIS Message format is used for carcase feedback only Refer to Appendix B
Message Specifications (7)	Not implemented/required

Notes:

- the numbers in brackets in the first column identify the section in the Message Specifications document where the requirement is defined.
- the NLIS Database does not require the overhead of message and user data headers/footers because
 - each NLIS submission serves a distinct purpose (you cannot submit a file containing both cattle transfer and kill details, for example), and
 - each file type is identified (by uploaded value and/or submission location) to ensure its correct identification and processing.

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1.3 Development support

Contact NLIS Support if requiring assistance in implementing any of the interfaces defined in this document. They can help with:

- providing test user accounts
- access to the NLIS Database staging environment
- access to the NLIS Database production environment – for final testing only
- reviewing test data, etc.

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2 Interface methods

The NLIS Database provides three methods for developers to interact with the NLIS database:

- NLIS SOAP XML.
- CSV in XML/SOAP (Obsolete) – CSV data packaged in a SOAP envelope and uploaded via XML.
- SMTP (Email) – Data uploaded within the body of an email.
- Direct data file download.
- NVD SOAP XML.

In order to determine which method to use, first check whether it supports the database process you are seeking to implement:

Process	XML/SOAP	CSV in XML/SOAP (Obsolete)	SMTP (Obsolete)
Database Updates			
producer transfer	✓		
saleyard receipt	✓		
saleyard transfer	✓		
Third party producer transfer	✓		
update PIC ERP Status	✓		
update PIC EU Status	✓		
update Animal Extended Status	✓		
upload kill data	✓		
Upload Recovered device	✓		
upload kill exception list	✓	✓	
upload carcass data	✓	✓	
upload NLIS devices	✓		
upload Optional Animal Information	✓		
PBT serial number upload	✓		
NVD Add Image upload	✓ (NVD SOAP)		
NVD Add Upload	✓		
NVD Add Generic Waybill Upload	✓		
NVD Delete	✓ (NVD SOAP)		
NVD SOAP Download	✓ (NVD SOAP)		
Mob-based Kill Upload	✓		
Mob-based Movement off PIC	✓		
Mob-based Movement onto PIC	✓		

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Process	XML/SOAP	CSV in XML/SOAP (Obsolete)	SMTP (Obsolete)
Mob-based Movement non-Written Authority.	✓		
Database Enquiries			
download ERP exception list			
PIC ERP Inquiry		✓	✓
Animal EU Inquiry		✓	✓

If you have a choice of methods, consider the following when determining the method to use:

- NLIS SOAP XML is the preferred interface method. Future development and enhancement will focus on this method, above the others.
- SMTP will only ever be implemented for enquiries, not updates. This is because of the difficulties of adequately securing this interface.

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2.1 NLIS SOAP XML

This method supports the widest range of database update methods. This is the preferred way of submitting upload files because the process of uploading the files can be programmatically automated.

The structure of NLIS SOAP XML files are documented in *NLIS Interface Specification Part 2 – XML Schema*. This document also provides an outline of how to submit NLIS SOAP requests as well as sample code.

Example NLIS SOAP XML requests and responses for each transaction can be found in *NLIS Interface Specification Part 3 – Example Files*.

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2.2 CSV in XML/SOAP

This is an obsolete method of submitting upload data. For legacy purposes, this option is still available.

With this interface:

- XML is used solely to define the SOAP envelope and content – the actual data is formatted as comma-delimited text (as per the HTTP interface)
- the file is transferred using SOAP (Simple Object Access Protocol)
- the NLIS Database processes the file, and issues a response via SOAP. That response includes an upload status and/or details of any errors in the upload.

Notes: XML is used solely to take advantage of the simplicity of the SOAP protocol. No WDSL definition is provided for the NLIS Database. All details required for constructing a SOAP interface are provided in this document.

Assumptions

The following assumptions are made about the use of XML within the NLIS system;

- It is assumed the all XML transactions will be passed as plain text.
- Line feeds and carriage returns are ignored and if a line break is required then "
" should be used.
- All tags are case sensitive.
- All transactions must include a start tag and a corresponding end tag.
- The end tag is the same as the start tag prefixed by a "/".
- All leading and trailing spaces between the tag markers and the text should be stripped.
- Each XML document must be conformant and contain only valid XML.

Process

To submit an update with CSV data via SOAP:

1. generate an XML file with your upload data:
 - data formats for accepted transaction types are provided in section 3.2 File standards.
 - required XML schema is defined in the following section.
2. submit a formatted HTTP post request containing your formatted SOAP data.
 - request encoding type must be set to "text/xml"
 - request should be submitted to:

<http://www.nlis.mla.com.au/external/externalTransactionByXML.asp>
3. parse the SOAP response to the request.
 - returned XML schema is defined in the following section

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- content of response element defined in section 0

Schema

Action	Schema
Submission	<pre>Envelope body nlis_userid nlis_password txn_type txn_filename txn_content</pre>
Receipt	<pre>Envelope body nlis_userid nlis_password txn_type txn_filename txn_content message status upload_id [<message> is always the last child in the message <body>]</pre>

Example:

The following XML shows the required format for a producer transfer request (type=1) and the response received if the transfer was valid.

Submission

```
<?xml version="1.0"?>
<SOAP:Envelope xmlns:SOAP="urn:schemas-xmlsoap-org:soap.v1">
<SOAP:Body>
  <nlis_userid>tstproc</nlis_userid>
  <nlis_password>testpic2</nlis_password>
  <txn_type>1</txn_type>
  <txn_filename>20020503xfer.txt</txn_filename>
  <txn_content>
    SA160012XBV00602,SA160012,3INRR001,B206907,25/10/2001
    SA160012XBV00609,SA160012,3INRR001,B206907,25/10/2001
  </txn_content>
</SOAP:Body>
</SOAP:Envelope>
```

Receipt

```
<?xml version="1.0"?>
<SOAP:Envelope xmlns:SOAP="urn:schemas-xmlsoap-org:soap.v1">
<SOAP:Body>
  <nlis_userid>tstproc</nlis_userid>
  <nlis_password>testpic2</nlis_password>
  <txn_type>1</txn_type>
  <txn_filename>20020503xfer.txt</txn_filename>
```

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```

<txn_content>
SA160012XBV00602,SA160012,3INRR001,B206907,25/10/01
SA160012XBV00609,SA160012,3INRR001,B206907,25/10/01
</txn_content>
<message>
  <status>accepted</status>
  <upload_id>34512</upload_id>
</message>
</SOAP:Body>
</SOAP:Envelope>

```

Submission example using C#

By using the below sample source code, you acknowledge that National Livestock Identification System (NLIS) Ltd will not be liable for any direct, indirect, incidental, special, exemplary, or consequential damages (including, but not limited to, procurement of substitute goods or services; loss of use, data, or profits; or business interruption) however caused and in any theory of liability, whether in contract, strict liability, or tort (including negligence or otherwise) arising in any way out of the use of this software, even if advised of the possibility of such damage.

```

using System;
using System.Net;
using System.Text;
using System.IO;

namespace CSVSOAPExample
{
    class CSVSOAPExample
    {
        [STAThread]
        static void Main(string[] args)
        {
            string fileName = "path to your local file";
            //Testing should be carried out on staging environment:
            string strURL =
                "http://stage.nlis.mla.com.au/external/externaltransactionByXML.asp";

            // read data from the file. Make sure that the file exists,
            // or else you will get an exception
            FileStream fs = new FileStream(fileName, FileMode.Open,
                FileAccess.Read);
            byte[] buf = new byte[fs.Length];
            fs.Read(buf, 0, (int)fs.Length);

            //Upload data to URL
            WebClient wc = new WebClient();
            byte[] results = wc.UploadData(strURL, "POST", buf);
            wc.Headers.Add("Connection", "close");

            //Get the response
            string strRes = System.Text.ASCIIEncoding.ASCII.GetString(results);
        }
    }
}

```

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Response format

Processing status is returned via SOAP. A formatted XML file is returned containing:

- your uploaded data
- <MESSAGE> entity defining the response to your upload:
 - <STATUS> - one of:

Status	Meaning
Indicating successful upload	
Accepted	Update successfully parsed and processed
Indicating failed upload	
Bad Format	Data contained values that could not be parsed.
Login Failed	Password not valid for given username.
Field Error	Data was not formatted according to the required XML schema.
Invalid Transfer	The transaction type was not recognized or the user is not recognized to submit the requested type of transaction
Non-Existent User	Username not recognized.

○ <UPLOAD_ID>

- If upload was accepted, this is the unique ID for the uploaded file, used within the NLIS Database to refer to the upload.
- If upload was rejected with a status of 'Bad Format' an <UPLOAD_ID> is returned – however the upload has still been rejected
- If upload was rejected with any other status <UPLOAD_ID> is not returned (eg does not exist in the returned XML)

If the upload fails none of the content is processed. You need to correct the noted error and resubmit the entire file for it to be processed.

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2.3 SMTP

This interface is obsolete. Information is provided for legacy purposes only.

With the SMTP (email) interface:

- enquiry data is stored in a standard email
- the email is sent to the NLIS Database (to a specific email address setup to automatically respond)
- The NLIS Database issues a response via email.

For security reasons, email interface is only provided for enquiry processes. No updates can be made via email.

Process

For email enquiries:

- the enquiry is submitted via formatted email; and
- the enquiry result is returned via a formatted email.

Email enquiries are available to all NLIS users. Access is provided/managed via user account:

- a user account must be specified as part of the email enquiry submission, and
- the response is sent to the email address defined in the user account, not to the email address the enquiry was sent from.

Note: Email submission is only provided for enquiries, not updates. This is for security reasons. For any update to NLIS, one of the other available interface methods must be used.

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Schema – PIC ERP enquiry

Purpose:	To determine the current ERP status of a PIC or PICS. This interface provides the same information as the HTTP interface.
Email to:	erp.prod@nlismla.com.au
Subject:	ERPQuery {..any additional text as required: date/time, etc..}
Body:	Line 1: user account login Lines 2,..: PIC(s) to enquire upon. Finish list with blank line and/or end of message
Example:	To: erp.prod@nlismla.com.au Subject: ERPQuery (23/5/2001 - 07:34:23) Body: myNLISaccount qbbb0179 qiis0234
Returns:	On receipt, a confirmation email is sent as a reply to the email address submitting the enquiry. On completion, enquiry results are sent to the email address specified for the provided user account: <ul style="list-style-type: none"> • each requested PIC on a separate line • comma-delimited details of the current ERP status: <ul style="list-style-type: none"> ○ PIC ○ ERP program code ○ ERP status code ○ description of code
Example:	From: nlis.support@mla.com.au Subject: ERPQuery (23/5/2001 - 07:34:23) Body: qbbb0179,OC,T3,T3 - LOT TEST AND HOLD ALL qiis0234, OC,T3,T3 - LOT TEST AND HOLD ALL

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Schema – Animal EU enquiry

Purpose:	To determine the current EU status of an animal or animals This interface provides the same information as the HTTP interface, with the exception that this interface cannot be used to enquire on a PIC.
Email to:	nlis.prod@nlismail.mla.com.au
Subject:	NLISQuery {..any additional text as required: date/time, etc..}
Body:	Line 1: user account login Lines 2,..: NLIS_ID(s) or RFID(s) to enquire upon. Finish list with blank line and/or end of message.
Example:	To: nlis.prod@nlismail.mla.com.au Subject: NLISQuery (23/5/2001 - 07:34:23) Body: testagen 982 000002486687 982 000002486493 982 000002437503 982 000002486608 982 000002486500 982 000002486526 982 000002437686 982 000002486486 982 000002486457
Returns:	On receipt, a confirmation email is sent as a reply to the email address submitting the enquiry. On completion, enquiry results are sent to the email address specified for the provided user account: <ul style="list-style-type: none"> • each requested animal on a separate line • comma-delimited details for each animal: <ul style="list-style-type: none"> ○ PIC ○ RFID ○ NLIS_ID ○ EU Status
Example:	From: nlis.support@mla.com.au Subject: NLISQuery (23/5/2001 - 07:34:23) Body: 3CLKP010,982 000002486687,3CLKP010XBU0001,Y 3CLKP010,982 000002486493,3CLKP010XBU0002,Y 3CLKP010,982 000002437503,3CLKP010XBU0003,Y 3CLKP010,982 000002486608,3CLKP010XBU0004,Y 3CLKP010,982 000002486500,3CLKP010XBU0005,Y 3CLKP010,982 000002486526,3CLKP010XBU0006,Y 3CLKP010,982 000002437686,3CLKP010XBU0007,Y 3CLKP010,982 000002486486,3CLKP010XBU0008,Y 3CLKP010,982 000002486457,3CLKP010XBU0009,Y

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2.4 Direct data file download

At present two versions of ERP exception lists can be downloaded directly from the database:

- Full ERP exception list
- Incremental list (all changes since a given date)

Full ERP exception list

URL	https://www.nlis.mla.com.au/easycheck/NightlySAEdition.txt
Parameters	None
Content Format	<ul style="list-style-type: none"> • One status per line • Fields comma-delimited: <ul style="list-style-type: none"> ○ PIC ○ status code (followed by a single space) ○ program code
Example	<pre>3ALJE004,T1 ,OC 3ALJK002,T1 ,OC 3ALJN001,T3 ,OC 3ALJS007,T2 ,OC</pre>

Incremental ERP exception list

URL	https://www.nlis.mla.com.au/erp/changes.asp
Parameters	<ul style="list-style-type: none"> • date (to return all ERP status changes from that date until today) • format: DDMMYYYY
Content Format	<ul style="list-style-type: none"> • first line – current date <D>, dd/mm/yyyy • next line(s) – Animal changes <A>, NLIS ID, RFID, status code, program code • next line(s) – PIC changes <P>, PIC, ,status code, program code note blank field (2 adjacent commas) between PIC and status code • next line(s) – test detail changes <T>, program code, status code, state, domestic/export, sample size, sample type (Lot Individual), reportable (Y N), critical (Y N), active (Y N), short description, instructions
Example	<p>To request all changes since 25 December 2001: https://www.nlis.mla.com.au/erp/changes.asp?date=25122001</p> <p>Response:</p> <pre><D>, 23/05/2002 <P>, QAAA0074, ,C,OC <P>, QABN1060, ,C,OC <T>, CFZ,RSK,*,*,1,I,Y,Y,Y,Test,Test <T>, CFZ,DWN,*,*,1,I,Y,Y,Y,test,Test</pre>

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2.5 NVD SOAP XML

This method supports the NVD upload; NVD Delete and NVD download of database update methods. This is the preferred way of submitting NVD upload files because the process of uploading the files can be programmatically automated.

The structure of NVD SOAP XML files are documented in *NLIS Interface Specification Part 2 – XML Schema*. This document also provides an outline of how to submit NVD SOAP requests as well as sample code.

Example NVD SOAP XML requests and responses for each transaction can be found in *NLIS Interface Specification Part 3 – Example Files*.

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3 Interface Standards

3.1 Data standards

This section details the validation rules used when submitting standard data to NLIS (by whatever means). Any system that interfaces with NLIS, and transfers any of these standard fields, must provide them in the formats listed here.

Program Code

The Program Code is a 4 digit alphanumeric field. It is used to identify the type of PIC or extended device status.

Body Number

The body number is a 4 digit numeric field.

It is unique each day, providing a sequential count for the order the animal was processed on that day. Eg the first animal processed is body number 1, the next number 2, etc.

Contact Number

Contact number is the phone number of the property (PIC) being added/modified.

Format:

- maximum 10 digits
- no spaces, brackets, hyphens

Examples:

- 0299734060
- 0734124532

Date

All dates are in DD/MM/YYYY format.

Examples:

- 12/11/2002 (for 12th November 2002)
- 03/05/2001 (for 3rd May 2001)

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Device Status Code

The device status code is a 2 digit alphanumeric field. It is used by NLIS to identify the extended cattle status.

EU Status

EU status is a single character yes/no field which records the EU status of a PIC and/or animal.

Values:

- Y
- N

Filename

The filename is that used to store the uploaded data (HTTP interface) or to define the filename to use when the data is uploaded (SOAP interface).

Format:

- can only contain alphanumeric characters, spaces or underscores
- must have a TXT or CSV extension

Examples:

- carcass12032002.txt
- nlis_122352ewersdf_234234wfsdf.csv

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NLIS_ID

The NLIS_ID is a 15 or 16 character alphanumeric field:

Character	Meaning																				
1-8	PIC tag originally manufactured for																				
9	Manufacturer code: <table border="1" data-bbox="647 546 1369 929"> <thead> <tr> <th>Value</th> <th>Manufacturer</th> </tr> </thead> <tbody> <tr><td>X</td><td>Allflex</td></tr> <tr><td>E</td><td>Aleis</td></tr> <tr><td>L</td><td>Leader</td></tr> <tr><td>D</td><td>Drovers</td></tr> <tr><td>G</td><td>Dalton/Gallagher</td></tr> <tr><td>M</td><td>Rumitag</td></tr> <tr><td>K</td><td>Austock</td></tr> <tr><td>Q</td><td>AnimalLife ID</td></tr> <tr><td>B</td><td>Duo Tags</td></tr> </tbody> </table>	Value	Manufacturer	X	Allflex	E	Aleis	L	Leader	D	Drovers	G	Dalton/Gallagher	M	Rumitag	K	Austock	Q	AnimalLife ID	B	Duo Tags
Value	Manufacturer																				
X	Allflex																				
E	Aleis																				
L	Leader																				
D	Drovers																				
G	Dalton/Gallagher																				
M	Rumitag																				
K	Austock																				
Q	AnimalLife ID																				
B	Duo Tags																				
10	Device type: <table border="1" data-bbox="647 983 1369 1366"> <thead> <tr> <th>Value</th> <th>Type</th> </tr> </thead> <tbody> <tr><td>B</td><td>Cattle breeder device – ear tag</td></tr> <tr><td>C</td><td>Cattle breeder device – rumen capsule</td></tr> <tr><td>E</td><td>Cattle post-breeder device – ear tag</td></tr> <tr><td>F</td><td>Cattle post-breeder device – rumen capsule</td></tr> <tr><td>S</td><td>Sheep breeder device</td></tr> <tr><td>T</td><td>Sheep post-breeder device</td></tr> <tr><td>K</td><td>Goat breeder device</td></tr> <tr><td>L</td><td>Goat post-breeder device</td></tr> <tr><td>A</td><td>Alpaca device</td></tr> </tbody> </table>	Value	Type	B	Cattle breeder device – ear tag	C	Cattle breeder device – rumen capsule	E	Cattle post-breeder device – ear tag	F	Cattle post-breeder device – rumen capsule	S	Sheep breeder device	T	Sheep post-breeder device	K	Goat breeder device	L	Goat post-breeder device	A	Alpaca device
Value	Type																				
B	Cattle breeder device – ear tag																				
C	Cattle breeder device – rumen capsule																				
E	Cattle post-breeder device – ear tag																				
F	Cattle post-breeder device – rumen capsule																				
S	Sheep breeder device																				
T	Sheep post-breeder device																				
K	Goat breeder device																				
L	Goat post-breeder device																				
A	Alpaca device																				
11	Tag manufactured year: <ul style="list-style-type: none"> • single character alphabetic • 'V' = 2000, letters sequential from that value • eg, 'W' = 2001, 'X' = 2002, etc • after 'Z', character returns to 'A' (in 2005) • the letters 'I' and 'O' are not used 																				
12	Requester nominated (optional alphanumeric – see notes following this table)																				
13-16	Unique number for given PIC																				

Notes:

- The alphanumeric at character 12 is optional. It can be defined as part of the tag request and is then applied to all tags in the request. It can be used, for example, to identify specific herds or breedplans, to identify holding pens, etc.

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- For tags issued up until 2000 (tag year up to 'V') the NLIS_ID is 15 characters if no requested identifier, 16 characters if an identifier requested.
- For tags issued from 2001 onwards (tag year 'W' onwards) the NLIS_ID is always 16 characters. If the identifier is not requested, character 12 is set to zero (0).

Examples:

- 3TWRF002XBWG0421:
- PIC = 3TWRF002
- Manufacturer = X (Allflex)
- Type = B (breeder ear tag)
- Year manufactured = W (2001)
- Optional character = G
- Unique number = 0421 (421)
- 3TWRF002XBW00421:
- As above but without optional character specified (so set to 0)
- 3TWRF002XBV0421:
- As above but issued in 2000 without an optional character specified (so NLIS_ID is only 15 characters)

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RFID

RFID is a 26 character alphanumeric field. Its format is as defined in ISO 11784 / ISO 11785.

Character	Meaning
1-10	Standard (ISO) text: "A 000 000 "
11-13	Manufacturer code: 900 – Gallagher, Drover's Ay-One 937 – OS ID 940 – Leader Products 942 – Zee Tags 951 – Leader, AnimalLife ID, Duo Tags 964 – Datamars 971 – Aleis, Zee Tags 982 – AllFlex
14	Space
15-26	Unique alphanumeric identifier

Notes:

- Some RFID readers return 26, 27 or 30 characters, depending on their own settings.
- Some readers only display the rightmost 16 characters (manufacturer code and unique number).
- NLIS accepts the rightmost 16 characters when processing an RFID. If more than 16 characters are provided, characters other than the rightmost 16 are ignored.

Tag Colour

Tag colour is a single character alphanumeric field. It takes one of the following values.

Value	Colour	Meaning
O	Orange	Cattle post-breeder device
W	White	Cattle breeder device
Y	Yellow	Sheep and Goat breeder device
P	Pink	Sheep and Goat post-breeder device
G	Green	Alpaca device

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PIC

PIC (property identification code) is an 8 character alphanumeric field:

Character	Meaning
1	State
2	Check digit (used to ensure the PIC is valid)
3 – 4	RLP district
5 – 8	Property identifier

Notes:

- acceptable values for the State and RLP district are defined by the appropriate SDA. Current lists can be obtained by contacting them directly and/or from their websites.
- the property identifier is a sequential, numeric, counter.
- the validation algorithm used to check the PIC is defined in Appendix A.

Examples:

- 3CLKP010
- NH020540

Program and Status Codes (ERP)

An ERP code is defined by the combination of program and status code. Both are (maximum) 4 character alphanumeric fields.

The following table lists acceptable program and status codes, with their meanings. The current version of this list can be accessed from the NLIS Terms of Use (Table 14.9).

Program Code	Status Code	Description	Testing Required
OC	T1F	Assigned to reduced risk OC contaminated properties where PMP is being developed or validated.	Test one animal in every lot for OCs. Sampled carcass and companions can be released.
OC	T2F	Assigned to reduced risk OC contaminated properties where PMP is being developed or validated.	Test one animal in every lot for OCs. Sampled carcass and companions can be released.
OC	T3F	Assigned to medium/high risk OC contaminated properties.	Lot test for OCs. Hold all cattle pending results recommended. Domestic abattoirs may test and release test carcass and/or companion animals subject to state meat hygiene authority approval.
OC	T1V	Assigned to reduced risk OC contaminated properties where PMP is yet to be developed or validated.	Test one animal in every lot for OCs. Sampled carcass and companions can be released.
OC	T2V	Assigned to reduced risk OC	Test one animal in every lot for OCs.

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Program Code	Status Code	Description	Testing Required
		contaminated properties where PMP is yet to be developed or validated.	Sampled carcase and companions can be released.
OC	T3V	Assigned to medium/high risk OC contaminated properties.	Lot test for Ocs. Hold all cattle pending results recommended. Domestic abattoirs may test and release test carcase and/or companion animals subject to state meat hygiene authority approval.
OC	T4	Assigned to high risk OC contaminated properties.	Subject to lot size, test one or more animals for Ocs and hold all. Domestic abattoirs may test and release test carcase and/or companion animals subject to state meat hygiene authority approval.
OC	R	Assigned in accordance with NORM III program requirements to properties operating under a proven PMP/RMP and which are considered to be at minimal risk of producing cattle with unacceptable OC residues.	<i>Not applicable.</i>
OC	T5	Assigned to low-risk properties with nil or limited OC test history and/or in areas with significant past OC use to monitor/check for evidence of OC contamination.	Lot test for Ocs and release all.
OC	M	Assigned in accordance with NORM program requirements, to low-risk properties with nil or limited OC test history and/or in areas with significant past OC use to monitor/check for evidence of OC contaminated.	Lot test for Ocs and release all.
OC	X	Assigned to properties that should not be trading cattle.	<i>Not applicable.</i>
NARM	KV	Assigned to properties with a history of antibacterial detections in bobby calves.	Test one bobby calf in every lot for antibacterials. Carcase and companions to be held.
ENDO	E10	Assigned to monitor/check each 10 th lot originating from a property with an E10 status for evidence of endosulfan residues.	Test one lot in 10 and hold all.
ENDO	E30	Assigned to monitor/check each 30 th lot originating from a property with an E30 status for evidence of endosulfan residues.	Test one lot in 30 and release all.
PARS	P	Tasmanian survey to check for the presence of narcotic alkaloids.	Lot test for alkaloids and release all
PIC	XS	Assigned to PICs that should not be trading cattle.	Do not sell or slaughter. Contact relevant State/Territory Animal Health authority.
PIC	XM	Assigned to PICs that should not be trading cattle.	Do not sell or slaughter. Contact relevant State/Territory Animal Health authority.
PIC	XQ	Assigned to PICs that should not be	Do not sell or slaughter. Contact

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Program Code	Status Code	Description	Testing Required
		trading cattle.	relevant State/Territory Animal Health authority.
PIC	XV	Assigned to PICs that should not be trading cattle.	Do not sell or slaughter. Contact relevant State/Territory Animal Health authority.
LPA	A	Assigned to PICs that have been fully accredited under the Livestock Production Assurance (LPA) program.	<i>Not applicable.</i>
LPA	P	Assigned to PICs that have been provisionally accredited under the Livestock Production Assurance (LPA) program.	<i>Not applicable.</i>
LPA	W	Assigned to PICs that have cancelled their LPA accreditation under the Livestock Production Assurance (LPA) program.	<i>Not applicable.</i>
NLS	EU	Assigned to properties that are accredited under the European Union Cattle Accreditation Scheme (EUCAS)	<i>Not applicable.</i>
AQ	AQ	Assigned to Properties that are under quarantine due to anthrax.	Under quarantine due to anthrax. Not for human consumption.
NFAS	A	Assigned to Properties accredited under the National Feedlot Accreditation Scheme (NFAS).	<i>Not applicable.</i>
NFAS	N	Assigned to Properties not accredited under National Feedlot Accreditation Scheme (NFAS).	<i>Not applicable.</i>
EW	EW1	Properties that have cattle with a high-risk status residing on the property. The early warning status is only returned in response to an ERP enquirey.	<i>Not applicable.</i>

Device extended status codes

The extended status code is a 2 digit alphanumeric field. It is used by NLIS to identify the extended cattle status. The most current listing of device statuses is available in the NLIS Terms of Use (Table 14.9).

Format: one of the following values.

Program Code	Status Code	Meaning
NLS	B	Breeding animal (EU)
NLS	S	Stolen cattle
NLS	S1	Lost cattle
NLS	L1	Lost or stolen device
NLS	L2	Lost device after attachment
NLS	R1	Replaced device
NLS	D1	Device damaged
NLS	LT	Devices that have not been used and were lost or stolen in transit, or on-farm
NLS	IA	Inactive Devices, if it is not known whether a device was lost or

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Program Code	Status Code	Meaning
		damaged, or if the animal associated with the device is dead, has strayed, or moved off the property.
NLS	N	Cattle no longer eligible for EU market (to re-instate EU status, set the N code 'OFF').
NLS	RC1	Assigned to devices that have been recovered from abattoirs, for re-use in RFID devices outside the NLIS (Cattle) program. RC1 status is applied when a recovered device is uploaded by the device manufacturer and the device is already recorded as deceased on the NLIS database.
NLS	RC2	Assigned to devices that have been recovered from abattoirs for re-use in RFID devices outside the NLIS (Cattle) program. RC2 status is applied when a recovered device is uploaded by the device manufacturer and the device was not already recorded as deceased on the NLIS database.
OC	N1F	Grazed on high risk OC property. NRS funded.
OC	N1V	Grazed on high risk OC property. Not funded by NRS.
OC	N2F	Grazed on low risk OC property. NRS funded.
OC	N2V	Grazed on low risk OC property. Not funded by NRS.
NARM	K1F	Antibacterial testing required. NRS funded.
NARM	K1V	Antibacterial testing required. Not funded by NRS.
NARM	K3	Cattle treated by antibiotics such as streptomycin within the last 2 years. Cattle with a K3 status may have antibacterial residues and so are unfit for human consumption.
VBM	CB	Grazed on land where exposure to beef measles may have occurred.
IMPO	IM1	Imported from a country where BSE has been diagnosed.
IMPO	IM2	Imported from a country where BSE has not been diagnosed.
RAM	F1	Cattle exposed to imported/unknown restricted animal material (RAM) within the past 30 months.
RAM	F2	Cattle exposed to imported/unknown restricted animal material (RAM) more than 30 months earlier.
RAM	F3	Cattle exposed to restricted animal material of Australian origin.
JD	JD1	Cattle determined by State as a Johne's disease non-clinical reactor.
JD	JD2	Cattle determined by State as a Johne's disease clinical case.
JD	JDV	Cattle that have been vaccinated against Johne's disease.
TB	TB1	Cattle subject to inspection of head, thorax, lymph nodes and abdomen at slaughter.
LEAD	PB1	Cattle under restrictions due to lead residues. Not to be sold for slaughter. If slaughtered, withhold carcass and test meat for lead, at owner's expense. Condemn liver and kidneys.
LEAD	PB2	Cattle under restrictions due to lead residues. Unacceptable residues may not apply to carcass meat. Condemn liver and kidneys, or test for lead at owner's expense.
M	M1,M2,M3,M4, M5	Cattle those are mortgaged or leased. Note: Financial Third Party (FTP) accounts or SA accounts can assign status codes e.g. M1, M2, M3 etc. to mortgaged or

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Program Code	Status Code	Meaning
		leased cattle so they will be notified if the cattle are transferred or slaughtered, or the devices are replaced.
AV	AV1	Cattle vaccinated against anthrax. The AV1 status converts to AV2 after 42 days.
AV	AV2	Cattle vaccinated against anthrax more than 42 days earlier.
LPA	NL1	Cattle that have moved from a non-LPA PIC to an LPA A or LPA A1 PIC and have resided on the LPA A or LPA A1 PIC for less than 60 days.
LPA	NL2	Cattle that have moved from a non-LPA PIC with an OC status to an LPA A or LPA A1 PIC and have resided on the LPA A or LPA A1 PIC for less than six months.
DOI	DN1	Device of interest to states and territories for surveillance of cattle movements.
DOI	DN2	Device of interest to states and territories for surveillance of cattle movements. Animals associated with these devices may not be fit for human consumption.
BB	BBH	Cattle vaccinated against bovine brucellosis and fit for human consumption.
BB	BBV	Cattle vaccinated against bovine brucellosis and unfit for human consumption.
BTV	BTH	Cattle vaccinated against bluetongue virus and fit for human consumption.
BTV	BTV	Cattle vaccinated against bluetongue virus and unfit for human consumption.
FMD	FMH	Cattle vaccinated against foot and mouth disease and fit for human consumption.
FMD	FMI	Cattle infected with foot and mouth disease and unfit for human consumption.
FMD	FMV	Cattle vaccinated against foot and mouth disease and unfit for human consumption.
RVF	RVH	Cattle vaccinated rift valley fever against and fit for human consumption.
RVF	RVI	Cattle infected with rift valley fever and unfit for human consumption.
RVF	RVV	Cattle vaccinated against rift valley fever and unfit for human consumption.

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National Vendor Declaration/Waybill

The vendor declaration is a 15 character alphanumeric field.

Notes:

- For no/unknown vendor declarations, the declaration can be left blank.

Examples:

- 6801264
- B206907

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3.2 File standards

All files sent to the NLIS Database adhere to the following general standards. These standards apply irrespective of the interface method (HTTP or XML).

- All data is sent in comma-delimited files.
- One record per line – Record formats are provided in the following sections of this document.
- No data can contain a comma.
- No additional characters (spaces, etc) between fields (e.g. the consecutive values “1234567” and “abc” should be entered as “1234567,abc”. Note no space after the comma).
- Missing/optional fields are sent as adjoining commas. (eg “fred,,45” has a missing/optional field between the two values listed).
- Data values must be formatted as defined in the previous section.

The following sections define the data standards of the various file types supported by the NLIS Database:

Type	Purpose	Submission Method
1	Add new NLIS devices to the database	
2	Determine the current EU accreditation status of properties or animals	
3	Update the database with identities of recently slaughtered animals	
4	Transfer cattle to/from a producer (excluding transfer from saleyard to producer)	
5	Update the EU status of several properties	
6	Take receipt of cattle by a saleyard	
7	Transfer cattle from a saleyard to their purchaser (or transfer back to owning property if cattle remained unsold)	
8	Upload carcass feedback data	
9	Determine the current ERP status of several properties	
10	Update the ERP status of several properties	
11	Update the extended status (AQIS codes) of several animals	
12	Upload kill exception data	
13	System Administrators – Producer Transfer	
14	Delete a device from the system	
16	Link a replacement device to the device it has replaced	
18	Association file – upload a list of RFIDs or NLIS ID to have the matching identifier returned	
19	Generic Query	XML only
20	SOAP Complete XML	XML only
21	SDA PIC register upload	
22	Third Party Producer Transfer (non-written authority)	
23	Output file retrieval	XML only

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Type	Purpose	Submission Method
24	Mob-based In Transfer	XML only
25	Mob-based Out Transfer	XML only
26	Upload deceased cattle, with a PIC of consignment	
28	Rollback Transfers	
29	Set a device status for devices currently on a PIC	
30	Feedlot – Downgrade the EU status of a device	
32	Optional Animal Information	
33	Transfer Corrections	XML only
34	LPA Serial Number upload	XML only
35	PIC Reconciliation	
37	NVD image and data (Insert/Modify/Delete)	XML only
39	Sighted Cattle Upload	
40	PBT serial number upload	
41	Recovered Device upload	
42	Mob-based Kill Upload	
43	Mob-based Movement Off PIC	
44	Mob-based Movement Onto PIC	
45	Mob-based Kill rollback	CSV only
48	Mob-based Movement (Non-Written Authority)	

Add New Devices (Tag Upload)

Type ID	1
Format	<ul style="list-style-type: none"> • One device per line • Fields comma-delimited: <ul style="list-style-type: none"> ○ company ○ device type ○ RFID ○ NLIS_ID ○ ear (management) tag identifier (optional) ○ tag colour ○ date ○ PIC
Example	<pre>X,B,982 000072335720,3TWRWF002XBW00421,,W,07/08/2001,3TWRWF002 X,B,982 000007233624,3TWRWF002XBW00422,,W,07/08/2001,3TWRWF002 X,B,982 000007261897,3TWRWF002XBW00423,,W,07/08/2001,3TWRWF002 X,B,982 000007261855,3TWRWF002XBW00424,,W,07/08/2001,3TWRWF002 X,B,982 000007261782,3TWRWF002XBW00425,,W,07/08/2001,3TWRWF002 X,B,982 000007233069,3TWRWF002XBW00426,,W,07/08/2001,3TWRWF002</pre>
Notes	Most of the required fields (eg company, device type, etc) are part of the NLIS_ID. Refer to the NLIS_ID definition in section 0 for acceptable values for these fields.

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Query EU Status

Type ID	2
Format	One ID per line: <ul style="list-style-type: none"> • PIC or NLIS ID or RFID
Example	3ALBA003 3ALBG001 3ALBJ000
Notes	Only one type of query per file (eg all PICs or all NLIS_IDs or all RFIDs)

Upload Kill Data

Type ID	3
Format	<ul style="list-style-type: none"> • One kill per line • Fields comma-delimited: <ul style="list-style-type: none"> ○ PIC (of processor) ○ NLIS_ID or RFID ○ date killed ○ body number
Example	1312,SA160012XBV00602,18/4/2005,11 1312,SA160012XBV00602,18/4/2005,12 1312,SA160012XBV00602,18/4/2005,13

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Producer Transfer

Type ID	4
Format	<ul style="list-style-type: none"> • One transfer per line • Fields comma-delimited: <ul style="list-style-type: none"> ○ NLIS_ID or RFID ○ PIC (transferring from) ○ PIC (transferring to) ○ vendor declaration ○ transfer date
Example	SA160012XBV00602,SA160012,3INRR001,B206907,25/10/2001 SA160012XBV00609,SA160012,3INRR001,B206907,25/10/2001
Notes	<p>For deceased cattle:</p> <ul style="list-style-type: none"> • set the PIC (transferring to) to 'DECEASED'. • set the vendor declaration to '1234567' <p>For transfer to an unknown/undefined location:</p> <ul style="list-style-type: none"> • set the PIC (transferring to) to 'AAAAAAA' (note: this facility is gradually being withdrawn. Every effort must be made to identify the destination property, before considering using 'AAAAAAA') <p>For transfer with an unknown national vendor declaration number:</p> <ul style="list-style-type: none"> • set the vendor declaration to '1234567' <p>For transfer from a saleyard:</p> <ul style="list-style-type: none"> • use the format for saleyard transfer – see section 0 on page 36.

Update PIC EU Status

Type ID	5
Format	<ul style="list-style-type: none"> • One update per line • Fields comma-delimited: <ul style="list-style-type: none"> ○ PIC ○ EU status ○ contact number
Example	QACH0015,N,0294639296 QACH0031,N,0294639296 QAGB0008,N,0294639296 QAGB0040,N,0294639296 QAGB0059,N,0294639296

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Saleyard Receipt

Type ID	6
Format	<ul style="list-style-type: none"> • One receipt per line • Fields comma-delimited: <ul style="list-style-type: none"> ○ PIC (of saleyard), ○ NLIS_ID or RFID, ○ PIC (receiving animal from), ○ vendor declaration number ○ Sale date ○ Sale type = P (Take Possession)
Example	<pre>EUSY2370,982 000004712461,NG250838,A166025,20051017,P EUSY2370,982 000004606544,NG250838,A166025,20051017,P EUSY2370,982 000004727215,NG250838,A166025,20051017,P EUSY2370,982 000004727048,NG250838,A166025,20051017,P EUSY2370,982 000004606487,NG250838,A166025,20051017,P EUSY2370,982 000004606491,NG250838,A166025,20051017,P</pre>

Sale Yard Transfer

Type ID	7
Format	<ul style="list-style-type: none"> • One transfer per line • Fields comma-delimited: <ul style="list-style-type: none"> ○ PIC (of saleyard), ○ NLIS_ID or RFID, ○ PIC (transferring animal to), ○ vendor declaration number ○ Sale date ○ Sale type = S (Sell Possession)
Example	<pre>EUSY2370,982 000004712461,QACH0015,A166025,20051017,S EUSY2370,982 000004606544,QACH0015,A166025,20051017,S EUSY2370,982 000004727215,QACH0015,A166025,20051017,S EUSY2370,982 000004727048,QACH0015,A166025,20051017,S EUSY2370,982 000004606487,QACH0015,A166025,20051017,S EUSY2370,982 000004606491,QACH0015,A166025,20051017,S</pre>
Note	If you take receipt of any cattle that remain unsold, you need to submit a transfer to return those animals to the possession of their original consignor.

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Upload Carcase Data

Type ID	8
Format	Refer to Appendix B
Example	<pre> UNB,1.1,UNOB:1,MLAEzChk,NLIS DB,20011218:1300,20011218,,294,,,,,AB,,Teys Brothers,Logan River Road,Beenleigh,,,QLD,4999,AUS,,,,,AB UNH,200112181300,CRC,1.1,AM,AUS,,294,,,,3SFGB098,,AB CM1,1.1,N,C,20011215,173320,1,1,,294, CM2,1.0,N,PIC,,,3SFGB098 CM3,1.1,N,MI,6,,,,,U,,,U,,,0,0.00,U,T,0,0,,N,0.00,0.00, CM4,1.0,N,B,,0,N,,,,,383.0,0.0,0.0,4 UNT,4,200112181300 UNH,200112181300,CRC,1.1,AM,AUS,,294,,,,3SJGM014,,AB CM1,1.1,N,C,20011218,130001,1,1,12,,294, CM2,1.0,N,PIC,,,3SJGM014 CM3,1.1,N,MI,,,,,U,,,U,,,0,0.00,U,T,0,0,,N,0.00,0.00, CM4,1.0,N,B,,0,N,,,,,0.0,0.0,0.0,4 UNT,4,200112181300 UNZ,14,20011218 </pre>

Query PIC ERP Status

Type ID	9
Format	One PIC per line
Example	<pre> 3ALBA003 3ALBG001 3ALBJ000 </pre>

Update PIC ERP Status

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Type ID	10
Format	<ul style="list-style-type: none"> • One status per line: • Fields comma-delimited: <ul style="list-style-type: none"> ○ PIC ○ Program code ○ Status code ○ Status date (Defaults to the date on which the file is uploaded. Format: YYYYMMDD or DD/MM/YYYY) <p>The following three fields are required only when Program code = NORM and status code = R</p> <ul style="list-style-type: none"> ○ Date PMP signed (Format: YYYYMMDD or DD/MM/YYYY) ○ Date of last PMP/PMR audit (Format: YYYYMMDD or DD/MM/YYYY) ○ Audit frequency (in days) ○ Comments (Optional, only alphanumeric characters and spaces, no comma)
Example	<pre>NZ712131,OC,T1F,14/10/2005,,,,COMMENTS HERE NZ712106,NORM,R,14/10/2005,16/08/2005,05/06/2005,90</pre>

Update Animal Extended Status

Type ID	11
Format	<ul style="list-style-type: none"> • One status per line • Fields comma-delimited: <ul style="list-style-type: none"> ○ NLIS_ID or RFID ○ Status date (Defaults to the date on which the file is uploaded. Format: YYYYMMDD or DD/MM/YYYY) ○ AQIS code ○ display code ○ ON or OFF ○ Comments (Optional, only alphanumeric characters and spaces, no comma) ○ Status duration (in days) ○ Date of first RAM exposure (Required for Program code = RAM and Status code = F1. Format: YYYYMMDD or DD/MM/YYYY)
Example	<pre>122 011003461042,10/12/2005,NLS,B,OFF,COMMENTS HERE,30, 122 011003461042,10/12/2005,RAM,F1,ON,COMMENTS HERE,,08/11/2005 122 011003461042,10/12/2005,NLS,PB1,ON,COMMENTS HERE,,</pre>

Upload Kill Exception List

Type ID	12
Format	<ul style="list-style-type: none"> • One inspection per line • Fields comma-delimited • Content as per processor standards (data is not interpreted or manipulated in any way by the NLIS Database – it is simply

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	stored)
Example	,3WCGU000,982 000002239395,3WCGU000XBT0023,20010928,211823, , , 6, CB, VBM, 0, 0, 0, 10, 10, *, *, Y, EVERY CARCASE MUST BE INSPECTED, INSPECT CARCASE CAREFULLY FOR BEEF MEASLES. ,,982 000002235953,3WCGU000XBT0125,20010928, 212308, , , 7, CB, VBM, 0, 0, 0, 10, 10, *, *, Y, EVERY CARCASE MUST BE INSPECTED, INSPECT CARCASE CAREFULLY FOR BEEF MEASLES. ,,982 000002235953,3WCGU000XBT0125,20010928, 212308, , , 7, CB, VBM, 0, 0, 0, 10, 10, *, *, Y, EVERY CARCASE MUST BE INSPECTED, INSPECT CARCASE CAREFULLY FOR BEEF MEASLES. ,,982 000002266359,3WCGU000XBT0165,20010928, 212353, , , 8, CB, VBM, 0, 0, 0, 10, 10, *, *, Y, EVERY CARCASE MUST BE INSPECTED, INSPECT CARCASE CAREFULLY FOR BEEF MEASLES.

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SA Producer Transfer

Type ID	13
Format	<ul style="list-style-type: none"> • Fields comma-delimited • NLIS_ID or RFID <ul style="list-style-type: none"> ○ From PIC (PIC of saleyard) ○ To PIC (PIC transferring animal to) ○ Vendor declaration number ○ Transfer Date
Example	NF520226EFV00011,AAAAAAAA,3ALAF002,1234567,25/09/2003

Delete Tag

Type ID	14
Format	<ul style="list-style-type: none"> • One device per line • Fields comma-delimited <ul style="list-style-type: none"> ○ NLIS_ID ○ RFID
Example	3ARGS001XBY00236,982 000018068856

Replaced Tag

Type ID	16
Format	<ul style="list-style-type: none"> • One device per line • Fields comma-delimited <ul style="list-style-type: none"> ○ Old NLIS_ID or RFID ○ New NLID_ID or RFID ○ Replaced Date
Example	982 000018068856, NF520226EFV00011,10/09/2005

Feedlot Downgrade Tag (Feedlot - EU Change Upload)

Type ID	17/30
Format	<ul style="list-style-type: none"> • One device per line • Fields comma-delimited <ul style="list-style-type: none"> ○ NLIS_ID or RFID
Example	982 000018068856

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Association File

Type ID	18
Format	<ul style="list-style-type: none"> • One device per line • Fields comma-delimited <ul style="list-style-type: none"> ○ NLIS_ID or RFID
Example	NF520226EFV00011

Third Party Producer Transfer with non-written authority

Type ID	22
Format	<ul style="list-style-type: none"> • One device per line • Fields comma-delimited <ul style="list-style-type: none"> ○ NLIS_ID or RFID ○ PIC (transferring from) ○ PIC (transferring to) ○ Vendor declaration ○ Transfer date (format: YYYYMMDD or DD/MM/YYYY) ○ Authorisation level. (1 – Vendor Authorisation; 2 – Buyer Authorisation; 3 – Vendor and Buyer/Other Authorisation) ○ Authoriser firstname. (A maximum of 50 alphanumeric characters). ○ Authoriser lastname (A maximum of 50 alphanumeric characters). ○ Disclaimer-accepted. 1 to accept or 0 to decline the following disclaimer: <i>I warrant that I am authorised by the authoriser named above to notify MLA of this transfer on their behalf. I acknowledge that I am liable for all losses and damages arising out of this warranty being incorrect and indemnify MLA for those losses or damages.</i>
Example	SA160012XBV00602,SA160012,3INRR001,B206907,20050609,1,Peter,Smith,1

Upload Deceased with PIC of Consignment

Type ID	26
Format	<ul style="list-style-type: none"> • One device per line • Fields comma-delimited <ul style="list-style-type: none"> ○ Kill date (format: YYYYMMDD) ○ Processor ID (At least 1 to 15 letters of digits) ○ Chain number (Any number from 0 to 99) ○ Operator number (At most 3 characters) ○ Body number (Any number from 0 to 9999) ○ PIC (PIC of consignment) ○ NLIS_ID or RFID ○ NVD (National Vendor Declaration) or Waybill number
Example	20050719,188,1,129,1,SA160012,SA160012XBV00602 20050719,188,1,129,2,SA160012,SA160012XBV00603,123456

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Deceased Cattle Transfer

Type ID	27
Format	<ul style="list-style-type: none"> • One device per line • Fields comma-delimited <ul style="list-style-type: none"> ○ NLIS_ID or RFID ○ PIC (transferring from) ○ PIC (transferring to) ○ Vendor declaration ○ Transfer date (format: YYYYMMDD or DD/MM/YYYY) ○ Processor ID (At least 1 to 15 letters of digits) ○ Body number (Any number from 0 to 9999) ○ Chain number (Any number from 0 to 99) ○ Kill date (format: YYYYMMDD or DD/MM/YYYY)
Example	SA160012XBV00602, SA160012, 3INRR001, B206907,25/10/2005, 2,1,0,27/08/2005

PIC Register Upload

Type ID	21
Format	<ul style="list-style-type: none"> • One PIC per line • Fields comma-delimited <ul style="list-style-type: none"> ○ PIC ○ PIC Status (A – Active, I – Inactive, D – Disbanded, G – Amalgamated, B - Blocked) ○ PIC Type ○ Species ○ PIC Name ○ Brand Code ○ PIC Address Line 1 ○ PIC Address Line 2 ○ PIC Address Line 3 ○ PIC Suburb ○ PIC State ○ PIC Post Code ○ Business Name ○ Business Phone ○ Business Fax ○ Business Address Line 1 ○ Business Address Line 2 ○ Business Address Line 3 ○ Business Suburb ○ Business State ○ Business Post Code ○ Postal Address Line 1 ○ Postal Address Line 2 ○ Postal Address Line 3

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	<ul style="list-style-type: none"> ○ Postal Suburb ○ Postal State ○ Postal Post Code ○ Manager First Name ○ Manager Last Name ○ Manager Email ○ Manager Phone ○ Manager Fax ○ Update Time Stamp (Format: YYYY-MM-DD HH:MM:SS) ○ Brands (Species1/Brand1/Brand Status1 species2/Brand2/Brand Status2)
Example	QBZZ2222,A,PRODUCER,,RIVERVIEW,,,,,BUNDABERG,,,,,,,,,,,,,,,,,JOE,SMITH,,,,,C/AA01/A S/AA01/D
Reference	Please refer to <i>NLIS Specification Part 2, NLIS XML Fields > XML Field Details > XML Fields for PIC Register uploads</i> , for a description of data type and maximum field length allowed.
Notes	<ul style="list-style-type: none"> • If commas are to be provided in a field, then the field must be enclosed in double quotes. For example, “abc,123” will be stored as abc,123 in the database. • No more data should be present after the closing double quote in such a field. For example, <p>“QBZZ2222”,A,PRODUCER,,RIVERVIEW,,,,,BUNDABERG,,,,,,,,,,,,,,,,,JOE,SMITH,,,,,</p> <p>is valid whereas</p> <p>“QBZZ22”22,A,PRODUCER,,RIVERVIEW,,,,,BUNDABERG,,,,,,,,,,,,,,,,,JOE,SMITH,,,,,</p> <p>is invalid because, in the first field, “22” appears after the closing double quote.</p> • In order to embed a double quote in a double-quoted field, insert two consecutive double quotes in that field, e.g., a field value of “ABC””123” will be stored as ABC”123 in the database. • Each line can have a mixture of double-quoted and non-double-quoted fields. • It is also acceptable to embed a single quote in a field. A field value of either “abc’123” or abc’123 will be stored as abc’123. • The “Brands” field is a complex field the Species-Brand-Status details are delimited with a “/”, and multiple species-brand-status combinations can be submitted by space-delimiting each group

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Device Status for a PIC Upload

Type ID	29
Format	<ul style="list-style-type: none"> • One PIC per line • Fields comma-delimited <ul style="list-style-type: none"> ○ PIC ○ Program code ○ Status code ○ Status setting (on or off) ○ Percentage of devices currently on PIC to have extended status (a value of 0.1 represents 10%) ○ Percentage of devices that move onto PIC to have extended status (a value of 0.1 represents 10%) ○ Status duration (The number of days the status is to remain attached to the device after the device moves off the PIC.Defaults to infinity if not provided)
Example	QBZZ2222,NLS,S,ON,0.10,0.10, QBZZ2222,NLS,S,ON,0.10,0.10,14

Optional Animal Information

Type ID	32
Format	<ul style="list-style-type: none"> • One transfer per line • Fields comma-delimited: <p><i>Mandatory fields:</i></p> <ul style="list-style-type: none"> ○ NLIS_ID or RFID ○ Type of Transaction (Valid values are A -Addition, D -Deletion or M -Modification) ○ Disclaimer - 1 to accept or any other value to decline the following disclaimer: <i>'I verify that I have documentation to support the information being recorded.'</i> <p><i>Optional fields:</i></p> <ul style="list-style-type: none"> ○ Date of Birth (DD/MM/YYYY, MM/YYYY, YYYY, DD/MM/YYYY DD/MM/YYYY): If a [Date of Birth] range is submitted, the date range must be less than 12 months; the Start date of birth and End date of birth must be separated by a space and both must be in DD/MM/YYYY format. ○ Sex of Animal (Refer to Appendix C for valid sex codes) ○ Breed of Animal - multiple up to 4 breeds (Refer to Appendix C for valid Breed Codes) - if there are multiple breeds, they need to be separated by a space, for example: AA PH ○ Color of Animal(free text, up to 20 characters) ○ Alternate identification(16 character string) ○ Free comments field(32 character string)
Example	1. An example of a device with new information being added to the

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	<p>database. SA160012XBV00602,A,1,25/10/2005,H,AA,Black,A505,Weaner SA160012XBV00602,A,1,10/2005,H,AA,Black,A505,Weaner SA160012XBV00602,A,1,2005,H,AA BZ,,A505,Weaner SA160012XBV00602,A,1,25/10/2005 30/10/2005,H,AA BZ BE,Black,A505,</p> <p>2. An example of a modify record for a device. A modify record will replace all old data fields already recorded against the device. This example includes a date of birth date range. SA160012XBV00609,M,1,25/10/2001 20/11/2001,B,PH,,W400,</p> <p>3. An example of a deletion - all Optional Animal Information will be deleted from the device. The Date of Birth can only be deleted if the animal resides on its property of birth: SA160012XBV00609,D,1,,,,,,</p>
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Sighted Cattle Upload

Type ID	39
Format	<ul style="list-style-type: none"> • One transfer per line • Fields comma-delimited: <i>Mandatory fields:</i> <ul style="list-style-type: none"> ○ NLIS_ID or RFID ○ PIC ○ Sighting Date (DD/MM/YYYY) ○ NVD (Optional, maximum 15 characters in length) ○ Comments (Optional, only alphanumeric characters and spaces, no comma)
Example	SA160012XBV00602,SA204265,21/08/2008,123456,This is a comment SA160012XBV00602,SA204265,21/08/2008,123456, SA160012XBV00602,SA204265,21/08/2008,,

PBT serial number upload

Type ID	40
Format	<ul style="list-style-type: none"> • One PBT serial number per line <i>Mandatory fields:</i> <ul style="list-style-type: none"> ○ PBT
Example	9870987659 8768909865 6789087657

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Saleyard Mob-Based Movement

Type ID	37
Format	<ul style="list-style-type: none"> • One transfer per line • Fields comma-delimited: <ul style="list-style-type: none"> ○ Species (Mandatory) ○ Sale date (Mandatory) ○ From PIC (Mandatory) ○ From PIC Number of head (Mandatory) ○ Other PICs on NVD/Waybill ((Optional)-allow multiple instances) ○ Comment ((Optional)-Lot information description) ○ NVD/Waybill Serial Number (Mandatory) ○ To PIC ((Mandatory)-allow multiple instances) ○ To PIC Number of head((Mandatory)-allow multiple instances) ○ SaleyardID/Saleyard PIC ((Optional)-Mandatory for Saleyard Accounts) ○ Saleyard Post Breeder Tags((Optional)-allow multiple instances) ○ Selling Agent((Optional)-allow multiple instances) ○ Have the stock been bred by the vendor? (Optional) ○ How Long? (Optional) <p><i>Optional fields:</i></p> <ul style="list-style-type: none"> ○ Other From PIC allows multiple instances. If there are multiple others from PIC, they need to be separated by a space, for example QITR0749 QEBL0021. ○ Comment field allows to record lot and description information. This field can only take maximum of 255 characters. ○ To PIC and To PIC Number of head allows multiple instances. They both are in one group. To PIC and To PIC Number of head they separated with the '/'. Multiple instances are separated with the Space. For example QEBL0021/23 QITR0749/23 ○ SaleyardID/Saleyard PIC (Optional) field is Mandatory for Saleyard Accounts ○ Saleyard post breeder tag field allows multiple instances. PIC and serial number must be separated with '/'. Multiple instances are separated with the space. For Example QEBL9870/ABCD123456 QITR0749/WXYZ123456 ○ Selling Agent allows multiple instances. If there are multiple Selling Agent, they need to be separated by a space, for example USERAGNT USERAGNT ○ Has the owner stated above owned this livestock since their birth field allows to select an answer between Y(Yes)/N(No). ○ If the above answer is NO, this field will allow to select one of the four options. For Example: A/B/C/D Where: A= Less Than 2 months, B= 2-6 months, C= 6-12 months

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	and D=more than 12 months.
Example	<p>1. An example of the CSV file format</p> <pre>PIGS,20090211,QITR0749,23,QGBL0383,text,178283,QEBL0021/23,EUSY4433,QEBL9870/ABCD123456,USERAGNT USERAGNT,Y,</pre> <p>2. An example of the CSV file format with more than one transfer</p> <pre>PIGS,20090213,QITR0749,23,QGBL0383,text,17128283,QEBL0021/23,EUSY4433,PICTEST1/1234567890,USERAGNT USERAGNT,N,B PIGS,20090213,QITR0749,23,QGBL0383,text,17328283,QEBL0021/23,EUSY4433,,,, PIGS,20090213,QITR0749,23,QGBL0383,,17628283,QEBL0021/23,EUSY4433,USERAGNT,,</pre>

Recovered Device upload

Type ID	41
Format	<ul style="list-style-type: none"> • One device per row • Fields comma-delimited: <ul style="list-style-type: none"> ○ NLIS_ID or RFID
Example	<pre>122 011003461042 122 011003461042 987 562589412358</pre>

Mob-based Kill upload

Type ID	42
Format	<ul style="list-style-type: none"> • One mob kill per row • Field comma-delimited: <ul style="list-style-type: none"> ○ Species ("Sheep/Goat")[Mandatory] ○ Kill Date (format: YYYYMMDD)[Mandatory] ○ Processor PIC (Abattoir PIC)[Mandatory] ○ Number of Head [Mandatory] ○ Source ("Saleyard/Direct")[Mandatory] ○ From PIC [Mandatory] ○ Foreign PIC [Optional] ○ NVD/Waybill Serial Number [Mandatory if the source is direct] ○ Other PICs on NVD/Waybill [Optional] ○ Have the stock been bred by the vendor? [This field allows to select an answer between Y(Yes)/N(No)]. [Optional] ○ If the above answer is NO, this field will allow to select one of the four options. For Example: A/B/C/D [Optional]

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Example	1	A	B	C	D	E	F	G	H	I			
	2	SHEEP	22/10/2009	NA991234	45	SALEYARD	NB991222	QEBL0012	WA896547	178283	PICTEST1	PICTEST2	
	3	SHEEP	22/10/2009	NA991234	70	DIRECT	3ABC1234	QEBL0013	SA987456	2589654	QL256123	SD1238	
	4	GOAT	22/10/2009	NA991234	40	SALEYARD	QABC1234	PEBL0014	QLD56798	QL498765	5698745	NSWN2060	NSWR2016
	5	SHEEP	22/10/2009	NA991234	100	DIRECT	QABC1234	SEBL0015			1956874	VIC39874	NSWN2060
	6												

Mob-based Movement Off PIC

Type ID	43																																																															
Format	<ul style="list-style-type: none"> • One transfer per line • Field comma-delimited: <ul style="list-style-type: none"> ○ Species [Mandatory] ○ Movement Date [Mandatory] ○ From PIC [Mandatory] ○ Number of Head [Mandatory] ○ To PIC [Mandatory] ○ NVD/Waybill Serial Number[Mandatory] ○ Other PICs on NVD/Waybill ○ Have the stock been bred by the vendor? [This field allows to select an answer between Yes/No]. [Optional] ○ If the above answer is NO, this field will allow to select one of the four options. For Example: A/B/C/D [Optional] ○ Comment [Optional] 																																																															
Example	<table border="1"> <thead> <tr> <th></th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>F</th> <th>G</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>SHEEP</td> <td>22/10/2009</td> <td>NA991234</td> <td>45</td> <td>QEBL0012</td> <td>178283</td> <td>PICTEST1</td> <td>PICTEST2</td> </tr> <tr> <td>2</td> <td>SHEEP</td> <td>22/10/2009</td> <td>NA991234</td> <td>70</td> <td>QEBL0013</td> <td>2589654</td> <td>QL256123</td> <td>SD123897</td> </tr> <tr> <td>3</td> <td>GOAT</td> <td>22/10/2009</td> <td>NA991234</td> <td>40</td> <td>PEBL0014</td> <td>5698745</td> <td>NSWN2060</td> <td>NSWR2016</td> </tr> <tr> <td>4</td> <td>SHEEP</td> <td>22/10/2009</td> <td>NA991234</td> <td>100</td> <td>SEBL0015</td> <td>1956874</td> <td>VIC39874</td> <td>NSWN2060</td> <td>NSWR2016</td> </tr> <tr> <td>5</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>6</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		A	B	C	D	E	F	G	1	SHEEP	22/10/2009	NA991234	45	QEBL0012	178283	PICTEST1	PICTEST2	2	SHEEP	22/10/2009	NA991234	70	QEBL0013	2589654	QL256123	SD123897	3	GOAT	22/10/2009	NA991234	40	PEBL0014	5698745	NSWN2060	NSWR2016	4	SHEEP	22/10/2009	NA991234	100	SEBL0015	1956874	VIC39874	NSWN2060	NSWR2016	5									6								
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6																																																																

Mob-based Movement Onto PIC

Type ID	44
Format	<ul style="list-style-type: none"> • One transfer per line • Field comma-delimited: <ul style="list-style-type: none"> ○ Species [Mandatory] ○ Movement Date [Mandatory] ○ From PIC [Mandatory] ○ Number of Head [Mandatory] ○ To PIC [Mandatory] ○ NVD/Waybill Serial Number [Mandatory]

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	<ul style="list-style-type: none"> ○ Other PICs on NVD/Waybill [Optional] ○ Have the stock been bred by the vendor? [This field allows to select an answer between Yes/No]. [Optional] ○ If the above answer is NO, this field will allow to select one of the four options. For Example: A/B/C/D [Optional] ○ Comment [Optional] 																																																								
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Mob-based Kill Rollback

Type ID	45
Format	<ul style="list-style-type: none"> • One mob kill per line • Field comma-delimited: <ul style="list-style-type: none"> ○ UploadId (Actual upload) ○ Processor PIC (Abattoir PIC)[Mandatory] ○ Kill Date (format: YYYYMMDD)[Mandatory] ○ Number of Head [Mandatory] ○ Source (“Saleyard/Direct”)[Mandatory] ○ Species (“Sheep/Goat”)[Mandatory] ○ Source PIC [Mandatory]
Example	9876542,PICTEST1,20091023,20,Saleyard,Goat,PICTEST9, 9876325,PICTEST1,20091023,12,Direct,Sheep,PICTEST10, 9858987,PICTEST3,20091026,8,Direct,Goat,PICTEST4,

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Mob-based Movement Non-Written Authority

Type ID	48
Format	<ul style="list-style-type: none"> • One transfer per line • Field comma-delimited: <ul style="list-style-type: none"> ○ Species [Mandatory] ○ Movement Date [Mandatory] ○ From PIC [Mandatory] ○ Number of Head [Mandatory] ○ To PIC [Mandatory] ○ NVD/Waybill Serial Number [Mandatory] ○ Other PICs on NVD/Waybill [Optional] ○ Have the stock been bred by the vendor? [This field allows to select an answer between Yes/No]. [Optional] ○ If the above answer is NO, this field will allow to select one of the four options. For Example: A/B/C/D [Optional] ○ Comment [Optional] ○ Authorisation level. (1 – Vendor Authorisation; 2 – Buyer Authorisation; 3 – Vendor and Buyer/Other Authorisation) ○ Authoriser firstname. (A maximum of 50 alphanumeric characters). ○ Authoriser lastname (A maximum of 50 alphanumeric characters). ○ Disclaimer-accepted. 1 to accept or 0 to decline the following disclaimer: <p style="margin-left: 20px;"><i>I warrant that I am authorised by the authoriser named above to notify MLA of this transfer on their behalf. I acknowledge that I am liable for all losses and damages arising out of this warranty being incorrect and indemnify MLA for those losses or damages.</i></p> ○ PBT Serial Number
Example	<p>SHEEP, 20090730, PICTEST6, 201, PICTEST3, 12346, PICTEST3 PICTEST4, N, A, COMMENT, 2, E, WER, 1, 3452</p> <p>SHEEP, 20090730, PICTEST6, 201, PICTEST3, 12346, PICTEST3 PICTEST4, N, A, COMMENT, 1, d, patel, 0,</p> <p>SHEEP, 20090730, PICTEST6, 201, PICTEST3, 12346, PICTEST3 PICTEST4, N, A, COMMENT, 3, eer, wer, 1, 452</p> <p>SHEEP, 20090730, PICTEST6, 201, PICTEST3, 12346, PICTEST3 PICTEST4, N, A, COMMENT, 0, r, r, 0, 452</p>

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Appendix A PIC Validation Algorithm

Note: The information in this appendix is of a sensitive nature, and is not for public release. It is for use only by developers who wish to build PIC validation into their applications that interface with NLIS.

PIC formats

The following general rules apply to all PICs

- all PICs are eight characters long, containing only letters or numbers
- no spaces, dividers etc within the PIC. eg '3FDS 0003' will be immediately rejected (includes a space); as will '3FDS-0003' (includes a dividing hyphen)
- all letters in the PIC must be uppercase.

Further to those rules, the following table outlines additional format rules based on the PIC origin. That origin can be determined by the first character in the PIC.

First Character	PIC Origin	PIC Format	Additional Rules
3	VIC (new format)	3AAAA9999	-
V	VIC (old format)	VAAA99999	-
N	NSW	NA9999999	2 nd char must be A - K
Q	QLD	QAAA99999	2 nd char must be A - K
S	SA	SA9999999	2 nd char must be A - K
M	TAS	MAAA99999	2 nd char must be A - K
W	WA	WAAA99999	2 nd char must be A - K
T	NT	TAAA99999	2 nd char must be A - K
EUAB	NLIS	EUAB99999	EUAB for Abattoirs. No algorithm check required.
EUSY	NLIS	EUSY99999	EUSY for Saleyards. No algorithm check required.
A	NLIS	AAAAAAA	8A's - Unknown PIC. No algorithm check required.
E	NLIS	EEEEEEEE	8E's - Destination PIC for Live Export. No algorithm check required.

For example, the current format for Victoria is listed as '3AAAA9999'. This means valid PICs have a first character '3', followed by 4 letters (A-Z), followed by 3 numbers (0-9).

NLIS EUAB and EUSY PICs were assigned to some Saleyards and Abattoirs prior to States issuing abattoir and saleyard PICs. These PICs are still in use in some instances.

PIC formats – emergency tailtags

A special format is used to identify emergency tailtags issued by State Departments:

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- first character is one of the accepted first characters listed in the above table (to designate which State Department issued the emergency PIC)
- second character is Z

Any PIC that meets these two rules is deemed a valid, emergency PIC.

PIC validation

The following table shows how to check whether a PIC is valid or not.

Step	Action																		
1	Convert each character to a numeric value. The rules for conversion depend on the PIC origin. Refer to the next section for details.																		
2	Multiply each character value by a multiplier determined by its position in the PIC: <table border="1" data-bbox="673 925 1174 1272" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Position</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr><td>1</td><td>128</td></tr> <tr><td>2</td><td>64</td></tr> <tr><td>3</td><td>32</td></tr> <tr><td>4</td><td>16</td></tr> <tr><td>5</td><td>8</td></tr> <tr><td>6</td><td>4</td></tr> <tr><td>7</td><td>2</td></tr> <tr><td>8</td><td>1</td></tr> </tbody> </table>	Position	Multiplier	1	128	2	64	3	32	4	16	5	8	6	4	7	2	8	1
Position	Multiplier																		
1	128																		
2	64																		
3	32																		
4	16																		
5	8																		
6	4																		
7	2																		
8	1																		
3	Add up the multiplied values for all the characters in the PIC.																		
4	Divide the total by a divisor: <ul style="list-style-type: none"> • for PICs beginning with 3, divide by 23 • for all other PICs, divide by 11 																		
5	Is the result a whole number? If yes , the PIC is valid If no , the PIC is invalid.																		

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The following table outlines the rules for converting PICs to numeric values, based on their origin.

PIC Origin	Conversion
VIC (3) VIC (V) QLD TAS	<ul style="list-style-type: none"> • each number is worth its own value (eg 5 = 5) • each letter is worth a value based on its position in the alphabet, starting at A = 10 (eg B = 11, C = 12, etc.,...,Z = 35)
NSW	<ul style="list-style-type: none"> • 1st character (N) is worth 12 • each subsequent number is worth its own value (eg 5 = 5) • each subsequent letter is worth a value based on its position in the alphabet, starting at A = 10 (eg B = 11, C = 12, etc.,...,Z = 35)
SA	<ul style="list-style-type: none"> • 1st character (S) is worth 6 • 2nd character is worth ASCII value (eg A is 65) • each subsequent number is worth its own value (eg 5 = 5)
WA	<ul style="list-style-type: none"> • 1st character is worth ASCII value (eg W is 87) • 2nd – 4th character, one of the following applied: <ol style="list-style-type: none"> 1. character is A, value is 10 2. character less than M, value is index from B (eg C = 1) 3. character less than X, value is index from M (eg N = 1) 4. value is index from X (eg Y = 1) 5. B, M and X have a value of 0 6. Each subsequent number is worth its own value (eg 5 = 5)
NT	Refer to 'NT PIC Algorithm'

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Example: NH020540

PIC starts with N. Therefore it is a NSW PIC. Conversion and validation is as per the following table.

Character	Value	Multiplier	Total
N	12	128	1536
H	17	64	1088
0	0	32	0
2	2	16	32
0	0	8	0
5	5	4	20
4	4	2	8
0	0	1	0
Total			2684
Divide by 11			244

The PIC is valid.

Non-Example: NH020548 (last digit transposed incorrectly)

Character	Value	Multiplier	Total
N	12	128	1536
H	17	64	1088
0	0	32	0
2	2	16	32
0	0	8	0
5	5	4	20
4	4	2	8
8	8	1	8
Total			2692
Divide by 11			244.72

The PIC is invalid.

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NT PIC Algorithm

- Position 1 of the PIC number must be 'T' and has no value assigned to it.
- The following values are assigned to the remaining characters in the PIC.

Position 2	Value
A	90
B	0
C	9
D	18
E	27
F	36
G	45
H	54
I	63
J	72
K	81

Position 3 and 4	Value
AS	179
DG	94
BT	84
VR	164

Position	Multiplier
5	8
6	4
7	2
8	1

PIC Algorithm

1. Add together the Position 2 Value and the Position 3 and 4 Value
 - If the value of position 2 is anything other than the values listed above, the PIC is invalid.
2. Multiply the value of positions 5 – 8 by the multiplier in the above table. Add these four totals together.
3. Add together the total at Step 1 and the total at Step 2
4. Calculate: $11 \times (\text{Step 3 result} / 11)$ - When dividing the Step 3 result by 11, if this calculation results in a decimal, round the result to the nearest whole number before multiplying by 11.
5. Compare the figure from Step 3 with the figure from Step 4
 - If the two figures are equal, the PIC is valid
 - If the two figures are not equal, the PIC is invalid

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Example: TFVR0033

1. $36 + 164 = 200$
2. $(0 \times 8) + (0 \times 4) + (3 \times 2) + (3 \times 1) = 9$
3. $200 + 9 = 209$
4. $11 \times (209/11) = 209$
5. $209 = 209$ PIC is valid

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Appendix B Carcass Data Format

Carcass data is implemented more closely according to the Message Specifications document than any other part of the NLIS Database interface. That Specifications document, and this appendix, must be referenced to implement carcass feedback.

Data format

Referring to the message structure sections defined within the Message Specifications, carcass data must be constructed as follows.

- Each message section (UNB, UNT, etc) is provided as a separate comma-delimited line within the carcass feedback file
- Data starts with a message header (UNB), ends with a message trailer (UNZ), and contains the following sections repeated for each animal:
 - segment header (UNH)
 - carcass header (CM1)
 - other carcass sections (CM2..CM6) as required, listed in order
 - segment trailer (UNT)
- At least one CM2 PIC, NLD or RFD record is required. Any combination of these is allowed in a single transaction.

Note: There are differences in data requirements between NLIS and the data dictionary; for example dates for carcass feedback need to be formatted as YYYYMMDD; NLIS accepts DD/MM/YYYY. For carcass feedback, the requirements of the data dictionary override those defined for NLIS.

Data example- PIC Based

The following PIC based kill file sample shows the carcass data for 3 animals (note the first line – UNB – wraps).

```

UNB,1.1,UNOB:1,MLAEzChk,NLIS DB,20011126:1436,20011126,,L88,,,,,AB,,Vodusek
Meats,Racecourse Road,Cobram,,VIC,3144,AUS,,,,,AB
UNH,200111261436,CRC,1.1,AM,AUS,,L88,,,BODY0001,,AB
CM1,1.1,N,C,20011126,064349,1,1,,,L88,
CM2,1.0,N,PIC,,,BODY0001
CM3,1.1,N,MI,,,,,,U,,,U,,,0,0.00,U,T,0,0,Y,N,0.00,0.00,
UNT,3,200111261436
UNH,200111261436,CRC,1.1,AM,AUS,,L88,,,BODY0002,,AB
CM1,1.1,N,C,20011126,064423,2,1,,,L88,
CM2,1.0,N,PIC,,,BODY0002
CM3,1.1,N,MI,,,,,,U,,,U,,,0,0.00,U,T,0,0,Y,N,0.00,0.00,
UNT,3,200111261436
UNH,200111261436,CRC,1.1,AM,AUS,,L88,,,BODY0003,,AB
CM1,1.1,N,C,20011126,064507,3,1,,,L88,
CM2,1.0,N,PIC,,,BODY0003
CM3,1.1,N,MI,,,,,,U,,,U,,,0,0.00,U,T,0,0,Y,N,0.00,0.00,
UNT,3,200111261436

```

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UNZ, 331, 20011126

Data example- Device Based

The following device based kill file sample shows the carcass data for 3 animals (note the first line – UNB – wraps).

```

UNB,1.1,UNOB:1,MLAEzChk,NLIS DB,20011126:1436,20011126,,L88,,,,,AB,,Vodusek
Meats,Racecourse Road,Cobram,,VIC,3144,AUS,,,,,AB
UNH,200111261436,CRC,1.1,AM,AUS,,L88,,,BODY0001,,AB
CM1,1.1,N,C,20011126,064349,1,1,,,L88,
CM2,1.0,N,PIC,,,BODY0001
CM2,1,0,N,RFD,,,982 000097463147
CM3,1.1,N,MI,,,,,,U,,,U,,,0,0.00,U,T,0,0,Y,N,0.00,0.00,
UNT,3,200111261436
UNH,200111261436,CRC,1.1,AM,AUS,,L88,,,BODY0002,,AB
CM1,1.1,N,C,20011126,064423,2,1,,,L88,
CM2,1.0,N,PIC,,,BODY0002
CM2,1,0,N,RFD,,,982 000097463145
CM3,1.1,N,MI,,,,,,U,,,U,,,0,0.00,U,T,0,0,Y,N,0.00,0.00,
UNT,3,200111261436
UNH,200111261436,CRC,1.1,AM,AUS,,L88,,,BODY0003,,AB
CM1,1.1,N,C,20011126,064507,3,1,,,L88,
CM2,1.0,N,PIC,,,BODY0003
CM2,1,0,N,RFD,,,982 000097463146
CM3,1.1,N,MI,,,,,,U,,,U,,,0,0.00,U,T,0,0,Y,N,0.00,0.00,
UNT,3,200111261436
UNZ,331,20011126

```

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Appendix C Breed and sex codes

Following is a list of the valid sex categories that can be used when submitting an 'Optional Animal Information' transaction (this list is extracted from the National Meat and Livestock Data Dictionary):

Description	Code
Bull	B
Stag	G
Bullock	K
Steer	S
Heifer	H
Cow	C
Spay	P

Following is a list of the valid Breeds that can be used when submitting an 'Optional Animal Information' transaction (this list is extracted from the National Meat and Livestock Data Dictionary):

Description	Breed Code
Africander	AF
Angus	AA
Angus Lowline	AL
Australian Milking Zebu	MZ
Australian Friesian Sahiwal	FS
Australian Illawarra Shorthorn	IS
Australian Red	UU
Australis South Devon/Angus	AU
Ayrshire	AY
Barzona (Composite)	BZ
Bazadiaz	BI
Beef Shorthorn	BS
Beefalo	BO
Beefmaker	BK
Beefmaster	BM
Belgian Blue	BL

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Description	Breed Code
Belmont Red	BR
Black Simmental	SB
Blonde d'Aquitaine	BA
Boran	BN
Braford	BF
Brahman	BB
Brahmousin	BH
Braler	BE
Brangus	BG
Braunvieh	BV
British White	BW
Brown Swiss	SB
Charbray	CB
Charolais	CC
Chiangus	CA
Chianina	CI
Clifford	CF
Dairy Shorthorn	DS
Danish Red	DR
Devon	DD
Dexter	DX
Droughtmaster	DM
Durham	DU
Flekvieh	FL
Friesian (Holstein)	FF
Galloway (including Belted)	GA
Gelbvieh	GV
Greyman	GM
Guernsey	GG
Hayes Converter	HV
Hereford	HH
Highland	HI
Jersey	JJ
LeanBos (Chianina/Sahiwal)	LB

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Description	Breed Code
Limousin	LL
Lincoln Red	LR
Longhorn (Texas)	LH
Luining	LU
Maine Anjou	MU
Mandalong Special	MD
Marchigiana	MA
Milking Shorthorn	MS
Muese-Rhine-Issel	MI
Murray Grey	MG
Nelore	NL
Pie	PR
Piedmontese	PM
Pinzgauer	PZ
Poll Charolais	PC
Poll Devon	PD
Poll Hereford	PH
Poll Shorthorn	PS
Poll Simmental	SI
Red & White Holstein	RF
Red Angus	RA
Red Poll	RP
Red Sindhi	RS
River Buffalo	RV
Romagnola	RO
Rotbut	RB
Sahiwal	SW
Sahiwal-Shorthorn	SN
Salers	SL
Santa Gertrudis	SG
Shaver Beefblend	SV
Shorthorn	SS
Simbrah	SM
Simford	SH

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Description	Breed Code
Simindicus	SC
Simmental	SI
South Devon	SD
Sussex	SU
Swamp Buffalo	SP
Swedish Red	SR
Tarantaise	TA
Thai (Native)	TH
Tuli	TI
Unknown	OO
Wagyu	WY
Watuzi	WA
Welsh Black	WB
Zebu	ZW

**** END OF DOCUMENT ****

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