NIAS

NSIP Integration As A Service

NAPLAN VALIDATION

Installation & Usage Guide

Background, Release Notes, Installation and User Guide v8.0

Version history

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Version	Notes
V1	Initial release
V2	NIAS updated to reflect: 1. Performs all validations as per v0.94 of the NAPLAN Online registration file specification (refer Appendix A) 2. Added dobvalidator 3. Updated gonias.bat to include dobvalidator 4. Created gonias2016.bat to launch NIAS with 2016 year for DOB validation 5. Created gonias2016local.bat to launch NIAS with 2016 year for DOB validation and to apply local schema validation 6. Created stopnias.bat to terminate NIAS terminal windows
V3	NIAS updated as follows: 1. NIAS supports conversion of CSV to XML file format 2. CSV to XML converter will deal with max 50,000 students (as per SRM platform vendor recommendations). This can be changed. 3. The validation error report displayed on screen can now be exported to Excel (CSV format). 4. NIAS port set to use port 8080 by default (can be changed)
V3.1	Included filenames for Windows 32bit version of NIAS. Refer section 2.2
V4	NIAS updated as follows: 1. Date/Timestamp on the changed binaries aggregator(32).exe and aslvalidator(32).exe are 12:08/12:09 Thursday 12 May 2016. 2. Schema validation was being overly aggressive reporting errors for non-mandatory fields that are supplied but blank (in effect empty columns in the input file). This behaviour has been adjusted so that fields that are blank AND non-mandatory will not have validation applied. If mandatory fields are blank, a validation error of required field missing will still be raised. 3. ASL validation included an 'extra' check to validate that the supplied ASL ID (ACARA id) belongs to the State/Territory associated with the student. As StateTerritory is not a mandatory field this could result in an unnecessary validation error being raised if StateTerritory was not supplied. This has been corrected so that the state correctness of the ASLId is not validated if StateTerritory has not been provided. ASL validation errors will still be raised if the ASL Id is not a valid identifier. Note: No updates to the Windows Install/User guide outside of noting the above changes was made as part of this release.
V5	Added installation from github procedure Support for validation of XML files implemented Improved country/language code validation implemented

V6	Added PSI format checking Bundling as single executable Updated screenshots and instructions for V6
V7	Updated error descriptions for Parent2 fields to be optional unless data is contained in at least one Parent2 field Updated Data Validation rules from NAPLAN Online Registration Data Set v1.0
V8	Low-Mem infrastructure for Win32, updated web interface.

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1. NIAS Product Description

What is NIAS?

NIAS is a suite of open-source components designed to enable as many different users as possible to quickly and easily solve issues of system integration using the Australian SIF Data Model for education.

Core Components

At the heart of NIAS are two key components; all other features are simple services that use those key components.

1. SIF Store & Forward (SSF):

This is the core messaging infrastructure of NIAS. Based on the open source NATS high performance cloud-based messaging system, it ingests very large quantities of data and stores them for delivery to clients. The transport is format-agnostic and currently supports xml (SIF/Ed-Fi), CSV (including IMS OneRoster), and JSON.

The NIAS SSF service creates an education-standards-aware REST interface on top of NATS. It also provides a number of utility services to simplify SIF-based integrations.

2. SIF Memory Store - SMS:

The SMS is a database that builds its internal structures from the data it receives, rather than from a pre-defined schema.

When a SIF data object is provided to the SMS (typically via an SSF queue), the SMS creates a graph of all references to and from that object, and adds each object to a collection based on its type.

As more data is added, the number of collections can grow. However, producers and consumers of data need only implement the collections they wish to work with. In an integration scenario, for example, if parties choose to exchange only invoice data and student personal data, then they can.

When it comes to retrieving data from the SMS, the query service exploits the graph of references to find any relationships between the requested items.

In summary the combination of SSF and SMS means that we achieve a highly simplified interface for integration based on SIF.

3 NAPLAN Registration Data Validation:

A simple user interface to run all NAPLAN platform validations locally for student registration data.

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2.   Installation

2.1. Pre-requisites:

For the Windows installation you will need a Windows PC with the latest version of either Google Chrome or Mozilla Firefox installed.

NIAS takes up ~30MB in hard disk space.

NAPLAN Validation is a processor intensive application. For best results we recommend at least an i5 processor set and 4Gb of RAM. Lower capacity machines can be used but will have slower performance.

2.2. Installation:

1. Click on the following URL, or enter it in your browser:

    https://github.com/nsip/nias2/releases/

    If you are running a Windows 32-bit system:

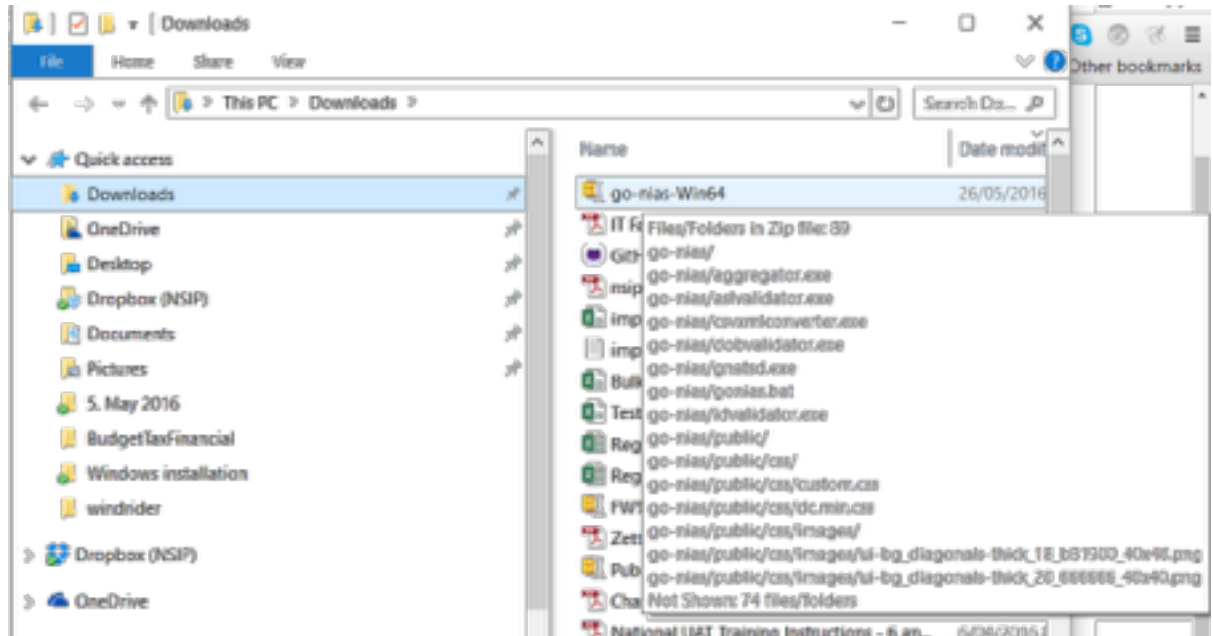   Use **go-nias-Win32.zip**

    If you are running a Windows 64-bit system:

    Use **go-nias-Win64.zip**

    If you are running a Mac system:

    Use **go-nias-Mac.zip**

2. The zipped installation file should automatically download to your Downloads file directory:

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3. **Extract the contents of the NIAS zip file** to a suitable high-level directory e.g. C:\go-nias\

   Note: Don't nest the directory structure too deeply. For example, extracting to C:\testing\2016\NSIP\NAPLAN\Online\March\version 1\NSIPAsAService\ may cause issues.

   The same is true for Mac users, unzip the file to a high-level folder without spaces in the name.

4. The go-nias folder contains a number of files and folders. Those relevant for business testing purposes include:

   a. **nats-streaming-server(.exe)**

   b. **napval(.exe)**

   c. **gonias.bat** (batch file to launch executables, services and the web browser)

   d. **stopnias.bat** (batch file to stop executables, it will not close the web browser)

   e. **gonias.sh/stopnias.sh** (shell scripts for Mac users to start and stop the application)

   f. **napval.toml** (configuration file where validation route and other runtime parameters can be set)

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g. nss.cfg (configuration file for the streaming server)

2.3. Updating NIAS & Removing NIAS

1. **To update NIAS,** delete the existing installation directory and re-install the updated version.

2. **To remove NIAS**, delete the installation directory (e.g. C:\go-nias). No changes are made to windows registry entries during the install process.

3. Conditions of Data Download

Please use any NAPLAN data in accordance with your local privacy and data usage policies.

Usage should comply with the *Privacy Act* 1988 (Cth) to maintain the privacy of personal information contained within each data extract or report including School Student Summary Report (SSSR) and Individual Student Report (ISR) (Data).

Data controls on the assessment platform are unable to be applied to data once it has been downloaded from the Assessment platform and therefore treat all data with care.

In order to maintain the privacy of the data after you have downloaded it, prior to accessing and downloading the data, users must confirm and agree that:

- you are authorised to access and download the Data;
- your organisation has privacy and security controls in place in order to protect the privacy and security of the Data; and
- you will take all reasonable steps to ensure that the Data will not be misused, interfered with, lost, modified or disclosed to unauthorised personnel.

If you do not agree to the above conditions, **you must not** access and/or download the Data and/or use the NIAS tool.

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4. Using NIAS

1. **To run NIAS on windows,** double-click on **gonias.bat**. This launches the various components and services of NIAS.

2. **To run NIAS on Mac,** open a Terminal in the folder where nias is installed and run bias by typing ./gonias.sh at the command prompt.

3. **NIAS validates files that are either CSV or XML file formats.**

4. On windows launch, **gonias.bat** opens a separate command prompt/terminal window for each of the NIAS key executables (nats-streaming-server.exe and napval.exe) and launches the NIAS web UI using your default web browser (Google Chrome and Mozilla Firefox are supported currently).
Note: If your default web browser is set to IE or another unsupported browser, Othe UI may not function correctly.

5. On Mac launch gonias.sh will start all services in the background. You should then use your browser to navigate to http://localhost:1325/nias to display the web ui.
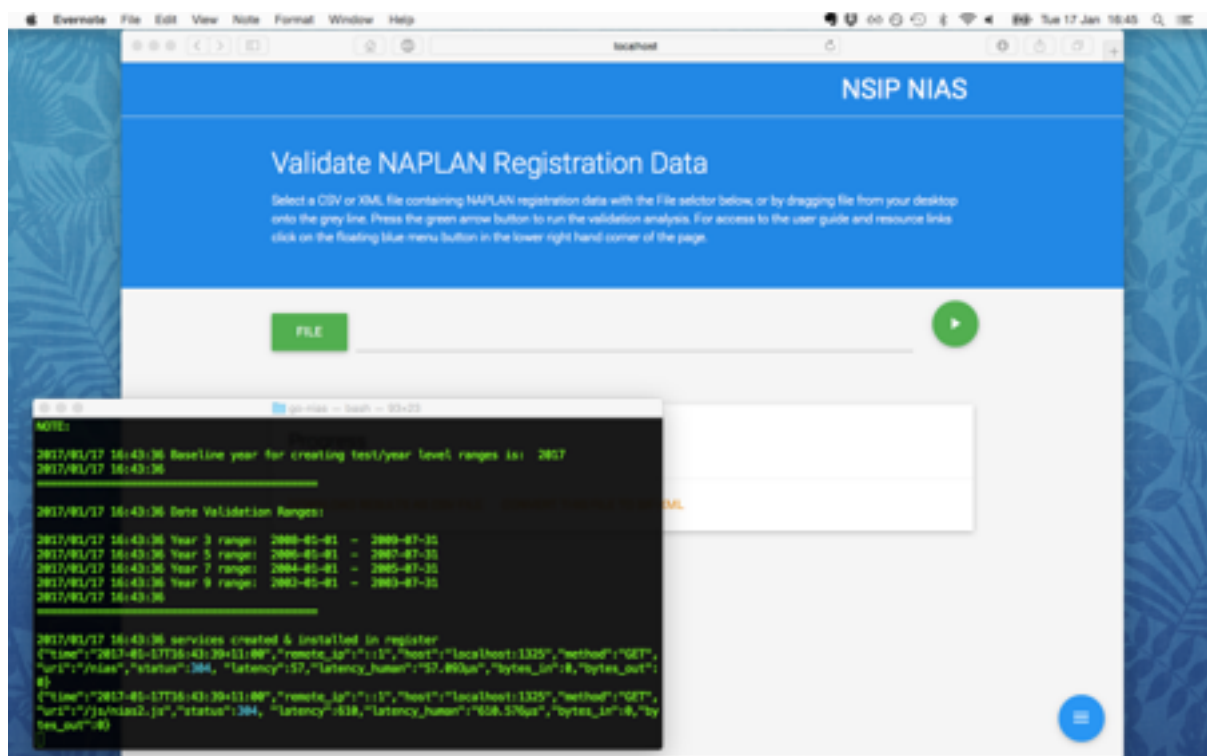
Important: These terminal windows can be minimised but should not be closed whilst running NIAS. Closing these windows terminates that component of the NIAS validation tool.
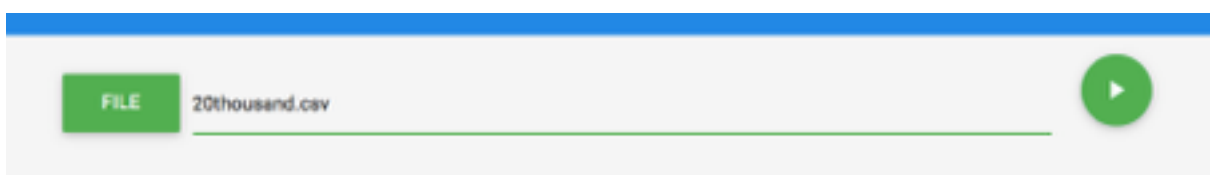
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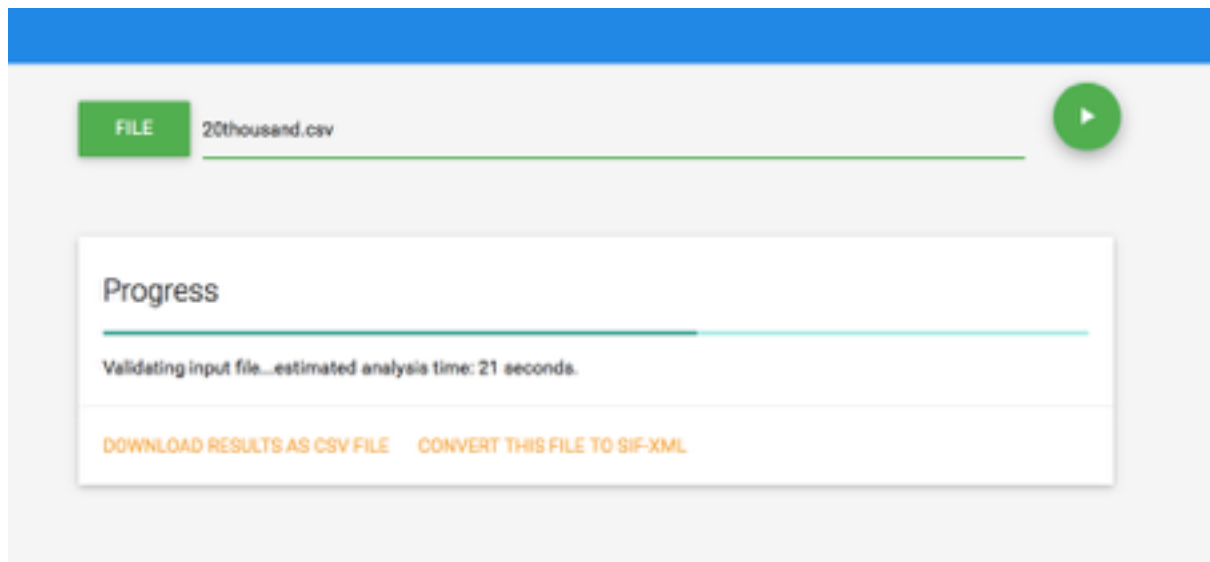6. The NIAS Web UI is displayed:
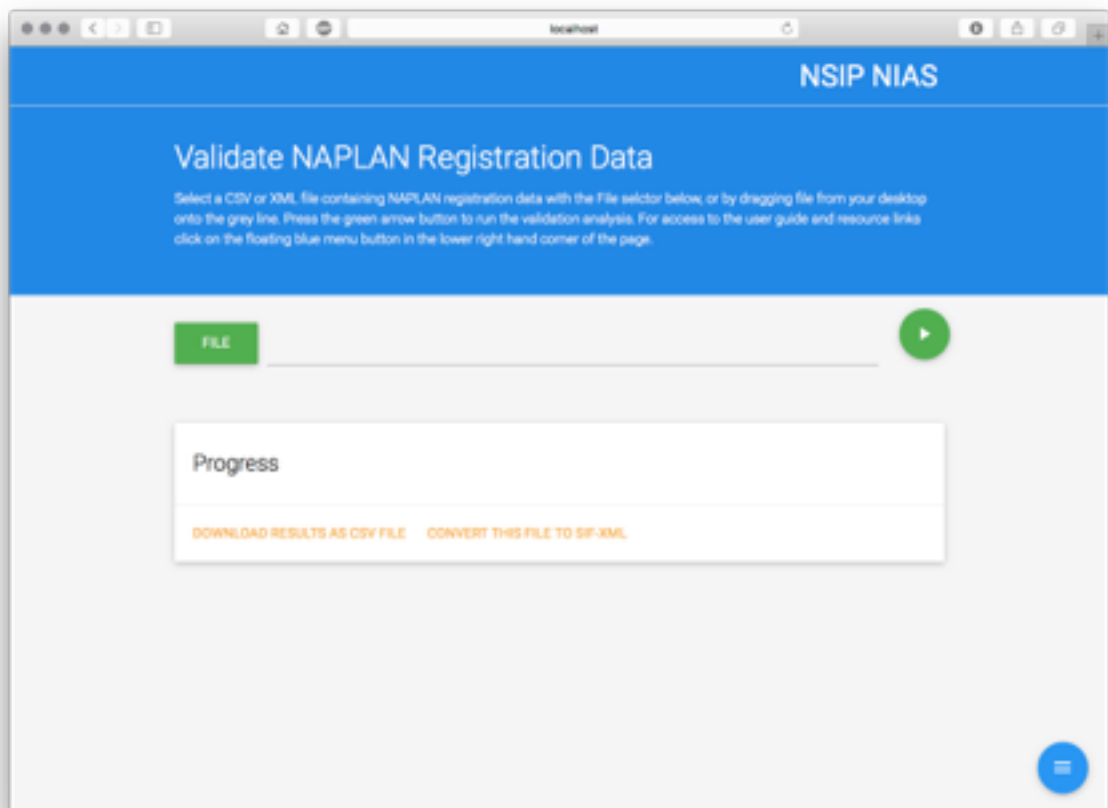
7. Select **File**, then choose a file to be validated, or drag and drop the file on the input location.
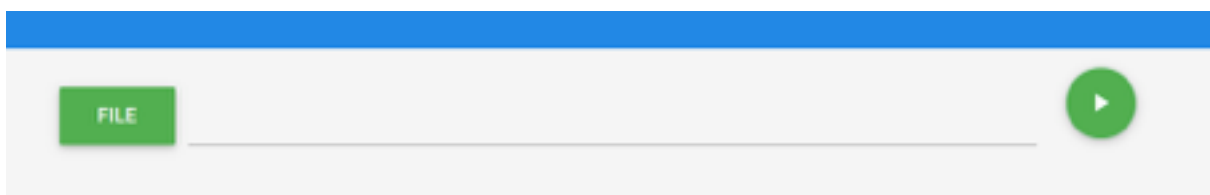
8. Click the Green Play button to perform validation.

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9. Progress of the validation is displayed on screen. Do not click on the "Download Validation Error Report" button until all records are processed.

10. NIAS performs an initial validation, then lists a summary of the first 1000 validation issues on screen.

11. To export the produced error report, click **Download Results As CSV File**. You will be prompted to save the file in an appropriate location:

12. **To view detailed validation results**. A list of detailed validation results is displayed below, broken up into three areas:

   a. Validation errors by record order (graph on left)

   b. Errors by validation type (graph on right)

   c. Error details table – Errors ordered by original file line number (table at bottom)

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12. **To view more detail on the validation errors**, use one of the following controls:

     d. Validation errors by record order (graph on left) or

     e. Errors by validation type (graph on right)
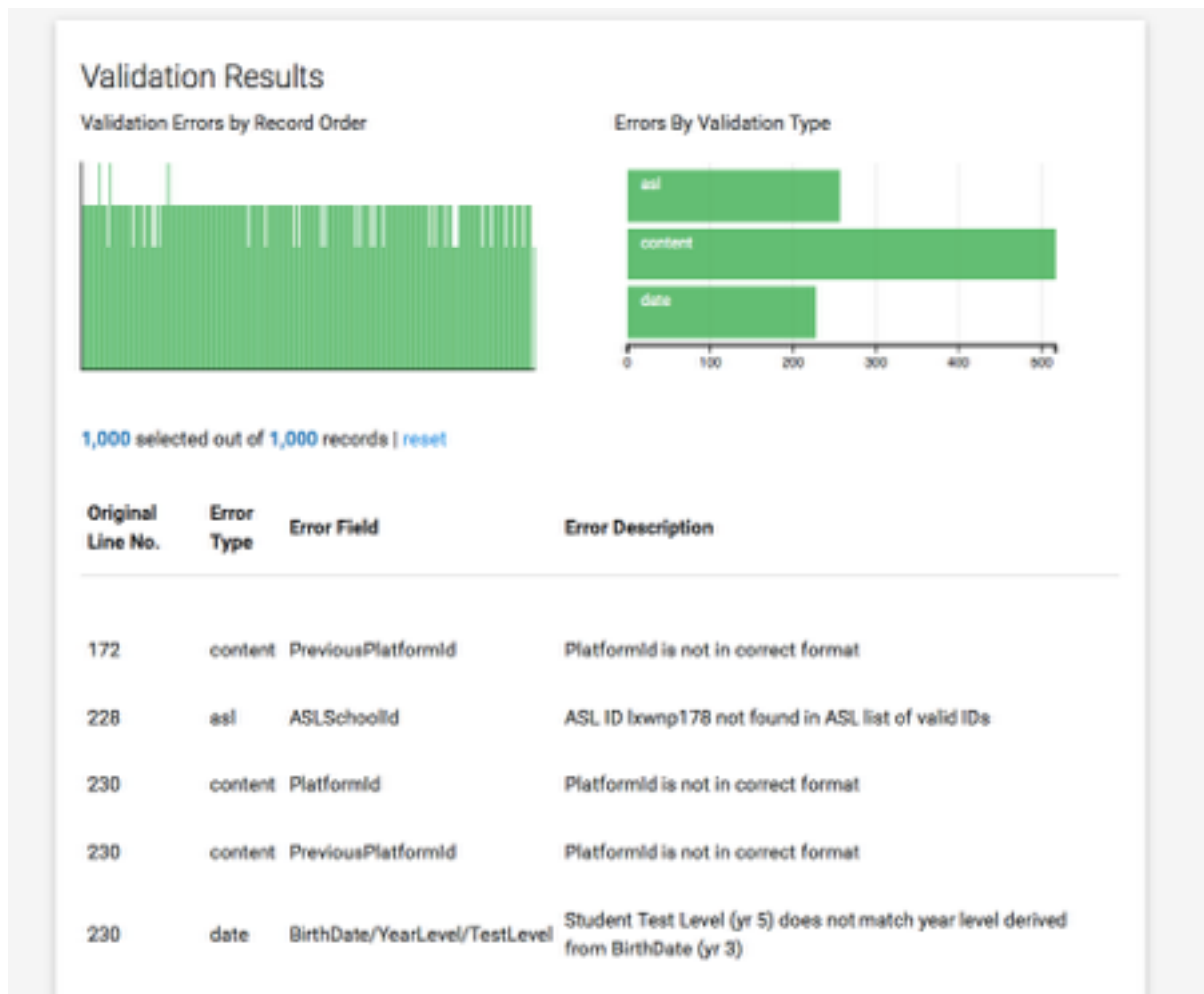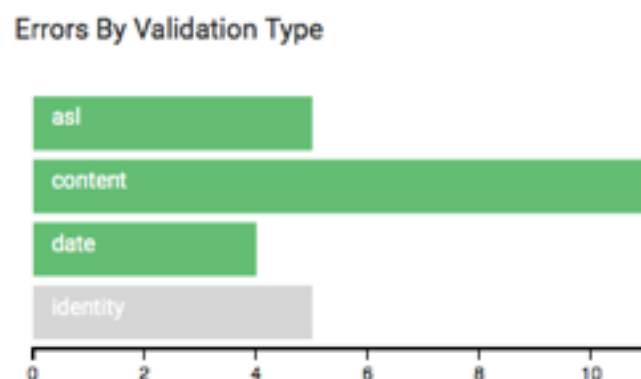

12.1. Validation errors by record order
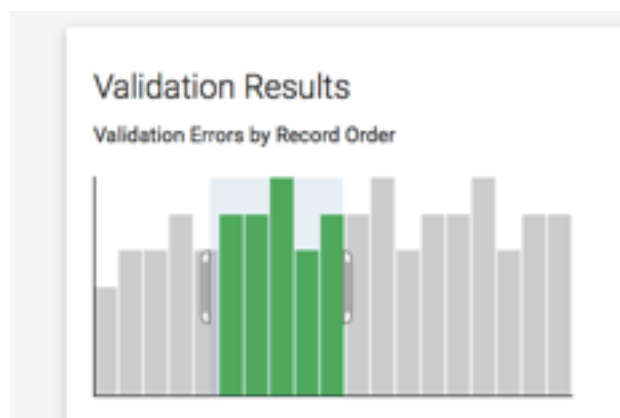
a. This control allows a user the ability **to narrow down the validation errors reported based on the record order**.

b. Move the mouse cursor over the column graph – a + symbol will appear. Drag move this to select a section of the file (selected areas are blue). Selecting a section will alter the **errors by validation type** data displayed and the details below in the **errors ordered by original file line number** table.

c. As you move the selection window, the system updates the errors reported based on your selection.
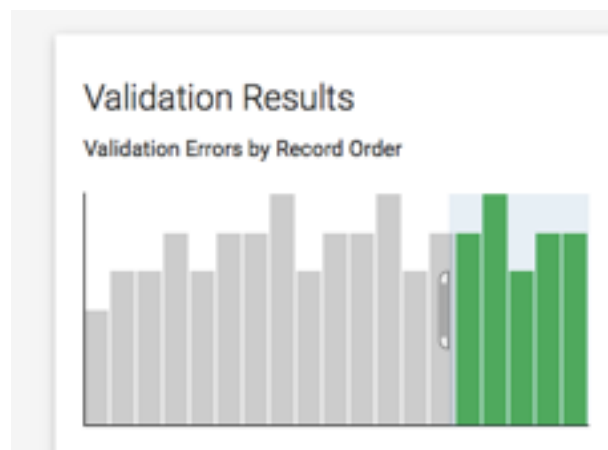
d. To remove any filter on the errors reported, select the underlined **reset.**

9.2 **Errors by validation type**

a. This validation control allows the user to focus on a particular validation type (or types) by selecting the appropriate bar/s.

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b. Selecting **ASL** displays only the ASL related errors in the detail table and record order graphs.

c. Selecting **content** displays only the content related errors in the detail table and record order graphs.

d. You can select more than one bar graph to combine results (highlighted in blue) by clicking on multiple bar graphs.

e. using both graphs together as filters you can quickly navigate the result set returned to the web ui.

9.3 Error details table – Errors ordered by original file line number

Original Line No.	Error Type	Error Field	Error Description
15	asl	ASLSchoolId	ASL ID lxwnp178 not found in ASL list of valid IDs
15	date	BirthDate/YearLevel	Year Level calculated from BirthDate does not fall within expected NAPLAN year level ranges
15	content	PreviousPlatformId	PlatformId is not in correct format
15	content	PlatformId	PlatformId is not in correct format
16	date	BirthDate/YearLevel	Year Level calculated from BirthDate does not fall within expected NAPLAN year level ranges
16	asl	ASLSchoolId	ASL ID lxwnp178 not found in ASL list of valid IDs
16	content	PreviousPlatformId	PlatformId is not in correct format
16	content	PlatformId	PlatformId is not in correct format

a. The **Error details table** displays validation errors detected in the imported file (you can filter it using the control graphs mentioned above).

b. The table describes the original record number, the type (ASL, content, identity), the field where the error was detected, and the error description.

13. To end NIAS processing:

    a. Close each of the terminal windows by clicking the **x** in the top right corner of each window and close the web browser; or

    b. Run **stopnias.bat** (which will close each terminal window) and close the web browser.

    c. For Mac either close the terminal window, or type Ctrl-C in the window to return to a command prompt, and then run ./stopnias.sh.

5. NIAS Components

NIAS contains a number of validation tools. These validation services can be accessed by setting variables in the napval.toml file. When you open this file in a text editor, it should look something like this:

```
# Baseline year for DOB checks

TestYear = "2016"



# Validations to invoke

# ValidationRoute = ["schema", "local", "id", "dob", "asl"]

ValidationRoute = ["schema", "id", "dob", "asl"]



# Webserver port

WebServerPort = "1325"



# Number of validation engines

PoolSize = 4
```

5.1. Configurable variables

NIAS validation variable	Notes
TestYear	Sets the test year

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ValidationRoute	Sets the validations to apply – see table below for details. Currently validations are not order-dependent.
WebServerPort	Sets the web server port. You can edit this if the default conflicts with another service.
PoolSize	Sets the number of validation engines running simultaneously. The default suits most modern machines. (For higher numbers, the parallel gains may be swallowed in machine overhead.) Typically no. of processor cores on the machine minus one gives best results. For older/slower machines setting poolsize to 1 will reduce load on the CPU if it is struggling to complete all validations.

4.2 Validation route values

NIAS validation variable	Notes
asl	Checks that ASL values are correct.
schema	Applies the NAPLAN registration data set validations defined in core.json.
dob	Apply date of birth validation according to the setting of TestYear.
id	Apply id validation.

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local	Applies any validations you have set in local.json. By default this file is not processed, and the default local.json file shipped with nias performs no validation. If you wish to use local validation, rename your local validation file to local.json (more details below).

6.   NIAS Validation Schemas

Validation schemas (in JSON format) are used by NIAS to validate that the input files contain the required mandatory fields and contain valid values. NIAS comes with two validation schemas located in the **schemas** folder:

1. Core (*core.json*) – This is the validation schema based on the approved registration data set. It provides the core validation for mandatory/optional fields and valid values. Core validation is always applied when validating file contents. **Do not modify this file.**

2. Local (*local.json*)- This is an optional extra layer of validation which can be applied in addition to the core validation. You can edit this file to include local validations as required.

5.1 local.json

The file local.json can supply an optional extra layer of validation in addition to the validation found in core.json.

Typical examples of where extra local validation may be useful include:

1. Making additional fields mandatory (for example a jurisdiction wide identifier)

2. Modifying allowed values (for example removing year level 0)

3. Modifying min/max lengths (for example all jurisdiction identifier must be 9 characters in length)

The file local.json contains examples of possible local validations which users may seek to implement including a max length of 10 for home group, max length of 36 for jurisdiction id, and an absolute length of 8 for TAAId. It also lists TAAId, JurisdictionId and HomeGroup as mandatory fields.

A suitable JSON or text editor is recommended.

5.2 Enabling local schemas

NIAS users may seek to apply one or more localised schemas (for example SouthAustralia.json, SACatholics.json, SAIndependents.json).

To enable your own additional validation schema:

a. In the schemas folder, rename local.json to defaultlocal.json

b. Rename your local validation file to local.json

c. Place it in the schemas folder

d. In the nias.toml file, uncomment the ValidationRoute with "local" included in the variable arguments, and comment out the default ValidationRoute.

e. Restart nias.

Alternatively, you can implement your own validations by directly editing the default local.jason file.

7. Conversion of CSV to XML

Once you are happy with the level of validation, you can convert CSV files to SIF XML format.

1. Simply click on the 'Convert this File to SIF-XML' link.

2. This will download a conversion of the current file from csv to sif-xml format.

8. Future functionality

Additional validation rules will be implemented in line with registration validation rules implemented by the assessment platform for NAPLAN Online. These will likely be refined throughout 2017 as UAT and other testing progresses.

9. Support

Please contact NSIP directly at info@nsip.edu.au or Phone: +61 3 9910 9827

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Appendix A: Validations applied by NIAS

Validations listed here are sourced from the v1.0 NAPLAN Registration Data Specification.

SRM Business Requirement ID	Validation/rule that will be applied	Applied in NIAS?
BR0. General business rules for data import		
BR-0.1	A bulk upload of student registration data can take place at the tenant (jurisdiction/sector) level, region or school within the selected tenant folder.	
BR-0.2	The PSI must be unique across all components of the Assessment Platform and across all Assessment cycles.	
BR-0.3	All student records in the SRM must have a valid PSI whether supplied in the import file or generated by the system during the upload process.	
BR-0.4	The algorithm/pattern generated by the system will be consistent across all components of the Assessment Platform. See Appendix A for algorithm details.	
BR-0.5	Records that do not exist in subsequent loads (but are already present in the database) should not be deleted.	
BR-0.6	A user may only cancel a pending upload file in the queue and not one(s) that has already started.	
BR-0.7	Whilst attempting to cancel a pending upload, if it has started, the cancellation must be aborted and the user notified	
BR-0.8	Upload file selection is restricted to CSV and XML file extensions	V5+ CSV files can be validated XML can be validated XML files can be exported from NIAS.
BR-0.9	The system does not restrict the user from uploading the same file or filename if previously imported	
BR-0.10	The system will only display queues within the scope of the selected folder/group (tenant, region or school)	
BR1. Business rules for validation		
BR-1.1	The upload file must match the corresponding data schema as outlined in the registration dataset in Appendix B – including all valid values e.g.: Year level, Test level etc.	
BR-1.2	The upload will fail if the data schema is incorrect and an exception report should be displayed on screen	

SRM Business Requirement ID	Validation/rule that will be applied	Applied in NIAS?
BR2. Business rules for validation and direct match		
BR-2.0	Check all of BR-2.1–BR-2.12 before progressing to any 'goes to' business rule	
BR-2.1	Match the record in the dataset to a record in the database on PSI + ASL School Identifier to determine if it's an update or new record. • If full match go to **BR3** (PASSES) • If ASL matches but no PSI found go to **BR9** (PARTIAL MATCH) • If no match on ASL go to **BR-8.1** (FAILS)	
BR-2.2	Validate incoming PSI against algorithm (Appendix A) (if fails goes to **BR-8.2**)	Yes
BR-2.3	Validate year level and test level match except where **Year Level**=**UG** (if fail goes to **BR8.3**)	Yes
BR-2.4	Verify year level and DOB against expected age range (if fail goes to **BR-8.4**)	Yes
BR-2.5	Verify the test level is within the expected DOB age range where **Year Level**=**UG** (if fail goes to **BR-8.4**)	Yes
BR-2.6	Validate the DOB is not greater than today's date (if fail goes to **BR-8.5**)	
BR-2.7	Validate that all, or none, of Parent2 fields contain data (if fail goes to **BR-8.6**)	Yes
BR-2.8	Validate visa code, if entered, matches a Department of Immigration and Border Protection visa value (if fail goes to **BR-8.7**)	Yes
BR-2.9	Validate FTE, if entered, should be decimal number ranging from 0.00 to 1.00 (if fail goes to **BR-8.8**)	Yes
BR-2.10	Validate that booklet type is selected for an adjustment of 'BRA: Hardcopy' (if fail goes to **BR-8.9**)	
BR-2.11	Validate that an exemption reason is provided for the participation status of 'Exempt' (if fail goes to **BR-8.10**)	
BR-2.12	Validate that all mandatory fields have been supplied (if fail goes to **BR-8.11**)	Yes
BR3. Business rules for second match (where BR-2.1 PASSES)		
BR-3.1	If a record(s) passes the first match (**BR-2.1**), check the Given Name + Last Name + DOB (data of birth) matches the existing record in the database	

SRM Business Requirement ID	Validation/rule that will be applied	Applied in NIAS?
BR4. Business rules for flagging (where BR-3.1 FAILS)		
BR-4.1	Flag the record(s) as the personal details (Given Name + Last Name + DOB) are about to be updated in this subsequent load and continue to BR-5.1.	
BR5. Business rules for PSI/Other ID match (where BR-3.1 PASSES)		
BR-5.1	Check if the PSI/Other ID (Other ID optional and is determined by the jurisdiction) matches against the existing database record	
BR-5.2	If the PSI/Other ID in the incoming record(s) is blank, the record(s) is considered 'matched' and should continue to BR-7.1	
BR6. Business rules for flagging (where BR-5.1 FAILS)		
BR-6.1	Flag the record(s) where PSI/Other ID does not match to the existing database record and continue to BR-7.1.	
BR7. Business rules for update		
BR-7.1	Update the database record(s) with the incoming data including the PSI/Other ID if changed.	
BR-7.2	Where PSI/Other ID is blank in the incoming record, retain the PSI value(s) in the existing database record.	
BR8. Business rules for error handling (where any of BR-2.x FAILS)		
BR-8.1	Flag error and <u>do not process</u> a record where there is no match on ASL Identifier	
BR-8.2	Flag error and <u>do not process</u> a record where the PSI is invalid	Yes – checks validity of PSI
BR-8.3	Flag error and <u>do not process</u> a record where the <u>Year level</u> and <u>Test level</u> do not match, except where a student's year level is **'Ungraded'** (**refer BR-8.4 for exception**).	

SRM Business Requirement ID	Validation/rule that will be applied	Applied in NIAS?
BR-8.4	Flag (QA status) and process record where the year level and DOB does not fall into the expected (19 month) age range: Algorithm to use: Year 3: From: 01/01/(CurrentYear-9) To: 31/07/ (CurrentYear-8) Year 5: From: 01/01/(CurrentYear-11) To: 31/07/ (CurrentYear-10) Year 7: From: 01/01/(CurrentYear-13) To: 31/07/ (CurrentYear-12) Year 9: From: 01/01/(CurrentYear-15) To: 31/07/ (CurrentYear-14) Examples: **Year 3 Year 5** **From To From To** **2017** 1/01/2008 31/07/2009 1/01/2006 31/07/2007 **2018** 1/01/2009 31/07/2010 1/01/2007 31/07/2008 **2019** 1/01/2010 31/07/2011 1/01/2008 31/07/2009 **2020** 1/01/2011 31/07/2012 1/01/2009 31/07/2010 **2021** 1/01/2012 31/07/2013 1/01/2010 31/07/2011 **2022** 1/01/2013 31/07/2014 1/01/2011 31/07/2012 **Year 7 Year 9** **From To From To** **2017** 1/01/2004 31/07/2005 1/01/2002 31/07/2003 **2018** 1/01/2005 31/07/2006 1/01/2003 31/07/2004 **2019** 1/01/2006 31/07/2007 1/01/2004 31/07/2005 **2020** 1/01/2007 31/07/2008 1/01/2005 31/07/2006 **2021** 1/01/2008 31/07/2009 1/01/2006 31/07/2007 **2022** 1/01/2009 31/07/2010 1/01/2007 31/07/2008 Any students that fall outside the range will have their	Yes

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SRM Business Requirement ID	Validation/rule that will be applied	Applied in NIAS?
BR-8.5	Flag error and <u>do not process</u> a record where the DOB is a date greater than today's date	
BR-8.6	Flag error and <u>do not process</u> a record where one or more, but **not all**, Parent2 fields contain data	Yes
BR-8.7	Flag error and <u>do not process</u> a record where a visa code is invalid	Yes
BR-8.8	Flag error and <u>do not process</u> a record where FTE is not a decimal or outside of the range of 0.00 to 1.00	Yes
BR-8.9	Flag error and <u>do not process</u> a record where a braille booklet type has not been selected for an adjustment of 'BRA: Braille hardcopy'	
BR-8.10	Flag error and <u>do not process</u> a record where an exemption reason has not been provided for a participation status of 'Exempt'	
BR-8.11	Flag error and <u>do not process</u> a record where mandatory field has not been supplied	
BR9. Business rules for validating the PSI (where BR-2.1 PARTIAL MATCH)		
BR-9.1	If no PSI sent in the incoming dataset generate and assign a new identifier according to the algorithm in Appendix A	
BR10. Business rules for flagging		
BR-10.1	Flag (QA status) and <u>process</u> any records as possible duplicates that have the same Given Name, Last Name and DOB within the same school	

Appendix B: Validation Messages applied by NIAS

The table below lists examples of warning and error messages.

Error Type	Error Field	Error Description
ASL	ASLSchoolId	ASL ID not found in ASL list of valid IDs
ASL	ASLSchoolId	ASL ID 44370 is as valid ID, but not for NSW
content	AddressLine1	String length must be less than or equal to 40
content	AddressLine2	String length must be less than or equal to 40
content	ASLSchoolId	ASLSchoolId is required
content	ASLSchoolId	String length must be between 5 and 10
content	BirthDate	BirthDate is required
content	BirthDate	String length must be 10 characters
content	ClassGroup	String length must be less than or equal to 255
content	CountryOfBirth	CountryOfBirth is required
content	CountryOfBirth	Country Code is not one of SACC 1269.0 codeset
content	DiocesanId	DiocesanId must be shorter than 36 characters
content	EducationSupport	EducationSupport must be one of "Y", "N", "U", "X"
content	FamilyName	FamilyName is required
content	FamilyName	String length must be less than or equal to 40
content	FFPOS	FFPOS is required
content	FFPOS	FFPOS must be one of the following: "1", "2", "9"
content	FTE	String length must be less than or equal to 4
content	GivenName	GivenName is required
content	GivenName	String length must be less than or equal to 40
content	HomeSchooledStudent	HomeSchooledStudent must be one of "Y", "N", "U", "X"
content	IndigenousStatus	IndigenousStatus is required
content	IndigenousStatus	IndigenousStatus must be one of the following: "1", "2", "3", "4" "9"
content	JurisdictionId	JurisdictionnId must be shorter than 36 characters
content	LBOTE	LBOTE must be one of "Y", "N", "U", "X"

Error Type	Error Field	Error Description
content	LocalCampusId	LocalCampusId must be shorter than 36 characters
content	LocalId	LocalId is required
content	Locality	String length must be less than or equal to 40
content	LocalId	LocalId must be shorter than 36 characters
content	MainSchoolFlag	MainSchoolFlag must be one of the following: "Y", "N", "01", "02", "03", "1", "2", "3"
content	MiddleName	String length must be less than or equal to 40
content	NationalId	NationalId must be shorter than 36 characters
content	OfflineDelivery	OfflineDelivery must be one of "Y", "N", "U", "X"
content	OtherId	OtherId must be shorter than 36 characters
content	OtherSchoolId	OtherSchoolId must be shorter than 36 characters
content	Parent1LOTE	Parent1LOTE is required
content	Parent1LOTE	Language Code is not one of ASCL 1267.0 codeset
content	Parent1NonSchoolEducation	Parent1NonSchoolEducation is required
content	Parent1NonSchoolEducation	Parent1NonSchoolEducation must be one of the following: "5", "6", "7", "8", "0"
content	Parent1Occupation	Parent1Occupation is required
content	Parent1Occupation	Parent1Occupation must be one of the following: "1", "2", "3", "4", "8", "9"
content	Parent1SchoolEducation	Parent1SchoolEducation is required
content	Parent1SchoolEducation	Parent1SchoolEducation must be one of the following: "1", "2", "3", "4", "0"
content	Parent2LOTE	Must be present if other Parent2 fields are present
content	Parent2LOTE	Language Code is not one of ASCL 1267.0 codeset
content	Parent2NonSchoolEducation	Must be present if other Parent2 fields are present
content	Parent2NonSchoolEducation	Parent2NonSchoolEducation must be one of the following: "5", "6", "7", "8", "0"
content	Parent2Occupation	Must be present if other Parent2 fields are present

Error Type	Error Field	Error Description
content	Parent2Occupation	Parent2Occupation must be one of the following: "1", "2", "3", "4", "8", "9"
content	Parent2SchoolEducation	Must be present if other Parent2 fields are present
content	Parent2SchoolEducation	Parent2SchoolEducation must be one of the following: "1", "2", "3", "4", "0"
content	PlatformId	Platform ID must be shorter than 36 characters
content	PlatformId	Platform ID is not in correct format
content	PlatformId	Platform ID has incorrect checksum
content	PreferredName	String length must be less than or equal to 4
content	PreferredName	String length must be less than or equal to 40
content	PreviousDiocesanId	PreviousDiocesanId must be shorter than 36 characters
content	PreviousJurisdictionId	PreviousJurisdictionId must be shorter than 36 characters
content	PreviousLocalId	PreviousLocalId must be shorter than 36 characters
content	PreviousNationalId	PreviousNationalId must be shorter than 36 characters
content	PreviousOtherId	PreviousOtherId must be shorter than 36 characters
content	PreviousPlatformId	Previous Platform ID must be shorter than 36 characters
content	PreviousPlatformId	Previous Platform ID is not in correct format
content	PreviousPlatformId	Previous Platform ID has incorrect checksum
content	PreviousSectorId	PreviousSectorId must be shorter than 36 characters
content	PreviousStateProvinceId	PreviousStateProvinceId must be shorter than 36 characters
content	PreviousTAAID	PreviousTAAId must be shorter than 36 characters
content	ReportingSchoolId	ReportingSchoolId must be shorter than 36 characters
content	SchoolLocalId	SchoolLocalId must be shorter than 36 characters
content	SectorId	SectorId must be shorter than 36 characters
content	Sensitive	Sensitive must be one of "Y", "N", "U", "X"
content	Sex	Sex is required

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Error Type	Error Field	Error Description
content	Sex	Sex must be one of the following: "1", "2", "3", "9"
content	StateProvinceId	StateProvinceId must be shorter than 36 characters
content	StateTerritory	State/Territory must be one of the following: "VIC","TAS","NSW","NT","QLD","WA","ACT","SA", "XXX"
content	StudentLOTE	StudentLOTE is required
content	StudentLOTE	Language Code is not one of ASCL 1267.0 codeset
content	TAAID	TAAId must be shorter than 36 characters
content	TestLevel	TestLevel is required
content	TestLevel	TestLevel must be one of the following: "3", "5", "7", "9"
content	VisaCode	Visa Code is not one of known values from http://www.immi.gov.au
content	YearLevel	YearLevel is required
content	YearLevel	YearLevel must be one of the following: "F", "P", "0", "1", "2", "3", "4", "5", "6", "7", "8", "9", "10", "11", "12", "UG"
date	BirthDate	Date provided does not parse correctly for yyyy-mm-dd
date	BirthDate/TestLevel/ YearLevel	Year level supplied is UG, will result in SRM warning flag for test level 7
date	BirthDate/TestLevel/ YearLevel	Year level supplied is P, does not match expected test level X
date	BirthDate/TestLevel/ YearLevel	Year level supplied is 0, does not match expected test level X
date	BirthDate/YearLevel	Year Level calculated from BirthDate does not fall within expected NAPLAN year level ranges
date	BirthDate/YearLevel	Student Year Level (yr) does not match year level derived from BirthDate (yr 7)
date	BirthDate/YearLevel / TestLevel	Student Test Level (yr 5) does not match year level derived from BirthDate (yr 3)
date	BirthDate/YearLevel / YearLevel	Student year Level (yr 5) does not match year level derived from BirthDate (yr 3)
date	FTE	FTE is greater than 1
date	FTE	FTE is less than 0

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Error Type	Error Field	Error Description
identity	LocalID/ASL ID	LocalID (Student) and ASL ID (School) are potential duplicate of record: 1
identity	Multiple (see description)	Potential duplicate of record: 3 based on matching: student local id, school asl id, family & given names and birthdate

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Appendix C: Performance

The table below details expected processing times for large files. Times will vary depending on the specifications of the computer, the operating system and where NIAS is being run.

These figures are based on running NIAS on a quad-core i5 machine with 4Gb RAM.

File Size (no. of Records)	Estimated time for upload and validation
100	< 10 seconds
500	< 10 seconds
1000	< 10 seconds
5000	< 20 seconds
10000	< 20 seconds
25000	< 30 seconds
50000	< 60 seconds
100000	
200000	
300000	
350000	
1,000,000	

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