

IDMatch Guide

For Illuminate End Users



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Introduction

IDMatch is a fully-customizable, automated data integration solution, developed by N2N as a companion to N2N's Illuminate platform for API management. IDMatch was designed to provide enhanced data quality and ID checking during the API POST process. IDMatch serves as a line of defense against data and identity duplication by searching the target systems for matching records prior to POST and allowing users to determine the final course of action when needed.

To initiate an IDMatch workflow, first you define your source data feed or target web service, select your data matching rules and then map your target destination(s). Workflow jobs can be executed manually or scheduled for automation. Upon job completion users can verify transaction results, reprocess failed transactions, and review potential duplicate transactions.

Data integrations with IDMatch can be built between any number of data sources and formats targeting any SIS or ERP system. N2N has partnered with several vendors to provide ready-to-go solutions or you can have a fully customized data integration solution built by the N2N team.

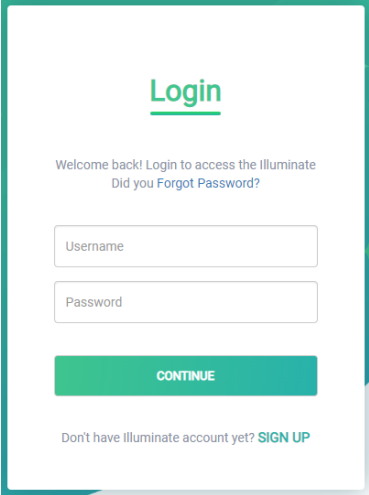
IDmatch Transactions							
WORKFLOWS		TRANSACTIONS		MATCHES			
2 Match Workflows		33.3k Successful	15 Failed	4 Perfect	230 Partial	1.6k Completed	
Workflow Jobs							
<input type="text" value="Search"/>				Filters		10	Rows
BATCH TRANSACTION ID	WORKFLOW NAME	EXECUTION STATUS	TOTAL RECORDS	IN PROGRESS RECORDS	FAILED RECORDS	LAST ACTIVITY	ACTIONS
1540497220459_775	SlatetoBannerManualProcess	DONE	1	0	0	05 November 2018 10:42:03	
1540505062026_8496	SlatetoBannerManualProcess	DONE	1	0	0	25 October 2018	



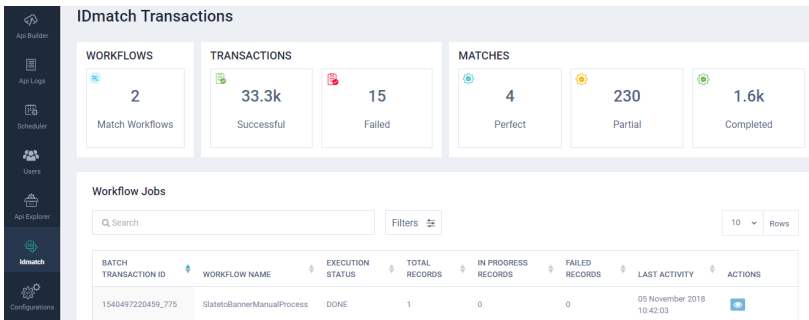
Getting Started

Logging In

To log into Illuminate, go to illuminateapp.com and select the login button in the upper right portion of the screen. Here, you will be able to login with your username and password to your organization's Illuminate instance. If you do not yet have a username for Illuminate, contact your administrator to send you an invitation to Illuminate.



The login form is titled "Login" in green. It includes a welcome message: "Welcome back! Login to access the Illuminate" and a link for "Did you Forget Password?". Below this are two input fields: "Username" and "Password". A green "CONTINUE" button is positioned below the password field. At the bottom, there is a link for "Don't have Illuminate account yet? SIGN UP".



The dashboard is titled "IDmatch Transactions". It features a sidebar with icons for "App Builder", "App Logs", "Scheduler", "Users", "App Explorer", "IDmatch", and "Configure". The main content area is divided into three sections: "WORKFLOWS", "TRANSACTIONS", and "MATCHES".

WORKFLOWS	TRANSACTIONS	MATCHES
2 Match Workflows	33.3k Successful 15 Failed	4 Perfect 230 Partial 1.6k Completed

Below these sections is a "Workflow Jobs" table with a search bar and filters.

BATCH TRANSACTION ID	WORKFLOW NAME	EXECUTION STATUS	TOTAL RECORDS	IN PROGRESS RECORDS	FAILED RECORDS	LAST ACTIVITY	ACTIONS
1540497220459_775	StateofBannerManualProcess	DONE	1	0	0	05 November 2018 10:42:03	

Locating IDMatch

Navigate to the IDMatch Icon on the main menu. Selecting the IDMatch icon will open the module and bring you to the IDMatch Dashboard.

The Dashboard

The IDMatch Dashboard serves as the landing page for IDMatch. The main section of the Dashboard contains Workflows, Transactions, Matches and Jobs. Workflows will allow administrators to create and manage Workflow Jobs. Transactions provide a log of both successful and failed transactions processed through IDMatch. Matches is the interface for end users to verify and take action on all records flagged by the IDMatch process. Workflow Jobs is a historical report of all IDMatch jobs executed

Workflow Jobs

Workflow Jobs							
<input type="text" value="Q Search"/>			Filters		10 Rows		
BATCH TRANSACTION ID	WORKFLOW NAME	EXECUTION STATUS	TOTAL RECORDS	IN PROGRESS RECORDS	FAILED RECORDS	LAST ACTIVITY	ACTIONS
1540497220459_775	SlatetoBannerManualProcess	DONE	1	0	0	NA	View
1540505062026_8496	SlatetoBannerManualProcess	DONE	1	0	0	NA	View
1540510960218_6982	SlatetoBannerManualProcess	DONE	1	0	0	NA	View
1540511307716_4006	SlatetoBannerManualProcess	INPROGRESS	1	0	1	NA	View
1540511444240_8019	SlatetoBannerManualProcess	DONE	1	0	0	NA	View
1540511588528_3187	SlatetoBannerManualProcess	INPROGRESS	1	0	1	NA	View
1540511692122_7815	SlatetoBannerManualProcess	INPROGRESS	1	0	1	NA	View

The workflow jobs section of IDMatch is found on the landing page of the module and serves to provide a history of executed IDMatch jobs. The list also provides insight into those jobs that need manual intervention and those jobs that contain failed transactions. To view the specific transactions that need intervention, click the blue View icon under the actions column. This will transport you to a list of the transactions in a job that need intervention as highlighted in later sections of the documentation.

In case there are several jobs that need your attention, the IDMatch module also includes a powerful sorting feature to enable you to search through and filter the jobs list. **Search** queries actively filter the list by comparing your input to the contents of all columns as you put it in. The **Filter** option opens a small sub-menu allowing for the filtering of the jobs list based on specific column entries as well as the ability to sort based on the job run dates.

Testing IDMatch Workflows

Miscellaneous API

POST /v1.0.1/SlateToBanner

This flow will pull data from slate and push to sis

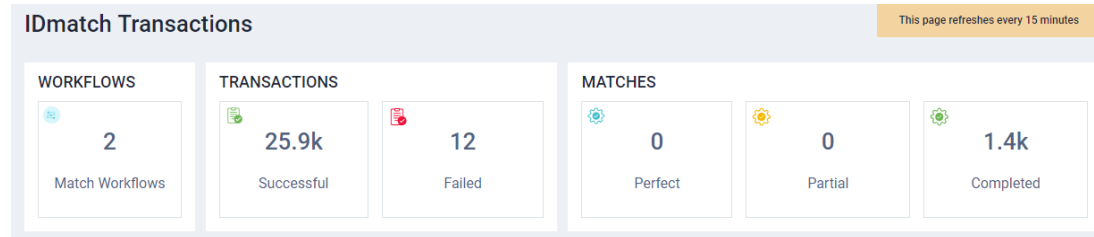
Parameters Try it out

Name	Description
companyID	Location Code
string	Default value : XU
Authorization	API Authorization

To test a workflow job, from the dashboard, select to the Workflows (Match Workflows) section of IDMatch. Here you will find all available IDMatch workflows. Identify the workflow you wish to test, select **Try it out!** next to the corresponding job. This screen will display the input parameters of the source API and a basic response showing what the output format will look like. To test the API, click “Try it out” then add values to any required input parameters it calls for. In most cases this will be expecting a JSON or XML feed of the source data. Next click execute to run the API based on that input. Once executed the results will display with the server response and the actual data your API would return.

Additionally, the “Try it Out” interface can provide [code snippets](#) in 9 different languages that can be used to run the API directly from external applications.

Viewing Transactions



When an IDMatch Workflow is run a job is initiated. The job may contain a single record or a batch of records that are run through the workflow. Each record within an IDMatch Job is considered a transaction. Once the transaction is created it will have a status of success or fail. A transaction is considered successful if it processes completely through IDMatch without error. A Failed transaction is one that has not completed due to an error either within the IDMatch process or within the destination processing.

To view an IDMatch Transaction go to the **IDMatch** module. From here you can view a report of either Successful Transactions or Failed Transactions which serves as the API log function for IDMatch.

This page refreshes every 15 minutes.

TRANSACTION ID	TRANSACTION STATUS	STUDENT ID	FIRST NAME	LAST NAME	MATCH STATUS	ADDITIONAL INFO	LAST ACTIVITY	ACTIONS
TX00000000000000000000000000000000	DONE		ALAN		DONE		01 November 2018 10:00:00	[Icons]
TX00000000000000000000000000000000	DONE		ALAN		DONE		01 November 2018 10:00:00	[Icons]
TX00000000000000000000000000000000	DONE		FULLER		DONE		01 November 2018 10:00:00	[Icons]
TX00000000000000000000000000000000	DONE		JASON		DONE		01 November 2018 10:00:00	[Icons]
TX00000000000000000000000000000000	DONE		CHASER		DONE		01 November 2018 10:00:00	[Icons]
TX00000000000000000000000000000000	TXMAP		TXMAP		TXMAP		01 November 2018 10:00:00	[Icons]

Viewing Successful Transactions

To view a successful transaction, click on the **Successful Transactions** panel in the **Transactions** portion of the report statistics. This will create a full list of all successful transactions that have passed through Illuminate. Note that this process may take extra time depending on the volume of transactions.. From here, you can either use the search bar to actively filter the list down to look for a specific transaction, or search manually. Once you have found the transaction you are interested in, select the blue **View** icon under actions to drill down to the details of that transaction.

The image shows two screenshots from a web application. The top screenshot is titled 'Successful Transactions' and displays a table with columns: TRANSACTION ID, TRANSACTION STATUS, STUDENT ID, FIRST NAME, LAST NAME, MATCH STATUS, ADDITIONAL INFO, LAST ACTIVITY, and ACTIONS. It lists several transactions with IDs like 154607228477, 154608060346, etc. The bottom screenshot shows the 'Transaction Details' for a specific transaction. It includes a 'Workflow Details' table with columns: RULE NAME, RULE TYPE, STATUS, ACTIVITY DATE & TIME, and RULE ACTION. The workflow steps include 'CHECKAPIFLUZZ', 'CHECKAPIVALID', 'CHECKAPILOGIN', 'CHECKAPILOGOUT', 'CHECKAPIUPDATE', 'CHECKAPIDELETE', 'CHECKAPIPUT', and 'CHECKAPIPOST'.

TRANSACTION ID	TRANSACTION STATUS	STUDENT ID	FIRST NAME	LAST NAME	MATCH STATUS	ADDITIONAL INFO	LAST ACTIVITY	ACTIONS
154607228477	DONE		Abby		DONE		10 November 2018 10:40:03	View
154608060346	DONE		Alexia		DONE		10 November 2018 10:40:09	View
1546010942026	DONE		Felix		DONE		10 November 2018 10:11:39	View
1546011444251	DONE		Jesse		DONE		10 November 2018 10:10:47	View
1546020217393	DONE		Chauvin		DONE		10 November 2018 23:40:21	View
154607044771	PENDING		Frank		PENDING		10 November 2018 10:40:03	View

RULE NAME	RULE TYPE	STATUS	ACTIVITY DATE & TIME	RULE ACTION
CHECKAPIFLUZZ	PERFECT	DONE	10 November 2018 10:10:29	---
CHECKAPIVALID	PERFECT	SKIP	10 November 2018 10:10:29	---
CHECKAPILOGIN	PERFECT	DONE	10 November 2018 10:10:29	---
CHECKAPILOGOUT	PARTIAL	DONE	10 November 2018 10:10:29	---
CHECKAPIUPDATE	PARTIAL	DONE	10 November 2018 10:10:29	---
CHECKAPIDELETE	PARTIAL	DONE	10 November 2018 10:10:29	---
CHECKAPIPUT	PARTIAL	DISCARD	10 November 2018 23:11:30	---
CHECKAPIPOST	PARTIAL	NEW	10 November 2018 10:10:27	---

At this point, you will be brought to the **Flow And Match Details** tab of the transaction report which will show how the transaction evaluated the data entry according to the set rules. For more information, you can hover your mouse over a rule name to get a basic pop-up detailing including the description of the API used in order to better understand the purpose of the rule.

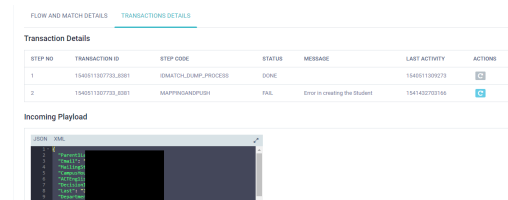
The **Transaction Details** section can be accessed by clicking on the relevant tab. This section contains a readout of the steps of the transaction process, as well as a set of embedded screens matching your API's chosen output types for the incoming and transformed payload as well as the API output itself. This allow you to inspect both the input and output of the transaction.





Viewing Failed Transactions & Troubleshooting


To view a failed transaction, click on the **Failed Transactions** panel in the **Transactions** portion of the report statistics. This will create a full list of all successful transactions that have passed through Illuminate. From here, you can either use the search bar to actively filter the list down to look for a specific transaction, or search manually. Once you have found the transaction you are interested in, select the blue **View** icon under actions to drill down to the details of that transaction.

At this point, you will be brought to the **Flow And Match Details** tab of the transaction report which will show how the transaction evaluated the data entry according to the set rules. For more information, you can hover your mouse over a rule name to get a basic pop-up detailing including the description of the API used in order to better understand the purpose of the rule.



STEP NO	TRANSACTION ID	STEP CODE	STATUS	MESSAGE	LAST ACTIVITY	ACTIONS
1	1540511007731_K081	EMULATOR_DUMP_PROCESS	DONE		1540511007731	
2	1540511007731_K081	MAPPINGANDPUSH	FAIL	Error in creating the Student	1541402702194	

Incoming Payload



The **Transaction Details** section can be accessed by clicking on the relevant tab. This section contains a readout of the steps of the transaction process with an error explained for where the transaction failed. The failed step of the transaction will also include the option to reprocess that step of the transaction that can be used either right away, in case the failure was due to a momentary server issue, or after the input has been adjusted if need be. Additionally, the section includes a set of embedded screens matching your API's chosen output types for the incoming and transformed payload as well as the API output itself. This allow you to not only manually inspect both the input and output of the transaction, but also allow you to alter the input.

Completed Transactions

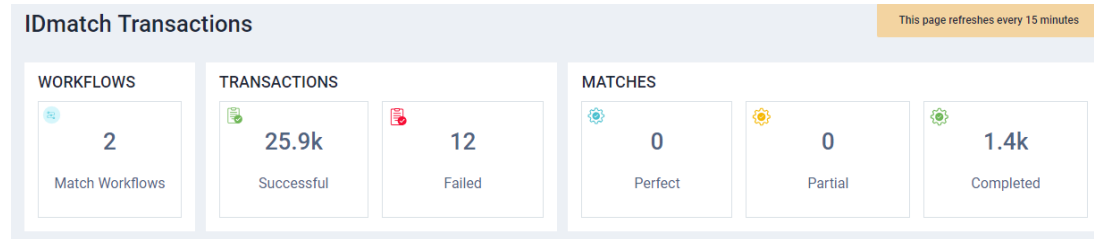
Completed Transactions are matches that have been processed through completion. Records will carry a Transaction Status of

- **DONE** indicating the match was carried out
- **DISCARD** indicating that the record was discarded
- **DISCARDHOLD** indicating that the match was declined and the two entries were given separate IDs.

Filtering Transactions

In addition to using the search bar to filter transactions, you can also enable the filter by clicking on the emblem to the right of the search bar. This will open a more precise search interface allowing you to search individual columns based on their contents.

Viewing a Match Results



Partial Match Transactions

This page refreshes every 1 minute

REFRESH All

Q Search Filters

TRANSACTION ID	TRANSACTION STATUS	STUDENT ID	FIRST NAME	LAST NAME	MATCH STATUS	ADDITIONAL INFO	LAST ACTIVITY	ACTIONS
1544541470148_3861	FAIL				PARTIAL		11 December 2018 10:17:50	View Edit Delete
1544541338105_9278	FAIL				PARTIAL		11 December 2018 10:15:39	View Edit Delete
1544541267066_7361	FAIL				PARTIAL		11 December 2018 10:14:27	View Edit Delete
1544541216358_7631	FAIL				PARTIAL		11 December 2018 10:13:37	View Edit Delete
1544541084290_4778	FAIL				PARTIAL		11 December 2018 10:11:25	View Edit Delete

When IDMatch identifies a potential match or duplicate record the transaction will be trapped as a match. There are two match types Perfect and Partial. These match types are defined within the rules setup. Both views operate the same but are filtered by match types.

To view Matches from an IDMatch transaction go to the **IDMatch** module and select either Partial or Perfect. This will display a list of matched entries for you to inspect and approve.

These API reports differ based on if the entries inspected were partial matches, indicating that some items were similar enough to warrant attention, perfect matches, indicating that an important item was a full match while the workflow rules still dictate a need for user approval, and, in the case of completed entries, a listing of verified matches which are matches that have either been approved for merging, or merged automatically in accordance with your API rules. From these, you can view specific entries by clicking on the view button to see the matches involved.

Here, you will see a listing of the base record's data as well as a list of which matching rules have been checked so far in order of priority. At this point, you can either discard the record, indicating it is not a match, run the next rule for more information, or compare the two records directly to make a final decision on merging them.

Workflow Details

The status of the workflow transaction is characterized by a combination of status descriptions, and a highlighted step. The **Highlighted Rule** is an indicator of where the transaction is currently paused, either due to the transaction having been completed at that step, or because it is in need of user intervention. The output of each rule is given by its status.

- **New** indicates that a rule has not yet been run in this transaction.
- **Skip** indicates a rule that has been manually ignored in favor of checking additional rules or there is a null in the search criteria
- **Done** indicates a rule that has been resolved automatically within Illuminate according to the specified rule action
- **Match** indicates a possible match has been found at a rule and requires manual intervention
- **Discard** indicates a user has manually made a decision to delete the related record at this step
- **Approved** indicates a user has manually made a decision to approve the merge of matched records

CREATED DATE: 26 October 2018 13:13:27	WORKFLOW NAME: V1.0.0/SlatetoBannerManualProcess
UPDATED DATE: 26 October 2018 13:13:27	WORKFLOW DESCRIPTION: SlatetoBannerManualProcess

FLOW AND MATCH DETAILS		TRANSACTIONS DETAILS		
Workflow Details		DISCARD RECORD SKIP TO NEXT RULE		
RULE NAME	RULE TYPE	STATUS	ACTIVITY DATE & TIME	RULE ACTION
IDMatchRuleFLCZD	PERFECT	DONE	26 October 2018 13:13:29	---
IDMatchRuleXULAI	PERFECT	SKIP	26 October 2018 13:13:28	---
IDMatchRuleFLSSN	PERFECT	DONE	26 October 2018 13:13:29	---
IDMatchRuleSSN	PARTIAL	DONE	26 October 2018 13:13:29	---
IDMatchRuleStateID	PARTIAL	DONE	26 October 2018 13:13:29	---
IDMatchRuleFLE	PARTIAL	DONE	26 October 2018 13:13:29	---
IDMatchRuleFL	PARTIAL	DISCARD	01 November 2018 21:11:32	---
IDMatchRuleFDOB	PARTIAL	NEW	26 October 2018 13:13:27	---

Additionally, each rule will have a type as set during the workflow creation.

- **Perfect** matches are those where the rule is designed to find an exact match, such as with social security numbers. These matches can be set to automatically merge two records together without the need for intervention.
- **Partial** matches are those where the rule is designed to find similar items, such as switch first and last names, or incomplete date fields. These require manual intervention to merge records.


Resolving Matched Records

When IDMatch finds a match that is not preset to automatically merge records, it will offer up the transaction for manual inspection. At this point, you will have two options. If you inspect the match from the transaction page, you will have the following options. Otherwise, you can compare the transactions directly.

- **View Previous Person** moves you to the next transaction in the in your transaction list
- **View Next Person** moves you to the previous transaction in the in your transaction list
- **Discard Record** deletes the selected record manually
- **Skip to Next Rule** causes illuminate to ignore the match results of the current rule and continue running the following rules.

Match Comparison

In order to compare transactions directly, select the compare icon from the match info at the bottom of the transaction list.

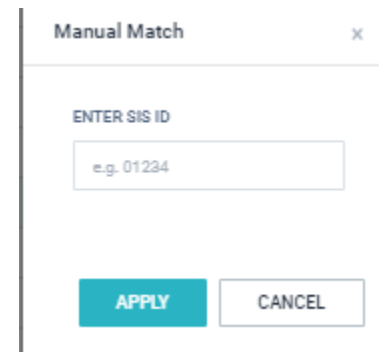
APPLIED RULE ACTION	COMPARE
V1.0.0/IDMatchRuleFDOB	

This will take you to the match comparison screen showing the contents of both entries as well as marking both the similarities and the differences. Here, you have the following options.

- **Discard Record** will release the records as non-matching.
- **Create New Record** to release them while changing the ID number of the second entry.
- **Approve Match** will merge the two entries together
- **Previous/Next Comparison** will switch the second record to another possible match if more than one exists

Manual Match

Manual match provides an override to the IDMatch search results. If for any reason a match result was not found but you know the student id to which it is match you can manually match the transaction using the SIS ID.



The image shows a 'Manual Match' dialog box with a close button (X) in the top right corner. Inside the dialog, there is a label 'ENTER SIS ID' above a text input field. The input field contains the text 'e.g. 01234'. Below the input field, there are two buttons: 'APPLY' (highlighted in teal) and 'CANCEL' (a standard grey button).

To Manual Match, click the Manual Match button, here you can enter the SIS ID of the record you wish to manually match. Click **Apply**.