

# COLLECT matching and reconciliation

**Guidance for local authorities** 

November 2023

# Contents

Background	3
Matching	4
Status of return during matching process	6
Rules for matching	6
Resolve matching	6
Automatic matches	7
Manual matches	7
Reconciliation	9
Reconciliation (running)	9
Resolve reconciliation	10
Reconciliation business rules	11
Rolling back a manual reconciliation	15
Completing matching and reconciliation	16
M & R specific reports	17
Deleting a return within matching and reconciliation	19
Common issues	21
Help	22

# **Background**

Matching and reconciliation (M&R) allows local authorities who have schools with multiple uploads to merge the data, thereby creating one return only per school.

You only need to complete matching and reconciliation if you have uploaded data from two separate sources, for instance staff information from the Management information system (MIS) and pay details from your HR system.

No data should be amended within the system until M&R has been completed.

There are four stages to this process:

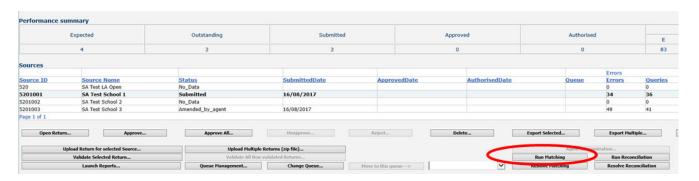
- Run matching
- Resolve matching
- Run reconciliation
- Resolve reconciliation

# **Matching**

Matching is the first part of the M&R process and is concerned with identifying and matching the data at staff member level. Staff members will only be matched using a predefined set of business rules (for more details please refer to <a href="Business & Technical Specification">Business & Technical Specification</a>). Using these rules, the majority of the staff workforce members' records will be automatically matched. A few will need to be matched manually as some of the key identifying fields vary and the system cannot be certain that two or more records represent the same person.

Returns for a school should have a status of 'Submitted' in order for matching to be run.

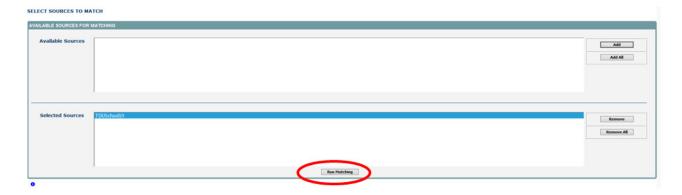
To run matching, go to the source page and select the 'Run Matching' button.



A list of schools with multiple returns will be displayed. Highlight the school or schools that you want to run matching against and select the 'add button'.



This will move the highlighted schools to the 'selected sources' box below.



Then select the 'run matching' button.

By selecting this button, you will have started the matching process for the return(s). You will then be returned to the source screen and the matching process will be queued. The status of the return will allow you to see the stage the return is at in the process. You may want to refresh your screen at this point.

## Status of return during matching process

Awaiting\_matching - the return has been marked ready for matching but is still in a queue waiting for the matching process to start.

Matching\_in\_progress - this is when the matching is actually being completed on that return. While the return has this status the user cannot view or edit that return.

Matching\_failed - this is when the matching process has failed to complete. In these cases, the matching will need to be rerun.

Amended\_by\_agent - the matching has been completed and is now ready for the user to check whether a record(s) need to be manually matched.

## **Rules for matching**

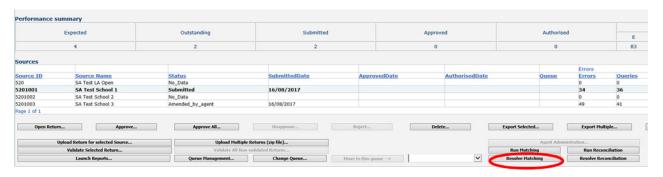
Please refer to the <u>Business & Technical Specification</u> for more detail on the rules used for producing the matches. Matching will be performed at staff details level, for instance, identifying whether the staff members are the same individual or could be the same individual. There are two levels of matching, automatic and manual.

Automatic matches – no manual intervention is required, the record will be marked as a match and resolved.

Potential matches – will need to be manually matched.

No match identified – there are no matching records.

# **Resolve matching**



Once the matching has been run and 'amended\_by\_agent' is shown as the status, you will need to resolve any records not automatically matched. Click on the 'resolve matching' button to run this.

#### **Automatic matches**

The example below shows where there are three records which can be automatically matched as they match on a number of 'key' fields.

For the highlighted teacher (teacher Three) the table below shows the teacher number is different, but the NI number, family name and DOB all match. This will result in one individual going through to reconciliation rather than two.



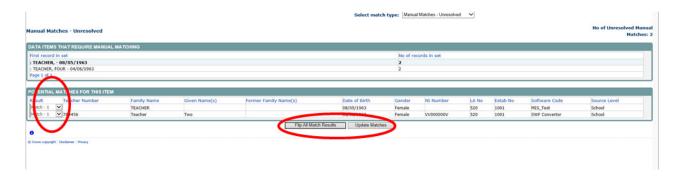
The user does not have to take any action on these matches unless they do not want them to be a match.



If the user decides that these are in fact not a match, they can change the result from 'Match -1' to 'No match'. To do this use the 'flip all match results' button or change each line by selecting from the 'result' column, then select the 'update matches. This will result in two workforce members going through to reconciliation rather than one.

### **Manual matches**

If there are records which match on a few of the key identification fields but not enough, they will be identified in the 'manual matches – unresolved'. COLLECT does not know whether to treat them as one person or not so the user has to resolve these, please see example below.



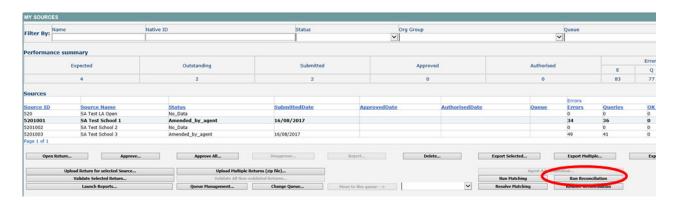
If these are the same person, then select 'update matches' and they will be treated as one individual. If the user selects 'flip all match results' button and sets them to 'no match' then they will be treated as two non-matching individuals.

## Reconciliation

The aim of reconciliation is to allow the system to decide how to process more than one set of data for a school. It considers which records should be merged and which kept separate. Data reconciliation will be performed automatically using a set of predefined business rules (Please refer to <u>Business & Technical Specification</u>). There is also a requirement for manual reconciliation where data differences across records cannot be resolved automatically.

Unlike matching, which is just done at workforce member level, reconciliation is carried out at record level.

To run reconciliation, select the 'run reconciliation' button from the agent screen. Schools will only be included in the list if the following criteria are met; they have more than one return, matching has been run and manual matches have been resolved.

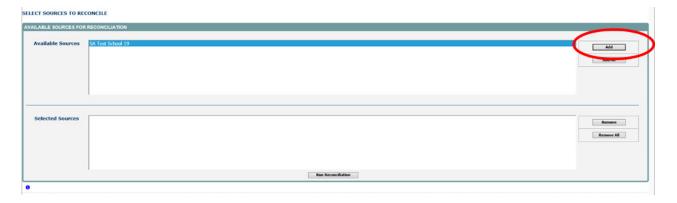


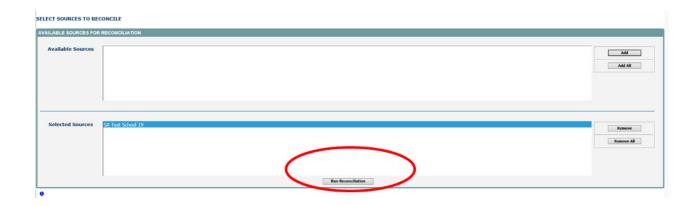
If the return has a status of 'matching\_failed', then matching will have to be rerun before reconciliation can begin.

# **Reconciliation (running)**

Once all the manual matches on a return have been resolved then the user can go on and run reconciliation against that return.

One or a number of schools can be queued for reconciliation by moving them to the 'selected sources' box and then selecting 'run reconciliation'.





This will start the reconciliation process which will now run in the background and will be queued. It may complete that day or, depending on the number of schools running the reconciliation process and the data contained within the files, it may complete the following day. Use the status of the return to identify whether reconciliation has been run successfully or not.

Awaiting\_reconciliation - the return has been placed in the reconciliation queue, but reconciliation has not yet been completed.

Reconciliation\_in\_progress - the return has reached the top of the reconciliation queue and is currently being reconciled.

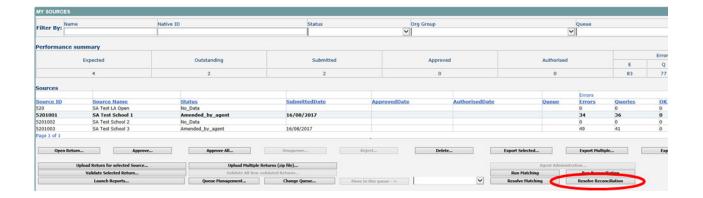
Reconciliation\_failed - shows that there has been an error during the reconciliation process. This can be caused because the return has been edited after matching and prior to reconciliation. Please note you will need to re-upload both files and rerun the matching process.

Amended\_by\_agent - the reconciliation has been completed and is now ready for the user to check whether all records have been automatically reconciled or whether some need to be manually reconciled.

While the process of reconciliation is being carried out, the user will not be able to add/edit/delete or open that return, however the user can work on the other returns for that local authority.

#### Resolve reconciliation

Once reconciliation has been run and the 'amended\_by\_agent' is shown as the status, you will need to resolve any records not automatically reconciled. Click on the 'resolve reconciliation' button to run this.



#### **Reconciliation business rules**

To combine multiple records, the COLLECT system uses defined business rules (please refer to the <u>Business & Technical Specification</u>) to determine when these can be reconciled automatically and when they have to be reconciled manually.

When the status returns to 'amended\_by\_agent', the user needs to check the results of the reconciliation. To access results of the reconciliation, select the 'resolve reconciliation' button. The following screen will appear, and you have the choice of checking the 'reconciled records' or the 'unreconciled records.



Reconciled records – no action is required as these are records that COLLECT has been able to automatically reconcile. The number in brackets is the number of records which were reconciled.

Unreconciled records – are records that cannot be resolved using the predefined business rules. In these cases, the user has to make decisions as to which data should be included in the master record.



The user should work down the list of 'record types', reconciling the school workforce members first, then the given name, the contractor service and so on.

Below is an example of a workforce member that needs to be manually reconciled. The bottom half of the screen shows a member record, where some of the information is the same and some differs.



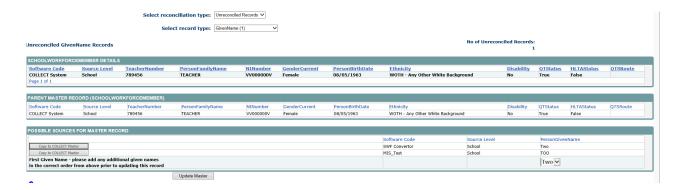
By selecting from the drop-down options for these fields, the user can select the values that will be included in the 'COLLECT master record' and select the 'update master' button to save those selections.



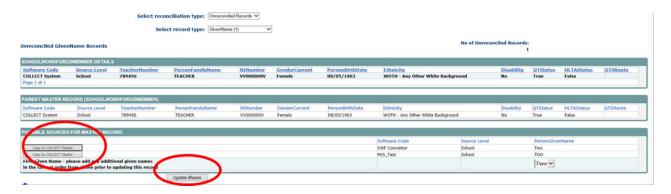
Once all of the reconciliations have been updated for the first option in the drop down, it will show zero in the select record type box and there will be no further options on the screen. Using the drop down function the user can select the next record type.



In the next example there are two given name entries for the workforce member. The middle part of the screen provides details of the workforce member, the bottom part of the screen shows the two given name records.

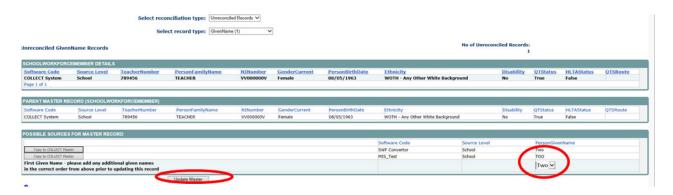


The user can either save both entries to 'COLLECT master' by first selecting the 'copy to COLLECT master' button to save one entry. Then select the 'update master' to save the second entry.

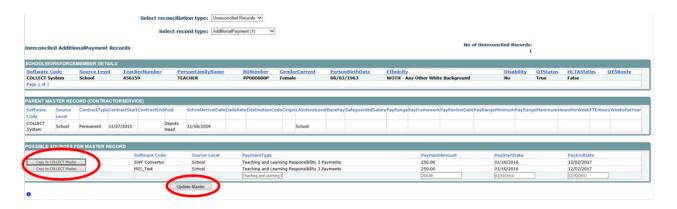


The result of this is that the workforce member will have two given name records in the master COLLECT return.

If only one given name entry is to be included in the master COLLECT return, then select the entry from the 'person given name' drop down list and the select 'update master' button.



In this final example there are two additional payment records for a workforce member, both with the same information. There are no different values to pick from, but the user must decide whether they should be treated as two separate additional payments for the workforce member. If this is the case, they must use the 'copy to COLLECT master' to save one entry. Then select 'update master' to save the second entry.



If they are genuine duplicates and only one additional payment is required, select 'update master' and only one of the additional payments will be copied to the master COLLECT return.

# Rolling back a manual reconciliation

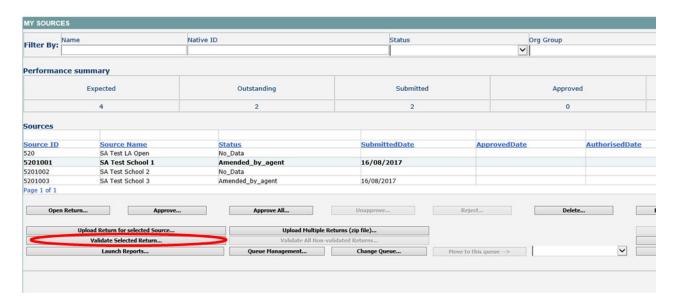
If the user has incorrectly reconciled a record, then they can undo the last reconciliation. To do this select 'reconciled records' from the drop-down list on the manual reconciliation screen.



Select the appropriate record type from the 'select record type' drop down list. Select the relevant record from the list of records, that have previously been reconciled, and then the 'undo reconciliation button'. The user can then work back to unreconciled additional records if required.

# **Completing matching and reconciliation**

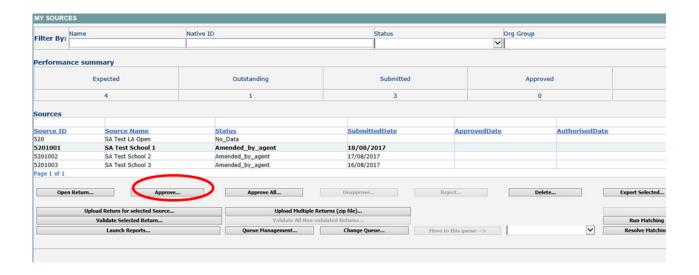
When all the manual outstanding reconciliations have been resolved, remember you will need to revalidate the return after finishing your matching and reconciliation.



You should be left with one visible return in COLLECT, namely 'COLLECT system'. If there is more than one return, then reconciliation has not been completed.



Once you are happy with the school's data, please remember to approve the return from your front screen.



## M & R specific reports

These reports will be run against the previous day's data rather than the current day's data.

- M&R matching required but Not Yet Started report this enables a local authority to list all the schools where M&R is required, that is to say they have more than one return, but no matching action has been initiated yet.
- M&R reconciliation required but not yet started report this enables a local authority to list all the schools where matching has been completed but reconciliation has not yet been initiated.
- M&R matching started but not yet completed report this enables a local authority to list all the schools where matching has been started but not completed.
- M&R reconciliation started but not completed report this enables a local authority to list all the schools where reconciliation has been started but not completed, for instance, there are still records which need manually reconciling.
- M&R remaining visible source records after completing M&R report this
  enables a local authority to list all the schools where reconciliation has been
  completed but some original source records are still invisible. If the M&R
  process has been completed successfully then there should be no original
  source records left, so these need individual investigation by the local
  authority.
- M&R number of returns by M&R Status report this provides a local authority with a breakdown of their returns in relation to the M&R process. The report provides figures for the following: -
- Total no data shows the number of schools where return status is no data.
- Total not requiring M&R number of schools with only one return associated with it so M&R is not required.
- Total matching not yet started number of schools with more than one return and matching has not been started.
- Total matching started but not complete number of schools with more than

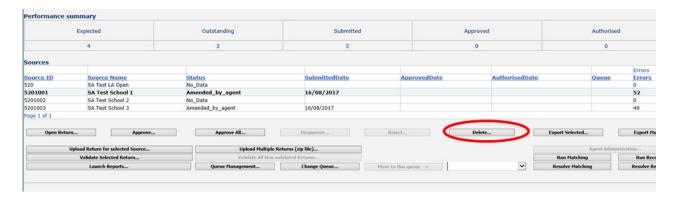
one return where matching has been run but has not yet been completed.

- Total matching completed but reconciliation not yet started number of schools with more than one return where matching has been completed but reconciliation has not been run (started).
- Total reconciliation started but not complete number of schools with more than one return where reconciliation has been run but has not yet been completed.
- Total reconciliation completed, single source number of schools where reconciliation has been completed and they now have one single return.
- Total reconciliation completed, multiple sources number of schools where reconciliation has been completed but they still have more than one return associated with them.

In the case of this last bullet point please investigate the schools and if you are unsure as to why original sources remain, please contact the helpdesk.

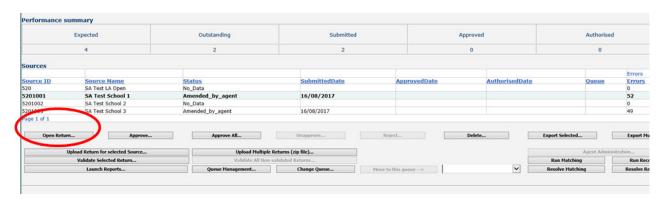
# Deleting a return within matching and reconciliation

Using the delete function from the front screen will delete all uploads for the school and return the selected school's status to 'No\_Data'.



If a single upload for a school is to be deleted rather than all uploads, the user will need to do this within the return.

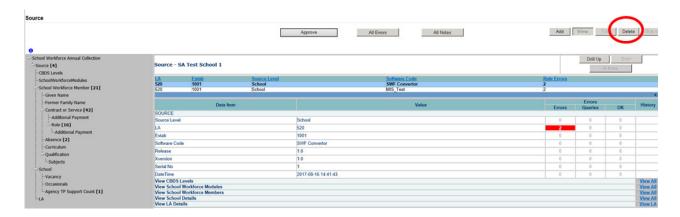
#### Open the return



#### Choose view all



The user will see the two uploads as two lines on the screen. Click on the upload you wish to delete; the background will turn blue. In the top right-hand corner click the 'Delete' button.



## It will ask you to confirm



Please note that this will undo any matching and reconciliation.

## **Common issues**

The guidance below is provided due to issues that arose during M&R in previous Collections.

- Revalidating the return after completing matching and reconciliation the return should be re-validated. Do this by going to the agent screen, highlighting the relevant school and selecting the 'Validate Selected Return' button. This will remove all the errors associated with the original partial returns and re-validate the data in the master COLLECT return.
- Issues with data some returns have multiple records with very similar or identical data in them, which COLLECT does not resolve. For example, curriculum records with the same year group and subject or multiple contract records which had the same role and post and overlapping start and end periods. The M&R process does not resolve these, as they would seem to be a duplication in the original data files. If the local authority experiences this problem, then they should investigate why the duplication is occurring before trying to complete the M&R process. New files may need to be produced to eliminate these duplicates and M&R run against the new files. This has typically occurred in contract, curriculum and absence records.
- Amending data once matching is completed but the data not yet reconciled, the
  information in the returns should not be edited, added to or deleted as this will
  corrupt the M&R process. If it is necessary to change the information, then the
  user should go back and amend the original return data and re-run M&R on the
  amended return.
  - If this is not done, sometimes after running reconciliation the return will have a status of 'reconcilation\_failed'. If this happens the local authority will need to re-run matching again, resolve any outstanding matches and re-run reconciliation.
- **Reports** to help local authorities identify what stage their return is at a number of reports have been provided.
- Blank fields when matching if one return has a blank field ('null'), or 'not obtained' and the other return has these fields populated, then the master COLLECT return will be populated with the valid values rather than the 'null' or 'not obtained' values.
- Completion of M&R after M&R has been successfully completed there should only be one visible source in COLLECT. This should be the 'COLLECT system'. If there is still more than one source, then M&R has not yet been fully completed.
- **Re-running matching** if a return has already been reconciled, re-running the matching again will undo any reconciliation action previously taken.
- Uploading contact data when completing contract data, the post and allowance data should also be supplied in the same data upload. If some contract information is included on one data upload and other information is supplied on another upload, this can result in two contract records being generated even after matching and reconciliation.

# Help

COLLECT access is administered directly by local authorities for their users. This includes registering for COLLECT, activating your account and giving you access to specific collections. Please get in touch with the approver in your local authority who will be able to make sure that you have the appropriate access.

If you are experiencing problems with COLLECT or have a data collection query, please submit a <u>service request</u> to the data collection helpdesk.

If you are having problems logging into DFE sign in, please refer to the 'Help' option on the DfE Sign-in page. If you are still unable to resolve your issue, please submit a <u>DfE Sign-in Help</u> request to the DfE sign in team.



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