COLLECT Matching and reconciliation

Guidance for academies and free schools

October 2017

Contents

Background

Matching and reconciliation (M&R) allows academies who have more than one return to merge the data from the multiple sources, 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 MIS and pay details from your HR system. Academies that only have one return do not need to run M&R.

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 Business & Technical Specification). 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' or 'Loaded_Validated' in order for matching to be run.

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

Highlight the school and select the 'add' button.

This will move the highlighted school to the selected sources box below.
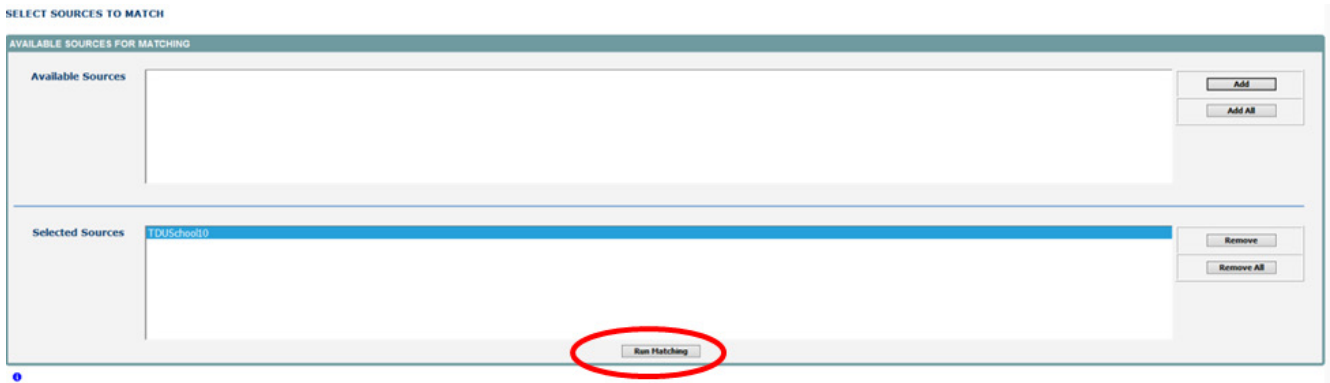
Then select the 'run matching' button.

By selecting this button you will have started the matching process for the return. 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 then a user cannot view or edit that return.

Matching_failed - this is when the matching process has failed to complete. In these cases then matching will need to be rerun.

Amended_by_source - the matching has been completed and is now ready for the user to check whether a records need to be manually matched.

Rules for matching

Please refer to the Business & Technical Specification 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.

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Resolve matching

Once the matching has been run 'amended_by_source' 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 one) 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 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.
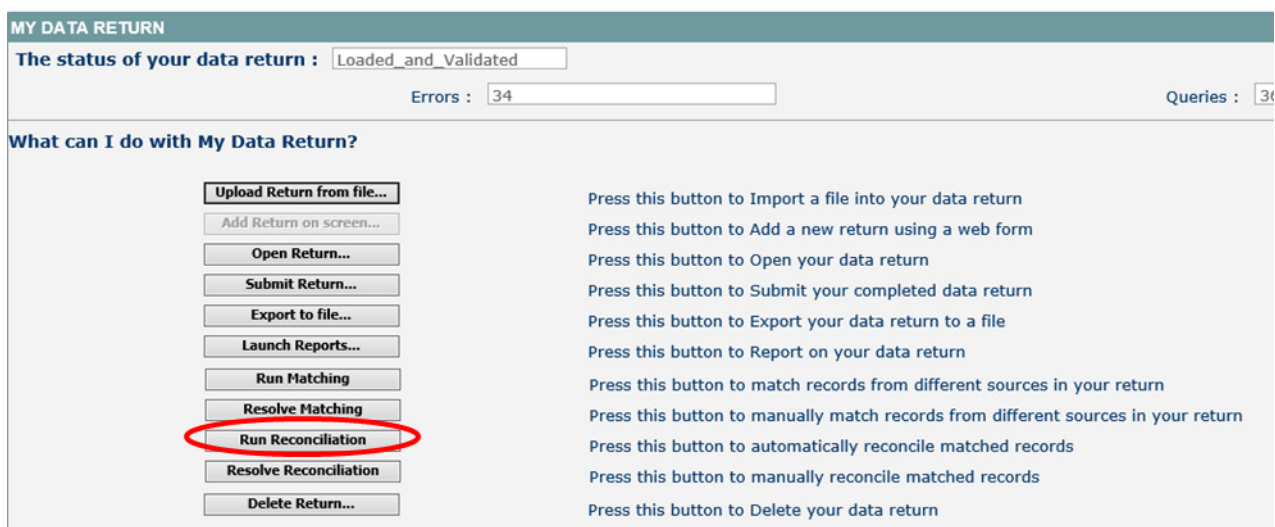

If these are the same person then select 'update matches' and they will be treated as one individual. If the user selects 'flip all match results' button and sets them to 'no match' then they will be treated as two none matching individuals.

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 [Business & Technical Specification](#)). 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 source 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 be resolved.

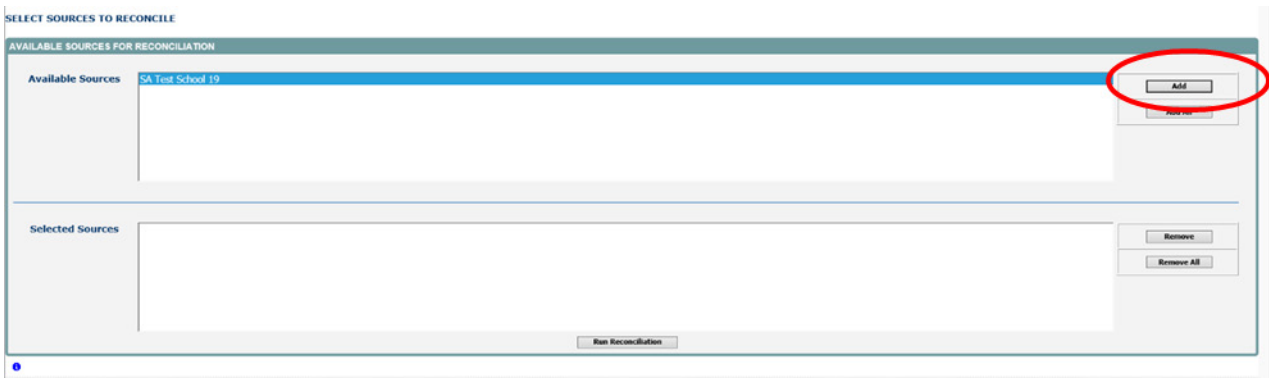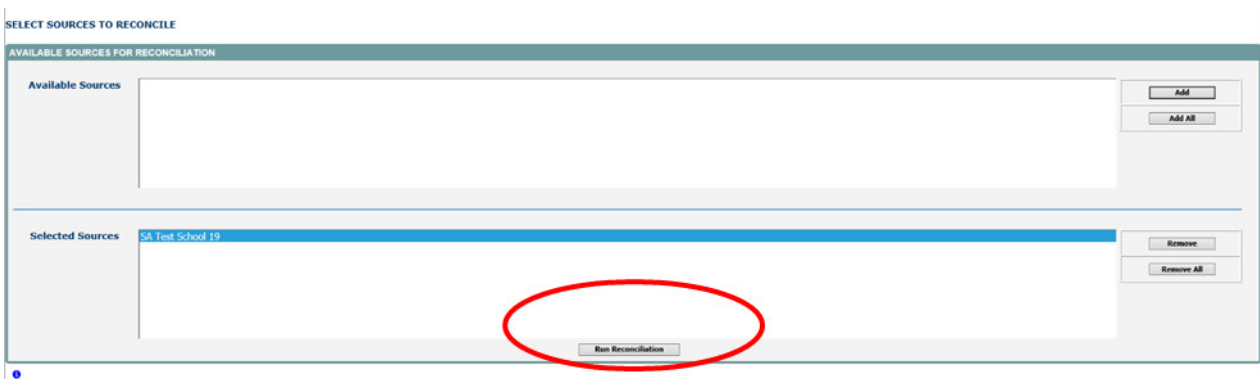If the return has a status of 'matching_failed', then matching will have to be rerun before reconciliation can begin.

Reconciliation (running)

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

Highlight the school, click 'add' and then select the '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_source - 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 the return.

Resolve reconciliation

Once reconciliation has been run and the 'amended_by_source' 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 Business & Technical Specification) to determine when these can be reconciled automatically and when they have to be reconciled manually.

When the status returns to 'amended_by_source', 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.
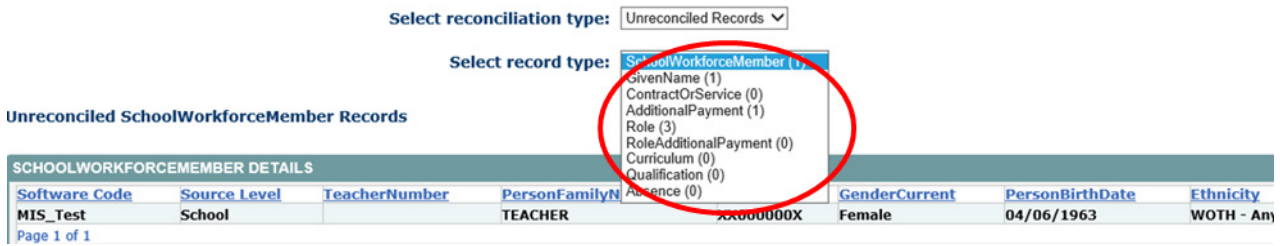
The user should work down the list of 'record types', reconciling the school workforce members first, then the given name, the contractor service and so on.
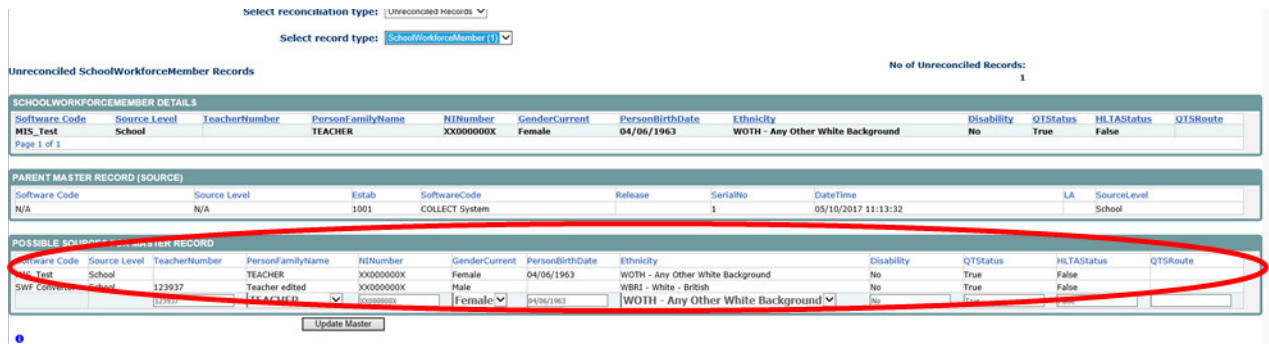
Below is an example of a workforce member that needs to be manually reconciled. The bottom half of the screen shows a member record, where some of the information is the same and some differs. The different fields are gender and ethnicity.

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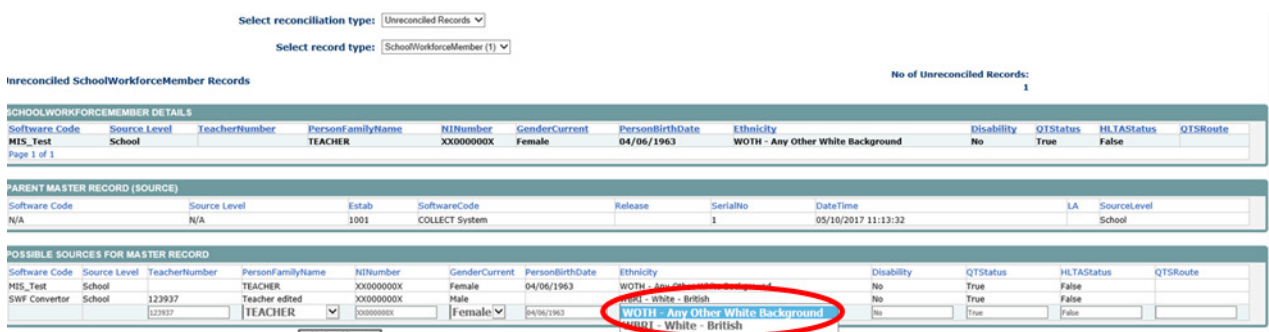
Once all of the reconciliations have been updated for the first option in the drop down, it will show zero in the select record type box and there will be no further options on the screen. Using the drop down function the user can select the next record type.

SA Test School 1

Select reconciliation type: Unreconciled Records ▾
Select record type: SchoolWorkforceMember (0) ▾

Unreconciled SchoolWorkforceMember Records

No of Unreconciled Records:
0

SCHOOLWORKFORCEMEMBER DETAILS

PARENT MASTER RECORD

POSSIBLE SOURCES FOR MASTER RECORD

No Records
There are no records of this type for this data return

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 show the two given name records.

Select reconciliation type: Unreconciled Records ▾
Select record type: GivenName (1) ▾

Unreconciled GivenName Records

No of Unreconciled Records:
1

SCHOOLWORKFORCEMEMBER DETAILS

Software Code	Source Level	TeacherNumber	PersonFamilyName	NINumber	GenderCurrent	PersonBirthDate	Ethnicity	Disability	QTStatus	HLTAStatus	QTSRoute
COLLECT System	School	789456	TEACHER	VV000000V	Female	08/05/1963	WOTH - Any Other White Background	No	True	False	

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PARENT MASTER RECORD (SCHOOLWORKFORCEMEMBER)

Software Code	Source Level	TeacherNumber	PersonFamilyName	NINumber	GenderCurrent	PersonBirthDate	Ethnicity	Disability	QTStatus	HLTAStatus	QTSRoute
COLLECT System	School	789456	TEACHER	VV000000V	Female	08/05/1963	WOTH - Any Other White Background	No	True	False	

POSSIBLE SOURCES FOR MASTER RECORD

	Software Code	Source Level	PersonGivenName
Copy to COLLECT Master	SWF Convertor	School	Two
Copy to COLLECT Master	MIS_Test	School	TOO
First Given Name - please add any additional given names in the correct order from above prior to updating this record			Two ▾

Update Master

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.

Select reconciliation type: Unreconciled Records ▾
Select record type: GivenName (1) ▾

Unreconciled GivenName Records

No of Unreconciled Records:
1

SCHOOLWORKFORCEMEMBER DETAILS

Software Code	Source Level	TeacherNumber	PersonFamilyName	NINumber	GenderCurrent	PersonBirthDate	Ethnicity	Disability	QTStatus	HLTAStatus	QTSRoute
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POSSIBLE SOURCES FOR MASTER RECORD

	Software Code	Source Level	PersonGivenName
Copy to COLLECT Master	SWF Convertor	School	Two
Copy to COLLECT Master	MIS_Test	School	TOO
First Given Name - please add any additional given names in the correct order from above prior to updating this record			Two ▾

Update Master

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.
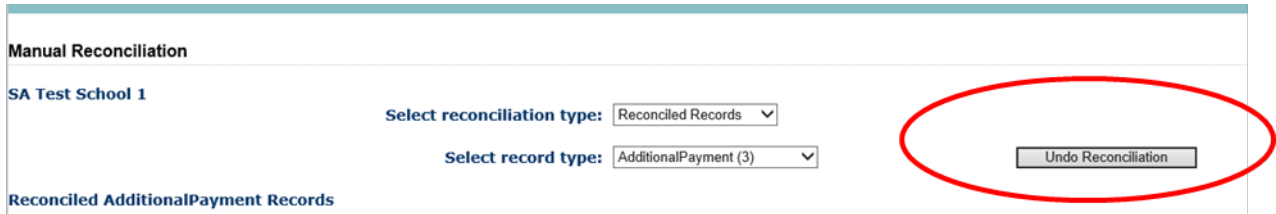

Select the appropriate record type from the 'select record type' drop down list. Select the relevant record from the list of records which have previously been reconciled, and then the 'undo reconciliation button'. The user can then work back to unreconcile additional records if required.

When all the manual outstanding reconciliations have been resolved, remember you will need to revalidate the return after finishing your matching and reconciliation.
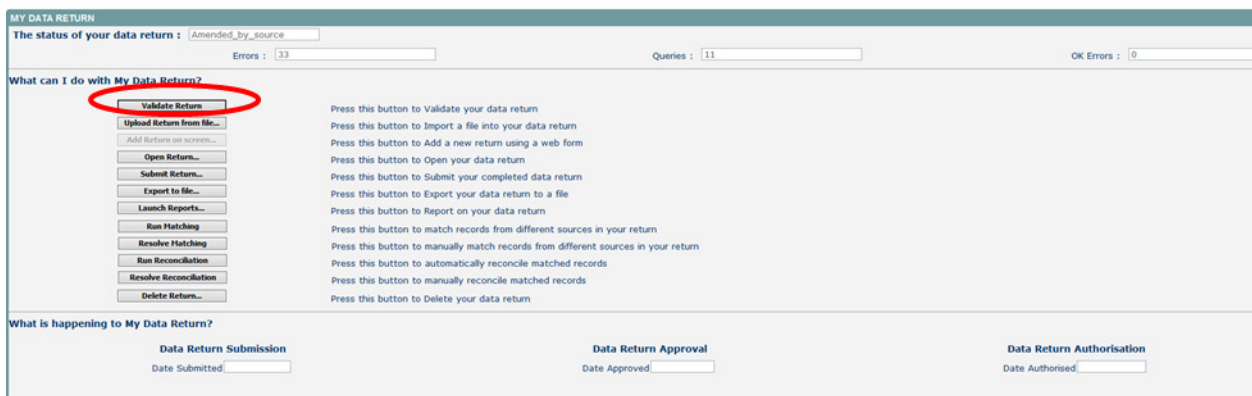
You should be left with one visible return in COLLECT, namely 'COLLECT system'. If there is more than one return, then reconciliation has not been completed.
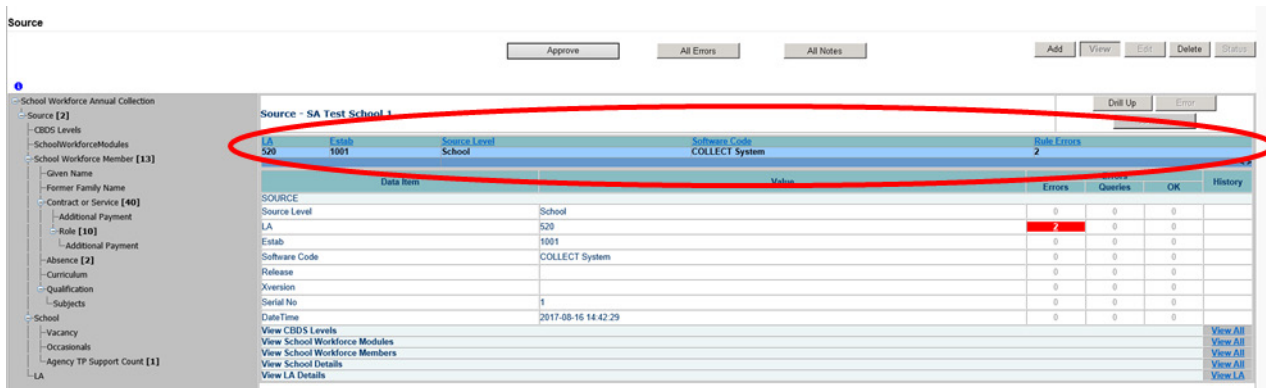
To determine whether M&R has been completed the user can run the 'academy M&R advice report'.

Once you are happy with your return, please remember to submit the data from your front screen.

Deleting a return within matching and reconciliation

Using the delete function from the front screen will delete all uploads for the academy and return the academy's status to 'No_Data'.

If a single upload for an academy 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 the user 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 main source data return page and selecting the 'validate 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 from the Management information system (MIS). If the academy experiences this problem then they should investigate why the duplication is occurring in the XML file before trying to complete the M&R process. The academy may need to produce new XML files from its MIS to eliminate these duplicates and then run M&R 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 academy will need to re-run matching again, resolve any outstanding matches and re-run reconciliation.

- **Reports** - to help academies identify what stage their return is at a number of reports have been provided. These are only relevant for academies using M&R and we would not recommend that these are run by academies who do not use M&R.

- **Blank fields when matching** - 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 academy approvers 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 academy 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 service request to the data collection helpdesk.

If you are having problems logging into secure access, please refer to the 'Help' section on secure access. If you are still unable to resolve your issue, please submit a service request to the SA service desk.

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