



Managing Addresses

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Handbook

CAPITA

Revision History

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Managing Addresses Handbook/Autumn 2019/14-02-2020

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01 | Document Change Control

Date	Release	Description
February 2020	3.70	Importing a Gazetteer LA No. no longer needs to be selected as it will be taken from the import file. <i>See Importing a gazetteer on page 5.</i>

02 | Importing and Tidying Addresses

Introduction to importing and tidying addresses

One provides several processes for managing addresses. You can import new addresses and automatically match the imported data against existing data. Additionally, there is address tidying functionality that enables you to quickly remove address information that is no longer being used from the database.

From within v4 Online, you can import addresses, bulk match those addresses against existing data, update existing addresses and run the Address Tidy routine that removes disused address information from the One database.

More Information:

v4 Online:

[Importing a gazetteer](#) on page 5

[Bulk match processing rules](#) on page 9

[Managing address](#) on page 14

Accessing the System Administration v4 site

There are three methods of accessing the System Administration v4 site. This provides flexible accessibility. The following internal navigation links are controlled by permissions:

- Access directly via the configured URL.
- Access from the v4 Client via **Tools | Administration | System Administration**.
- Access from v4 Online via **Administration | System Admin | System Administration**.

The above menu routes are available if the Capita One user has appropriate permissions to any of the main business processes associated with the System Administration v4 site, including the 'System Administration' and 'Data Management' main business processes. The links are also available to users with access rights to the 'Address Management' main business process, unless their only access is to the 'Import Addresses' business process as this is currently within v4 Online and not the System Administration v4 site.

In order to access the Archive & Delete functionality, you must have a valid Pulse v4 licence.

03 | Importing Addresses

Introduction to importing addresses

Within v4 Online, importing addresses is done via the **Administration** module. You can access the **Address Management** area from the v4 Online **Home** page via **Administration | Address Management**. You can import addresses, bulk match newly imported addresses and update address details.

More Information:

[Importing a gazetteer](#) on page 5

[Bulk match processing rules](#) on page 9

[Updating addresses](#) on page 11

Unitary authorities and administrative areas

By default, when One imports an AddressBase Premium or LLPG file, the **Administrative Area** is imported as the **County**. However, this is incorrect for unitary authorities. To prevent the **Administrative Area** from being placed in the **County** field on import, you must set the 'Import Admin Area as County?' system default to 'F'. A One system administrator can edit system default values on the **System defaults** page of the System Administration v4 site.

Importing a gazetteer

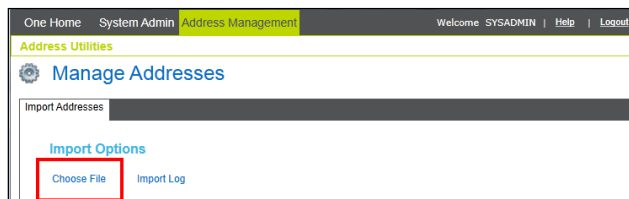
Users can import multiple address gazetteers into the One database. One can import the following gazetteer types:

- LLPG files that conform to the DTF v7.3.3.1 specification (CSV or XML)
- AddressBase Premium files Epoch 39 or later (CSV).

You can import gazetteer and CSV files without having exclusive access to One, however importing a large file might require significant time and therefore should be performed when other One usage is minimal.

To import a gazetteer:

1. Open the **Address Utilities** page via **Administration | Address Management**.



2. In the **Import Addresses** tab, click the **Choose File** hyperlink to display the **Open** dialog.
3. Select the CSV or XML file to import and click the **Open** button to display it in the **File Selected** list.

Importing Addresses

File Name	Address in England	LA No.	Current Import Status
AddressBase Test File.csv	<input checked="" type="checkbox"/>	820	Not Imported

NOTES: The **Address in England** flag indicates that all addresses to be imported are in England. The check box is selected automatically based on the locale of the authority importing the file. For authorities in England, the check box is selected, for other nations it is deselected.

If importing a multi-part AddressBase file, ensure that the first volume in the sequence is imported first, and then all succeeding volumes should be imported in order.

The LA No. on the import screen defaults to that of the Local Authority but the LA No that is imported against each address is determined from the file.

4. Click the **Import** button to start the import process.

Once you click the **Import** button, the selected file starts uploading from your local PC to the One server. Large files can take a long time, but the progress of this step is shown as a percentage in a progress dialog.

IMPORTANT NOTE: Any interruption or connection failure (e.g. resetting the web page) while the file is uploading will cause the upload to fail and you will have to restart the entire import process.

After the file is uploaded, a job will be queued to run on the integration server. The progress dialog will close automatically, and the **Current Import Status** will display **Queued for Import**, your session can now be logged off as the job will run in the background on the server.

NOTE: If this job does not start within 30 minutes it will be marked as failed and will need to be re-imported once the integration server issue has been resolved.

You can track the progress of the import in the **Import Stage** panel. **Current Import Status** can be **Queued for Import**, **Importing**, **Imported** or **Failed**.

More Information:

[Import status definitions](#) on page 6
[Errors while importing](#) on page 8

Import status definitions

After the file has been uploaded the import goes through a number of steps to process the information. Status information is displayed in two areas, the **Import Stage** table and the **Current Import Status** column in the **Import Options** tab. The following table summarises the different statuses:

Import Status (displayed in Import Stage table)	Description	Current Import Status
Queued for Import	The file has successfully been uploaded to the One database and is queued for the integration service to start the import process.	Queued for Import
LLPG Import Failed	<p>The import has failed, this could be a result of the integration service not running and therefore the import has timed out, e.g. queued for more than 30 minutes.</p> <p>To display a tool tip detailing the reason for the failure, hover over the error status with your cursor.</p>	Failed
Importing Local Land & Property Gazetteer Files	LLPG import process has started.	Importing
Loading LLPG Dictionary onto database		
Processing CSV LLPG file Processing XML LLPG file	CSV/XML LLPG data is being imported to the individual LPG DB tables.	
Error creating street record (XX) - where 'XX' is the USRN reference for the record that failed.	There is an issue with the street, BLPU or LPI record that has prevented it from being imported.	Importing
Error creating BLPU record (XX) - where 'XX' is the UPRN reference for the record that failed.	To display a tool tip detailing the reason for the failure, hover over the error status with your cursor.	
Error creating LPI record (XX) - where 'XX' is the UPRN reference for the record that failed.		
Import failed, too many invalid records exist.	If an LLPG file contains more than 30 errors, One will not import the file.	Failed
Imported 'X' street records, - where 'X' is the number of records created.	The LLPG import routine created 'X' number of records in the LPG_STREET DB table.	Importing
Imported 'X' BLPU records, - where 'X' is the number of records created.	The LLPG Import routine created 'X' number of records in the LPG_BLPU DB table.	
Imported 'X' LPI records, - where 'X' is the number of records created.	The LLPG Import routine created 'X' number of records in the LPG_LPI DB table.	
Started LLPG Upload	The processing of the imported data to the LPG_GEO DB table has started.	
Removing Duplicates	The upload process ensures no duplicate addresses exist from the import.	

Importing Addresses

Import Status (displayed in Import Stage table)	Description	Current Import Status
Updating Properties	Creating new records in the LPG_GEO table from the imported address data.	
Updating BLPU records	Updating any matched existing records in the LPG_GEO DB table.	
Updating LPI records		
Updating Street records		
Added 'X' new LLPG addresses - where 'X' is the number of addresses created.	The number of newly created addresses in the LPG_GEO DB table.	Importing
Updated 'X' LLPG addresses - where 'X' is the number of addresses updated.	The number of updated addresses in the LPG_GEO DB table.	
Load Complete	The importing and processing of the LLPG data to the LPG DB tables is complete.	
Indexing LLPG Dictionary	Creating indexes of street information for quick address searching when geo-coding addresses.	
Indexing complete	Indexing has finished.	Importing
Removing redundant dictionary entries	Where indexed records exist more than 10,000 times, these are deleted because it does not improve address search speed.	
Warning: Import has 'X' invalid record(s) - where 'X' is the number of errors incurred, this will not be displayed as no error(s) occurred.	If 30 or fewer errors occur, One will carry on processing the file and at the end of the import a summary of the number of errors incurred is displayed.	
LLPG import completed	The end to end processing of the LLPG file has completed.	Imported

NOTE: When LPG_GEO is updated, if the 'administrative area' is the same as the 'town' then the 'administrative area' is set to NULL.

Errors while importing

While loading the dictionary onto the database, any errors encountered are shown in the **Import Status** table.

Import Status	Date & Time
Loading dictionary onto database 100% complete	06/03/2014 11:41
Error creating LPI record.	06/03/2014 11:41
pro_order (field 3). ORA-06502: PL/SQL: numeric or value error: character to number conversion error	
Imported 3 street records	06/03/2014 11:41
Imported 3 BLPU records	06/03/2014 11:41

You can hover over a row to display additional details for the error.

Importing Addresses

LPG_GEO	One
Geo_addr2	ADDR_HD.apartment
Geo_addr3	ADDR_HD.house_no
Road	ADDR_DET.address1
Postcode	ADDR_DET.post_code

Or if they have identical address references:

LPG_GEO	One
UPRN	ADDR_HD.UPRN
USRN	ADDR_DET.USRN

If an address is determined to be matched, the following information is updated/overwritten based on whether you selected the **Also overwrite fields even if they have existing values** option when you imported the file:

- Easting, Northing (These are not changed if the manual geocode flag is set to 'T')
- LA Number
- Unique Property Reference Number (UPRN)
- Unique Street Reference Number (USRN).

Bulk match status messages

The progress of the process is noted in the **Import Stage** table, and the following status messages are displayed during processing:

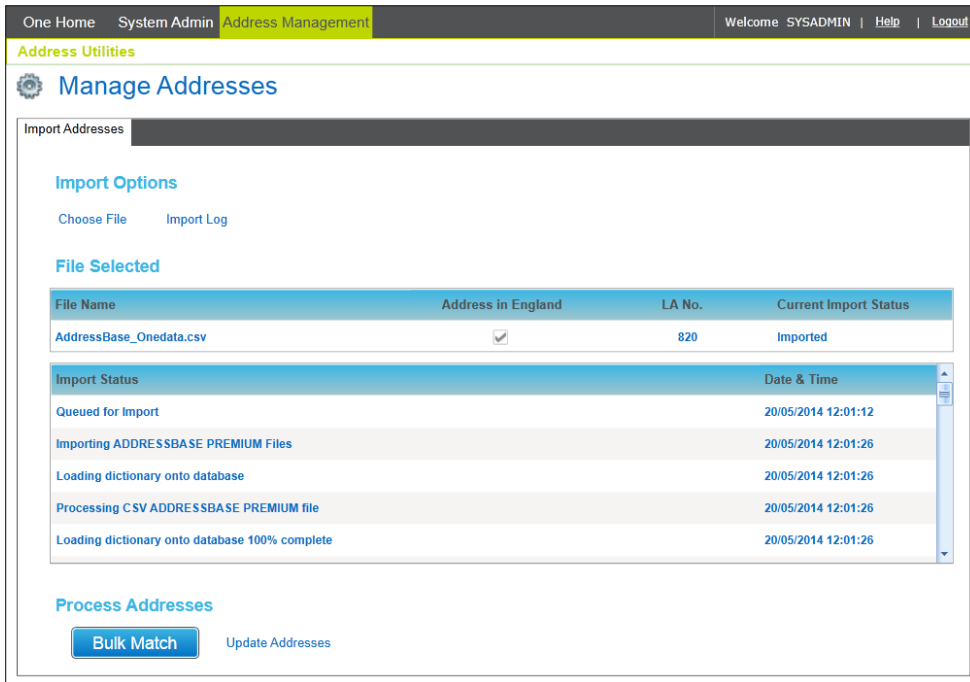
- Bulk matching process queued.
- Bulk matching process started.
- Parameters: Overwrite: *Yes/No*. - Indicates the parameter being used.
- Matching Addresses started - The number of records matched is incremented as the process runs.
- Bulk matching completed - The total of matched records will be displayed.

Bulk matching

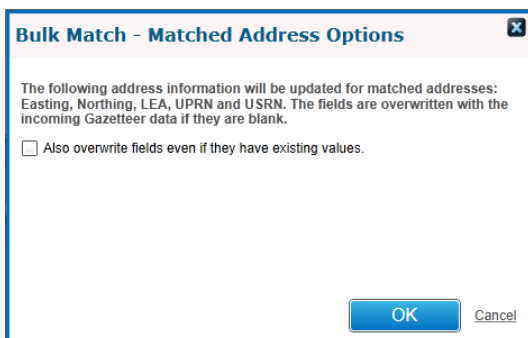
After completing a gazetteer import, you can run the bulk match process to update addresses in the One database using the uploaded addresses in the LPG_GEO table. You can run the Bulk Match routine manually, but it is run automatically if you choose to run the Update Addresses routine. For more information on how One matches records, see [Bulk match processing rules](#) on page 9.

To bulk match a group of address:

1. Open the **Address Utilities** page via **Administration | Address Management**.
2. If no import file is selected In the **Import Address** tab, click the **Choose File** hyperlink to display the **Open** dialog and select the required file.



3. Click the **Bulk Match** button to display the **Bulk Match - Matched Address Options** dialog.



4. If required, select the **Also overwrite fields even if they have existing values** check box. By selecting this option, matched addresses in the One database that already have data for the listed fields will be overwritten with the incoming gazetteer information.

NOTE: The *Easting, Northing, LEA, UPRN and USRN* fields will always be populated if they are empty.

5. Click the **OK** button to run the bulk match process.

Updating addresses

After completing a gazetteer import, the Update Addresses routine can be run. The routine does the following:

- Runs the Bulk Match routine.
- New addresses are created in One if there is no existing match to an existing One address.
- Existing property information is updated for addresses that were not matched by the bulk match process, e.g. where no match on **UPRN** and **USRN** but the **UPRN** exists and is associated with a different **USRN**.
- If required, street information can be updated.

To update addresses in the One database:

1. Open the **Address Utilities** page via **Administration | Address Management**.

Importing Addresses

NOTE: Although only the most recently imported file is displayed in the File Selected list, the routine will be run against all imports since the last time the routine was run.

One Home System Admin Address Management Welcome SYSADMIN | Help | Logout

Address Utilities

Manage Addresses

Import Addresses

Import Options

Choose File Import Log

File Selected

File Name	Address in England	LA No.	Current Import Status
AddressBase_Onedata.csv	<input checked="" type="checkbox"/>	820	Imported

Import Status

Import Status	Date & Time
Queued for Import	20/05/2014 12:01:12
Importing ADDRESSBASE PREMIUM Files	20/05/2014 12:01:26
Loading dictionary onto database	20/05/2014 12:01:26
Processing CSV ADDRESSBASE PREMIUM file	20/05/2014 12:01:26
Loading dictionary onto database 100% complete	20/05/2014 12:01:26

Process Addresses

[Bulk Match](#) [Update Addresses](#)

- Click the **Update Addresses** hyperlink to display the **Update Addresses – Matched Address Options** dialog.

Update Addresses - Matched Address Options

The following address information will be updated for matched addresses:
Easting, Northing, LEA, UPRN and USRN. The fields are overwritten with the incoming Gazetteer data if they are blank.

Also overwrite fields even if they have existing values.

The following street information will also be updated by checking the option below: Road, Neighbourhood, Town, County, Postcode.

Overwrite existing streets

[OK](#) [Cancel](#)

- Select the required options then click **OK** to run the update addresses process.

Also overwrite fields even if they have existing values - Overwrites matched addresses in the One database that already have data for the listed fields with information from the incoming gazetteer.

Updates street records (ADDR_DET) - If an address is matched using USRN and UPRN to an incoming gazetteer record, the existing street record is overwritten using the gazetteer information.

- Click to the **OK** button to start the Update Address routine.

Update Addresses processing rules

The address update routine follows the following process flow:

1. The Bulk Match routine is run. For more information, see [Bulk match processing rules](#) on page 9.
2. Gazetteer street records are matched to streets stored within the ADDR_DET table on criteria USRN and postcode and where any unmatched streets are found the system will create a new street record in ADDR_DET.
3. Gazetteer property records are matched to properties stored within the ADDR_HD table on USRN and postcode and where any unmatched properties are found the system will create a new property record in ADDR_HD.
4. Existing property records in the ADDR_HD table whose UPRN matches an unmatched gazetteer record will always have the following information updated/overwritten:
 - Easting, Northing (These are not updated if the manual_geocode flag is set to T)
 - House number, House name, Apartment
 - LA Number
 - In England.

If the **Overwrite existing streets** option is selected, then the following street information (ADDR_DET) is overwritten by incoming gazetteer information for addresses matched on USRN and UPRN:

- Road
- Neighbourhood
- Town
- County
- Postcode.

Update Addresses status messages

The progress of the process is noted in the **Import Stage** table, and the following status messages are displayed during processing:

- Update addresses process queued.
- Update addresses process started.
- Parameters: Overwrite: *Yes/No*, Update Streets: *Yes/No*. - Indicates the parameters chosen.
- Matching Addresses started - The number of matched records is incremented as the process runs.
- Update Addresses started - The number of records updated is incremented as the process runs.
- Update Streets started - The number of records updated is incremented as the process runs.
- Update address completed - Indicates the total number of gazetteer records (LPG_GEO) which have been matched.

04 | Managing address

Introduction to managing addresses

You can use the 'Address auto tidy' or 'Address manual tidy' routines to manage addresses. The 'Address auto tidy' routine is accessible in the **Address Management** area of the System Administration v4 site. The 'Address auto tidy' routine interrogates and compares existing addresses in the One database to ensure only unique and unused (where specified) streets and addresses (properties) exist, depending on the option selected.

The 'Address auto tidy' routine does not require exclusive use of the One system, but it is strongly recommended that you process the routine when usage of the One system is at a minimum.

The 'Address auto tidy' log records which One user processed the routine, when the processing took place, and the number of records processed under each section of the routine. One displays the last two years of address tidy log events to keep the information relevant; older records are available from the database in the 'PROCESS_RESULTS' DB table.

'Status' text is displayed beneath the log heading if the routine is currently in progress, again noting the user which started the routine along with the date and time it was started.

Address auto tidy log	
Status: Started by SYSADMIN on 11-11-2015 18:08 for selected options and is currently in progress	
Processed by SYSADMIN on 11-11-2015 18:04-Successfully completed	
Addresses processed 0 blank address(es) removed 0 blank street(s) removed 0 unused address(es) removed 0 unused street(s) removed 0 duplicate street(s) with USRN removed 0 duplicate street(s) without USRN removed 0 duplicate address(es) with UPRN removed 0 duplicate address(es) without UPRN removed	
Processed by SYSADMIN on 11-11-2015 07:04-Successfully completed	
Processed by SYSADMIN on 11-11-2015 07:03-Successfully completed	
Processed by SYSADMIN on 11-11-2015 06:22-Successfully completed	

The routine contains the following four options to customise how the Address tidy routine behaves:

- Remove blank addresses - Removes addresses from the database that are totally blank, i.e. have no address or street details.
- Remove unused addresses – If selected, the **Remove unused street** option is selected automatically. Removes addresses (properties) from ADDR_HD that are not used.
- Remove unused streets - Removes addresses (streets) from ADDR_DET that are not used.
- Merge duplicate addresses - If selected, the **Remove blank addresses option is selected automatically**. Merges duplicate addresses, i.e. those with identical details.

If more than one option is selected, the routine is processed in the order listed above. At the end of the routine, the accumulated number of records processed (updated, merged or deleted) by each part is displayed. For more information about the available options, see [Address Tidy options](#) on page 18.

If there are addresses that must be merged manually after the Address tidy routine is run, you can use the **Manual Tidy** page to merge them. For more information, see [Merging addresses manually](#) on page 16.

Running the Address Auto Tidy routine

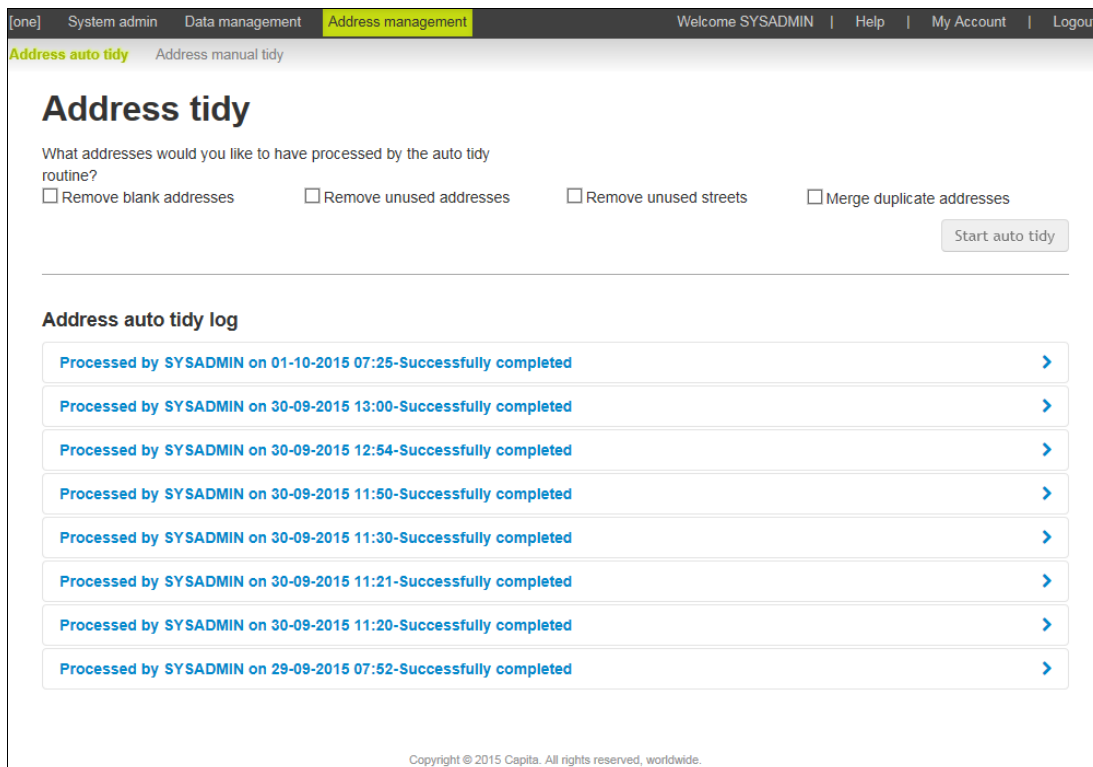
To run the 'Address auto tidy' routine:

WARNING: Before using Address Tidy you should back up your dataset using the correct version of DB Manager.

You do not require exclusive use of the One database to carry out the automated Address Tidy. However, the routine should be run when system load is low and no other address routines are being processed, e.g. LLPG\AddressBase routines like Bulk Match or Import Address.

To run the Address Tidy routine in v4 Online:

1. In the v4 Online System Administration website, select **Address management | Address auto tidy** to display the **Address tidy** page. For more information on accessing the v4 Online System Administration website, see [Accessing the System Administration v4 site](#) on page 4..



[one] System admin Data management **Address management** Welcome SYSADMIN | Help | My Account | Logout

Address auto tidy Address manual tidy

Address tidy

What addresses would you like to have processed by the auto tidy routine?

Remove blank addresses Remove unused addresses Remove unused streets Merge duplicate addresses

Address auto tidy log

- Processed by SYSADMIN on 01-10-2015 07:25-Successfully completed >
- Processed by SYSADMIN on 30-09-2015 13:00-Successfully completed >
- Processed by SYSADMIN on 30-09-2015 12:54-Successfully completed >
- Processed by SYSADMIN on 30-09-2015 11:50-Successfully completed >
- Processed by SYSADMIN on 30-09-2015 11:30-Successfully completed >
- Processed by SYSADMIN on 30-09-2015 11:21-Successfully completed >
- Processed by SYSADMIN on 30-09-2015 11:20-Successfully completed >
- Processed by SYSADMIN on 29-09-2015 07:52-Successfully completed >

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2. Select the required options. For more information, see [Address Tidy options](#) on page 18.
3. Click the **Start auto tidy** button to display a confirmation dialog.
4. Click the Yes – continue button to display continue with the routine.

After you have clicked **Yes – continue** button, an in progress message is displayed in the **Address auto tidy log** section. When the routine is complete, a report of the number of updated records is displayed.

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Address auto tidy Address manual tidy

Address tidy

What addresses would you like to have processed by the auto tidy routine?

Remove blank addresses Remove unused addresses Remove unused streets Merge duplicate addresses

Start auto tidy

Address auto tidy log

- Processed by SYSADMIN on 01-10-2015 07:25-Successfully completed
Addresses processed
15 unused address(es) removed
10 unused street(s) removed
- Processed by SYSADMIN on 30-09-2015 13:00-Successfully completed
- Processed by SYSADMIN on 30-09-2015 12:54-Successfully completed
- Processed by SYSADMIN on 30-09-2015 11:50-Successfully completed
- Processed by SYSADMIN on 30-09-2015 11:30-Successfully completed
- Processed by SYSADMIN on 30-09-2015 11:21-Successfully completed
- Processed by SYSADMIN on 30-09-2015 11:20-Successfully completed
- Processed by SYSADMIN on 29-09-2015 07:52-Successfully completed

Merging addresses manually

If, after running the 'Address auto tidy' routine, there are still addresses that have duplicate but not identical entries in the One database, you can remove the duplicates manually. Duplicate addresses have the same Eastings and Northings and telephone number.

WARNING: Before using Address Tidy, you should back up your dataset using the correct version of DB Manager.

To manually merge duplicate addresses:

1. In the v4 Online System Administration website, select **Address management | Address manual tidy** to display the **Manual address tidy** page. For more information on accessing the v4 Online System Administration website, see [Accessing the System Administration v4 site](#) on page 4.

[one] System admin Data management **Address management** Welcome SYSADMIN | Help | My Account | Logout

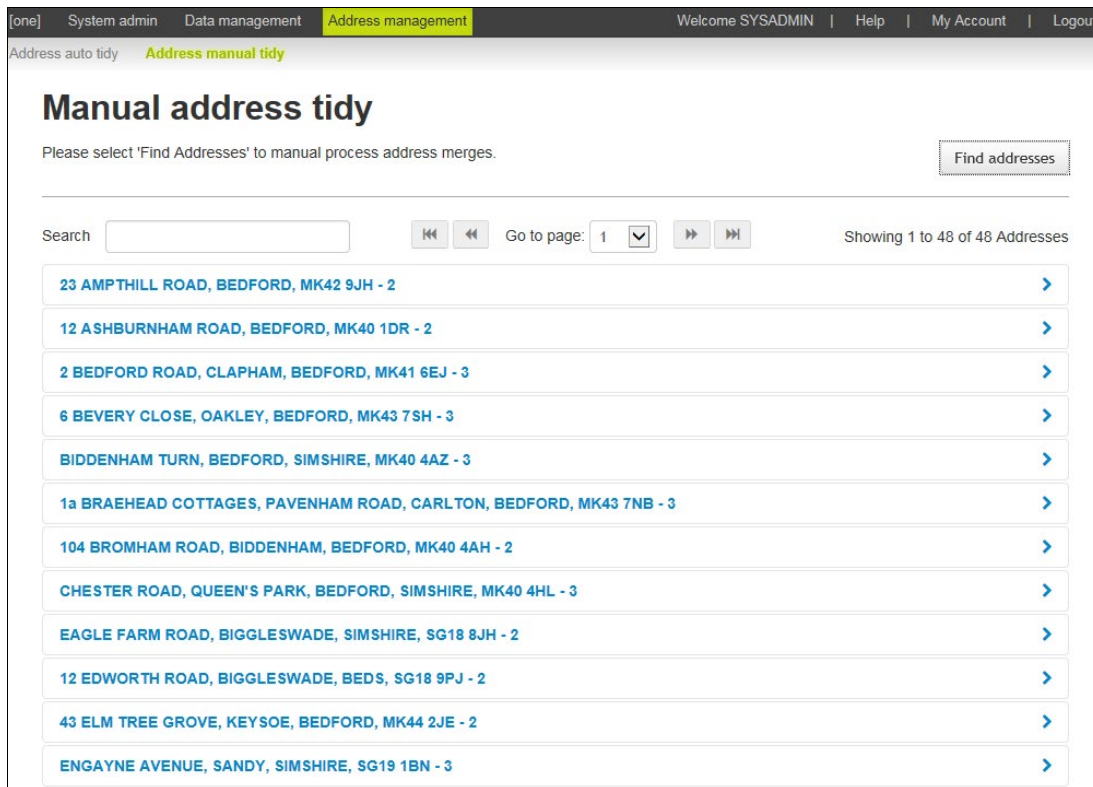
Address auto tidy **Address manual tidy**

Manual address tidy

Please select 'Find Addresses' to manual process address merges.

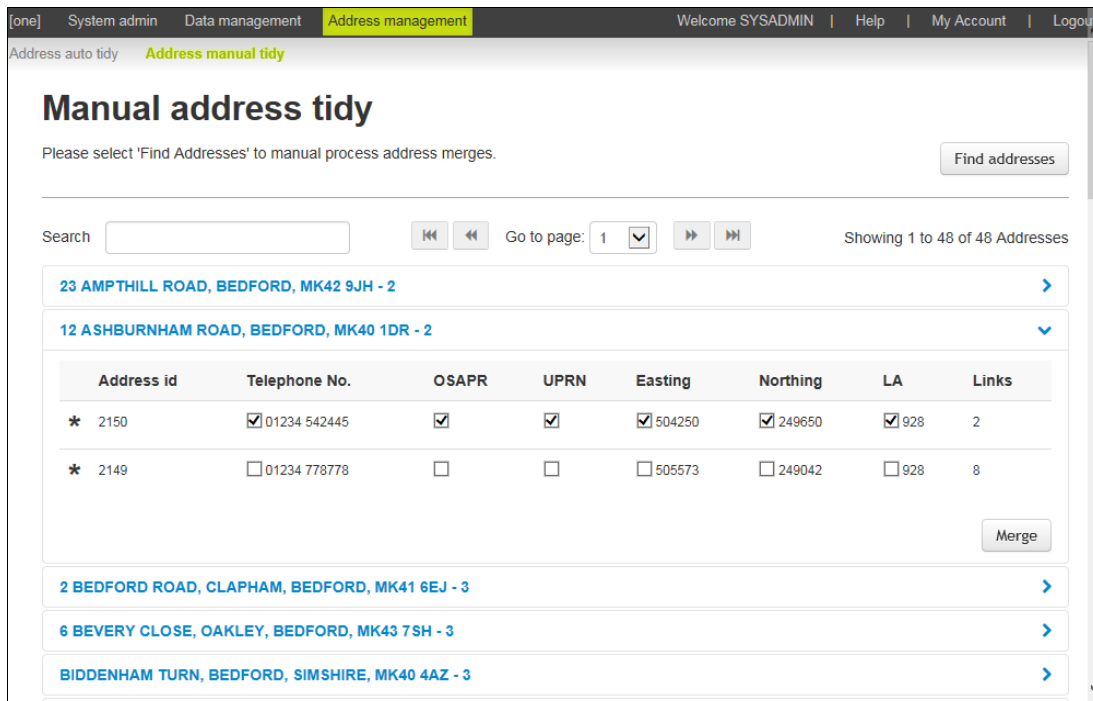
Find addresses

2. Click the **Find addresses** button to display a list of records that require manual tidying.



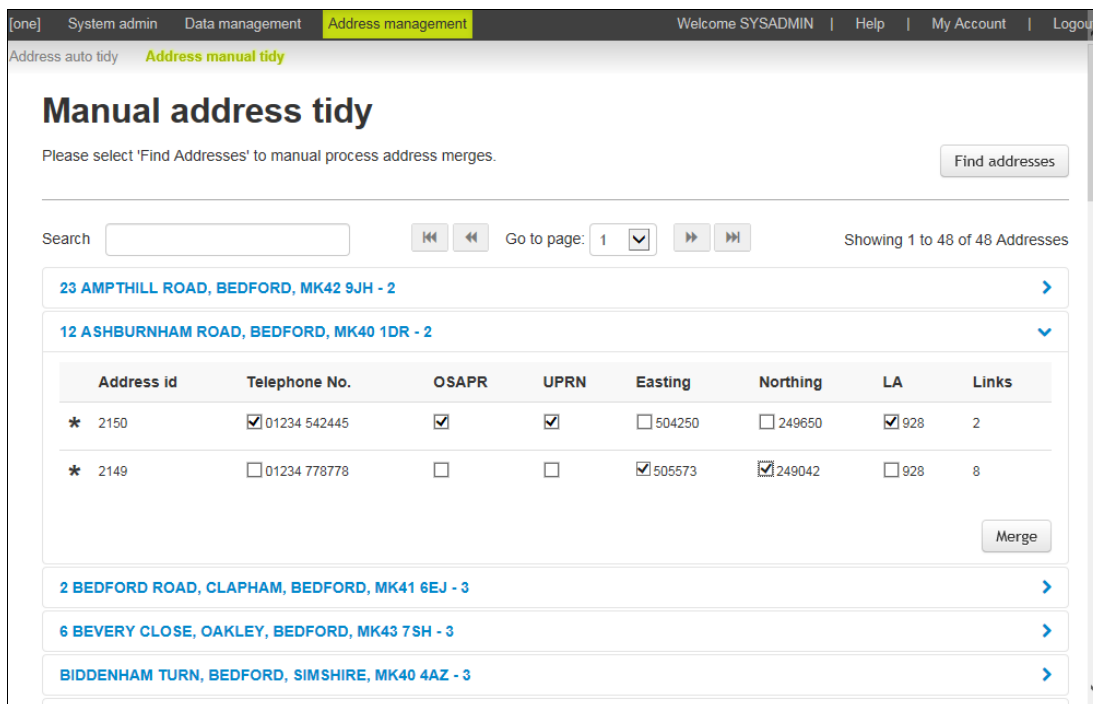
- Click the row with the address you would like to tidy to display the details for each of the addresses.

NOTE: To filter the returned address, you can enter some details of the address in the **Search** field, but if there are more than 100 entries on the page, only the records on the current page are searched.



- Review the details for each entries and select the check box for to indicate which information from which record you want to include in the merged address.

In the following example, the merged record will use the phone number and LA number from the top address and the Easting and Northing from the bottom address.



TIP: An asterisk against a record indicates that the address is linked to at least one entity. A red asterisk indicates that the address is linked to at least one entity and one of the linked entities is a student in an active transfer group.

Address Tidy options

Remove Blank Addresses – Processing Rules

Objective

This option removes addresses from the system that are totally blank, i.e. have no address or street details.

Algorithm

- For every blank address i.e. HOUSE_NAME, HOUSE_NO, APARTMENT, TELEPHONE, EASTING, NORTHING, UPRN, USRN, OSAPR and STREET_ADDRESS are all blank:
 - Remove references to the address from ADDR_LINK (delete) and STOPS (set address id =0) and all other tables with a dependency on addresses (ADDRESS_DEPENDENCIES table lists these).
 - Delete the blank property.
- The total number of blank addresses (properties) deleted will be displayed once the process has completed in the PROCESS_RESULTS table.
- For every blank street i.e. STREET_ADDRESS and UPRN are null and it has no properties linked to it.
 - Delete the blank street.
- The total number of blank streets deleted will be displayed once the process has completed in the PROCESS_RESULTS table

Remove Unused Addresses – Processing Rules

Objective

This option removes addresses (properties) from ADDR_HD that are not used.

Algorithm

- For every row in ADDR_HD where: UPRN is null or OSAPR is null and which are not referenced by the ADDR_LINK table:
 - If the address (property) is not referenced in the Transport STOPS table or any other table with address dependencies then delete it.
- After the process has completed, the number of unused addresses (properties) removed is displayed in the PROCESS_RESULTS table.

Remove Unused Streets – Processing Rules

Objective

This option removes addresses (streets) from ADDR_DET that are not used. This is intended to be followed by a new address gazetteer import, to provide the LA the most accurate Street information (ADDR_DET).

Algorithm

- Delete every row from ADDR_DET which has a null USRN and is not used in the ADDR_HD table
- After the process has completed, the total number of unused streets removed is displayed in the PROCESS_RESULTS table.

Remove Duplicate Addresses – Processing Rules

Objective

This option merges duplicate addresses, i.e. those with identical details. If this option is selected, the **Remove Blank Addresses** checkbox is selected automatically and is processed first. The merge routine is processed in two stages:

- Duplicate streets
- Duplicate addresses (properties).

Algorithm

There are 4 steps in this process:

1. Merge duplicate streets where USRN is not null:

Matching criteria is based on duplicate STREET_ADDRESS and USRN combinations (ADDR_DET) and where the USRN is not null. The comparison is case insensitive and also removes any of the following punctuation marks:

% . , " ' ? ! : # \$ & () * ; + - / < > = @ [] \ ^ _ { } | ~

For each block of identical STREET_ADDRESS and USRN combinations:

- The best street to keep is determined by the following priorities:
 - i. Is linked to a property.
 - ii. Highest detail_id.
- For all other identical rows:

Managing address

- Update ADDR_HD to replace all references to the street to be removed with the ID of the street to be retained.
- Delete the duplicate street from ADDR_DET.

After the process has completed, the total number of duplicate streets deleted is displayed once in the PROCESS_RESULTS table

2. Merge duplicate streets where USRN is NULL:

Matching criteria is based on duplicate STREET_ADDRESS and selected from ADDR_DET where at least one of the streets has no USRN. The comparison is case insensitive and also removes any punctuation.

For each duplicate STREET_ADDRESS:

- The best street to keep is determined by the following criteria in priority order:
 - i. Has a USRN and is linked to a property.
 - ii. Has a USRN.
 - iii. Is linked to a property.
 - iv. Highest detail_id.
- For all other identical rows with a NULL USRN:
 - Update ADDR_HD to replace all references to the street to be removed with the ID of the street to be retained.
 - Delete the duplicate street from ADDR_DET.

After the process has completed, the total number of duplicate streets deleted is displayed in the PROCESS_RESULTS table.

3. Merging duplicate properties where UPRN is not null:

Matching criteria for duplicate properties (ADDR_HD) is based on HOUSE_NO, HOUSE_NAME, APARTMENT and UPRN being identical (UPRN may not be null) and are linked to the same street (ADDR_DET). The comparison is case insensitive and also removes leading and trailing spaces.

For each group of duplicate properties:

- The best property to keep is determined by the following criteria in priority order:
 - i. Property has a OSAPR.
 - ii. Address is geocoded (easting or northing).
 - iii. Address is linked to an entity.
 - iv. Highest ADDR_HD.ADDRESS_ID.

NOTE: Where identical addresses exist but any of the following information differs: Telephone, OSAPR, easting, northing, lea_no, these addresses will need to be manually tidied. For more information, see [Geocoded duplicate address](#) on page 21.

- Update ADDR_LINK, STOPS and all other dependencies to replace all references to the address to be removed with the ID of the address to be retained
- Delete the duplicate property.

Update the property being kept with data from duplicate property being deleted. For more information, see [Update Kept Property](#) on page 21.

After the process has completed, the total number of duplicate addresses (properties) deleted is displayed in the PROCESS_RESULTS table (shown as **duplicate dwellings**).

4. Merging duplicate dwelling where UPRN is null:

Matching criteria for duplicate dwellings are records which have the same HOUSE_NO, HOUSE_NAME, APARTMENT (ADDR_HD), and are linked to the same street (ADDR_DET). The comparison is case insensitive and also removes leading and trailing spaces.

For each group of duplicate properties:

- The best property to keep is determined by the following criteria in priority order:
 - i. Property has a UPRN.
 - ii. Property has an OSAPR.
 - iii. Address is geocoded (easting or northing).
 - iv. Address is linked to an entity.
 - v. Highest address_id.

NOTE: Where identical addresses exist but any of the following information differs: Telephone, OSAPR, easting, northing, lea_no, these addresses will need to be manually tidied. For more information, see [Geocoded duplicate address](#) on page 21.

- Update ADDR_LINK, Transport STOPS table and all other dependencies to replace all references to the of the duplicate property with the ID of the retained address
- Delete the duplicate property.

Update property being kept with data from duplicate property being deleted. For more information, see [Update Kept Property](#) on page 21.

After the process has completed, the total number of duplicate addresses (properties) deleted is displayed in the PROCESS_RESULTS table (show as **duplicate dwellings**).

Geocoded duplicate address

If two duplicate properties have an element of data which is different and not blank (Telephone, OSAPR, easting, northing, lea_no) e.g. they both have a different telephone number, then neither record will be deleted. The user is required to use the manually merge the duplicate properties.

Update Kept Property

The following values are updated if any of the deleted records have a value and the **property to keep** value is blank: Telephone, uprn, osapr, easting, northing, lea_no, c_stat, dps, mail_sort_code, std_code, local_auth, political_ward, nhs_code, nhs_region_code

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