

# **CLEAN\_ADDRESS** **END USER GUIDE**

SEP, 7 2017



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## Welcome

### About this Document



The audience for this Guide is Users who perform data entry, into the screens of the various ERP applications in which, the CLEAN\_Address product has been integrated. The Guide depicts the steps for validating an address using CLEAN\_Address, from an "end-user" perspective.

The various ERP integrations (being built-in to CLEAN\_Address), have each been individually discussed in the chapters.

## **What is CLEAN\_Address**

CLEAN\_Address is an address validation software component. It is a plug-and-play program for easily verifying and standardizing both domestic and foreign addresses. CLEAN\_Address can be used real-time, as well as for batch-mode address validation.

CLEAN\_Address has been tailored specifically for higher education. Several pre-built interfaces exist, for ERP systems such as Ellucian Banner, Advance, Colleague (Datatel), Oracle Applications e-Business Suite, and PeopleSoft.

No installation is required from the end user perspective. No extra screens or steps are required either. Address validation occurs, built-in to your application.

In addition to the built-in integrations, CLEAN\_Address can be used as a stand-alone software component, validating your address data coming in through your custom applications or web pages. The input sources can be diverse, ranging from Excel spreadsheets to your own custom web applications.

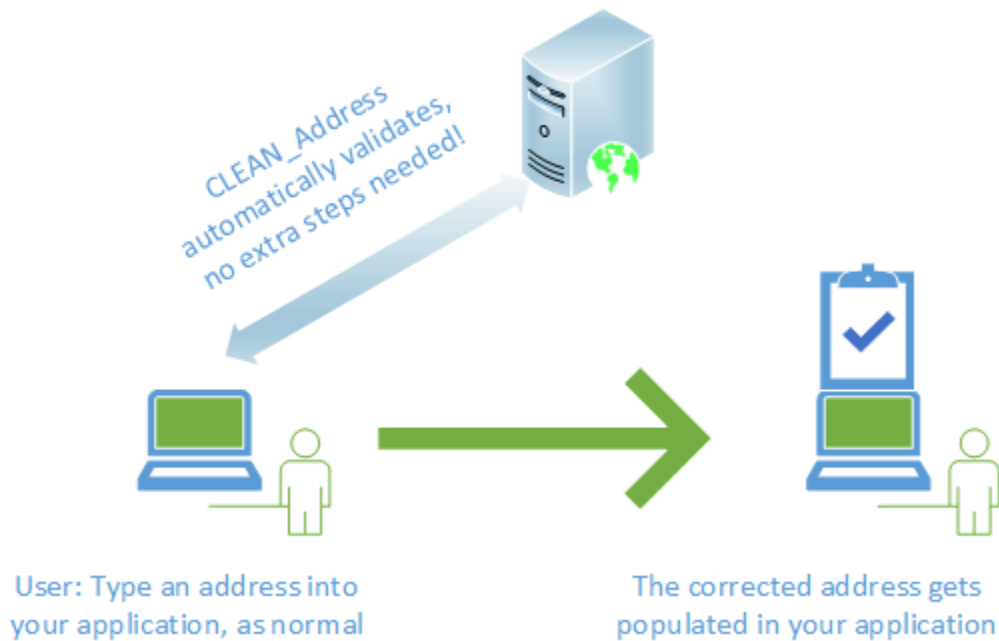


## General Flow Diagram

The end-user simply enters an address into their application screens, as normal.

As they 'Tab' through the address fields within their application, the address will get automatically corrected and validated, in the background.

Figure 1: CLEAN\_Address Automatic Validation



Based upon your specific CLEAN\_Address integration, the User may have access to an "Override Address Verification" flag with which they may turn address verification either on or off for a given address.

## Triggering address verification

CLEAN\_Address can intelligently validate an address based upon the data being keyed in. For example, you may type only the street address and the zip code. Or, if you don't know the zip code, then simply enter street address and the city/state.

Address verification can be triggered in 3 ways		
1 Address and Zip/Postal code entered	2 Address, City, and State entered	3 Any change to an existing address
Address : 6530 W Rogers Circle City : <not entered> State : <not entered> Zip : 33487	Address : 6530 W Rogers Circle City : Boca Raton State : FL Zip : <not entered>	Address : 6530 W Rogers Circle City : Boca Raton State : FL Zip : 33487

#### Possible outcomes, post verification:

- If the input data can be validated, then CLEAN\_Address will populate a fully formatted address into the fields of your application.
- If there are multiple matches for a given input, then CLEAN\_Address will display a suggestion list. The user must choose the right address from the provided list.
- If the input provided is incorrect, then CLEAN\_Address will display a helpful address error message. The user must correct and re-enter the input data.
- Enabling the Delivery Point Validation (DPV) feature can ensure that an address will get validated all the way up to an individual unit level, such as an Apartment or Suite number.

Post verification possible outcomes		
1 Verified and corrected without error	2 Verified with warning	3 Cannot be verified
Address : 6530 W Rogers Circle Ste 30 City : Boca Raton State : FL Zip : 33487-3489	Address : 6530 W Rogers Circle City : Boca Raton State : FL Zip : 33487-3489	Address : 6530 Roger City : Boca Raton State : FL Zip : 33487
No error	Suite/Apartment missing	Invalid Street

# Address Customizations

Address customizations are implemented usually by I.T. Administrators within your Enterprise, in conjunction with Runner Technologies support. In this Guide, mention has been made in order that end users are aware of the features, and may see the sample output resulting from various customizations.

By default, CLEAN\_Address will format an address according to the USPS standard.

CLEAN\_Address is however, a powerful, parameter-driven engine and the address formatting can be modified to suit individual business preference, by adjusting its initial parameters. These startup parameters are contained in a .ini file, also known as an “initialization” file.

In addition, further flexibility in address formatting, and for implementing complex business rules, is achieved by means of the unique “User Exits” feature of CLEAN\_Address. User Exits are customizable program templates, which act as “hooks” into the address processing. These enable the execution of customizable code during either the “pre” or “post” validation of an address.

## ***Examples for Pre-validation address customizations:***

- Display the word “Suite” either spelled out or abbreviated as “Ste”.
- Or you may choose to display suite number on the second line of the address.
- Bypass address verification for certain address types (ie. Campus Addresses).
- Use different capitalization and standardization rules based upon the address type.
- Special shortcut codes for addresses (ie. ' OBT ' = ' Orange Blossom Trail ')

## ***Examples for Post-validation address customizations:***

- Expand the street directional N S E W -> North, South, East, West.
- Try to put apt on same line as street; or on the next line if it does not fit.
- Ignore Delivery Point Validation errors on ALL Web Self-Service pages.



## Delivery Point Validation (DPV)

DPV is a feature with which, you can validate an address up to the individual unit level, such as the Apartment or Suite number. For example, the address:

6530 West Rogers Circle,  
Boca Raton,  
Florida 33487

Verifies fine and will return with no error, in case the DPV feature has not been enabled for your installation. However, this address happens to be part of an office complex with several suites. Mail that is delivered to this location can end up being undelivered, or can go to an unauthorized recipient.

The DPV feature recognizes the address as being part of a plaza, high-rise, or multi-story complex. It flags an error if the suite or apartment is not specified. CLEAN\_Address will display a suggestion list containing the range of suites or apartments available at that address, and the user will be prompted to correct the address during entry.

While DPV comes built-in for educational institutions, CLEAN\_Address commercial-edition users will need to specifically add-on the DPV feature to their installations.

## International Address Validation

Countries other than the United States and Canada have their addresses validated using an international dataset, which contains the address data of nearly two hundred countries worldwide. While entering an international address, in order for verification to happen, the end user must first type in the Country - and then provide the rest of the address lines.

The international dataset feature is implemented usually by I.T. Administrators within your Enterprise, in conjunction with Runner Technologies support. In this Guide, mention has been made in order that end users are aware of the feature.

## Address Verification Messages

Verification messages and resolution		
Message Code	Description	Explanation / Corrective Action
A1	Address Does Not Match to ZIP+4 file	Input Address Not Matched to the ZIP+4 file
C	Canadian ZIP Code	The ZIP Code matches the format characteristics of a Canadian ZIP Code.
CC	Suite/Apt Invalid	Input Address Primary Number Matched to DPV but Secondary Number not Matched (present but invalid)
D	DEMO Mode Only	The ZIP Code is out of range for this DEMO version of Address Object.
F	DPV Offline - Artificially created address	DPV processing was terminated due to the detection of what is determined to be an artificially created address. No address beyond this point has been DPV validated. In accordance with the License Agreement between USPS and Melissa Data, DPV shall be used to validate legitimately obtained addresses only, and shall not be used for the purpose of artificially creating address lists. The written Agreement between Melissa Data and you, its customer shall also include this same restriction against using DPV to artificially create address lists. Continuing use of DPV requires compliance with all terms of the License Agreement. If you believe this address was identified in error, please contact Melissa Data.
M	Multiple Matches	More than one record matches the address and there is not enough information available in the input address to break the tie between multiple records. Passing information, such as city names or urbanization names, can help reduce the number of multiple match errors.
M1	Street Number Missing	Input Address Primary Number Missing
M3	Street Number Invalid	Input Address Primary Number Invalid
N	No Street Data for ZIP	The ZIP Code exists but no streets begin with the same letter in that ZIP Code.
N1	Suite/Apt Missing	Input Address Primary Number Matched to DPV but Highrise Address Missing Secondary Number
P1	Missing PO, RR, or HC Box number	Input Address Missing PO, RR, or HC Box number
P3	Postal or Rural Route Primary number invalid	Input Address Postal or Rural Route Primary number invalid
R	Address out of Range	The address was found but the street number in the input address was not between the low and high range of the post office database.

Verification messages and resolution		
Message Code	Description	Explanation / Corrective Action
R1	Suite/Apt Missing	Input Address Matched to CMRA but Secondary Number not Present
T	Component Mismatch	Either the directionals or the suffix field did not match the post office database, and there was more than one choice for correcting the address. For example, if the given address was "100 Main St" and the only addresses found were "100 E Main St" and "100 Main Ave", the error code "T" would be returned because we do not know whether to add the directional "E" or to change the suffix to "Ave".
U	Unknown Street	An exact street name match could not be found and phonetically matching the street name resulted in either no matches or matches to more than one street name.
W	Early Warning System - included in next data update	This address has been identified in the Early Warning System (EWS) data file, and should be included in the next national database update.
X	Non-Deliverable Address	The physical location exists but there are no homes on this street. One reason might be railroad tracks or rivers running alongside this street, as they would prevent construction of homes in this location.
Z	ZIP Code Error	The ZIP Code does not exist and could not be determined by the city and state.



## Colleague by Ellucian®

Colleague by Ellucian (previously known as Datatel Colleague) is an integrated student ERP system that connects students, finances, human resources, fund raising, etc.

CLEAN\_Address has been seamlessly integrated into the Colleague system. The end-user simply types an address into the application fields as normal and it will get automatically validated in the background.

### How address validation gets triggered

Within the Colleague application screens, an address verification call to CLEAN\_Address will automatically get triggered, when the user performs any one of the following actions:

Address verification can be triggered in 3 ways					
1	Type in Address and Zip	2	Address, City, and State	3	Any change to existing address

### Notes:

1. A message appears in case of an address error, which you may dismiss by clicking 'Ok'.
2. In case of multiple matches found for an input address, a suggestion list displays on the page. You may select a suggestion from the list and copy-paste into the relevant field. 'Tab' out of the field, in order to re-verify.
3. "Override Address Verification" flag may be used in order to turn address verification on or off. User may check this flag and disable validation for an address.
4. Name, Telephone and E-mail validation may only be disabled by your I.T. department, who can turn-off the respective functionality during startup.
5. To blank all fields and enter a fresh address, first start by clearing Street Address Line. Otherwise, CLEAN\_Address will keep trying to validate the partial address!

**DATATEL**  
Collegue

ORGP: Organization Profiles

Search

SEARCH RESULTS

NAVIGATION

FAVORITES

Logout

7183123

1 of 1

Record does not currently exist in Collegue.

File Options Help

Keep Context Open

Save

Save All

Cancel

Cancel All

ORGP - Organization Profiles

Source

1

Origin/Dt

Name

1

Jack B Nimble

Mail Label

1

Jack B Nimble

Other Name

1

Sort Name

JACK B NIMBLE

Campus Org

-

Address

1

28387 Freeman Dr

2

CSZ

In this example, there is no number 28387 on Freeman Drive.

46229

Country

CLEAN\_Address is showing all the building number ranges on that street.

County

Address Type

1

Home Office

Phone(s)

1

Ext

Type

Address Change

Source

Date

By

The Address entered could not be validated [R].

Error: Range Error

Suggestions:

2800-2898(Even) Freeman Dr

2801-2899(Odd) Freeman Dr

2838 Freeman Dr

Briergate Apts 2838 Freeman Dr

2839 Freeman Dr

Briergate Apts 2839 Freeman Dr

10900-10999 Freeman Ct

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