



## Top Tips to Streamline Data Migration and Validation

## Top Tips for Streamlining Data Migration and Validation

Data migration and validation is a critical step when implementing new HR systems. Most systems use TEXT or CSV files to download and transfer data between systems. Most HR personnel responsible for this data are very quick to use Excel to review and validate this data. Excel is a very powerful tool and when used appropriately can be your greatest asset when performing data migrations and validations.

**Most systems use TEXT or CSV files to download and transfer data between systems.**

However, Excel is also very good at formatting the data in a way that the program thinks you want to see it - which can very often cause challenges during system integration. Excel removes leading zeros and changes data formats to match what it thinks you want to see. We regularly see that HR personnel will pull data reports from source HR systems, open the source data using Excel, and then save the spreadsheet and provide this new file to the system integrator. The system integration team takes this data, assuming it's the master data and imports the data into the new system, along with all coding and programming that encompasses this "expected data". When the time comes to perform automation, and the source file is no longer being manipulated via human interaction and being reformatted with Excel, the source data now has the actual values: the leading zeros, a different date format, a different number format, etc. Many times, this can cause delays in your project and confusion amongst the team.

### **So here are some of the top tips to avoid Excel headaches and streamline your data migration and validation.**

A freeware tool called NOTEPAD++ is a very useful tool for review and editing TEXT AND CSV files. If you need to manipulate data or see the data in a more visual format, Excel is the way to go but TEXT IMPORT wizard to import the TEXT file into EXCEL. Follow the prompts during the TEXT IMPORT. One of the key steps before clicking "final" is in the DATA PREVIEW portion. Select all columns and then set the COLUMN DATA FORMAT to TEXT. This step will treat every column imported as a true TEXT representation of your data and allow you to properly confirm migration data.

**TIP: Consider using tools like NOTEPAD++ to review and edit TEXT and CSV files.**



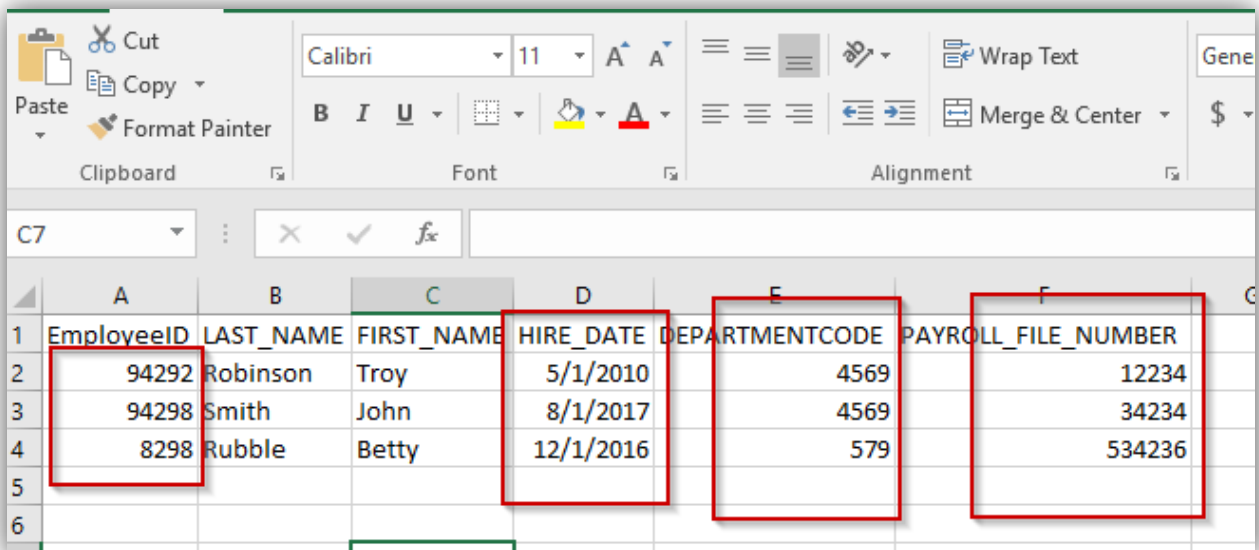
Let's say your source data file looks something like:

```
EmployeeID, LAST_NAME, FIRST_NAME, HIRE_DATE, DEPARTMENTCODE, PAYROLL_FILE_NUMBER
00094292, Robinson, Troy, 2010-05-01, 4569, 00012234
00094298, Smith, John, 2017-08-01, 4569, 00034234
00008298, Rubble, Betty, 2016-12-01, 0579, 00534236
```

You have been asked to add FLSA Status to all your existing employee records, however, your current HR Master Source data does not currently have that value.

You as HR, retrieve a report of your data and store it in a file named **empdata.csv**. If you simply double click the file, typically, Windows will see this CSV file and think you want to edit with EXCEL and quickly launch Excel and load the file.

**Here is what Excel will do with the source data from above:**



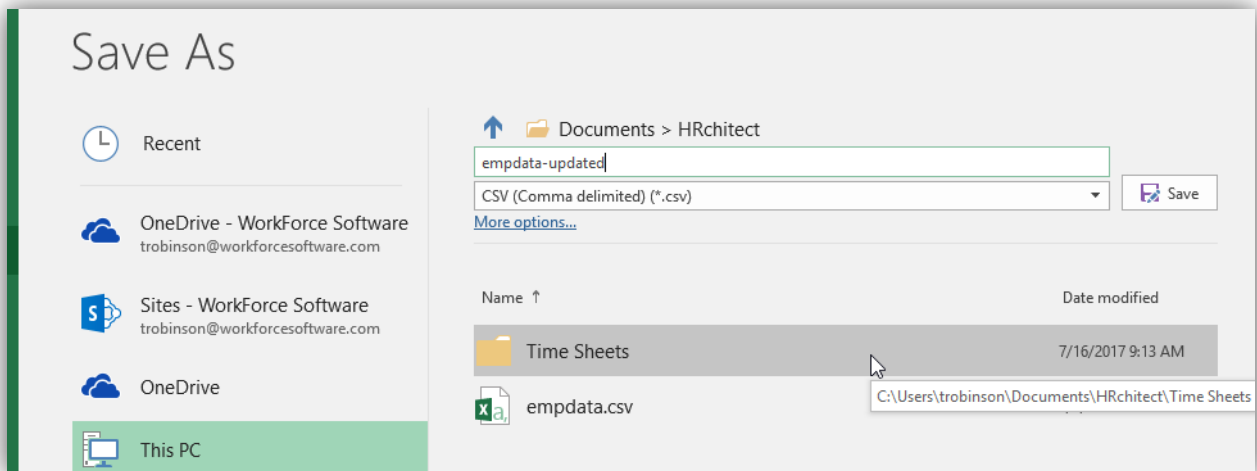
|   | A          | B         | C          | D         | E              | F                   |
|---|------------|-----------|------------|-----------|----------------|---------------------|
| 1 | EmployeeID | LAST_NAME | FIRST_NAME | HIRE_DATE | DEPARTMENTCODE | PAYROLL_FILE_NUMBER |
| 2 | 94292      | Robinson  | Troy       | 5/1/2010  | 4569           | 12234               |
| 3 | 94298      | Smith     | John       | 8/1/2017  | 4569           | 34234               |
| 4 | 8298       | Rubble    | Betty      | 12/1/2016 | 579            | 534236              |
| 5 |            |           |            |           |                |                     |
| 6 |            |           |            |           |                |                     |

**You'll see that the leading zeros have been removed and the date format has been changed to the standard US Date format.**

HR now performs their data migration task by adding a column to the end of the data, called FLSA\_STATUS and fills in the appropriate values in Excel.

|   | A          | B         | C          | D         | E              | F                   | G           |
|---|------------|-----------|------------|-----------|----------------|---------------------|-------------|
| 1 | EmployeeID | LAST_NAME | FIRST_NAME | HIRE_DATE | DEPARTMENTCODE | PAYROLL_FILE_NUMBER | FLSA_STATUS |
| 2 | 94292      | Robinson  | Troy       | 5/1/2010  | 4569           | 12234               | E           |
| 3 | 94298      | Smith     | John       | 8/1/2017  | 4569           | 34234               | N           |
| 4 | 8298       | Rubble    | Betty      | 12/1/2016 | 579            | 534236              | E           |
| 5 |            |           |            |           |                |                     |             |

We know the system integrator is looking for a CSV file, so we save the Excel File as CSV.



HR sends this new file to the system integrator. When the system integrator opens this file in a tool appropriate for reviewing CSV files (for instance Notepad++) this is what they will see:

```
EmployeeID, LAST_NAME, FIRST_NAME, HIRE_DATE, DEPARTMENTCODE, PAYROLL_FILE_NUMBER, FLSA_STATUS
94292, Robinson, Troy, 5/1/2010, 4569, 12234, E
94298, Smith, John, 8/1/2017, 4569, 34234, N
8298, Rubble, Betty, 12/1/2016, 579, 534236, E
```

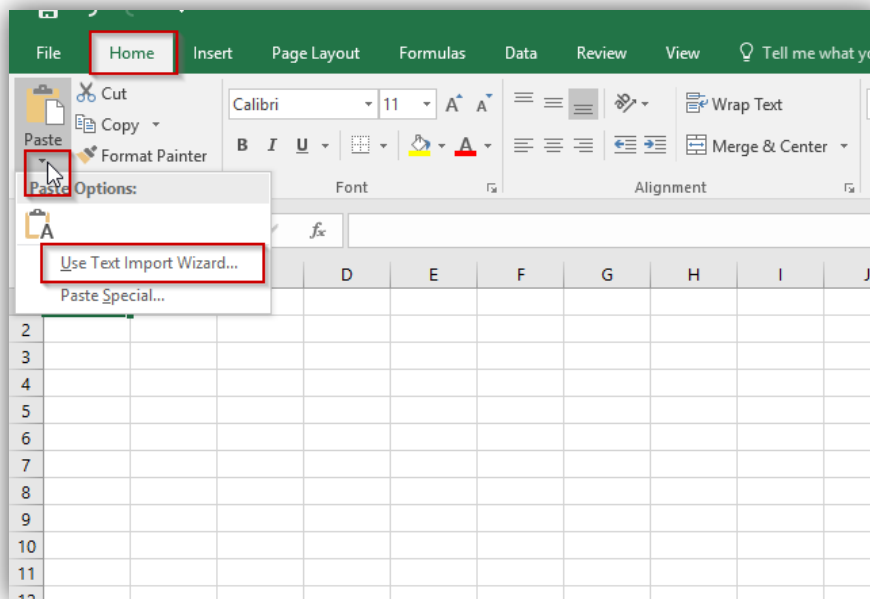
HR has accomplished their goal of adding FLSA\_STATUS to the employee data as required, but look at what has changed. The leading zeros are now missing and the Date format is in a different format from the original source.

**If your integration team loads this file, when it's time to send data to payroll, the payroll employee ID will be missing the leading zeros** that the payroll system is expecting. You must manipulate the script that generates the payroll file to add these leading zeros back to the payroll file number, or **you'll have to fix your HR data and then re-import the data – which is double the level of effort on your end.**

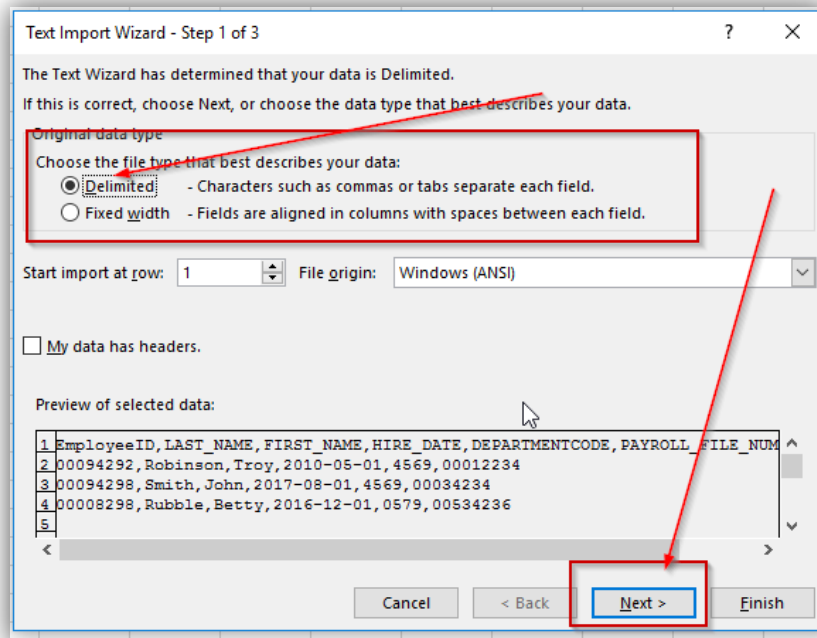
This issue can be avoided by taking a few small steps prior to loading the data into EXCEL for manipulation. There are 2 main options to properly load the data into EXCEL.

## Option 1: Copy and Paste the data into Excel

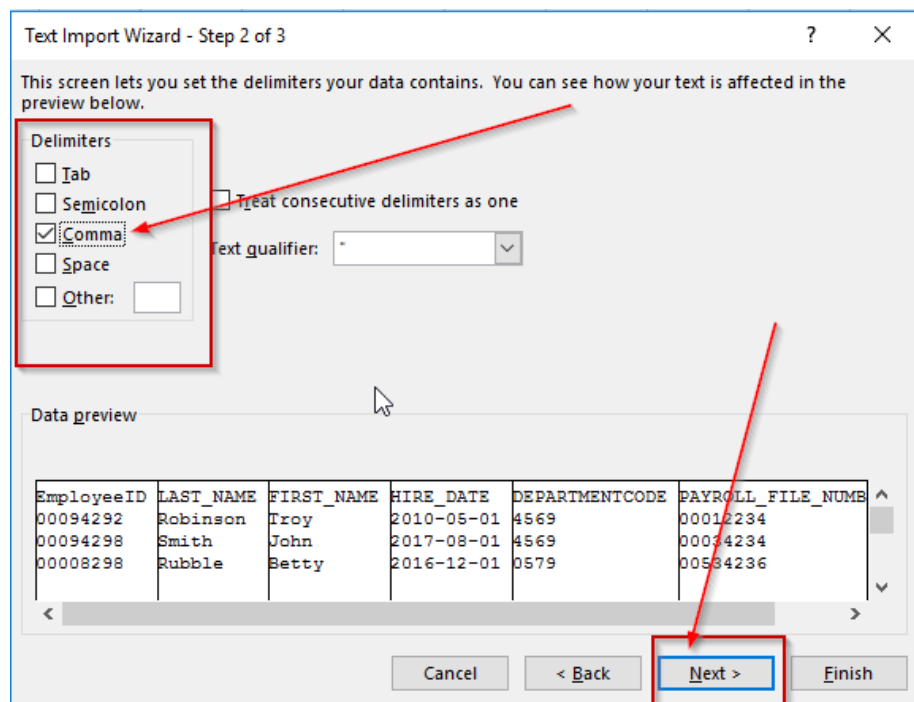
1. Open the csv file in a TEXT editor such as Notepad++.
2. Hit Ctrl + A to select ALL data, and then Ctrl + C to COPY the data to your clipboard.
3. Next launch Excel.
4. On the HOME tab of Excel there is a PASTE button. Don't click on that just yet – you want to click on a subset of that menu.
5. There is a small triangle at the bottom of that box that provides "PASTE OPTIONS".
6. Select that triangle and then select "USE TEXT IMPORT WIZARD".



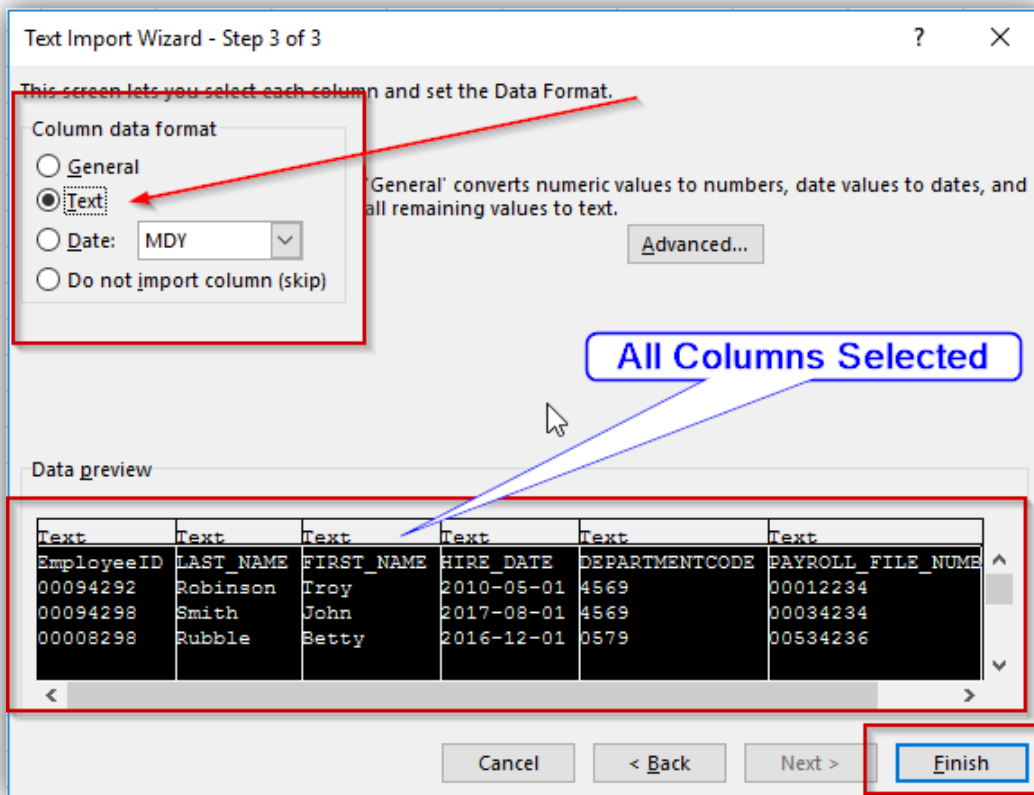
7. A three-step process dialog box will launch. Follow the directions.
  - a. Choose the type of file you are loading. In this scenario, Delimited is the best option.
  - b. Click Next.



- c. Choose the Delimiter (the thing that separates the columns of data from each other). Most systems will use a COMMA. Some will use a Semi-Colon. Some will use a PIPE character (OTHER). For this example, select COMMA and de-select any other options.
- d. Click Next.



- e. **This is the critical step in the process.** Treat every column as TEXT, and not GENERAL OR DATE. TEXT will keep the original format of the data as it was in your original SOURCE file.
  - i. In the Data Preview Section, hold your SHIFT KEY AND SELECT EVERY COLUMN IN THE IMPORT. Scroll over to make sure every column is selected.
  - ii. At the top, for COLUMN DATA FORMAT, select TEXT.
- f. Click FINISH.

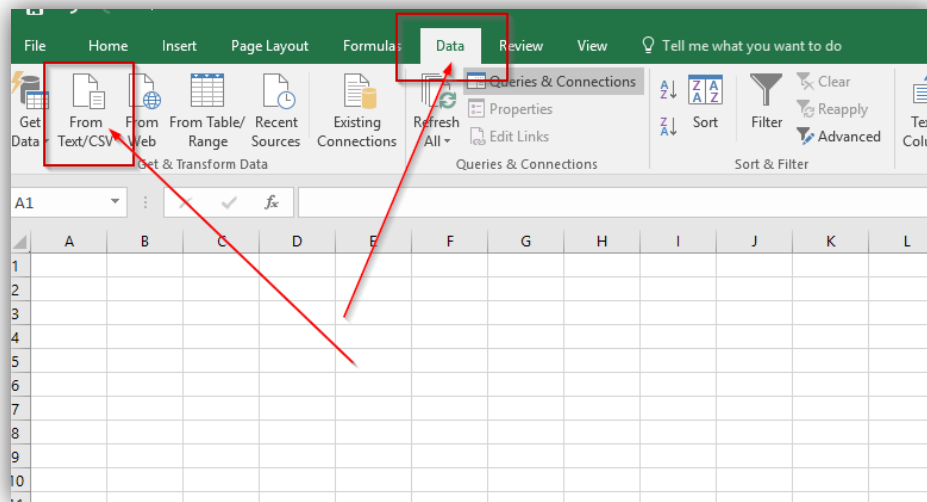


The result will be that the data maintains the SOURCE data format, with leading zeros and the correct date format.

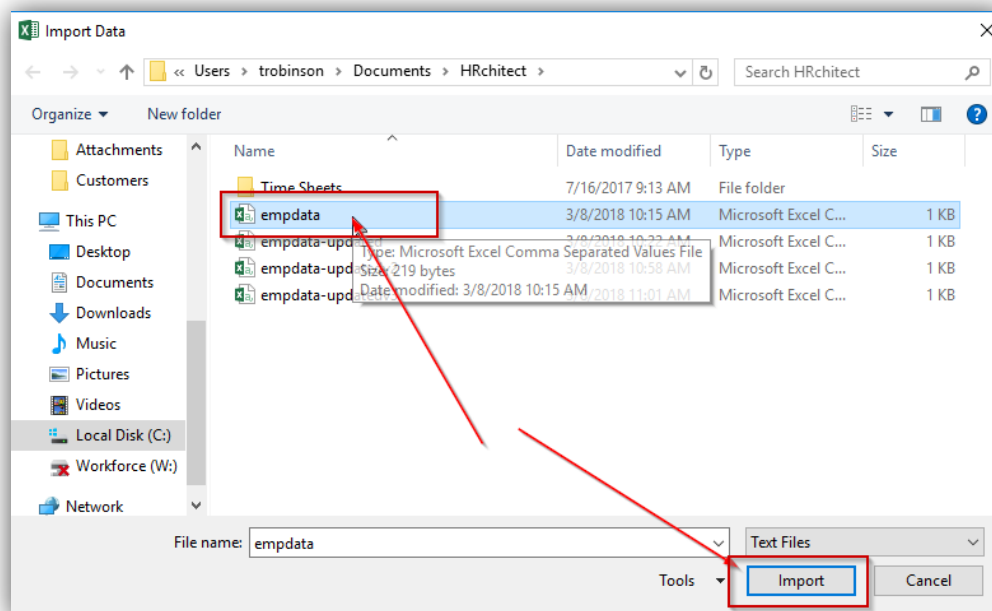
|   | A          | B         | C          | D          | E              | F                   |
|---|------------|-----------|------------|------------|----------------|---------------------|
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| 4 | 00008298   | Rubble    | Betty      | 2016-12-01 | 0579           | 00534236            |
| 5 |            |           |            |            |                |                     |

## Option 2: Use the DATA Options tab in EXCEL

1. From the Data tab of EXCEL, click **From TEXT/CSV**.

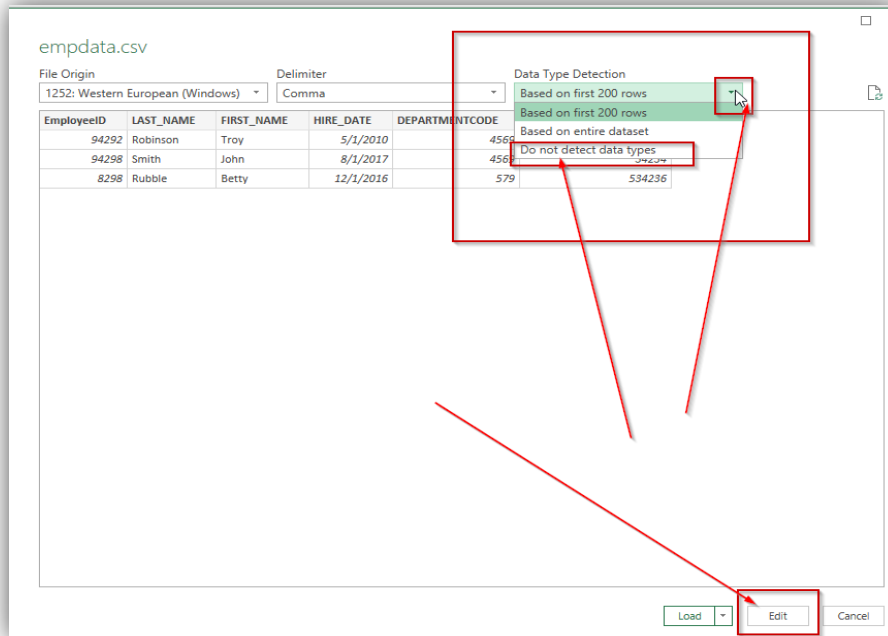


2. Select the file to Import.

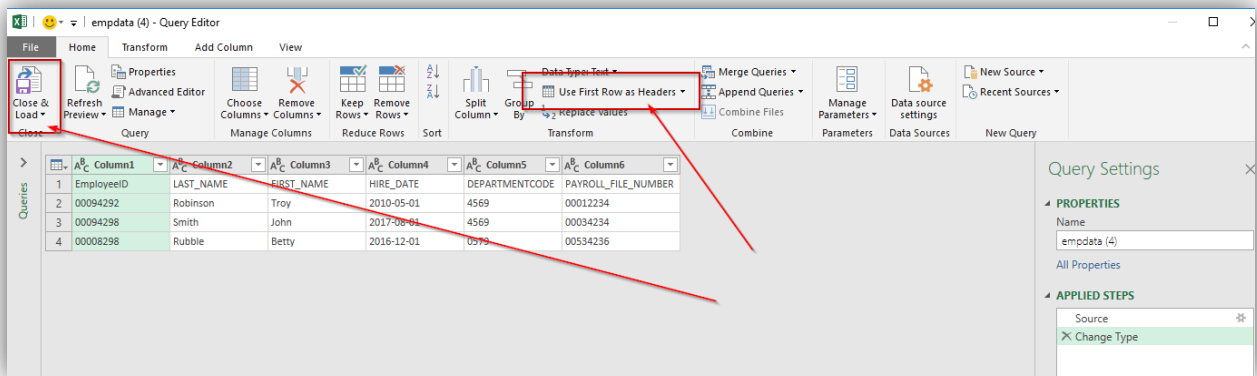


3. The next prompt will display sample data to be imported.
4. In the top right of the prompt box, there is a **Data Type Detection** option.
5. Change this value to '**Do not detect data types**'.
6. Click **EDIT**.





7. In the next screen, there is an option to **Use First Row as Headers**. Click this option.
8. Click **Close&Load** button.



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|------------|-----------|------------|------------|----------------|---------------------|
| 00094292   | Robinson  | Troy       | 2010-05-01 | 4569           | 00012234            |
| 00094298   | Smith     | John       | 2017-08-01 | 4569           | 00034234            |
| 00008298   | Rubble    | Betty      | 2016-12-01 | 0579           | 00534236            |

Following either of these 2 very simple processes will allow your HR team to properly review the HR Master Source Data and if necessary, perform any data manipulation necessary for migration without losing the original formatting from the source.

As you can see, data migration and validation is complex and is a major undertaking. The experts at HRchitect have helped hundreds of clients with similar projects and can streamline the process for your HR team. We not only have years of experience guiding clients to the system that's right for their organization, we also have years of experience implementing HCM systems and optimizing the HCM systems our clients are using. In addition, our change management experts help to ensure that your organization adopts and gets the most from your new technology to ensure the investment was worthwhile and will add value to your organization. Contact us before you begin your next HR technology project.

## About the Author



Troy Robinson has more than 20 years of experience working in the HCM technology space. He is a Senior Consultant at HRchitect, where he leverages his unique experience as both a consultant and end user of HCM systems to lead clients through successful workforce management system implementations.

## About HRchitect

The world of Human Capital Management (HCM) is constantly changing. Organizations fight the war on attracting and retaining top talent, while HCM vendors rapidly innovate to meet the need. The result is a seemingly endless array of choices, with no clear fit for your unique business. Are you prepared to start a new HCM technology initiative without an expert by your side?

HRchitect offers you relief from this volatile situation by pairing your company with experts who work alongside your team to build a roadmap for your HCM technology, select a new or replacement system, implement and integrate your new HCM technology, provide ongoing support and everything in between.

Over the past two decades, we've helped thousands of organizations around the globe get the most out of their HCM technology. Visit [HRchitect.com](http://HRchitect.com) to learn more about our HCM technology consulting offerings and how we can help your organization get the most out of your system investments.