

# %xuloadcsv - CSV File Loading and Consolidation Utility

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## Overview

The **%xuloadcsv** macro loads and combines multiple CSV files into a single SAS dataset. It supports regular expressions for file selection, handles variable naming, and can extract subject IDs and visit information from filenames. This is particularly useful for consolidating clinical data from multiple source files.

## Version Information

- **Version:** 1.0
- **Last Updated:** 18JUL2022
- **Author(s):** Atorus Research

## Dependencies

- SAS version: SAS 9.4 V9
- No macro dependencies
- Requires access to source CSV files

## Parameters

Parameter	Required	Default	Description
filename	Yes	-	Regular expression to filter source files
filepath	No	[project path]/final/raw/external	Path to CSV files
splitchar	No	\$	CSV delimiter character
datarow	No	2	First row of data (after headers)
subjid	No	-	Regex to extract subject ID from filename
visit	No	-	Regex to extract visit from filename
outds	No	raw_all	Output dataset name
getnames	No	yes	Whether to use first row as variable names
compress_names	No	Y	Whether to remove spaces from variable names
debug	No	N	Whether to retain temporary datasets

## Return Values/Output

Creates a consolidated dataset containing:

- Combined data from all matching CSV files
- Optional derived variables:
  - dataset\_no: Sequential number for source file
  - subjid\_derived: Extracted subject ID (if subjid specified)
  - visit\_derived: Extracted visit (if visit specified)
- Standardized variable lengths across files

## Processing Details

### 1. File Selection:

- Uses regex to filter files in directory
- Excludes Excel files (xlsx, xlt)
- Extracts metadata from filenames

### 2. Variable Processing:

- Handles header rows if present
- Standardizes variable names
- Determines optimal variable lengths
- Converts all variables to character initially

### 3. Data Consolidation:

- Imports each file sequentially
- Applies consistent variable attributes
- Combines data with metadata
- Handles missing or empty files

## Examples

### Basic Usage

```
%xuloadcsv(filename=%str(Clamp), subjid=%str(101-\d{3}), visit=%str(D\d+));
```

### Exclude Specific Files

```
%xuloadcsv(filename=%str:^(?!.*(Dummy|PC|PK)).*csv$));
```

### Custom Settings

```
%xuloadcsv(  
    filename=%str(LAB.*\.csv),  
    splitchar=",",  
    datarow=3,  
    compress_names=N,
```

```
        outds=combined_labs
    );
```

## Common Issues and Solutions

Issue	Solution
No files found	Check regex pattern and filepath
Variable name conflicts	Use compress_names=Y or adjust source headers
Misaligned data	Verify datarow setting matches file structure

## Notes and Limitations

- All files must share similar structure
- Initial import treats all variables as character
- Variable lengths are maximized across all files
- Regex patterns must follow SAS PRX syntax
- Excel files are automatically excluded
- Header handling requires consistent structure
- Maximum filename length for extracted values is 200

## See Also

- [%xuload](#): For loading SAS datasets
- [%xufmt](#): Format creation and management
- [%xusave](#): Dataset saving utility

## Change Log

Version	Date	Author	Changes
1.0	18JUL2022	Atorus Research	Initial version