%xusave - Dataset Save and Export Utility

Overview

The %xusave macro provides functionality to save datasets in both SAS (.sas7bdat) and transport (.xpt) formats while applying dataset modifications such as variable selection, sorting, and labeling. It's particularly useful for finalizing datasets in clinical research environments where standardized outputs are required.

Version Information

- **Version**: 1.0
- **Last Updated**: 13JUL2022
- **Author(s)**: Atorus Research

Dependencies

- SAS version: SAS 9.4 V9
- No macro dependencies
- Write access to output library location

Parameters

Parameter	Required	Default	Description
inds	Yes	-	Name of the input dataset
outlib	Yes	-	Name of the output library
outds	No	&inds	Name of the output dataset
keepvars	No	-	Space-separated list of variables to keep
sortvars	No	-	Space-separated list of variables to sort by
dslbl	No	-	Label for the dataset
xpt	No	Y	Whether to save transport file (Y/N)
debug	No	N	Whether to retain temporary datasets (Y/N)

Return Values/Output

Creates the following files:

- SAS dataset (.sas7bdat) in specified output library
- Transport file (.xpt) in same location if xpt=Y
- Both outputs include:
  - Selected variables (if keepvars specified)
  - Applied sorting (if sortvars specified)
  - Dataset label (if dslbl specified)

Processing Details

1. Input Validation:

   - Verifies required parameters
   - Checks for non-empty values

2. Dataset Processing:

   - Creates intermediate working copy
   - Applies sorting if specified
   - Selects variables if specified
   - Applies dataset label if specified

3. File Creation:

   - Saves SAS dataset (.sas7bdat)
   - Creates transport file (.xpt) if requested
   - Cleans up temporary datasets unless in debug mode

Examples

Basic Usage

```
%xusave(dm, sdtm, outds=dm);
```

Full Feature Usage

```
%xusave(
    inds=ae,
    outlib=sdtm,
    outds=ae,
    keepvars=studyid usubjid aeterm aestdtc,
    sortvars=usubjid aestdtc,
    dslbl=Adverse Events,
    xpt=Y
);
```

Debug Mode

```
%xusave(
    inds=vs,
    outlib=sdtm,
    keepvars=studyid usubjid visit vsorres,
    debug=Y
);
```

Common Issues and Solutions

Issue	Solution
Write permission errors	Verify access to output location
Invalid variable names	Check keepvars list against dataset
Sort order issues	Ensure sortvars exist in final dataset

Notes and Limitations

- Transport files are automatically lowercase
- Temporary datasets use macro name prefix
- Debug mode retains intermediate datasets
- Sort variables must exist in kept variables
- Transport files follow SAS V5 format
- Output library must be pre-assigned
- Transport files created in same directory as SAS datasets

See Also

- %xuload: Dataset loading utility
- %xuloadcsv: CSV file loading utility
- %xusplit: Dataset splitting utility

Change Log

Version	Date	Author	Changes
1.0	13JUL2022	Atorus Research	Initial version