

%xumprint - Log and Output Management Utility

Overview

The `%xumprint` macro manages SAS log and listing file handling, providing functionality to save these files to specific directories and reload logs back into SAS sessions. It also enhances log readability by converting certain notes of interest into warnings. The macro acts as a wrapper (like DO-END blocks) and should be called at both the start and end of SAS programs.

Version Information

- **Version:** 1.0
- **Last Updated:** 19FEB2021
- **Author(s):** Atorus Research

Dependencies

- SAS version: SAS 9.4 V9
- Required macros:
 - xuprogpath.sas - For creating task and program-related globals
 - setup.sas - For assigning required libnames and sasautos
- Required global variables (when route=YES):
 - __p_name: Program name (created automatically by xuprogpath.sas)
 - __log_path: Path to log folder (created automatically by xuprogpath.sas)
 - __lst_path: Path to outputs folder (created automatically by xuprogpath.sas)

Parameters

Parameter	Required	Default	Description
route	No	NO	Controls file handling mode. YES saves output lst and log files, NO uploads log back to SAS EG

Return Values/Output

- When route=YES:
 - Creates .log and .lst files in task-specific directories
 - Cleans macro cache before execution
 - Sets up program environment
- When route=NO:
 - Displays modified log in SAS EG
 - Converts certain notes to warnings
 - Restores original SAS options

Processing Details

1. Input Validation:

- Verifies route parameter is either YES or NO
- Checks for required global variables when route=YES

2. When route=YES:

- Cleans macro cache (deletes previously resolved macros)
- Calls xuprospath for task/program globals
- Redirects output to specified files
- Includes `setup.sas` for environment configuration

3. When route=NO:

- Restores default output destinations
- Reads and modifies log file content
- Enhances log readability by:
 - Converting NOTE xxx-xxx to NOTE:
 - Elevating certain notes to warnings
- Restores original SAS options

Examples

Program Start

```
%xumprint(route=YES);
```

Program End

```
%xumprint();
```

Common Issues and Solutions

Issue	Solution
Missing global variables	Ensure program is saved and xuprospath.sas is called
Macro cache conflicts	Use route=YES at program start to clean cache
Log file not found	Verify correct path and program name globals

Notes and Limitations

- Program must be saved for route=YES to work
- Macro cache cleaning only affects standardized prefix macros
- Log modification only occurs when reading back to SAS EG
- Specific notes are automatically elevated to warnings:
 - Uninitialized variables
 - Invalid operations

- Division by zero
- Graph legend constraints
- Format size issues
- Merge statement repeats
- Missing value operations
- Loading failures
- Data type conversions

See Also

- `%xuprogpath` - Program path management
- `setup.sas` - For assigning required libnames and sasautos
- Other logging and output management macros

Change Log

Version	Date	Author	Changes
1.0	19FEB2021	Atorus Research	Initial version