%kutitles

Overview

The `%kutitles` macro assigns titles to SAS outputs based on specifications from a TFL (Tables, Figures, and Listings) titles file. It manages global and program-specific titles, handles title justification, and automatically includes page numbers and timestamps in standard locations.

Version Information

- Version: 1.0
- Last Updated: 17SEP2022
- Author: Atorus Research

Dependencies

- SAS Version: SAS 9.4 V9
- Required Files:
  - `TFL_titles.csv` in specified filepath
- Required Global Variables:
  - `__root`: Root directory path (created automatically by xuprogpath.sas)
  - `__clnt_I`: Client identifier (created automatically by xuprogpath.sas)
  - `__comp`: Compound identifier (created automatically by xuprogpath.sas)
  - `__prot`: Protocol identifier (created automatically by xuprogpath.sas)
  - `__subfolders_I`: Subfolder structure (created automatically by xuprogpath.sas)
  - `__task`: Task identifier (created automatically by xuprogpath.sas)
  - `tmstmp_date`: Current date (created automatically by jdtflstyle.sas)
  - `tmstmp_time`: Current time (created automatically by jdtflstyle.sas)

Parameters

Parameter	Required	Default	Description
progname	Yes	-	Program name to search in TFL_titles.csv
filepath	No	`&__root.&__clnt_I.&II.&__comp.&II.&__prot.&__subfolders_I.&II.&__task.&II.final&II.specs`	Path to TFL_titles.csv
seq	No	1	Sequence number of output in TFL_titles.csv
justify	No	c	Title alignment (l/c/r)
escapechar	No	$	ODS escape character
debug	No	N	Flag to retain temporary datasets

Return Values/Output

- Sets up to 5 title lines:
  - Title1: Left-justified title with right-justified page number
  - Title2: Left-justified title with right-justified program name and timestamp
  - Title3-5: Justified according to parameter setting
- Log messages indicating:
  - Missing parameters
  - Missing titles file

  - Multiple title entries
  - Missing global titles

Processing Details

1. Parameter validation:

    - Checks required parameters
    - Verifies TFL_titles.csv existence
    - Validates parameter values

2. Title preparation:

    - Clears existing titles
    - Imports titles file
    - Checks for duplicate entries
    - Processes global titles

3. Title formatting:

    - Handles quotation marks
    - Applies justification
    - Adds page numbers
    - Includes timestamps

4. Title assignment:

    - Sets up to 5 title lines
    - Applies specified formatting
    - Manages missing titles
    - Cleans up temporary data

Examples

```
/* Basic usage for single output */
%kutitles(s_000_ae3, seq=1);

/* Custom justification and filepath */
%kutitles(l_000_dm,
          filepath=/path/to/specs,
          justify=l);

/* Debug mode with custom escape character */
%kutitles(t_14_3_1_1,
          seq=2,
          escapechar=~,
          debug=Y);
```

Common Issues and Solutions

1. **Missing Titles File**

    - Error: "TFL_titles.csv was not found"
    - Solution: Verify file path and existence

2. **Multiple Title Entries**

    - Warning: "multiple rows present for [program]"
    - Solution: Review and correct TFL_titles.csv

3. **Missing Global Titles**

    - Warning: "title1 and title2 were not resolved"
    - Solution: Check GlobalTitle1/2 in TFL_titles.csv

Notes and Limitations

1. Title structure:

    - Maximum 5 title lines

- Standard header format
- Automatic page numbering
- Program identification

2. File requirements:

- CSV format
- Specific column structure
- Global title definitions
- Program-specific entries

3. Processing behavior:

- Clears existing titles
- Handles missing entries
- Preserves title order
- Manages special characters

See Also

- `%jdtflstyle`: Output styling
- `%kplotrtf`: RTF plot generation
- Other TFL formatting macros

Change Log

Version 1.0 (17SEP2022)

- Initial release
- Basic title management
- Global title support
- Automatic page numbering