xGlossaries Package

An extension to the glossaries packages

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July 21, 2014

1 Introduction

The `xgloassries` package provides some useful extensions to the `glossaries` packages. This documentation explains the additional features only. The basic setup and use of glossaries is explained in the `glossaries` documentation. It is recommended to read that documentation, too.

2 Package Loading and Options

To load the package, use

```
\usepackage[Key1=Value1, ...]{xglossaries}
```

There are three aditonal keys, which are explained below. All other keys are forwared to the `glossaries` packages.

3 Manual Referencing

This featurea allows to manually control, to which pages are refered in the gloassary. To deactivate this feature use

```
\usepackage[manref=false]{xglossaries}
```

In order to create a gloassry entry, whose refererenc list (in the gloassary packge also refered to as number list), uses the `manref` key for `\newglossaryentry`, `\newacronym` etc. commands, e. g.

```
\newacronym[manref]{TLA}{TLA}{three letter acronym}
```

To activate the manual referencing for all entries of one glossary, use the `\glosmanref`

```
\glosmanref{acronym}
```

This command has to be called, before entries are defined.

You can use any entry as explained in `glossaries` documentation using the `\gls` and `\ac` commands. To indicate that a usage shall be referred in the glossaries, use the `ref` key, e. g.

```
\ac[ref]{TLA}
```

for three letter acronym (TLA).

4 Plural Alias

This feature allows to define an alias for the plural of an acronym. To deactivate this feature use

```
\usepackage[PluralAlias=false]{xglossaries}
```

The `glossaries` package provides several commands to create the plural of an acronym, e. g. `\acp{TLA}` for TLAs. While this works well in principle, the usage correponds not to the natural language usage. A more inuitive interface would be `\acp{TLAs}`. This can be achived using `pluralalias` key, e. g.:

```
\newacronym[manref , pluralalias=TLAs]%
        {TLA}{TLA}{three letter acronym}
```

Now, `\ac{TLAs}` results in TLAs.

5 Symbol Tools

This feature provides some tools for creating a nomenclature using the glossaries package. To deactivate this feature use

```
\usepackage[SymbolTools=false]{xglossaries}
```

A command to add new symbols to a glossary `\newsym` is provided:

```
\newsym[unit={m/s}]{Qhh}{Q_{hh}}{generalized aero}
```

The additional key `unit` is an alias for for the fields `user1`/`useri` of a glossary. To refer to a symbol, you can use the command `\sym` and `\Sym`, e. g.

```
\sym[ref]{Qhh}
```

for Q_{hh}.

Further more, there you can use `\newsymcat` to create a category for symbols, e. g.

```
\newsymcat{aero}{Aerodynamics}
```

To add a symbol to a category use the `parent` key. Alternatively, use `\newsymincat` to add a symbol to a default category. The default category can be chosen (or changed) by `\defaultsymcat`. This is a complete example:

```
% Create categroies
\newsymcat{aero}{Aerodynamics}
\newsymcat{cont}{Control Theory}

% Add smbols to aero
\defaultsymcat{aero}
        \newsymincat[unit={m/s}]{Qhh}{Q_{hh}}{generalized aero}
        \newsymincat{Qjj}{Q_{jj}}{aero}

% Add smbols to cont
\defaultsymcat{cont}
        \newsymincat{A}{A}{state matrix}
        \newsymincat{B}{B}{input matrix}
        \newsymincat{C}{C}{output matrix}
```

In order to print that glossary, it is highly recommended to use the `longSymbolCats` glossary style, see next section.

Finally, you can use `\symshortcut` to creat shortcuts for symbols.

```
\symshortcut{Qjj}%      % Creates \Qjj[#1]=\sym*[#1]{Qjj}
\symshortcut[Amat]{A}%  % Creates \Amat[#1] =\sym*[#1]{A}
```

Additionally a command `\Qjj?` and `\Amat?` is created, which call the non-starred version of `\sym`.

Some tests: Q_{jj} Q_{jj} A A

6 Glossary Styles

Finally, this package provides some additional glossary styles. To deactivate this feature use

```
\usepackage[DefineStyles=false]{xglossaries}
```

For acronyms, the styles `longAcronym` and `longAcronymHeader` are provided:

Abbreviations

Abbreviation	Description	Page
TLA	Three letter acronym.	2

For symbols, the styles `longSymbol` and `longSymbolHeader` are provided. Additionally, the style `longSymbolCatsHeader` in combination with the category tools of the preceding section is provided:

Symbols

Aerodynamics

Symbol	Description	Page
Q_{hh} [m/s]	Generalized aero.	2
Q_{jj}	Aero.	3

Control Theory

Symbol	Description	Page
A	State matrix.	3
B	Input matrix.	
C	Output matrix.	