

# infufrgs — LaTeX Class for INF/UFRGS Academic Documents

User Manual

Version 5.0.1 (2026-03-18)

UFRGS TeX Users Group

Institute of Informatics — UFRGS, Porto Alegre, Brazil

<https://www.inf.ufrgs.br/utug>

## Abstract

The `infufrgs` document class typesets theses, dissertations, monographs, research reports, and related academic documents following the typographic and bibliographic standards required by the Institute of Informatics (INF) of the Universidade Federal do Rio Grande do Sul (UFRGS), Porto Alegre, Brazil. This manual describes version 5.0.0, a self-contained single-file consolidation released under the LaTeX Project Public Licence 1.3c.

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## 1 Introduction

The `infufrgs` class has been maintained by the UFRGS TeX Users Group since 2001. It builds on the standard `report` class and provides:

- automatic typesetting of the title page and CIP (Catalogação na Publicação) block;
- front-matter environments for abstracts in two languages, dedications, acknowledgements, and lists of abbreviations and symbols;
- chapter, section, and caption formatting that complies with the ABNT standards adopted by INF/UFRGS;
- built-in support for ABNT-style bibliographic citations via the `abntex2cite` package;
- support for several undergraduate and graduate programmes at INF/UFRGS and the Microelectronics and Letters Post-Graduate Programmes;
- optional theorem/definition environments (`formais` option);

- support for UNIBRAL (UFRGS–TU Berlin) double-degree documents (`unibr` option).

Version 5.0.0 is a major modernisation: all auxiliary files (`iidefs.sty`, `*.def`, `*.babel`) have been consolidated into the single file `infufrgs.cls`.

## 2 Requirements

`infufrgs` requires a reasonably modern TeX installation. TeX Live 2021 or later (or MiKTeX with all packages updated) is recommended. The following packages must be available; all of them are part of standard TeX Live and MiKTeX distributions.

Package	Purpose
<code>xspace</code>	Smart spacing after macros
<code>keyval</code>	Key–value option parsing
<code>iftex</code>	Engine detection ( <code>\ifpdf</code> , <code>\ifxetex</code> , <code>\ifluatex</code> )
<code>babel</code>	Language support (Brazilian Portuguese and English)
<code>lastpage</code>	<code>\pageref{LastPage}</code> for CIP
<code>indentfirst</code>	Indent first paragraph of each section
<code>setspace</code>	Line-spacing control
<code>titlesec</code>	Section heading formatting
<code>tocloft</code>	Table-of-contents formatting
<code>fancyhdr</code>	Page header/footer
<code>xcolor</code>	Colour support
<code>graphicx</code>	Figure inclusion
<code>caption</code>	Caption formatting
<code>hyperref</code>	PDF hyperlinks and metadata
<code>hypcap</code>	Correct hyperlink anchors for floats
<code>geometry</code>	Page layout
<code>newtxtext</code> , <code>newtxmath</code>	Times-based fonts (pdfL <sup>A</sup> T <sub>E</sub> X only)
<code>fontspec</code>	OpenType fonts (XeL <sup>A</sup> T <sub>E</sub> X/LuaL <sup>A</sup> T <sub>E</sub> X only)
<code>abntex2cite</code>	ABNT citation style (part of <code>abntex2</code> )

The `abntex2` bundle is shipped with TeX Live and MiKTeX. Font packages `newtxtext`/`newtxmath` are available in TeX Live as `tex-newtx`.

## 3 Installation

Copy `infufrgs.cls` to a directory where TeX can find it. Common choices are:

- the same directory as your document (simplest);
- `TEXMFHOME/tex/latex/infufrgs/` for a personal installation (run `texhash` afterwards).

When installed from CTAN via TeX Live (`tlmgr install infufrgs`) or MiKTeX, no manual step is required.

## 4 Class Options

Options are supplied as a comma-separated list in the `\documentclass` argument:

```
\documentclass[<programme>,<document-type>,...]{infufrgs}
```

## 4.1 Programme options

Exactly one programme option should be given.

Option	Programme
<code>cic</code>	Ciência da Computação (undergraduate)
<code>ecp</code>	Engenharia de Computação (undergraduate)
<code>ppgc</code>	Programa de Pós-Graduação em Computação
<code>pgmicro</code>	Programa de Pós-Graduação em Microeletrônica
<code>ppgl</code>	Programa de Pós-Graduação em Letras

## 4.2 Document-type options

Exactly one document-type option should be given.

Option(s)	Document type
<code>tc / dipl</code>	Trabalho de Conclusão (bachelor's monograph)
<code>diss / mestrado</code>	Dissertação de Mestrado (Master's thesis)
<code>tese / doutorado</code>	Tese de Doutorado (Doctoral thesis)
<code>espec</code>	Monografia de Especialização
<code>ti</code>	Trabalho Individual
<code>rp</code>	Relatório de Pesquisa
<code>pep</code>	Plano de Estudos e Pesquisa
<code>prop-tese</code>	Proposta de Tese de Doutorado
<code>plano-doutorado</code>	Plano de Doutorado

## 4.3 Other options

Option	Effect
<code>english</code>	Typeset the document in English (headings, captions, etc.)
<code>oneside</code>	Single-sided layout (default is two-sided)
<code>noabntcite</code>	Do not automatically load <code>abntex2cite</code> ; load it yourself or use a different citation package
<code>nominatalocal</code>	Read <code>nominata</code> data from <code>nominatalocal.def</code> instead of the built-in defaults (see Section 12)
<code>formais</code>	Load theorem/definition environments (see Section 11.1)
<code>unibral</code>	Enable UNIBRAL double-degree support (see Section 11.2)

Any option not recognised by `infufrgs` is passed through to the underlying `report` class.

# 5 Document Preamble — Metadata Commands

All the following commands should appear in the preamble, i.e., between `\documentclass` and `\begin{document}`.

## 5.1 Title and translated title

```
\title{<title of the document>}
\translatedtitle{<title in the other language>}
```

`\title` sets the document title. `\translatedtitle` provides the title in the second language (Portuguese if the document is in English, English if the document is in Portuguese). The translated title is displayed on the `translatedabstract` page.

## 5.2 Author(s)

```
\author{<surname>}{<first name(s)>}
```

Up to four authors are supported; call `\author` once for each. The arguments are kept separate so that the CIP block (Catalogação na Publicação) can format the name correctly. Example:

```
\author{Flaumann}{Fritz Gutenberg}  
\author{Flaumann}{Frida Gutenberg}
```

## 5.3 Advisor and co-advisor

```
\advisor[<title>]{<surname>}{<first name(s)>}  
\coadvisor[<title>]{<surname>}{<first name(s)>}
```

The optional *<title>* argument is printed before the name (e.g., Prof.~Dr.). `\coadvisor` is optional.

## 5.4 Date

```
\date{<month>}{<year>}
```

If omitted, the current month and year are used. For a Portuguese document use the month name in Portuguese (e.g., maio); for an English document, in English (e.g., May).

## 5.5 Location

```
\location{<city>}{<state abbreviation>}
```

Defaults to Porto~Alegre / RS.

## 5.6 Keywords

```
\keyword{<keyword in the primary language>}  
\translatedkeyword{<keyword in the secondary language>}
```

Call these commands once per keyword (up to ten each). Keywords appear after the abstract text and in the PDF metadata.

## 5.7 Department (optional)

```
\dept{<department code>}
```

Currently recognised codes: INA (Departamento de Informática Aplicada) and INT (Departamento de Informática Teórica).

## 5.8 Additional commands for specific document types

Document type	Command	Argument
ti	<code>\ti[release]{number}</code>	Release (default I) and TI number
rp	<code>\rp{number}</code>	RP number
rp	<code>\financ{agencies}</code>	Funding agencies (optional)
espec	<code>\espec{specialisation name}</code>	Name of the specialisation programme
espec	<code>\coord[title]{surname}{first name}</code>	Course coordinator

## 6 Front Matter

### 6.1 Title page and CIP/nominata

```
\begin{document}
\maketitle
```

`\maketitle` generates:

1. the title page, and
2. for Master/Doctoral/Specialisation documents: a CIP (Catalogação na Publicação) block followed by the *nominata* (administrative officers listing); for other document types: only the *nominata*.

### 6.2 Dedication

```
\begin{dedicatoria}
  To my family.
\end{dedicatoria}
```

Produces a page with the dedication text flush-right at the bottom. No section heading is added.

### 6.3 Acknowledgements

```
\begin{agradecimentos}
  I thank everyone who contributed\ldots
\end{agradecimentos}
```

Produces an unnumbered chapter titled *Agradecimentos*.

## 7 Abstracts

### 7.1 Primary-language abstract

```
\begin{abstract}
  <Abstract text.>
\end{abstract}
```

Produces an unnumbered chapter titled *Resumo* (or *Abstract* for English documents). The keywords defined with `\keyword` are appended automatically.

## 7.2 Secondary-language abstract

```
\begin{translatedabstract}  
  <Abstract in the other language.>  
\end{translatedabstract}
```

The environment automatically switches to the other language (English–Brazilian Portuguese). The title of the document in the other language, set with `\translatedtitle`, is displayed above the abstract text. The keywords defined with `\translatedkeyword` are appended automatically.

**Deprecated:** the `englishabstract` environment from earlier versions is still accepted for backwards compatibility but produces a warning. Replace it with `translatedabstract`.

## 8 Lists

The standard list commands work as usual:

```
\tableofcontents  
\listoffigures  
\listoftables
```

### 8.1 List of abbreviations and acronyms

```
\begin{listofabbrv}{<widest-label>  
  \item[ABNT] Associação Brasileira de Normas Técnicas  
  \item[INF] Instituto de Informática  
  \item[UFRGS] Universidade Federal do Rio Grande do Sul  
\end{listofabbrv}
```

The mandatory argument *<widest-label>* (e.g., UFRGS) is used to compute the column width so that all abbreviations align.

### 8.2 List of symbols

```
\begin{listofsymbols}{<widest-symbol>  
  \item[ $\alpha$ ] Alpha coefficient  
  \item[ $\beta$ ] Beta coefficient  
\end{listofsymbols}
```

Same structure as `listofabbrv`.

## 9 Main Text

### 9.1 Sectioning

The class provides all standard report sectioning commands: `\chapter`, `\section`, `\subsection`, `\subsubsection`, and `\paragraph`. Section depth is set to 5 (`\secnumdepth`).

Chapter headings are typeset in bold, 12 pt, uppercase, flush-left. Sections and subsections are bold; subsubsections are italic.

Chapters and sections are recorded in the table of contents with uppercase names for chapters.

## 9.2 Figures and tables

Standard `figure` and `table` float environments are used. Captions are formatted with an em-dash separator, centred, in 10 pt type.

```
\begin{figure}[htbp]
  \centering
  \includegraphics[width=0.7\textwidth]{filename}
  \caption{Caption text.}
  \label{fig:label}
\end{figure}
```

The `\legend` command produces an unnumbered caption:

```
\legend{Source: <reference>}
```

## 9.3 Long quotations

The `quote` environment is redefined to comply with ABNT formatting: 4 cm left indentation, 10 pt font, single spacing.

```
\begin{quote}
  Long quotation text of more than three lines goes here.
\end{quote}
```

## 9.4 Lists

The `enumerate`, `itemize`, and `description` environments are redefined with reduced vertical spacing to match the ABNT style.

# 10 Back Matter

## 10.1 Appendices

```
\appendix
\chapter{First Appendix}
...
```

`\appendix` resets the chapter counter and switches to alphabetic numbering. The optional argument overrides the heading label (default: *Apêndice / Appendix*).

## 10.2 Annexes

```
\annex
\chapter{First Annex}
...
```

`\annex` is similar to `\appendix` but uses the heading label *Anexo / Annex*. In Brazilian academic convention, appendices contain material produced by the author; annexes contain third-party material reproduced for documentation.

## 10.3 Bibliography

The class automatically loads `abntex2cite` (unless the `noabntcite` option is given). Use one of the ABNT styles:

```
\bibliographystyle{abntex2-alf} % author-year citations
%\bibliographystyle{abntex2-num} % numeric citations
\bibliography{<bib file(s)>}
```

## 11 Special Features

### 11.1 Formal environments (formais option)

Loading `formais` adds a collection of theorem-like environments and two additional lists.

#### 11.1.1 Theorem-like environments

Environment	Name
<code>theorem</code>	Theorem / Teorema
<code>lemma</code>	Lemma / Lema
<code>corollary</code>	Corollary / Corolário
<code>proposition</code>	Proposition / Proposição
<code>conjecture</code>	Conjecture / Conjectura
<code>definition</code>	Definition / Definição
<code>example</code>	Example / Exemplo
<code>exercise</code>	Exercise / Exercício
<code>property</code>	Property / Propriedade
<code>remark</code>	Remark / Observação

All environments take an optional name argument. Example:

```
\begin{theorem}[Pythagorean theorem]
  In a right triangle,  $a^2 + b^2 = c^2$ .
\end{theorem}
\begin{proof}
  See any introductory geometry text.
\end{proof}
```

#### 11.1.2 Lists of definitions and theorems

```
\listofdefinitions
\listoftheorems
```

These produce numbered lists analogous to `\listoffigures`.

### 11.2 UNIBRAL double-degree (unibral option)

The `unibral` option activates support for the UNIBRAL programme (joint double-degree between UFRGS and Technische Universität Berlin).

### 11.2.1 Additional commands

```
\advisorDE[<title>]{<surname>}{<first name>}
\coadvisorDE[<title>]{<surname>}{<first name>}
```

These set the German advisor and co-advisor, which appear on the title page alongside the Brazilian advisor(s).

### 11.2.2 Extended summary

```
\extendedsummary
<Portuguese extended summary for UFRGS.>
```

Produces the *Resumo Estendido* chapter required by UFRGS for double-degree theses.

## 12 Nominata Customisation

The nominata is the list of UFRGS administrative officers printed on the CIP/nominata page. The class ships with defaults reflecting the current officeholders; however, these data change every few years.

### 12.1 Overriding individual fields

Any nominata field can be updated in the preamble with `\renewcommand`:

```
\renewcommand{\nominataReit}{Prof\textsuperscript{a}.~Ana Silva}
\renewcommand{\nominataReitname}{Reitora}
```

The available fields are listed in the table below.

Command	Content
<code>\nominataReit</code>	Rector
<code>\nominataReitname</code>	Rector's title
<code>\nominataPRCA</code>	Vice-rector
<code>\nominataPRCAname</code>	Vice-rector's title
<code>\nominataPRAPG</code>	Pro-rector for Graduate Studies
<code>\nominataPRAPGname</code>	Pro-rector's title
<code>\nominataPRAG</code>	Pro-rector for Undergraduate Studies
<code>\nominataPRAGname</code>	Pro-rector's title
<code>\nominataDir</code>	Director of INF
<code>\nominataDirname</code>	Director's title
<code>\nominataCoordPPGC</code>	PPGC coordinator
<code>\nominataCoordnamePPGC</code>	PPGC coordinator title
<code>\nominataCoordPGMICRO</code>	PGMICRO coordinator
<code>\nominataCoordnamePGMICRO</code>	PGMICRO coordinator title
<code>\nominataBibchefe</code>	Head librarian
<code>\nominataBibchefename</code>	Head librarian's title
<code>\nominataChefeINA</code>	Head of INA department
<code>\nominataChefeINAname</code>	INA department head title
<code>\nominataChefeINT</code>	Head of INT department
<code>\nominataChefeINTname</code>	INT department head title
<code>\nominataCoordCIC</code>	CIC course coordinator
<code>\nominataCoordCICname</code>	CIC coordinator title
<code>\nominataCoordECP</code>	ECP course coordinator
<code>\nominataCoordECPname</code>	ECP coordinator title

## 12.2 External file (nominatalocal option)

If the `nominatalocal` class option is given, all nominata data are read from the file `nominatalocal.def` (searched via the normal  $\text{\TeX}$  input path). This file should contain `\providecommand` or `\renewcommand` definitions for the fields listed above. This mechanism is convenient when the same nominata data are shared by many documents in an institutional repository.

## 13 A Complete Minimal Example

The following skeleton compiles a Master's dissertation for PPGC:

```
\documentclass[ppgc,diss]{infufrgs}

\usepackage[utf8]{inputenc} % for pdfLaTeX; not needed for XeLaTeX/LuaLaTeX
\usepackage{graphicx}

\title{Title of the Dissertation}
\translatedtitle{Título da Dissertação}
\author{Surname}{First Name}
\advisor[Prof.~Dr.]{AdvisorSurname}{AdvisorFirst}
% \coadvisor[Prof.~Dr.]{CoAdvisorSurname}{CoAdvisorFirst}
\date{March}{2026}

\keyword{Keyword one}
\keyword{Keyword two}
\translatedkeyword{Primeira palavra-chave}
\translatedkeyword{Segunda palavra-chave}

\begin{document}

\maketitle

\begin{dedicatoria}
  To my family.
\end{dedicatoria}

\begin{agradecimentos}
  I thank everyone\ldots
\end{agradecimentos}

\begin{abstract}
  Abstract text in English.
\end{abstract}

\begin{translatedabstract}
  Texto do resumo em português.
\end{translatedabstract}

\tableofcontents
\listoffigures
\listoftables

\begin{listofabbrv}{UFRGS}
  \item[ABNT] Associação Brasileira de Normas Técnicas
  \item[UFRGS] Universidade Federal do Rio Grande do Sul
\end{listofabbrv}
```

```

\chapter{Introduction}
...

\appendix
\chapter{Supporting Material}
...

\bibliographystyle{abntex2-alf}
\bibliography{references}

\end{document}

```

A fully compiled example is provided in the file `example.tex` (together with `example.bib`).

## 14 Compilation

`infufrgs` works with `pdfLATEX`, `XeLATEX`, and `LuaLATEX`.

For `pdfLATEX`, declare the input encoding in the preamble:

```
\usepackage[utf8]{inputenc}
```

This is not required for `XeLATEX` or `LuaLATEX`, which handle UTF-8 natively.

The typical compilation sequence for a document with a bibliography is:

```

pdflatex <document>
bibtex <document>
pdflatex <document>
pdflatex <document>

```

Or, using `latexmk`:

```
latexmk -pdf <document>
```

## 15 Package Files

The distribution contains the following files:

File	Purpose
<code>infufrgs.cls</code>	The document class (single self-contained file)
<code>infufrgs-doc.tex</code>	This user manual (source)
<code>infufrgs-example.tex</code>	Complete compilable usage example
<code>infufrgs-example.bib</code>	Bibliography database for the example
<code>README.md</code>	Short introduction and quick-start guide

## 16 Licence

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