

# **Dia da Liberdade de Documentos**

## **Estrutura Básica de um arquivo ODF**

# Sumário

- O que é um documento ODF?
- Por que usar ODF?
- Extensões dos arquivos
- Estrutura básica de arquivos ODF

# O que é documento ODF?

- ODF – OpenDocument Format – Formato Aberto de Documento
- É baseado em XML para armazenamento de documentos editáveis de escritórios (como contratos, relatórios e livros), planilhas, gráficos e apresentações.

# Por que usar ODF?

- Analogia entre telefone celular e operadora de telefonia;
- Liberdade de suíte de escritório;
- Pode ser utilizado em diversas plataformas de software (Linux, Windows, saída de sistemas *web*) e hardware (computador, celular, TV Digital???);
- Sem necessidade suíte de escritório para gerar um ODF.

# Extensões dos arquivos

*NÃO definem arquivos para banco de dados.*

- Texto – odt (Modelo - ott)
- Gráfico (Drawing) – odg (Modelo - otg)
- Apresentação – odp (Modelo - otp)
- Planilha – ods (Modelo ots)
- Gráfico (Chart) – odc (Modelo otc)
- Imagem – odi (Modelo oti)
- Fórmula – odf (Modelo otf)
- Documento Mestre – odm
- Documento texto usado como modelo para documentos em HTML - oth

# Estrutura Básica

Não re-inventa a roda. Utiliza padrões já existentes:

- XSL:FO – Formatting
- SVG – Scaleable Vector Graphics
- MathML – Mathematical formulas
- XLink – Embedded links
- SMIL – Synchronized Multimedia Integration
- Xforms – Forms definitions

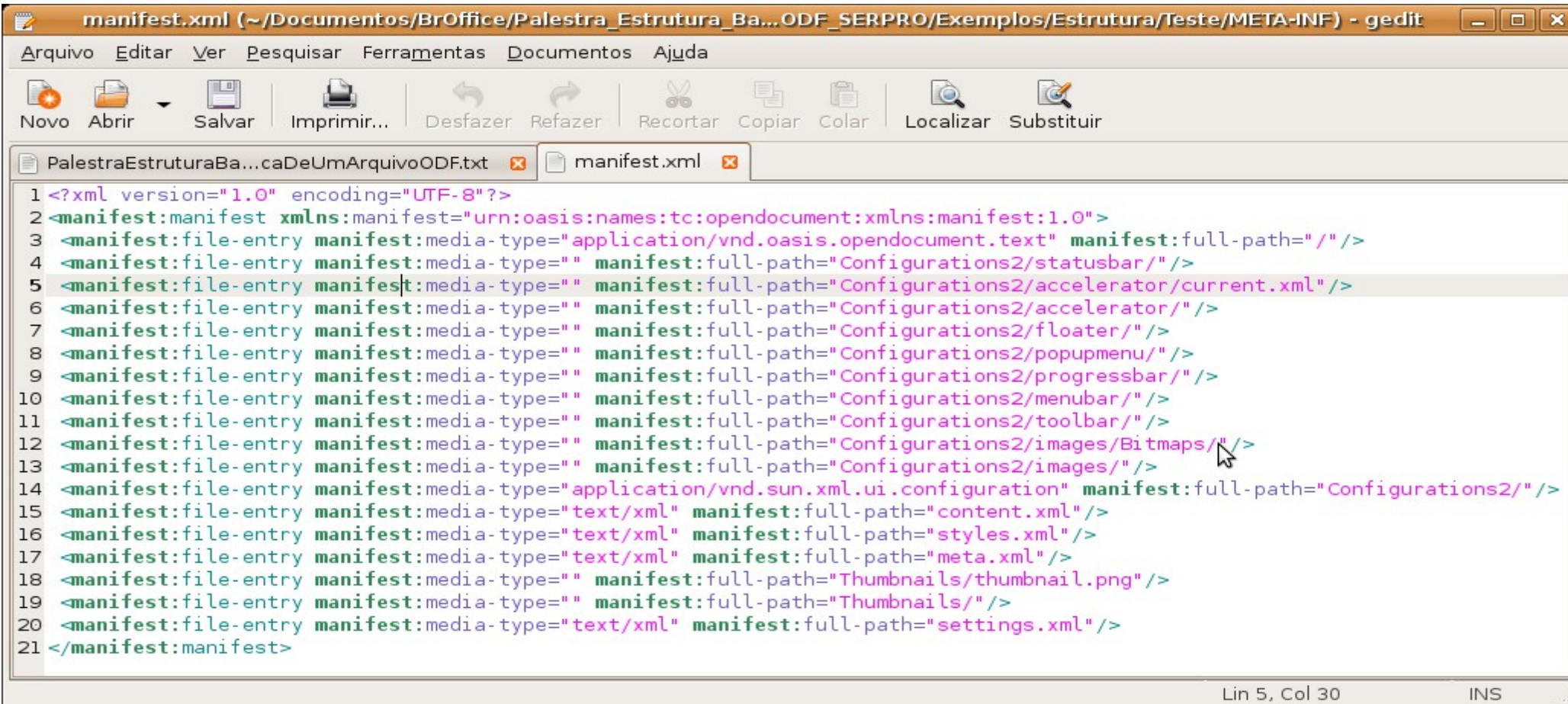
# Estrutura Básica

- Pacote ZIP com arquivos XML mais diretórios com objetos binários como imagens e outros tipos de mídia.



# Estrutura Básica

- META-INF/manifest.xml: lista todos os arquivos do pacote e seus tipos. Informações sobre encriptação.



```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <manifest:manifest xmlns:manifest="urn:oasis:names:tc:opendocument:xmlns:manifest:1.0">
3 <manifest:file-entry manifest:media-type="application/vnd.oasis.opendocument.text" manifest:full-path="/" />
4 <manifest:file-entry manifest:media-type="" manifest:full-path="Configurations2/statusbar/" />
5 <manifest:file-entry manifest:media-type="" manifest:full-path="Configurations2/accelerator/current.xml" />
6 <manifest:file-entry manifest:media-type="" manifest:full-path="Configurations2/accelerator/" />
7 <manifest:file-entry manifest:media-type="" manifest:full-path="Configurations2/floater/" />
8 <manifest:file-entry manifest:media-type="" manifest:full-path="Configurations2/popupmenu/" />
9 <manifest:file-entry manifest:media-type="" manifest:full-path="Configurations2/progressbar/" />
10 <manifest:file-entry manifest:media-type="" manifest:full-path="Configurations2/menubar/" />
11 <manifest:file-entry manifest:media-type="" manifest:full-path="Configurations2/toolbar/" />
12 <manifest:file-entry manifest:media-type="" manifest:full-path="Configurations2/images/Bitmaps/" />
13 <manifest:file-entry manifest:media-type="" manifest:full-path="Configurations2/images/" />
14 <manifest:file-entry manifest:media-type="application/vnd.sun.xml.ui.configuration" manifest:full-path="Configurations2/" />
15 <manifest:file-entry manifest:media-type="text/xml" manifest:full-path="content.xml" />
16 <manifest:file-entry manifest:media-type="text/xml" manifest:full-path="styles.xml" />
17 <manifest:file-entry manifest:media-type="text/xml" manifest:full-path="meta.xml" />
18 <manifest:file-entry manifest:media-type="" manifest:full-path="Thumbnails/thumbnail.png" />
19 <manifest:file-entry manifest:media-type="" manifest:full-path="Thumbnails/" />
20 <manifest:file-entry manifest:media-type="text/xml" manifest:full-path="settings.xml" />
21 </manifest:manifest>
```

Lin 5, Col 30 INS



# Estrutura Básica

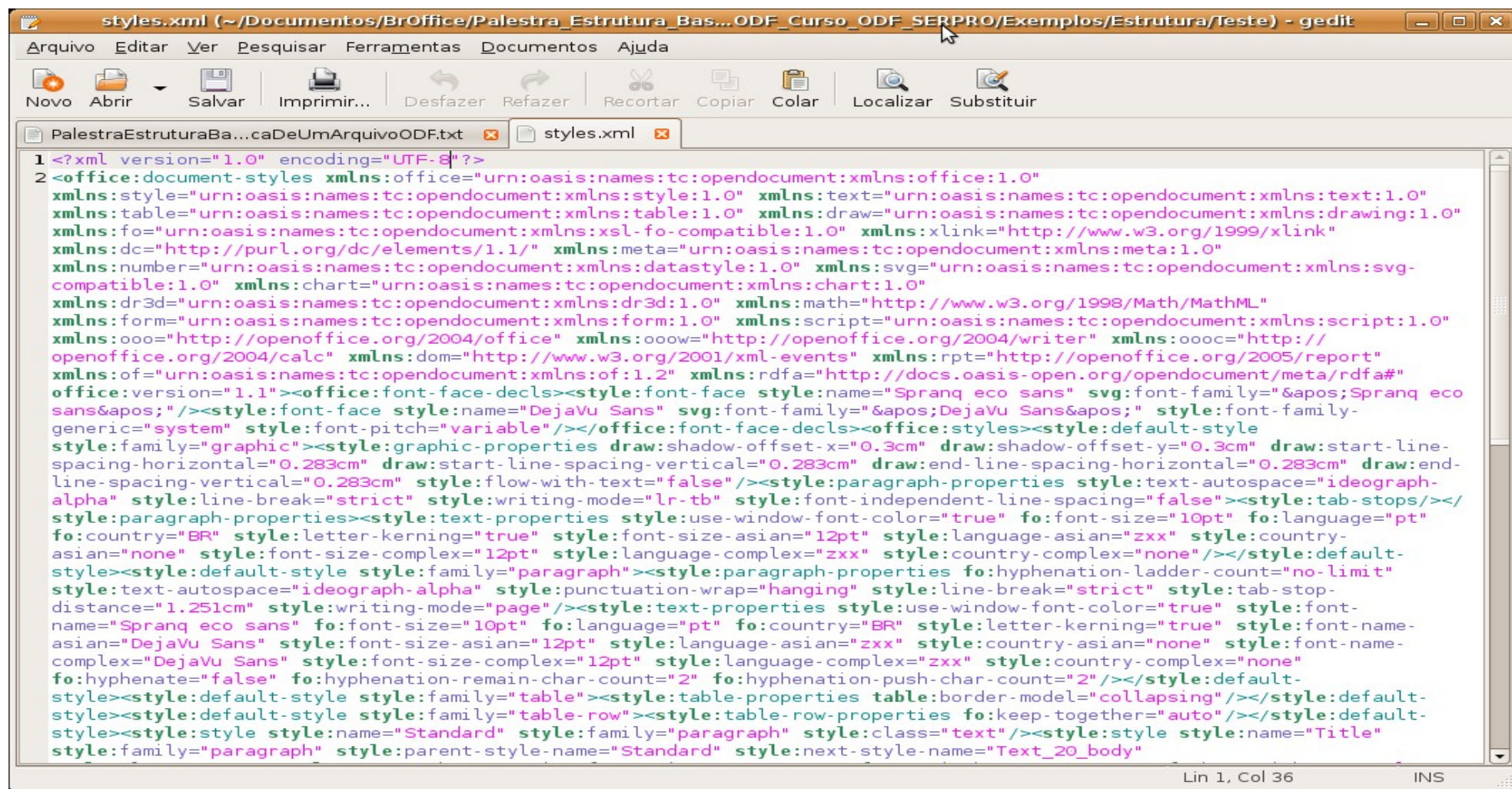
- content.xml: “Conteúdo do documento e estilos automáticos usados no conteúdo.”

```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <office:document-content xmlns:office="urn:oasis:names:tc:opendocument:xmlns:office:1.0"
  xmlns:style="urn:oasis:names:tc:opendocument:xmlns:style:1.0" xmlns:text="urn:oasis:names:tc:opendocument:xmlns:text:1.0"
3 xmlns:table="urn:oasis:names:tc:opendocument:xmlns:table:1.0" xmlns:draw="urn:oasis:names:tc:opendocument:xmlns:drawing:1.0"
4 xmlns:fo="urn:oasis:names:tc:opendocument:xmlns:xsl-fo-compatible:1.0"
5 xmlns:xlink="http://www.w3.org/1999/xlink" xmlns:dc="http://purl.org/dc/elements/1.1/"
6 xmlns:meta="urn:oasis:names:tc:opendocument:xmlns:meta:1.0" xmlns:number="urn:oasis:names:tc:opendocument:xmlns:datastyle:1.0"
7 xmlns:svg="urn:oasis:names:tc:opendocument:xmlns:svg-compatible:1.0"
  xmlns:chart="urn:oasis:names:tc:opendocument:xmlns:chart:1.0"
8 xmlns:dr3d="urn:oasis:names:tc:opendocument:xmlns:dr3d:1.0" xmlns:math="http://www.w3.org/1998/Math/MathML"
9 xmlns:form="urn:oasis:names:tc:opendocument:xmlns:form:1.0" xmlns:script="urn:oasis:names:tc:opendocument:xmlns:script:1.0"
10 xmlns:ooo="http://openoffice.org/2004/office" xmlns:ooow="http://openoffice.org/2004/writer"
11 xmlns:oooc="http://openoffice.org/2004/calc" xmlns:dom="http://www.w3.org/2001/xml-events"
12 xmlns:xforms="http://www.w3.org/2002/xforms" xmlns:xsd="http://www.w3.org/2001/XMLSchema"
13 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:rpt="http://openoffice.org/2005/report"
14 xmlns:of="urn:oasis:names:tc:opendocument:xmlns:of:1.2" xmlns:rdfa="http://docs.oasis-open.org/opendocument/meta/rdfa#"
15 xmlns:field="urn:openoffice:names:experimental:ooo-ms-interop:xmlns:field:1.0"
16 office:version="1.1"> <office:scripts/>
17 <office:font-face-decls><style:font-face style:name="Sprandeco sans" svg:font-family="&apos;Sprandeco sans&apos;"/>
  ><style:font-face style:name="DejaVu Sans" svg:font-family="&apos;DejaVu Sans&apos;" style:font-family-generic="system"
  style:font-pitch="variable"/></office:font-face-decls> <office:automatic-styles/>
18 <office:body>
19 <office:text><text:sequence-decls><text:sequence-decl text:display-outline-level="0" text:name="Illustration"/><text:sequence-
  decl text:display-outline-level="0" text:name="Table"/><text:sequence-decl text:display-outline-level="0" text:name="Text"/>
  ><text:sequence-decl text:display-outline-level="0" text:name="Drawing"/></text:sequence-decls>
20 <text:p text:style-name="Standard">Dia da Liberdade de Documentos</text:p>
21 <text:p text:style-name="Standard">!!!!!!!!!!!!!!!!!!!!!!!!!!!!!! Linha adicionada através de uma edição no bloco de
  notas !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!</text:p>
22 </office:text></office:body></office:document-content>
```



# Estrutura Básica

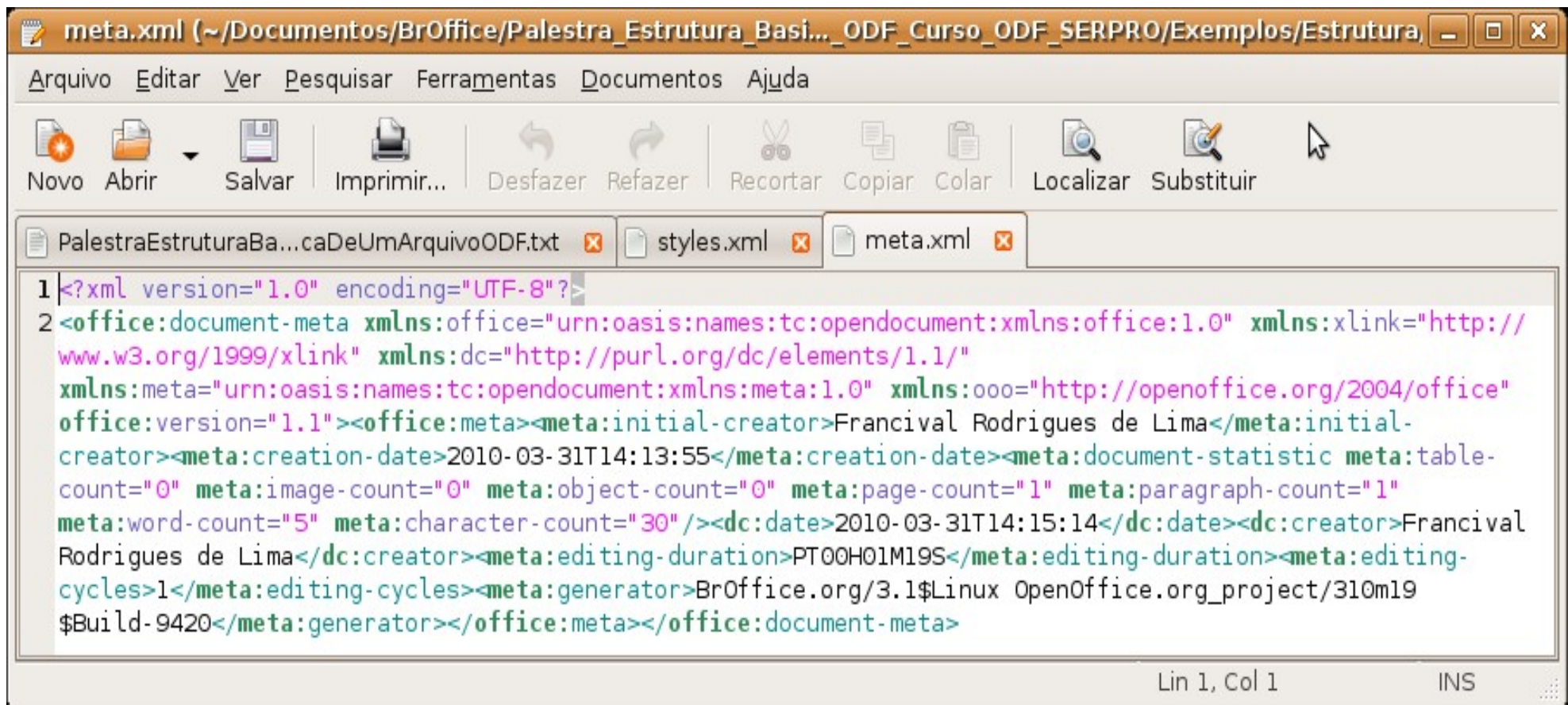
- styles.xml: “Estilos usados no conteúdo do documento e estilos automáticos utilizados nos próprios estilos.”



```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <office:document-styles xmlns:office="urn:oasis:names:tc:opendocument:xmlns:office:1.0"
  xmlns:style="urn:oasis:names:tc:opendocument:xmlns:style:1.0" xmlns:text="urn:oasis:names:tc:opendocument:xmlns:text:1.0"
  xmlns:table="urn:oasis:names:tc:opendocument:xmlns:table:1.0" xmlns:draw="urn:oasis:names:tc:opendocument:xmlns:drawing:1.0"
  xmlns:fo="urn:oasis:names:tc:opendocument:xmlns:xsl-fo-compatible:1.0" xmlns:xlink="http://www.w3.org/1999/xlink"
  xmlns:dc="http://purl.org/dc/elements/1.1/" xmlns:meta="urn:oasis:names:tc:opendocument:xmlns:meta:1.0"
  xmlns:number="urn:oasis:names:tc:opendocument:xmlns:datastyle:1.0" xmlns:svg="urn:oasis:names:tc:opendocument:xmlns:svg-
  compatible:1.0" xmlns:chart="urn:oasis:names:tc:opendocument:xmlns:chart:1.0"
  xmlns:dr3d="urn:oasis:names:tc:opendocument:xmlns:dr3d:1.0" xmlns:math="http://www.w3.org/1998/Math/MathML"
  xmlns:form="urn:oasis:names:tc:opendocument:xmlns:form:1.0" xmlns:script="urn:oasis:names:tc:opendocument:xmlns:script:1.0"
  xmlns:ooo="http://openoffice.org/2004/office" xmlns:ooow="http://openoffice.org/2004/writer" xmlns:oooc="http://
  openoffice.org/2004/calc" xmlns:dom="http://www.w3.org/2001/xml-events" xmlns:rpt="http://openoffice.org/2005/report"
  xmlns:of="urn:oasis:names:tc:opendocument:xmlns:of:1.2" xmlns:rdfa="http://docs.oasis-open.org/opendocument/meta/rdfa#"
  office:version="1.1"><office:font-face-decls><style:font-face style:name="Spranq eco sans" svg:font-family="&apos;Spranq eco
  sans&apos;"/><style:font-face style:name="DejaVu Sans" svg:font-family="&apos;DejaVu Sans&apos;" style:font-family-
  generic="system" style:font-pitch="variable"/></office:font-face-decls><office:styles><style:default-style
  style:family="graphic"><style:graphic-properties draw:shadow-offset-x="0.3cm" draw:shadow-offset-y="0.3cm" draw:start-line-
  spacing-horizontal="0.283cm" draw:start-line-spacing-vertical="0.283cm" draw:end-line-spacing-horizontal="0.283cm" draw:end-
  line-spacing-vertical="0.283cm" style:flow-with-text="false"/><style:paragraph-properties style:text-autospace="ideograph-
  alpha" style:line-break="strict" style:writing-mode="lr-tb" style:font-independent-line-spacing="false"><style:tab-stops/></
  style:paragraph-properties><style:text-properties style:use-window-font-color="true" fo:font-size="10pt" fo:language="pt"
  fo:country="BR" style:letter-kerning="true" style:font-size-asian="12pt" style:language-asian="zxx" style:country-
  asian="none" style:font-size-complex="12pt" style:language-complex="zxx" style:country-complex="none"/></style:default-
  style><style:default-style style:family="paragraph"><style:paragraph-properties fo:hyphenation-ladder-count="no-limit"
  style:text-autospace="ideograph-alpha" style:punctuation-wrap="hanging" style:line-break="strict" style:tab-stop-
  distance="1.251cm" style:writing-mode="page"/><style:text-properties style:use-window-font-color="true" style:font-
  name="Spranq eco sans" fo:font-size="10pt" fo:language="pt" fo:country="BR" style:letter-kerning="true" style:font-name-
  asian="DejaVu Sans" style:font-size-asian="12pt" style:language-asian="zxx" style:country-asian="none" style:font-name-
  complex="DejaVu Sans" style:font-size-complex="12pt" style:language-complex="zxx" style:country-complex="none"
  fo:hyphenate="false" fo:hyphenation-remain-char-count="2" fo:hyphenation-push-char-count="2"/></style:default-
  style><style:default-style style:family="table"><style:table-properties table:border-model="collapsing"/></style:default-
  style><style:default-style style:family="table-row"><style:table-row-properties fo:keep-together="auto"/></style:default-
  style><style:style style:name="Standard" style:family="paragraph" style:class="text"/><style:style style:name="Title"
  style:family="paragraph" style:parent-style-name="Standard" style:next-style-name="Text_20_body"
```

# Estrutura Básica

- meta.xml: “Meta informações sobre o documento, como o autor ou o horário em que foi salvo pela última vez.”



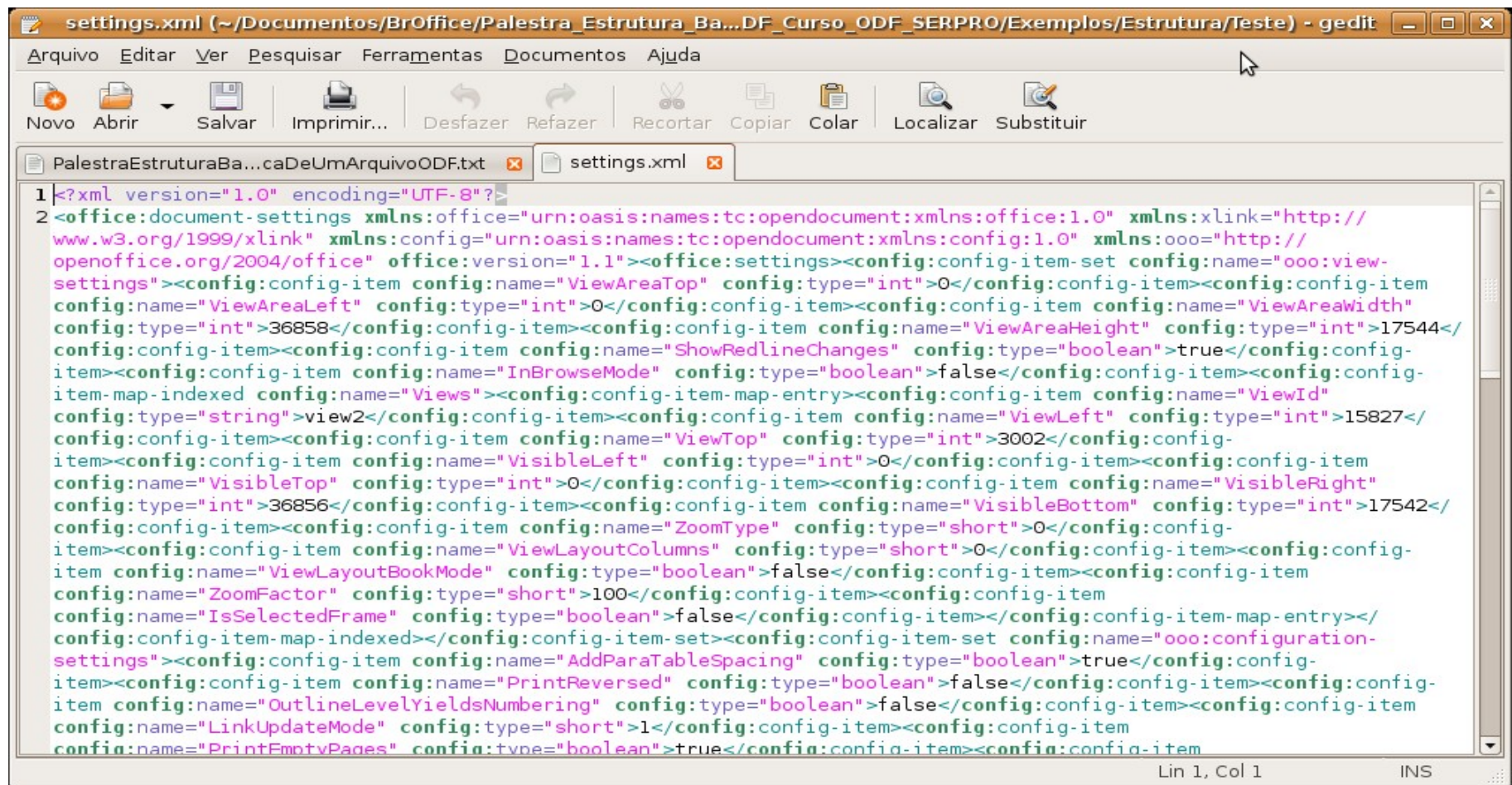
```
1 |<?xml version="1.0" encoding="UTF-8"?>
2 |<office:document-meta xmlns:office="urn:oasis:names:tc:opendocument:xmlns:office:1.0" xmlns:xlink="http://
  |www.w3.org/1999/xlink" xmlns:dc="http://purl.org/dc/elements/1.1/"
  |xmlns:meta="urn:oasis:names:tc:opendocument:xmlns:meta:1.0" xmlns:ooo="http://openoffice.org/2004/office"
  |office:version="1.1"><office:meta><meta:initial-creator>Francival Rodrigues de Lima</meta:initial-
  |creator><meta:creation-date>2010-03-31T14:13:55</meta:creation-date><meta:document-statistic meta:table-
  |count="0" meta:image-count="0" meta:object-count="0" meta:page-count="1" meta:paragraph-count="1"
  |meta:word-count="5" meta:character-count="30"/><dc:date>2010-03-31T14:15:14</dc:date><dc:creator>Francival
  |Rodrigues de Lima</dc:creator><meta:editing-duration>PT00H01M19S</meta:editing-duration><meta:editing-
  |cycles>1</meta:editing-cycles><meta:generator>BrOffice.org/3.1$Linux OpenOffice.org_project/310m19
  |$Build-9420</meta:generator></office:meta></office:document-meta>
```

Lin 1, Col 1      INS



# Estrutura Básica

- settings.xml: “Configurações específicas de aplicativos, como o tamanho da janela ou configurações de impressora.”



The image shows a screenshot of a gedit window editing a settings.xml file. The window title is "settings.xml (~/Documentos/BrOffice/Palestra\_Estrutura\_Ba...DF\_Curso\_ODF\_SERPRO/Exemplos/Estrutura/Teste) - gedit". The menu bar includes "Arquivo", "Editar", "Ver", "Pesquisar", "Ferramentas", "Documentos", and "Ajuda". The toolbar contains icons for "Novo", "Abrir", "Salvar", "Imprimir...", "Desfazer", "Refazer", "Recortar", "Copiar", "Colar", "Localizar", and "Substituir". The file tabs show "PalestraEstruturaBa...caDeUmArquivoODF.txt" and "settings.xml". The main text area displays XML code for office settings, including view settings, zoom, and printing options.

```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <office:document-settings xmlns:office="urn:oasis:names:tc:opendocument:xmlns:office:1.0" xmlns:xlink="http://
www.w3.org/1999/xlink" xmlns:config="urn:oasis:names:tc:opendocument:xmlns:config:1.0" xmlns:ooo="http://
openoffice.org/2004/office" office:version="1.1"><office:settings><config:config-item-set config:name="ooo:view-
settings"><config:config-item config:name="ViewAreaTop" config:type="int">0</config:config-item><config:config-item
config:name="ViewAreaLeft" config:type="int">0</config:config-item><config:config-item config:name="ViewAreaWidth"
config:type="int">36858</config:config-item><config:config-item config:name="ViewAreaHeight" config:type="int">17544</
config:config-item><config:config-item config:name="ShowRedlineChanges" config:type="boolean">true</config:config-
item><config:config-item config:name="InBrowseMode" config:type="boolean">>false</config:config-item><config:config-
item-map-indexed config:name="Views"><config:config-item-map-entry><config:config-item config:name="ViewId"
config:type="string">view2</config:config-item><config:config-item config:name="ViewLeft" config:type="int">15827</
config:config-item><config:config-item config:name="ViewTop" config:type="int">3002</config:config-
item><config:config-item config:name="VisibleLeft" config:type="int">0</config:config-item><config:config-item
config:name="VisibleTop" config:type="int">0</config:config-item><config:config-item config:name="VisibleRight"
config:type="int">36856</config:config-item><config:config-item config:name="VisibleBottom" config:type="int">17542</
config:config-item><config:config-item config:name="ZoomType" config:type="short">0</config:config-
item><config:config-item config:name="ViewLayoutColumns" config:type="short">0</config:config-item><config:config-
item config:name="ViewLayoutBookMode" config:type="boolean">>false</config:config-item><config:config-item
config:name="ZoomFactor" config:type="short">100</config:config-item><config:config-item
config:name="IsSelectedFrame" config:type="boolean">>false</config:config-item></config:config-item-map-entry></
config:config-item-map-indexed></config:config-item-set><config:config-item-set config:name="ooo:configuration-
settings"><config:config-item config:name="AddParaTableSpacing" config:type="boolean">true</config:config-
item><config:config-item config:name="PrintReversed" config:type="boolean">>false</config:config-item><config:config-
item config:name="OutlineLevelYieldsNumbering" config:type="boolean">>false</config:config-item><config:config-item
config:name="LinkUpdateMode" config:type="short">1</config:config-item><config:config-item
config:name="PrintEmptyPages" config:type="boolean">true</config:config-item></config:config-item-set></office:settings></office:document-settings>
```

Lin 1, Col 1

# Especificação ODF

Especificação possui 738 páginas (versão 1.0-SE ou ISO/IEC 26.300).

Disponível no site do OASIS:

<http://docs.oasis-open.org/office/v1.1/OS/OpenDocument-v1.1.pdf>

Disponível no site da ABNT (R\$ 354,10):

<http://www.abntcatalogo.com.br/norma.aspx?ID=1549>

# Fontes

- Fonte: Apresentação Wordkshop\_ODF. Autor: Jomar Silva.  
Disponível em:  
[www.festivalsoftwarelivre.org/inicio/slides/Workshop\\_ODF.pdf](http://www.festivalsoftwarelivre.org/inicio/slides/Workshop_ODF.pdf)
- [http://en.wikipedia.org/wiki/OpenDocument\\_Format](http://en.wikipedia.org/wiki/OpenDocument_Format)
- <http://www.linuxjournal.com/article/9347?page=0,1>
- FAQs.odt - ODF Alliance: [www.odfalliance.org](http://www.odfalliance.org)
- OpenDocument Fellowship: [opendocumentfellowship.org](http://opendocumentfellowship.org)
- [http://www.oasis-open.org/committees/tc\\_home.php?wg\\_abbrev=office](http://www.oasis-open.org/committees/tc_home.php?wg_abbrev=office)

**MUITO OBRIGADO!!!**

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Francival Lima

<http://francival.wordpress.com>

[francival.lima@gmail.com](mailto:francival.lima@gmail.com)