#### 1 Introduction

This document contains the following listings:

### Listings

1	Anotl	her	bi	it o	f ]	Pa	sc	al													2
2	AC1	ang	gua	age	li	$\operatorname{sti}$	ing	ŗ													3
any.s	ty.ltxr	nl																			4
listin	g.tex																				4

## 2 Inline Listings

Various delimiters: a\_word, a\_word, a\_word and even a\_word done.

Indirectly: a\_word; and with messed up braces foo { bar .

And also as an environment:  $\_$ word; done. Careful with spacing/math/macros: foo( $\langle X \rangle$ )

#### 2.1 Shorthands

```
Normal: —@— and x^y
Listing1: foo-baz(/^s*/);
Listing2: foo-baz(/^s*/);
Listing3: xy
Normal again: —@— and x^y
```

## 3 An untyped Listing

No options, language, etc

- 1 stuff1
- 2 stuff2
- 3 stuff3

#### 4 Some C

```
1 #define EXAMPLE whichwhat
2 x = "foo";
3 break;
```

## 5 A Pascal Listing

```
A listing portion:
    begin
  2
       \{ do nothing \}
    end;
        A numbered listing:
     for \ \ i := maxint \ \ to \ \ \ 0 \ \ do
     ___begin
      = \{ do = nothing = \} 
     \verb"---end";
     \mathbf{Write}(\,{\tt 'case\_insensitive'})\,;
   Write('long_'', string');
     WritE( 'Pascal_keywords.');
        A Titled listing:
                                  A bit of Pascal
    for i:=maxint to 0 do
  2
    begin
  3
       \{ do nothing \}
    \mathbf{end};
  4
    Write ('case_insensitive');
        A Captioned listing (known as Listing 1):
                          Listing 1: Another bit of Pascal
100 for i := maxint to 0 do
101
    begin
102
       \{ do nothing \}
103 end;
          An Environment
    for i := maxint to 0 do
    begin
  3
       \{ do nothing \}
    end;
     for i:=maxint to 0 do
     begin
       \{ do nothing \}
     end;
```

2

3

4

```
for i:=maxint to 0 do

begin
{ do nothing }

end;

4
```

## 7 Framing and such

```
for i:=maxint to 0 do
1
2
  begin
3
   \{ do nothing \}
4
  end;
  for i := maxint to 0 do
2
  begin
3
  \{ do nothing \}
4
  end;
1
  for i := maxint to 0 do
2
  begin
3
    \{ do nothing \}
  end;
  for i:=maxint to 0 do
1
  begin
3
    \{ do nothing \}
  end;
                      Listing 2: A C language listing
  #define EXAMPLE whichwhat
  x = "foo";
```

## 8 Listing with Math

break;

```
 \begin{array}{ll} 1 & // \ {\rm calculate} \ a_{ij} \\ 2 & {\rm a[\,i\,][\,j\,]} \ = \ {\rm a[\,j\,][\,j\,]/\,a[\,i\,][\,j\,]}; \\ \\ 1 & // \ {\rm calculate} \ a_{ij} \\ 2 & {\rm a[\,i\,][\,j\,]} \ = \ {\rm a[\,j\,][\,j\,]/\,a[\,i\,][\,j\,]}; \\ \end{array}
```

```
1 // \text{ calculate } a_{ij}
a_{ij} = a_{jj}/aij;
3 // \text{calculate } a_{ij} = \sin x
5 \quad a[i,j] = sin(x)
6 foo="a_word";
7 foo="a x^2  math";
1 // calculate < a_{ij} >
2 a_{ij}
  = a_{-} \{ jj \} / a \{ ij \};
1 // calculate \$a_{-}\{ij\}\$
2 $a_{ij}
   = a_{-} \{ jj \} / a \{ ij \} $;
   // calculate \$a_{-}\{ij\} =
6 \quad a[i,j] = sin(x)
7 foo="a_word";
8 foo="a_\\"string";
9 foo="a_{\sqcup}$x^2$_{\sqcup}math";
```

#### 9 A Perl Listing

```
1 # -*- CPERL -*-
2 package LaTeXML::Package::Pool;
3 use strict;
4 use LaTeXML::Package;
5
6 DefConstructor('\container{}',"<ltx:special>#1</ltx:special>");
7 DefConstructor('\foo',"<ltx:not-defined/>");
8
9 1;
```

## 10 A Recursive T<sub>E</sub>X listing

```
1 \documentclass{article}
2 \usepackage{makeidx}
3 \makeindex
4 \usepackage{listings}
5 \usepackage[dvipsnames]{color}
6 \begin{document}
7 \lstset{numbers=left}
8 \section{Introduction}
```

```
This document contains the following listings:
10
  \lstlistoflistings
11
   \section{Inline Listings}
12
   Various delimiters: \lstinline \{a_word\},
   \lstinline!a_word!, \lstinline Aa_wordA,
   \lstinline&a_word& and even \lstinline^a_word^ done.
16
17
   \def \justcopy \#1 \{ \#1 \}
   Indirectly: \justcopy{\lstinline|a_word|};
   and with messed up braces \lstinline \{foo \{ bar \}.\%\}
20
21 And also as an environment:
22
   \begin{lstinline}
   a_word
24
   \end{lstinline}; done.
25
26
27
   28
     mathescape=true,
29
30 Careful with spacing/math/macros: \lstinline!foo(\$\langle X \rangle\$)!
31
32
   \subsection { Shorthands }
   Normal: |@| and x^y
   \lstMakeShortInline[language=perl, basicstyle=\ttfamily]|
   \lstMakeShortInline[language=perl, basicstyle=\ttfamily]@
   \lstMakeShortInline[language=perl, basicstyle=\ttfamily]^
37
38
   Listing 1:
   |$ foo->baz(/^\s*/)";|
39
40
41
   Listing 2:
42 @foo \rightarrow baz(/^\ s*/)";@
43
44 Listing 3:
45
   ^xy´
   \lstDeleteShortInline |
46
   \lstDeleteShortInline@
   \lstDeleteShortInline^
48
50 Normal again: |@| and x^y
51
   \section{An untyped Listing}
52
53 No options, language, etc
54 \begin{lstlisting}
```

```
stuff1
56
    stuff2
57
    stuff3
    \end{lstlisting}
58
59
60
    \section {Some C}
61
62
    \begin{lstlisting} [language=C, identifierstyle=\slshape, directivestyle=\ttfamily]
    #define EXAMPLE whichwhat
   x = "foo";
   break;
    \ensuremath{\setminus} \mathbf{end} \{ 1 st 1 i st i n g \}
66
67
68
    \section{A Pascal Listing}
69 A listing portion:
    \begin{lstlisting} [language=Pascal, firstline=2, lastline=5, caption={}]
71
    for i:=maxint to 0 do
    begin
73
      { do nothing }
74
    end;
75
76 Write ('case insensitive');
    Write('long', string');
77
    WritE('Pascal keywords.');
    \end{lstlisting}
79
80
81
   A numbered listing:
    \begin{lstlisting} [language=Pascal, numbers=left, numberstyle=\tiny, stepnumber=2
83
    for i:=maxint to 0 do
84
             begin
85
                      { do nothing }
86
             end;
87
    Write ('case insensitive');
    Write('long', string');
    WritE('Pascal keywords.');
    \end{lstlisting}
92
93 A Titled listing:
    \begin{lstlisting} [language=Pascal, title={A bit of Pascal}]
    for i:=maxint to 0 do
96
   begin
97
      { do nothing }
98
    end;
    Write ('case insensitive');
100 \end{lstlisting}
```

```
101
102
    A Captioned listing (known as Listing \ref{pascallisting}):
    \begin{lstlisting} [language=Pascal, caption=Another bit of Pascal, label=pascallis
104
105
    for i:=maxint to 0 do
106
    begin
107
       { do nothing }
108
    end;
109
    \end{lstlisting}
110
    \section{An Environment}
    \begin{lstlisting} [language=Pascal]
    for i:=maxint to 0 do
113
114
    begin
115
       { do nothing }
116
    end;
117
    \end{lstlisting}
118
119
    \lstnewenvironment { colored } [1] { \lstset { language=Pascal , numbers=right , numberstyle
120
    \begin{colored}{red}
121
    for i:=maxint to 0 do
122
    begin
123
       { do nothing }
124
    end;
125
    \ensuremath{\setminus} \mathbf{end} \{ \operatorname{colored} \}
126
127
    \begin{colored}{blue}
128
    for i := maxint to 0 do
129
    begin
130
       { do nothing }
131
    end;
132
    \end{colored}
133
134
    \section{Framing and such}
    \lstset { backgroundcolor=\color [named] { CarnationPink } }
135
    \begin{lstlisting}[language=Pascal, frame=single, rulecolor=\color{red}]
137
    for i:=maxint to 0 do
138
    begin
139
       { do nothing }
140
    end;
141
    \end{lstlisting}
142
    \begin{lstlisting} [language=Pascal, frameround=tttt, backgroundcolor=\color{yellow}
144
    for i:=maxint to 0 do
145
    begin
146
      { do nothing }
```

```
147 end;
148
    \end{lstlisting}
    \lstset { backgroundcolor=}
150 \begin{lstlisting} [language=Pascal, frame=single]
    for i:=maxint to 0 do
152
    begin
153
       { do nothing }
154
    end;
155
    \end{lstlisting}
156
157
    \begin{lstlisting} [language=Pascal, frame=lines]
    for i:=maxint to 0 do
158
159
    begin
160
       { do nothing }
161
    end:
162
    \end{lstlisting}
163
    \begin{lstlisting} [language=C, identifierstyle=\slshape, directivestyle=\ttfamily,
164
    caption=A C language listing, frame=lines, backgroundcolor={\color[cmyk]{0,0,0,0.
166 #define EXAMPLE whichwhat
    x = "foo";
167
168
    break;
169
    \end{lstlisting}
170
171
    \section{Listing with Math}
    \begin{lstlisting} [language=c, texcl, commentstyle=\color{green}]
173
    // \upshape calculate $a_{ij}$
    a[i][j] = a[j][j]/a[i][j];
174
175
    \end{lstlisting}
176
177
    \begin{lstlisting}[texcl,language=c]
178
    // \upshape calculate $a_{ij}$
179
    a[i][j] = a[j][j]/a[i][j];
    \ensuremath{\setminus} \mathbf{end} \{ \ensuremath{\mathsf{lstlisting}} \}
180
181
182
    \begin{lstlisting} [language=c, mathescape, numbers=left, commentstyle=\color{green}
183
    // calculate $a_{ij}$
184 $a_{ij}
185
    = a_{-} \{ jj \} / a \{ ij \} ;
186
    // calculate a_{ij} =
187
    \langle \sin x \rangle
188 a[i,j] = sin(x)
    foo="a word";
    foo="a x^2 math";
190
191
    \end{lstlisting}
192
```

```
193 \begin{lstlisting} [language=c, escapechar=\%, escapebegin=\textless, escapeend=\textless]
   // calculate \%$a_{-}\{ij\}$\%
195 a<sub>-</sub>{ ij }
    = a_{-} \{ jj \} / a \{ ij \};
196
197
    \end{lstlisting}
198
    \begin{lstlisting} [language=c, numbers=left, stringstyle=\ttfamily]
199
200
    // calculate $a_{ij}$
201 $a_{ij}
    = a_{-} \{ jj \} / a \{ ij \} \};
    // calculate $a_{ij} =
204
    \langle \sin x \rangle
205 a[i,j] = sin(x)
206 foo="a word";
207 foo="a \"string";
    foo="a x^2 math";
209
    \end{lstlisting}
210
    \section{A Perl Listing}
211
212
    \lstinputlisting[language=perl]{any.sty.ltxml}
213
    \section {A Recursive \TeX\ listing}
215
    \lstinputlisting [language = {[LaTeX]TeX}] { listing.tex}
216
    \section{Testing Tag}
217
    % AHA, tagstyle only is in effect with XML (?)
    \begin{lstlisting} [language=XML, tagstyle=\bf]
220 <element attr='value'>content</element>
221
    \end{lstlisting}
    \begin{lstlisting} [language=XML, tagstyle=\bf, usekeywordsintag=false]
    <element attr='value'>content</element>
224
    \end{lstlisting}
    \begin{lstlisting} [language=XML, tagstyle=\bf, markfirstintag]
226 <element attr='value'>content</element>
227
    \end{lstlisting}
228
229
    \section{Screwiness}
230
    \lstdefinelanguage{bingo}{morekeywords={foo,bar},morekeywords=[2]{bing,bar}}
231 \%
232 \% AHA, words can only be in one class (1st one declared?)
233 % BUT, index is separate, and classname is without the "style" !!
    \begin{array}{l} \mathbf{begin} \{ 1 \text{ stlisting} \} [1 \text{ language=bingo}, \text{keywordstyle=} \mathbf{bfseries}, \text{keywordstyle=} \{ [2] \mathbf{itsha} \} \\ \end{array}
    foo bar baz bing booboo
236
    \end{lstlisting}
    {\bfseries\itshape bfit}
237
    {\itshape\bfseries itbf}
```

```
\begin{array}{ll} 239 & \texttt{\ \ } \texttt{\ } \texttt{
```

# 11 Testing Tag

- 1 <element attr='value'>content</element>
- 1 <element attr='value'>content</element>
- 1 <element attr='value'>content</element>

#### 12 Screwiness