1 Introduction

This document contains the following listings:

Listings

2 Inline Listings

Various delimiters: a_word, a_word, a_word, a_word and even a_word done.
Indirectly: a_word; and with messed up braces foo { bar .
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:

```
1  begin
2    { do nothing }
3  end;
```

A numbered listing:

```
1  for␣i:=maxint␣to␣0␣do
   ␣␣␣␣begin
3  ␣␣␣␣␣␣␣␣{␣do␣nothing␣}
   ␣␣␣␣end;
5
   Write('case␣insensitive');
7  Write('long␣''␣string');
   WritE('Pascal␣keywords.');
```

A Titled listing:

A bit of Pascal

```
1  for i:=maxint to 0 do
2  begin
3    { do nothing }
4  end;
5  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;
```

6 An Environment

```
1  for i:=maxint to 0 do
2  begin
3    { do nothing }
4  end;
```

```
for i:=maxint to 0 do                                    1
begin                                                    2
  { do nothing }                                         3
end;                                                     4
```

```
for i:=maxint to 0 do                                    1
begin                                                    2
  { do nothing }                                         3
end;                                                     4
```

7 Framing and such

```
1 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 }
4 end;
```

```
1 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 }
4 end;
```

Listing 2: A C language listing

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

8 Listing with Math

```
1 // calculate a_ij
2 a[i][j] = a[j][j]/a[i][j];
```

```
1 // calculate a_ij
2 a[i][j] = a[j][j]/a[i][j];
```

```
// calculate a_ij
a_ij = a_jj/aij;
// calculate a_ij = sin x

a[i,j]=sin(x)
foo="a word";
foo="a x^2 math";
```

```
// calculate <a_ij>
a_{ij}
 = a_{jj}/a{ij};
```

```
// calculate $a_{ij}$
$a_{ij}
 = a_{jj}/a{ij}$;
// calculate $a_{ij} =
\sin x$
a[i,j]=sin(x)
foo="a word";
foo="a \"string";
foo="a $x^2$ math";
```

9 A Perl Listing

```
# -*- CPERL -*-
package LaTeXML::Package::Pool;
use strict;
use LaTeXML::Package;

DefConstructor('\container{}',"<ltx:special>#1</ltx:special>");
DefConstructor('\foo',"<ltx:not-defined/>");

1;
```

10 A Recursive TEX listing

```
\documentclass{article}
\usepackage{makeidx}
\makeindex
\usepackage{listings}
\usepackage[dvipsnames]{color}
\begin{document}
\lstset{numbers=left}
\section{Introduction}
```

```
This document contains the following listings:
\lstlistoflistings

\section{Inline Listings}
Various delimiters: \lstinline{a_word},
\lstinline!a_word!, \lstinline Aa_wordA,
\lstinline&a_word& and even \lstinline^a_word^ done.

\def\justcopy#1{#1}
Indirectly: \justcopy{\lstinline|a_word|};
and with messed up braces \lstinline{foo { bar }.% }

{
\lstset{
  mathescape=true,
}
Careful with spacing/math/macros: \lstinline!foo($\langle X \rangle$)!
}
\subsection{Shorthands}
Normal: |@| and $x^y$
\lstMakeShortInline[language=perl,basicstyle=\ttfamily]|
\lstMakeShortInline[language=perl,basicstyle=\ttfamily]@
\lstMakeShortInline[language=perl,basicstyle=\ttfamily]^

Listing 1:
|$foo->baz(/^\s*/)";|

Listing 2:
@$foo->baz(/^\s*/)";@

Listing 3:
^xy^
\lstDeleteShortInline|
\lstDeleteShortInline@
\lstDeleteShortInline^

Normal again: |@| and $x^y$

\section{An untyped Listing}
No options, language, etc
\begin{lstlisting}
stuff1
stuff2
stuff3
\end{lstlisting}

```

```
55 \section{Some C}
56
57 \begin{lstlisting}[language=C,identifierstyle=\slshape,directivestyle=\ttfamily]
58 #define EXAMPLE whichwhat
59 x = "foo";
60 break;
61 \end{lstlisting}
62
63 \section{A Pascal Listing}
64 A listing portion:
65 \begin{lstlisting}[language=Pascal,firstline=2,lastline=5,caption={}]
66 for i:=maxint to 0 do
67 begin
68   { do nothing }
69 end;
70
71 Write('case insensitive');
72 Write('long '' string');
73 WritE('Pascal keywords.');
74 \end{lstlisting}
75
76 A numbered listing:
77 \begin{lstlisting}[language=Pascal,numbers=left, numberstyle=\tiny, stepnumber=2
78 for i:=maxint to 0 do
79         begin
80                 { do nothing }
81         end;
82
83 Write('case insensitive');
84 Write('long '' string');
85 WritE('Pascal keywords.');
86 \end{lstlisting}
87
88 A Titled listing:
89 \begin{lstlisting}[language=Pascal,title={A bit of Pascal}]
90 for i:=maxint to 0 do
91 begin
92   { do nothing }
93 end;
94 Write('case insensitive');
95 \end{lstlisting}
96
97
98 A Captioned listing (known as Listing \ref{pascallisting}) :
99 \begin{lstlisting}[language=Pascal,caption=Another bit of Pascal, label=pascallis
100 for i:=maxint to 0 do
```

```
101 begin
102   { do nothing }
103 end;
104 \end{lstlisting}
105
106 \section{An Environment}
107 \begin{lstlisting}[language=Pascal]
108 for i:=maxint to 0 do
109 begin
110   { do nothing }
111 end;
112 \end{lstlisting}
113
114 \lstnewenvironment{colored}[1]{\lstset{language=Pascal,numbers=right,numberstyle
115 \begin{colored}{red}
116 for i:=maxint to 0 do
117 begin
118   { do nothing }
119 end;
120 \end{colored}
121
122 \begin{colored}{blue}
123 for i:=maxint to 0 do
124 begin
125   { do nothing }
126 end;
127 \end{colored}
128
129 \section{Framing and such}
130 \lstset{backgroundcolor=\color[named]{CarnationPink}}
131 \begin{lstlisting}[language=Pascal,frame=single,rulecolor=\color{red}]
132 for i:=maxint to 0 do
133 begin
134   { do nothing }
135 end;
136 \end{lstlisting}
137
138 \begin{lstlisting}[language=Pascal,frameround=tttt,backgroundcolor=\color{yellow
139 for i:=maxint to 0 do
140 begin
141   { do nothing }
142 end;
143 \end{lstlisting}
144 \lstset{backgroundcolor=}
145 \begin{lstlisting}[language=Pascal,frame=single]
146 for i:=maxint to 0 do
```

```
begin
  { do nothing }
end;
\end{lstlisting}

\begin{lstlisting}[language=Pascal,frame=lines]
for i:=maxint to 0 do
begin
  { do nothing }
end;
\end{lstlisting}

\begin{lstlisting}[language=C,identifierstyle=\slshape,directivestyle=\ttfamily,
caption=A C language listing, frame=lines,backgroundcolor={\color[cmyk]{0,0,0,0.
#define EXAMPLE whichwhat
x = "foo";
break;
\end{lstlisting}

\section{Listing with Math}
\begin{lstlisting}[language=c,texcl,commentstyle=\color{green}]
// \upshape calculate $a_{ij}$
a[i][j] = a[j][j]/a[i][j];
\end{lstlisting}

\begin{lstlisting}[texcl,language=c]
// \upshape calculate $a_{ij}$
a[i][j] = a[j][j]/a[i][j];
\end{lstlisting}

\begin{lstlisting}[language=c,mathescape,numbers=left,commentstyle=\color{green}
// calculate $a_{ij}$
$a_{ij}
 = a_{jj}/a{ij}$;
// calculate $a_{ij} =
\sin x$
a[i,j]=sin(x)
foo="a word";
foo="a $x^2$ math";
\end{lstlisting}

\begin{lstlisting}[language=c,escapechar=\%,escapebegin=\textless,escapeend=\tex
// calculate %$a_{ij}$%
a_{ij}
 = a_{jj}/a{ij};
\end{lstlisting}
```

```
193
194 \begin{lstlisting}[language=c,numbers=left,stringstyle=\ttfamily]
195 // calculate $a_{ij}$
196 $a_{ij}
197  = a_{jj}/a{ij}$;
198 // calculate $a_{ij} =
199 \sin x$
200 a[i,j]=sin(x)
201 foo="a word";
202 foo="a \"string";
203 foo="a $x^2$ math";
204 \end{lstlisting}
205
206 \section{A Perl Listing}
207 \lstinputlisting[language=perl]{any.sty.ltxml}
208
209 \section{A Recursive \TeX\ listing}
210 \lstinputlisting[language={[LaTeX]TeX}]{listing.tex}
211
212 A shorter listing, with colored cs that include the slash
213 \begin{lstlisting}[language={[LaTeX]TeX},texcsstyle=*{\color{blue}\bfseries}]
214   \iftrue something \fi
215 \end{lstlisting}
216
217 \section{Testing Tag}
218 % AHA, tagstyle only is in effect with XML (?)
219 \begin{lstlisting}[language=XML,tagstyle=\bf]
220 <element attr='value'>content</element>
221 \end{lstlisting}
222 \begin{lstlisting}[language=XML,tagstyle=\bf,usekeywordsintag=false]
223 <element attr='value'>content</element>
224 \end{lstlisting}
225 \begin{lstlisting}[language=XML,tagstyle=\bf,markfirstintag]
226 <element attr='value'>content</element>
227 \end{lstlisting}
228
229 \section{Literate Programming}
230 \begin{lstlisting}[language=C,escapechar=@,literate=*{:=}{{$\gets$}}1 {<=}{{$\le
231   var i:integer;
232   if (i<=0) i := 1;@\label{lit:a}@
233   if (i>=0) i := 0;
234   if (i<>0) i := 0;@\label{lit:b}@
235  /* However not := here */
236 \end{lstlisting}
237 where we draw your attention to lines \ref{lit:a} and \ref{lit:b}.
238
```

```
\section{Screwiness}
\lstdefinelanguage{bingo}{morekeywords={foo,bar},morekeywords=[2]{bing,bar}}
%,
% AHA, words can only be in one class (1st one declared?)
% BUT, index is separate, and classname is without the "style" !!
\begin{lstlisting}[language=bingo,keywordstyle=\bfseries,keywordstyle={[2]\itsha
foo bar baz bing booboo
\end{lstlisting}
{\bfseries\itshape bfit}
{\itshape\bfseries itbf}
\printindex
\end{document}
```

A shorter listing, with colored cs that include the slash

```
\iftrue something \fi
```

11 Testing Tag

```
<element attr='value'>content</element>
```

```
<element attr='value'>content</element>
```

```
<element attr='value'>content</element>
```

12 Literate Programming

```
var i:integer;
if (i≤0) i ← 1;
if (i≥0) i ← 0;
if (i≠0) i ← 0;
/* However not := here */
```

where we draw your attention to lines 2 and 4.

13 Screwiness

```
foo bar baz bing booboo
```

bfit itbf