

The **bp-listings** package

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1 Introduction

This is a LaTeX package for adding BP languages and styles to the listings package.
Current release includes BPjs and BPPy.

1.1 Behavioral Programming (BP)

Behavioral Programming (BP) is a novel, language-independent paradigm for programming reactive systems, centered on natural and incremental specification of behavior.

For more information, visit — <https://m-cacm.acm.org/magazines/2012/7/151241-behavioral-programming/fulltext>.

BPjs is an environment for running behavioral programs written in JavaScript.

2 Licence

This package is freely modifiable and distributable under the terms and conditions of the L^AT_EX Project Public Licence, version 1.3c or greater (your choice). The latest version of this license is available at: <http://www.latex-project.org/lppl.txt>.
This work is maintained by ACHIYA ELYASAF.

File I

Implementation

```
1 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
2 %
3 % The bp-listings package
4 % A package for adding BP languages and styles to the listings package.
5 % Maintained by bThink-BGU
6 %
7 % Project repository and bug tracker:
8 % https://github.com/bThink-BGU/Papers-Latex-BP-Listings
9 %
10 % Released under the LaTeX Project Public License v1.3c or later
11 % See http://www.latex-project.org/lppl.txt
12 %
13 % Version 1.0
14 % August 6, 2019
15 %
16 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
17
18 \NeedsTeXFormat{LaTeX2e}
19
20 \ProvidesPackage{bp-listings}[2019/05/17 v1.0 Some LaTeX macros for adding BP languages to list
21
22 \RequirePackage{listings}
23 % \RequirePackage[utf8x]{inputenc} %(for extendedchars option)
24 \RequirePackage{xcolor}
25 \RequirePackage{lmodern}
26 \RequirePackage{textcomp} % for upquote
27 % \renewcommand{\ttdefault}{pcr}
28
29 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%% OPTIONS %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
30 \newif\if@vbabel
31 \DeclareOption{babel}{\@vbabeltrue}
32 \newif\ifincludebpjs\includebpjstrue
33 \DeclareOption{nobpjs}{\includebpjsfalse}
34 \newif\ifincludebppy\includebppytrue
35 \DeclareOption{nobppy}{\includebppyfalse}
36 \DeclareOption*{\PackageWarning{bp-listings}{Unknown â€”\CurrentOptionâ€”}}
37 \ProcessOptions\relax
38 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%% END OF OPTIONS %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
39
40
41 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%% Color %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

```

42 \definecolor{mediumgray}{rgb}{0.3, 0.4, 0.4}
43 \definecolor{mediumblue}{rgb}{0.0, 0.0, 0.8}
44 \definecolor{forestgreen}{rgb}{0.13, 0.55, 0.13}
45 \definecolor{darkviolet}{rgb}{0.58, 0.0, 0.83}
46 \definecolor{royalblue}{rgb}{0.25, 0.41, 0.88}
47 \definecolor{crimson}{rgb}{0.86, 0.8, 0.24}
48 \definecolor{magenta}{rgb}{0.77, 0, 0.54}
49 %%%%%%%%% End-of Color %%%%%%%%%
50
51
52 %%%%%%%%% FIX BABEL-LISTINGS CONFLICT %%%%%%%%%
53 \makeatletter
54 \if@vbabel
55     \lst@AddToHook{PreInit}{\let\everypar\o@everypar }
56 \fi
57 \makeatother
58 %%%%%%%%% END OF FIX %%%%%%%%%
59
60
61
62 %%%%%%%%% Languages %%%%%%%%%
63 %
64 % JavaScript version 1.1 by Gary Hammock
65 %
66 % Reference:
67 %   B. Eich and C. Rand Mckinney, "JavaScript Language Specification
68 %   (Preliminary Draft)", JavaScript 1.1. 1996-11-18. [Online]
69 %   http://hepunix.rl.ac.uk/~adye/jsspec11/titilepg2.htm
70 %
71 \lstdefinlanguage{JavaScript}{
72   morekeywords=[1]{break, continue, delete, else, for, function, if, in, new, return, this, typ
73   % Literals, primitive types, and reference types.
74   morekeywords=[2]{false, null, true, boolean, number, undefined, Array, Boolean, Date, Math, N
75   % Built-ins.
76   morekeywords=[3]{eval, parseInt, parseFloat, escape, unescape},
77   sensitive,
78   morecomment=[s]{/*}{*/},
79   morecomment=[1]//,
80   morecomment=[s]{/**}{*/}, % JavaDoc style comments
81   morestring=[b]',
82   morestring=[b]"
83 }[keywords, comments, strings]
84
85 %
86 % ECMAScript 2015 (ES6) definition by Gary Hammock

```

```

87 %
88 \lstdefinlanguage[ECMAScript2015]{JavaScript}[] {JavaScript}{
89   morekeywords=[1]{await, async, case, catch, class, const, default, do, enum, export, extends,
90   morestring=[b] ' % Interpolation strings.
91 }
92
93 \lstalias[] {ES6}[ECMAScript2015]{JavaScript}
94
95
96 %
97 % BPjs definition by Achiya Elyasaf
98 %
99 \ifincludebpjs
100 \lstdefinlanguage[BPjs]{JavaScript}[ECMAScript2015]{JavaScript}{
101   morekeywords=[1]{bp, CTX},
102   morekeywords=[4]{interrupt, block, request, waitFor},
103   morestring=[b] ' % Interpolation strings.
104 }
105 \lstalias[] {BPjs}[BPjs]{JavaScript}
106 \fi
107
108 \ifincludebppy
109 \lstdefinlanguage[BPPy]{Python}[] {Python}{
110   morekeywords=[3]{yield},
111   morekeywords=[4]{interrupt, block, request, waitFor, Block, Request, WaitFor},
112   morestring=[b] ' % Interpolation strings.
113 }
114 \lstalias[] {BPPy}[BPPy]{Python}
115 \fi
116 %%%%%%%%%%% End-of Languages %%%%%%%%%%%
117
118
119 %%%%%%%%%%% Styles %%%%%%%%%%%
120 \lstdefinestyle{ProgrammingBase}{
121   backgroundcolor=\color{white},
122   basicstyle=\footnotesize\ttfamily,
123   rulecolor=\color{black},
124   identifierstyle=\color{black},
125   commentstyle=\color{mediumgray}\upshape,
126   emph={},
127   emphstyle=\color{crimson},
128   keywordstyle=\color{mediumblue},
129   keywordstyle={[2]\color{darkviolet}},
130   keywordstyle={[3]\color{darkviolet}},
131   keywordstyle={[4]\color{forestgreen}},

```

```

132 stringstyle=\color{forestgreen},
133 numberstyle=\color{gray},
134 fontadjust=true,
135 frame=single,
136 showstringspaces=false,
137 showtabs=false,
138 showspace=false,
139 keepspaces=true,
140 showlines=true,
141 upquote=true, % requires textcomp
142 captionpos=b,
143 numbers=left,
144 tabsize=2,
145 columns=fullflexible,
146 breaklines=true, % sets automatic line breaking
147 prebreak = \raisebox{0ex}[0ex][0ex]{\ensuremath{\hookleftarrow}}, % just as an example
148 mathescape = true % activates dollar sign for math mode
149 % breakatwhitespace=false, % sets if automatic breaks should only happen at whitespace
150 % literate={\ \ }{{\ } }1,
151 % extendedchars=true, % requires inputenc
152 % xleftmargin=12pt,
153 % xrightmargin=3pt,
154 % belowskip=0pt,
155 % numbersep=5pt,
156 }
157
158 \lstdefinestyle{JavaScript}{
159 language=JavaScript,
160 style=ProgrammingBase
161 }
162 \lstdefinestyle{ES6}{
163 language=ES6,
164 style=ProgrammingBase
165 }
166
167 \ifincludebpjs
168 \lstdefinestyle{BPjs}{
169 language=BPjs,
170 style=ProgrammingBase,
171 }
172 \fi
173
174 \ifincludebppy
175 \lstdefinestyle{BPPy}{
176 language=BPPy,

```

```
177 style=ProgrammingBase,  
178 }  
179 \fi  
180 %%%%%%%%%% End-of Styles %%%%%%%%%%  
181  
182 \endinput
```