

neural-sketch-annotate.sty

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```
implementation                                     iii i*package;

1
2
3 \ExplSyntaxOn
4
5 % ~~~~~
6 % Global props -
7 % Autoincremental annotation number
8 % ~~~~~ <<<
9 \int_new:N \g__nsk_annotation_counter_int
10
11 % ~~~~~
12 % Main nsk / annotate Primitive
13 % ~~~~~ <<<
14 \keys_define:nn { nsk / annotate }
15 {
16 % ~~~~~
17 % Instead of ref-num, we use ref-tag:
18 % - If the user sets a string, that string is used directly.
19 % - If it's empty, we auto-increment a global annotation counter
20 %   and store that numeric string.
21 % ~~~~~ <<<
22 ref-tag .tl_set:N          = \l__nsk_annotate_ref_tag_tl,
23 ref-tag .initial:n         = { },
24
25 disable-tag .bool_set:N    = \l__nsk_annotate_disable_tag_bool,
26 disable-tag .initial:n     = {false},
27 disable-tag .default:n     = {false},
28
29 % box-padding ~~~~~ <<<
30 padding .dim_set:N         = \l__nsk_annotate_box_padding_dim,
31 padding .initial:n         = {3pt},
32
33 % (B) Single pass-through for nskConnect:
34 connect-opts .tl_set:N     = \l__nsk_annotate_connect_opts_tl,
35 connect-opts .initial:n    = {arrow-style = {dotted, thick},color = nskMidGray},
36
37 text-color .tl_set:N       = \l__nsk_annotate_text_color_tl,
38 text-color .initial:n     = { c__nsk_principal },
39
40 % anchor target ~~~~~ <<<
41 connect-to .tl_set:N       = \l__nsk_annotate_connect_to_tl,
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42 connect-to .value_required:n = true,
43 connect-to .initial:n        = { },
44
45 anchor-from .tl_set:N        = \l__nsk_annotate_from_anchor_tl,
46 anchor-from .initial:n       = { east },
47
48 % coords ~~~~~ <<<
49 x .fp_set:N                  = \l__nsk_annotate_x_fp,
50 x .initial:n                 = { 0 },
51 y .fp_set:N                  = \l__nsk_annotate_y_fp,
52 y .initial:n                 = { 0 },
53
54 % nat-pos ~~~~~ <<<
55 pos .tl_set:N                = \l__nsk_annotate_pos_tl,
56 pos .initial:n               = { },
57
58 % ~~~~~
59 % Text
60 % ~~~~~ <<<
61 header .tl_set:N             = \l__nsk_annotate_header_tl,
62 header .initial:n            = { },
63
64 title .tl_set:N              = \l__nsk_annotate_title_tl,
65 title .initial:n             = { },
66
67 text .tl_set:N               = \l__nsk_annotate_text_tl,
68 text .initial:n              = { },
69
70 text-align .choice:,
71 text-align / left .code:n = { \tl_set:Nn \l__nsk_annotate_text_align_tl { left } },
72 text-align / center .code:n = { \tl_set:Nn \l__nsk_annotate_text_align_tl { center } },
73 text-align / right .code:n = { \tl_set:Nn \l__nsk_annotate_text_align_tl { right } },
74 text-align / justify .code:n = { \tl_set:Nn \l__nsk_annotate_text_align_tl { justify } },
75 text-align .initial:n       = { left },
76 text-align .default:n       = { left },
77
78 header-style .tl_set:N       = \l__nsk_annotate_header_style_tl,
79 header-style .initial:n      = { \bfseries },
80
81 title-style .tl_set:N        = \l__nsk_annotate_title_style_tl,
82 title-style .initial:n       = { \itshape },
83
84 text-style .tl_set:N         = \l__nsk_annotate_main_style_tl,
85 text-style .initial:n        = { },
86
87 % bounding styles ~~~~~ <<<
88 fill .tl_set:N               = \l__nsk_annotate_fill_tl,
89 fill .initial:n              = { nskLightestGray },
90
91 border-color .tl_set:N       = \l__nsk_annotate_border_color_tl,
92 border-color .initial:n      = { nskMidGray },
93
94
95 border-type .code:n =

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96 {
97   \tl_if_eq:nnTF {#1}{none}
98   {
99     \tl_set:Nn \l_nsk_annotate_border_type_tl {draw=none}
100  }
101  {
102    \tl_set:Nn \l_nsk_annotate_border_type_tl {#1}
103  }
104
105 },
106 border-type .initial:n = {solid},
107 border-type .default:n = {solid},
108
109 border-size .dim_set:N = \l_nsk_annotate_border_size_dim,
110 border-size .initial:n = .4mm,
111 border-size .default:n = .4mm,
112
113 border-radius .dim_set:N      = \l__nsk_annotate_border_radius_dim,
114 border-radius .initial:n     = {1mm},
115
116 rounded-box .bool_set:N      = \l__nsk_annotate_rounded_box_bool,
117 rounded-box .initial:n       = {false},
118
119 width .dim_set:N              = \l__nsk_annotate_width_dim,
120 width .initial:n              = {0cm},
121
122 % pass-through ~~~~~~ <<<
123 tikz-opts .tl_set:N          = \l__nsk_annotate_extra_tl,
124 tikz-opts .initial:n         = { },
125 tikz-opts .default:n         = { },
126
127 }
128
129
130 % ~~~~~~
131 % Internal helper: Build final annotation node text
132 % ~~~~~~
133 \cs_new_protected_nopar:Npn \nsk__annotate_build_text:
134 {
135   % If the user has not provided any explicit ref-tag:
136   \tl_if_blank:VTF \l__nsk_annotate_ref_tag_tl
137   {
138     % => auto-increment the global counter and store it
139     \int_gincr:N \g__nsk_annotation_counter_int
140     \tl_set:No \l__nsk_annotate_ref_tag_tl
141     {
142       \int_use:N \g__nsk_annotation_counter_int
143     }
144   }
145   {
146     % user gave a custom ref-tag => do nothing else
147   }
148
149   % We'll build a small \vbox or inline text:

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150 \tl_clear_new:N \l__nsk_annotate_textbox_body_tl
151
152 % If the final ref-tag is nonempty, insert \(\ref-tag) "
153 \bool_if:NF \l__nsk_annotate_disable_tag_bool
154 {
155   \tl_if_blank:VF \l__nsk_annotate_ref_tag_tl
156   {
157     \tl_put_right:No \l__nsk_annotate_textbox_body_tl
158     { \textbf{(\tl_use:N \l__nsk_annotate_ref_tag_tl)}\space }
159   }
160 }
161
162
163 % If header is not blank:
164 \tl_if_blank:VTF \l__nsk_annotate_header_tl
165 {
166   \tl_put_left:Nn \l__nsk_annotate_textbox_body_tl
167   {
168     {~}
169   }
170 }
171 {
172   \tl_put_right:No \l__nsk_annotate_textbox_body_tl
173   {
174     {\l__nsk_annotate_header_style_tl \tl_use:N \l__nsk_annotate_header_tl}
175     \tl_if_blank:VF \l__nsk_annotate_title_tl
176     {\}
177   }
178 }
179
180 % If title is not blank
181 \tl_if_blank:VTF \l__nsk_annotate_title_tl
182 {}
183 {
184   \tl_put_right:No \l__nsk_annotate_textbox_body_tl
185   {
186     {\l__nsk_annotate_title_style_tl \tl_use:N \l__nsk_annotate_title_tl}
187     \tl_if_blank:VF \l__nsk_annotate_text_tl
188     {\}
189   }
190 }
191
192 % If main text is not blank
193 \tl_if_blank:VTF \l__nsk_annotate_text_tl
194 {}
195 {
196   \tl_put_right:No \l__nsk_annotate_textbox_body_tl
197   {
198     {\l__nsk_annotate_main_style_tl \tl_use:N \l__nsk_annotate_text_tl}
199   }
200 }
201 }
202
203 % ~~~~~~

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204 % Public Interface
205 % - (user-facing)
206 % ~~~~~ <<<
207 \NewDocumentCommand \nskAnnotate { 0{} }
208 {
209   \group_begin:
210
211   % parse user keys
212   \keys_set:nn { nsk / annotate } { #1 }
213
214   % build the annotation text
215   \nsk__annotate_build_text:
216
217   \tl_set:Nx \l__nsk_annotate_this_id_tl
218   {nskAnnotation\int_use:N \g__nsk_annotation_counter_int}
219
220   \nsk__annotate_get_position:
221
222   % draw the annotation text node:
223   \use:x {\exp_not:N \node[
224     name=\l__nsk_annotate_this_id_tl,
225     text=\l__nsk_annotate_text_color_tl,
226
227     \bool_if:NTF \l__nsk_annotate_rounded_box_bool
228     { shape=rounded~rectangle, }
229     { shape=rectangle, },
230
231     draw=\l__nsk_annotate_border_color_tl,
232     fill=\l__nsk_annotate_fill_tl,
233     minimum~width=\dim_use:N \l__nsk_annotate_width_dim,
234
235     align=\l__nsk_annotate_text_align_tl,
236     rounded~corners=\l__nsk_annotate_border_radius_dim,
237
238     % minimum size plus box-padding around text:
239     inner~sep=\l__nsk_annotate_box_padding_dim,
240
241     % border-type
242     \l__nsk_annotate_border_type_tl,
243     line~width=\l__nsk_annotate_border_size_dim,
244
245     \l__nsk_annotate_pos_tl,
246     \exp_not:N \l__nsk_annotate_extra_tl,
247   ]
248   \tl_if_blank:VT \l__nsk_annotate_pos_tl {
249     at \tl_use:N \l__nsk_annotate_pos_tl
250   }
251 }
252 {\tl_use:N \l__nsk_annotate_textbox_body_tl};
253
254 % We place a connect from <annotation>.east to connect-to
255 \nsk__annotate_draw_connector:
256
257 % Add to the block history so it can be found by \nskBlockIDLast, etc.

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258 \seq_gput_right:NV \g_nsk_block_id_history_seq \l__nsk_annotate_this_id_tl
259
260 \group_end:
261 }
262
263 % ~~~~~~
264 % Positioning logic
265 % ~~~~~~
266 \cs_new_protected_nopar:Npn \nsk__annotate_get_position:
267 {
268   % If pos= is blank => use (x,y). Else use standard TikZ pos syntax
269   \tl_if_blank:VTF \l__nsk_annotate_pos_tl
270   {
271     % -> "( x , y )"
272     \tl_set:Nx \l_anpos {( \fp_use:N \l__nsk_annotate_x_fp , \fp_use:N \l__nsk_annotate_y_fp )}
273   }
274   {
275   }
276 }
277
278 % ~~~~~~
279 % Drawing the connecting arrow
280 % ~~~~~~
281 \cs_new_protected_nopar:Npn \nsk__annotate_draw_connector:
282 {
283   % if connect-to is blank => do nothing
284   \tl_if_blank:VF \l__nsk_annotate_connect_to_tl
285   {
286     \use:x {
287       \exp_not:N \nskConnect
288       [
289         from=\l__nsk_annotate_connect_to_tl,
290         to=\l__nsk_annotate_this_id_tl.\l__nsk_annotate_from_anchor_tl,
291         \l__nsk_annotate_connect_opts_tl
292       ]
293     }
294   }
295 }
296 }
297
298 \ExplSyntaxOff
299
i/package;

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