neural-sketch-measure.dtx

¡*package¿

```
\RequirePackage{tikz}
\RequirePackage{xparse}
\RequirePackage{expl3}
\usetikzlibrary{calc}

\ExplSyntaxOn

% ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
% Key definitions for measurement options with simplified interface
% ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
\keys_define:nn { nsk/measure }
{
 axis .choice:,
 axis / horizontal .code:n = { \tl_set:Nn \l__nsk_measure_axis_tl {horizontal} },
 axis / vertical .code:n = { \tl_set:Nn \l__nsk_measure_axis_tl {vertical} },
 axis .default:n = {horizontal},
 axis .initial:n = {horizontal},

 from .tl_set:N = \l__nsk_measure_from_tl,
 from .initial:n = {},
 from .default:n = {},
 to .tl_set:N = \l__nsk_measure_to_tl,
 to .initial:n = {},
 to .default:n = {},

 unknown .code:n =
  {
   \msg_warning:nn {nsk-measure}{Unrecognized~key~`\l_keys_key_tl'~will~be~ignored.}
  },
}

% ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
% Public Interface
%
%   \nskMeasure[<keys>]
%
%   Keys:
%     axis = horizontal (default) or vertical,
%     from = <node>.<anchor>,
%     to   = <node>.<anchor>
%
%   Behavior:
%     - When called with an optional argument, it computes the distance from the \from"
%       point to the \to" point along the specified axis (using the absolute value so the dist
%       is always positive) and sets \pgfmathsetlengthmacro into \nskDistance.
%
%     - When called without any argument, it simply inserts (typesets) the last measured dista
%
% ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
\NewDocumentCommand{\nskMeasure}{ o }
{
```

```
\IfNoValueTF{#1}
{
 \nskDistance
}
{
 % Optional argument provided: process options and compute measurement.
 \keys_set:nn { nsk/measure } {#1}

 % Split the 'from' key value into node and anchor parts.
 \seq_set_split:Nnx \l_tmpa_seq { . } { \l__nsk_measure_from_tl }
 \seq_pop_left:NN \l_tmpa_seq \l__nsk_measure_from_node_tl
 \tl_set:Nx \l__nsk_measure_from_anchor_tl { \seq_use:Nn \l_tmpa_seq { . } }

 % Split the 'to' key value into node and anchor parts.
 \seq_set_split:Nnx \l_tmpa_seq { . } { \l__nsk_measure_to_tl }
 \seq_pop_left:NN \l_tmpa_seq \l__nsk_measure_to_node_tl
 \tl_set:Nx \l__nsk_measure_to_anchor_tl { \seq_use:Nn \l_tmpa_seq { . } }

 % Compute the difference between the two anchor points.
 \pgfpointdiff
  {\pgfpointanchor{\l__nsk_measure_to_node_tl}{\l__nsk_measure_to_anchor_tl}}
  {\pgfpointanchor{\l__nsk_measure_from_node_tl}{\l__nsk_measure_from_anchor_tl}}

 % Depending on the axis, compute and store the absolute value of the difference
 % directly into \nskDistance using \pgfmathsetlengthmacro.
 \tl_if_eq:NnTF \l__nsk_measure_axis_tl {horizontal}
 {\pgfmathsetlengthmacro{\nskDistance}{abs(\pgf@x)}}
 {\pgfmathsetlengthmacro{\nskDistance}{abs(\pgf@y)}}
}
}
\ExplSyntaxOff
```

¡/*package¿