

Blending the syminfo tool with the EDEN version of the DMT

```
cd("...../UsingEMPE/presbubblesortBeynon2007/bubblesortBeynon2007/");
```

```
## loading the bubblesort model:
```

```
%eden
include("sort.s");
%eden
include("sort.d");
%eden
include("sort.e");
include("exc.e");
include("maxminfl.e");
include("selmaxminfl.e");
include("rangeline.e");
```

```
## loading the syminfo tool:
```

```
curr_dir = cwd();
syminfo_dir = "...../UsingEMPE/syminfoBeynon2011/";
cd(syminfo_dir);
include("run.eden");
cd(curr_dir);
```

```
## these definitions are loaded from the file syminfofn.e
```

```
listobs =
["listobs","listinfoobs","screen","arrwin","_fig1","_SW","_NE","_elt1","_v1","vall","_S","_rangeline","_Firstpt","first","last","Rmark","Lmark","_LlineT","_LlineB","val","maxelt","minelt","A_v1","ix_min","ix_max"];
```

```
listinfoobs = ["The list of observables recorded","The list of descriptions of the recorded observables","The screen","A Donald window to display the array of numbers to be sorted","The caption for Figure 1","The SW corner of the box that contains the array","The NE corner of the box that contains the array","Coordinates for display of the first array element","The Donald label that displays the value of the first array element","The value of the first array element","The line joining the SW and SE corners of the box holding the array of elements","The line showing which elements of the array are still being sorted","The position of the marker for the current first element of the to-be-sorted array segment","The index of the current first element of the to-be-sorted array segment","The index of the current last element of the to-be-sorted array segment","A synonym for the lefthand (!) index of elements to-be-sorted, used to locate the lefthand marker line","A synonym for the righthand (!) index of elements to-be-sorted, used to locate the righthand marker line"," The top point of the righthand marker line"," The bottom point of the righthand marker line","The list of numbers to be sorted","The maximum element in the to-be-sorted array","The minimum element in the to-be-sorted array","The attributes of the Donald label that displays the value of the first array element","The index of the minimum element in the to-be-sorted array","The index of the maximum element in the to-be-sorted array"];
```

```
## checking that list obs is correctly recorded in eden, as a list of valid observable names:
```

```
writeln(listobs);
```

```
%eden
include("dmt.eden");
```

```
## checking the identity of the list of observables to be 'watched' by the DMT

?dmt_watches;
## shows that this observable is an initially empty list that triggers an updating action

dmt_watches is listobs;

## after this definition the observables recorded in listobs get displayed on the DMT screen
## but the redundant 'Add' interface is in the way, and some of the graph nodes are off
screen:

%scout
?dmt_screen;
## this query returns: dmt_screen = <dmtAddBox/dmtAddButton/dmt>;
## we remove the box to add observables, since we can do this via the symbol info tool:

dmt_screen = <dmt>;

?dmt;
window dmt = {
  type: DONALD
  box: [{dmt_xpos, dmt_ypos}, {dmt_xpos + dmt_width, dmt_ypos + dmt_height}]
  pict: "GRAPHdmt"
  xmin: 0
  ymin: 0
  xmax: dmt_width
  ymax: dmt_height
  bgcolor: dmt_bgcolor
  border: dmt_border
  sensitive: ON
};

## observables off the top of screen, so check screen height:

%eden
?dmt_height;
## dmt_height was dmt_screen_height - 60;

dmt_height is dmt_screen_height;

## at this point, the blend is complete
## can then layout the DMT graph using the left button (as documented in dmtHarfield2006
README)
## can also add observables via the symbolinfo tool, and these appear in the interface
## the picture illustrates the addition of the new observable _SE
```