GL Board Game: 3-D Game Support

Version 8.17.0.1

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```
(require games/gl-board-game)
                                     package: games
gl-board% : class?
  superclass: canvas%
 (new gl-board%
     [min-x min-x]
     [max-x max-x]
     [min-y min-y]
    [max-y max-y]
     [lift lift]
    [[move move]
     [who who]]
     \dots superclass-args\dots) \rightarrow (is-a?/c gl-board%)
  min-x : real?
  max-x : real?
  min-y : real?
  max-y : real?
  lift : real?
  move : (any/c gl-vector? . -> . any) = void
  who : string? = "this game"
```

The min-x, max-x, min-y, and max-y arguments specify the dimensions of the board plane to be visible in the window by default.

The *lift* argument specifies how many units a piece moves vertically when the user clicks on it.

The move function is called when a piece is moved to a space (possibly it's current space), when a space is clicked on, and when a space is dragged to another space. The move function is given the information of the piece or space selected and the coordinates to which it is moved.

The *who* argument is used for reporting an error to the user when GL is unavailable at run time.

```
(send a-gl-board add-space draw info) → void?
draw : (-> any)
info : any/c
```

Adds a space to the board. The *draw* thunk should draw the space (using GL commands) when called. The *info* value is given to the *move* function (supplied to the constructor) when the space is selected.

```
(send a-gl-board add-piece x y z draw info) → void?
x : real?
y : real?
z : real?
draw : ([shadow? boolean?] . -> . any)
info : any/c
```

Adds a piece to the board. The *draw* thunk should draw the piece (using GL commands) when called. The *info* argument is given to the *move* function (supplied to the constructor) when the piece is moved. The piece is translated by x, y, and z before drawing.

```
(send a-gl-board remove-piece info) → void?
info : any/c
```

Removes all pieces previously added with representative info.

```
(send a-gl-board add-heads-up w h draw info) → void?
w : real?
h : real?
draw : (-> any)
info : any/c
```

Add a "heads-up" display element whose size is w by h units with the given draw thunk and *info* representative.

```
(send a-gl-board remove-heads-up info) → void?
info : any/c
```

Removes all "heads-up" displays elements previous added with representative info.

```
(send a-gl-board set-space-draw info draw) → void?
info : any/c
draw : (-> any)
```

Sets the drawing function of all spaces added with representative info.

```
(send a-gl-board set-piece-draw info draw) → void?
info : any/c
draw : ([shadow? boolean?] . -> . any)
```

Sets the drawing function of all pieces added with representative info.

Enables or disables moving of all pieces added with representative info.

```
(send a-gl-board enabled? info) → boolean?
info : any/c
```

reports whether the first piece with representative *info* is enabled.

```
(send a-gl-board get-pieces) \rightarrow list?
(send a-gl-board get-spaces) \rightarrow list?
(send a-gl-board get-heads-up) \rightarrow list?
```

Returns values for various kinds of content currently on the board. The result corresponds to *info* values given to add-piece, etc.