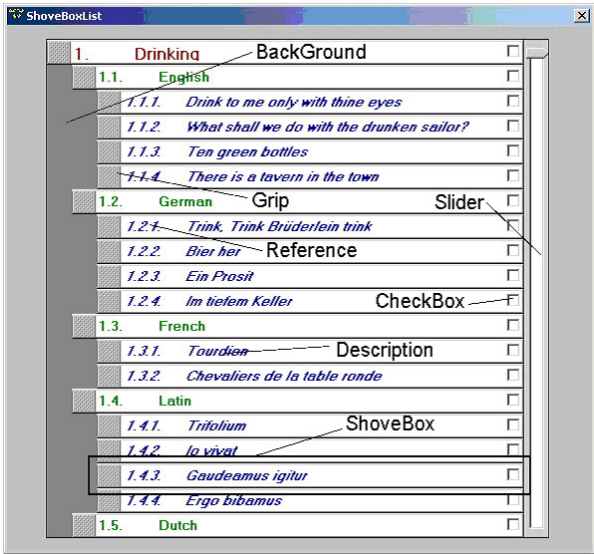


ShoveboxList

History

The shoveboxlist is a hierarchical list widget that combines the table and the tree widgets. It was published by Mark Libbrecht in the April 2001 edition of Foxtalk Magazine, entitled "You Can Push it Around in Your...ShoveBoxList".

Screenshot from the 2001 shoveboxlist article:



For the record: the 'aha' moment for creating the shoveboxlist came up when playing the 'stay alive' board game (from Milton Bradley - 1971):



Behavior and Characteristics

General Overview

An example of the current appearance of the widget is shown in the screenshot below. This demonstration formset represents a fictitious quote for a kitchen. The widget itself uses only HTML, CSS and plain vanilla javascript (no javascript library whatsoever). Html rendering and data persitance, in this demo to a SQLite database, is done through a django app (django-listbox).

Shoveboxlist Demo

Package: Kitchen

Select package

1.3.1	SINKS							
1.3.1.1	60324884 VATTUDALEN Single bowl top mount sink	Fixed Quantity	Piece	1,00	114,00	114		
1.3.1.2	50325426 LILLVIKEN Sink strainer with stopper	Fixed Quantity	Piece	1,00	9,00	9		
1.4	ACCESSORIES							
1.4.1	00336432 GUBBAR Handle	Fixed Quantity	Piece	1,00	3,00	3		
1.4.2	80336433 GUBBARP Knob	Fixed Quantity	Piece	1,00	2,00	2		
1.4.3	40514559 Hanging shelf insert	Fixed Quantity	Piece	1,00	10,00	10		
1.4.4	20514560 Swivel shelf. This insert adds a new dimension to your open ENHET	Fixed Quantity	Piece	1,00	13,00	13		
1.4.5	20514555 Rail for hooks	Fixed Quantity	Piece	1,00	5,00	5		
1.4.6	60465751 Hook 2 pack	Fixed Quantity	Piece	1,00	1,00	1		
1.4.7	30465757 SKATTAN Container	Fixed Quantity	Piece	1,00	1,00	1		
1.4.8	70442392 GLYPEN Kitchen faucet	Fixed Quantity	Piece	1,00	67,00	67		
1.5	LABOUR							
1.5.1	000001 ASSEMBLING	Fixed Quantity	hour	10,00	50,00	500		
All prices are without value added tax.								

Save

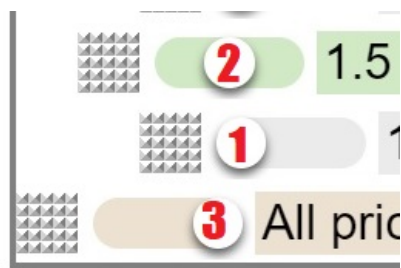
Scrolling

As far as scrolling to the records is concerned, the shoveboxlist behaves like a tradional list. For vertical scrolling a traditional vertical scrollbar ('elevator') is available.



Record types and their representation

Aside from the actual data, reports are typically broken down into different sections with corresponding headers to enhance human readability. In order to treat section headers as well as other explanatory texts and comments in the same data tables and lists as the actual data and represent them , a multi-state button is available to determine the type of the record. In the demo a tri-state switch is used for switching between a normal price item reord, a title record and a comment record. For enhancing readability, only certain applicable fields stay visible depending on their status and a color is associated with the status. In this case grey for normal price item (1), green for a title (2) and red for a comment record (3). PS: Selected records are in blue.



Context menu

An intuitive, configurable context menu (mturco), activated by right clicking in the shoveboxlist, gives access to some group operations. Selecting records is accomplished by holding the Ctrl key and clicking the applicable records. Selected records return blue. - insert new record (after) - copy selected records (to clipboard) - cut Records (to clipboard) - paste Records (from clipboard) - delete selected records - unselect previously selected records - print function giving access to reporting - settings

The screenshot shows a software interface with a list of materials. The list is organized into a tree structure with expandable sections. A context menu is open, displaying various actions for the selected records.

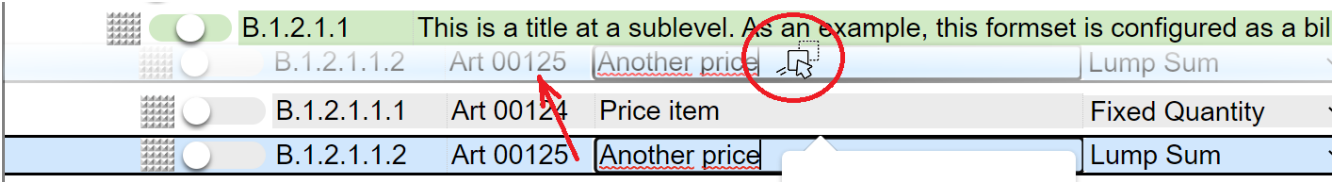
Section	Item ID	Description	Quantity	Unit	Price	Value	Actions
1 Materials							
1.1 WOOD							
1.1.1 BASES							
1.1.1.1	10514438	ENHET Base cb f sink	Fixed Quantity	Piece	1,00	80,00	80
1.1.1.2	99514434	ENHET Base cb w 3 drawers	Fixed Quantity	Piece	1,00	124,00	124
1.1.1.3	30514437	ENHET Base cb w 3 drawers	Fixed Quantity	Piece	1,00	145,00	145
1.1.2 DRAWERS							
1.1.2.1	80515359	ENHET Drawer front	Fixed Quantity	Piece	1,00	6,00	6
1.1.2.2	60515360	ENHET Drawer front	Fixed Quantity	Piece	1,00	11,00	11
1.1.2.3	00515363	ENHET Drawer front	Fixed Quantity	Piece	1,00	9,00	9
1.1.2.4	00515364	ENHET Drawer front	Fixed Quantity	Piece	1,00	18,00	18
1.1.3 DOORS							
1.1.3.1	30515352	ENHET Door	Fixed Quantity	Piece	5,00	11,00	55
1.1.3.2	50515558	ENHET Door	Fixed Quantity	Piece	1,00	13,00	13
1.1.4 WALLS							

Context Menu Options:

- Insert new record (after)
- Copy Records (Ctrl+C)
- Cut Records (Ctrl+X)
- Paste Records (Ctrl+V)
- Delecte Selected Records (Del)
- Unselect (Ctrl+U)
- Print (Ctrl+P)
- Settings (Ctrl+S)

Ordering, Drag and drop

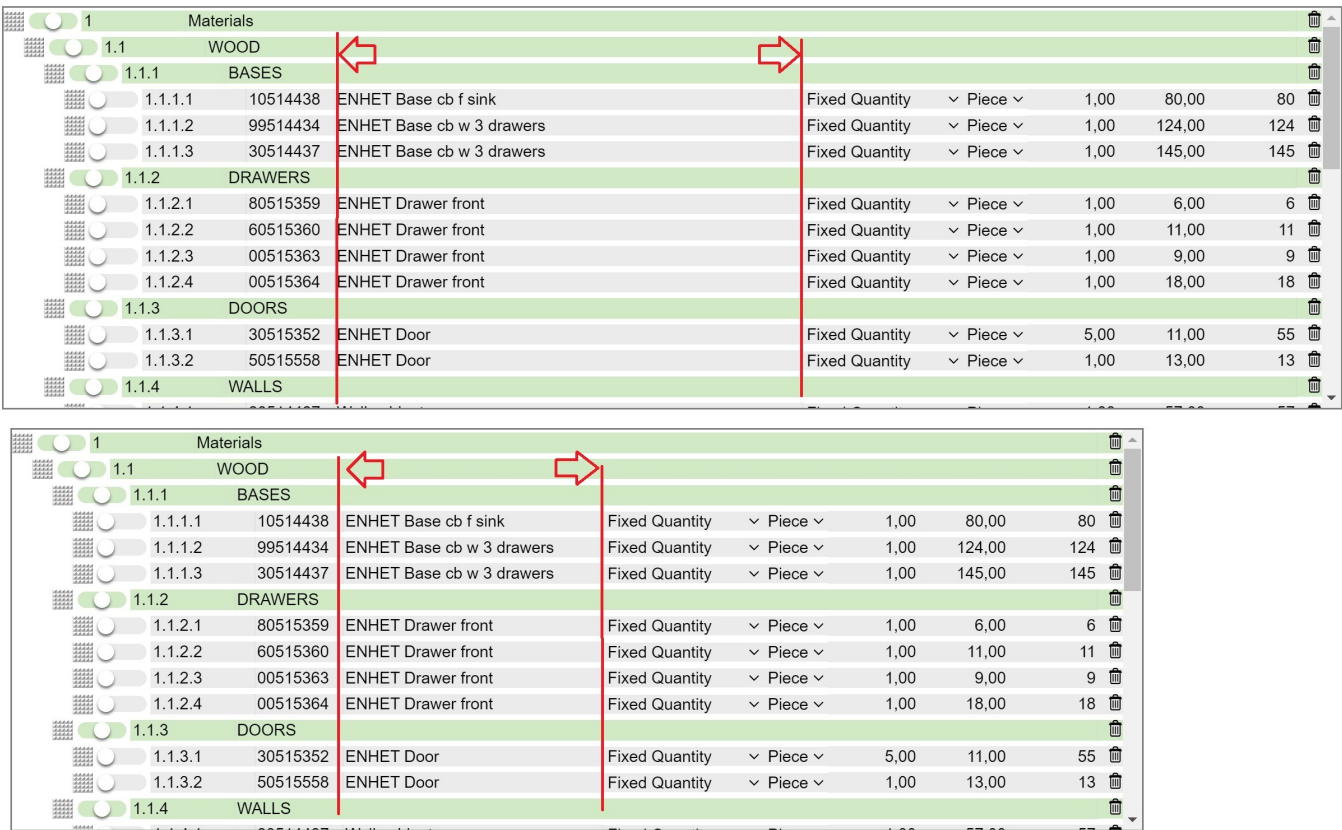
Apart from cutting and pasting and inserting records at particular places, records can also be moved vertically by [dragging and dropping](https://en.wikipedia.org/wiki/Drag_and_drop) them:



Shrinkable field

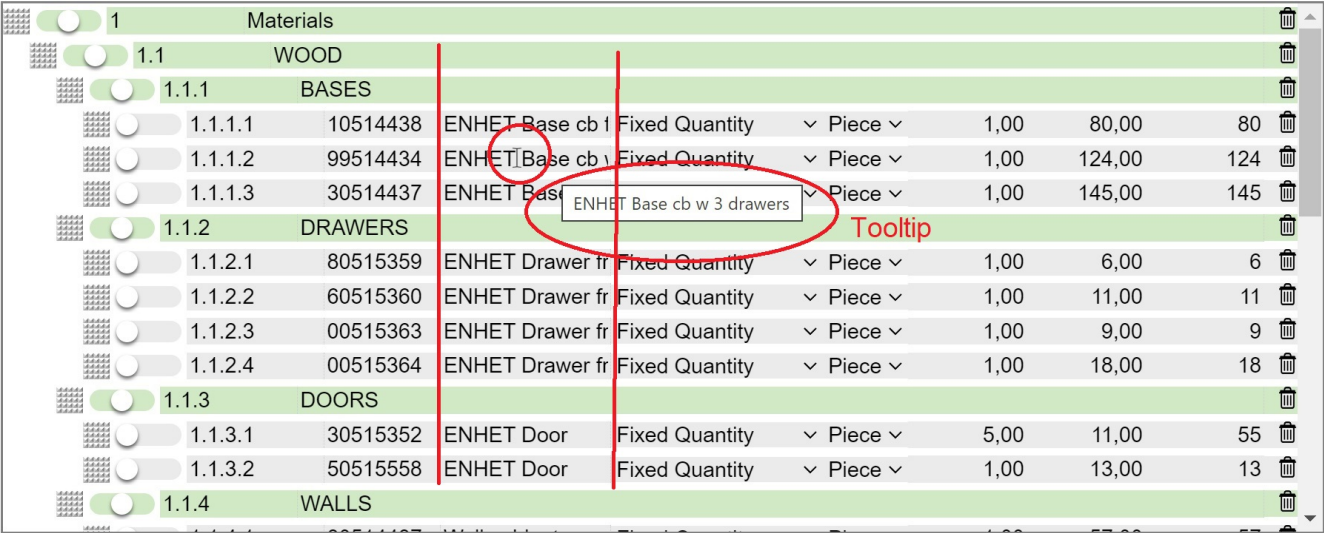
Reason for a shrinkable field

Given the design objective of showing all information without the need of horizontal scrolling, changing total width of the shoveboxlist goes at the expense of of shrinkable field. This is in most cases the most verbose field, in this case the price item description field.



Tooltip for shrinkable field

Since it can happen that the text in the shrinkable field is too long to fit into the available space, the content can be visualised by hovering over the field causing a tooltip to show up.



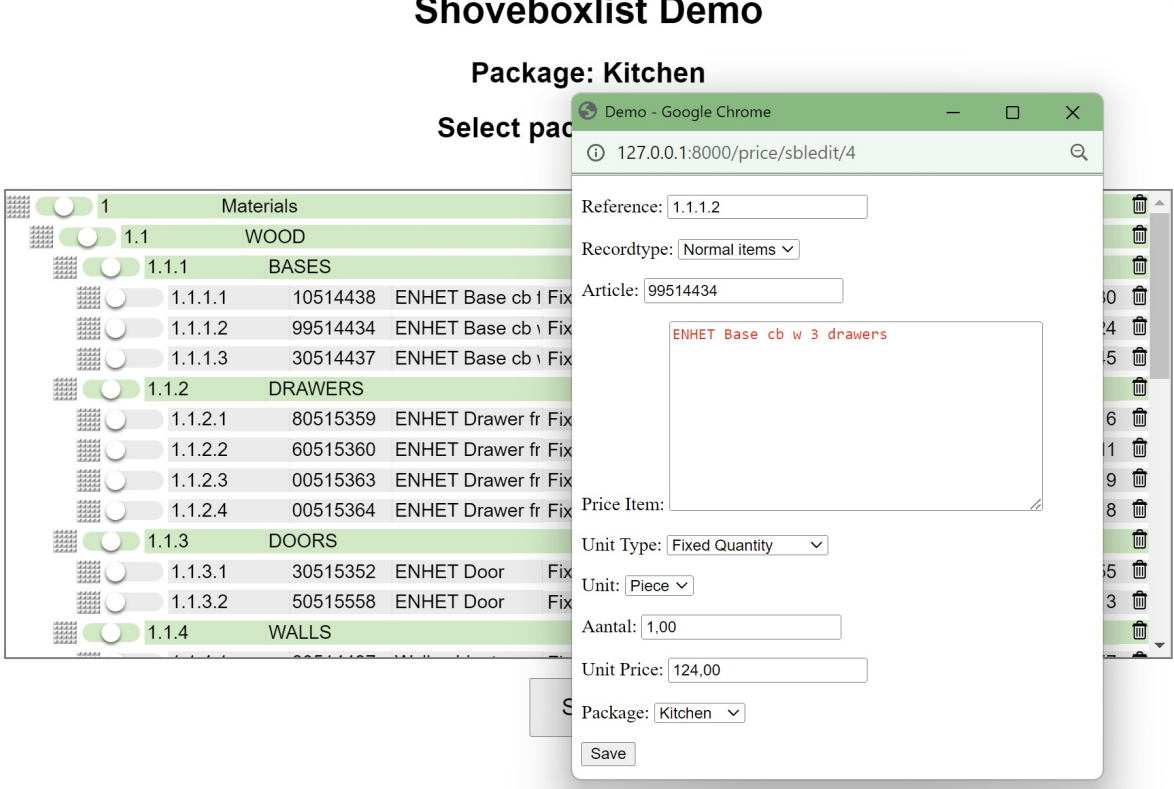
The screenshot shows a hierarchical list of materials. The 'Bases' section is expanded, showing three items. The third item, 'ENHET Base cb w 3 drawers', has a long description that is truncated in the main list view. A red circle highlights this truncated text, and a red rectangle highlights the tooltip that appears when hovering over it. The tooltip contains the full text 'ENHET Base cb w 3 drawers'. A red arrow points from the tooltip to the word 'Tooltip' in the text below the table.

1 Materials									
1.1 WOOD									
1.1.1 BASES									
1.1.1.1	10514438	ENHET Base cb 1	Fixed Quantity	▼	Piece ▼	1,00	80,00	80	
1.1.1.2	99514434	ENHET Base cb 1	Fixed Quantity	▼	Piece ▼	1,00	124,00	124	
1.1.1.3	30514437	ENHET Base	Fixed Quantity	▼	Piece ▼	1,00	145,00	145	
1.1.2 DRAWERS									
1.1.2.1	80515359	ENHET Drawer fr	Fixed Quantity	▼	Piece ▼	1,00	6,00	6	
1.1.2.2	60515360	ENHET Drawer fr	Fixed Quantity	▼	Piece ▼	1,00	11,00	11	
1.1.2.3	00515363	ENHET Drawer fr	Fixed Quantity	▼	Piece ▼	1,00	9,00	9	
1.1.2.4	00515364	ENHET Drawer fr	Fixed Quantity	▼	Piece ▼	1,00	18,00	18	
1.1.3 DOORS									
1.1.3.1	30515352	ENHET Door	Fixed Quantity	▼	Piece ▼	5,00	11,00	55	
1.1.3.2	50515558	ENHET Door	Fixed Quantity	▼	Piece ▼	1,00	13,00	13	
1.1.4 WALLS									

Popup editing window of a record

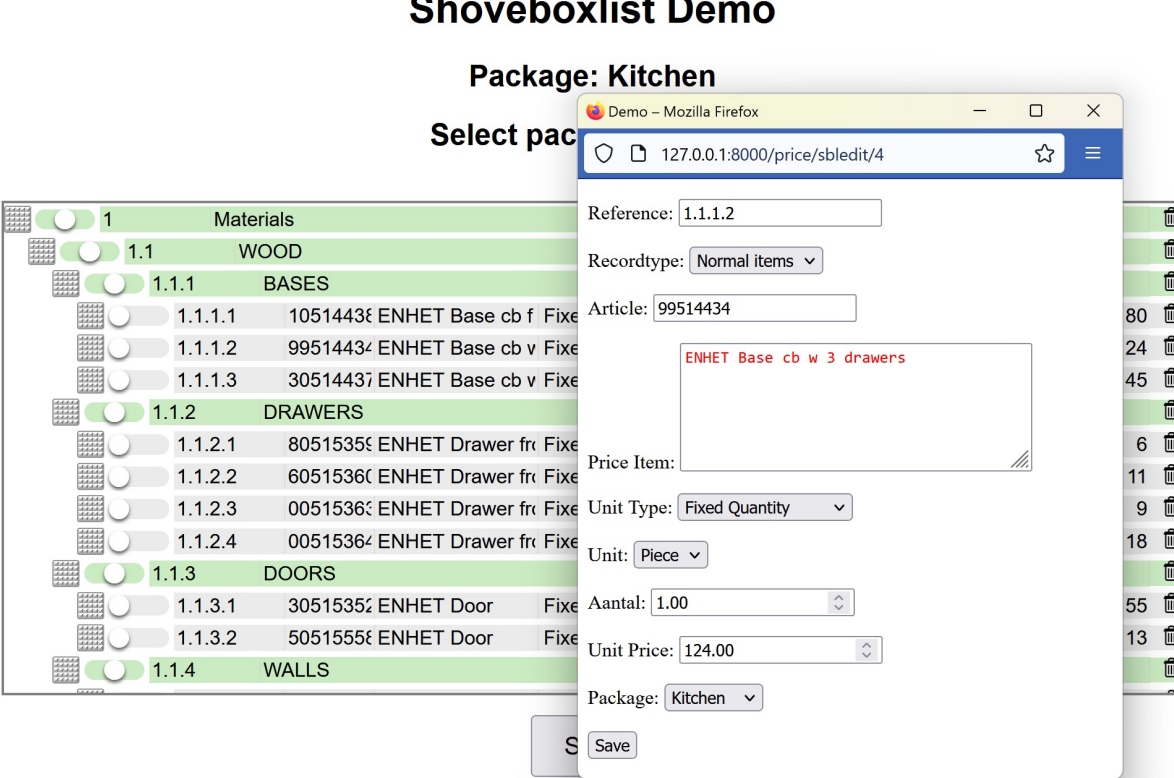
For convenient editing of a record and an alternative to using, double-clicking on a record triggers an editing window to pop up.

Shoveboxlist Demo



Chrome

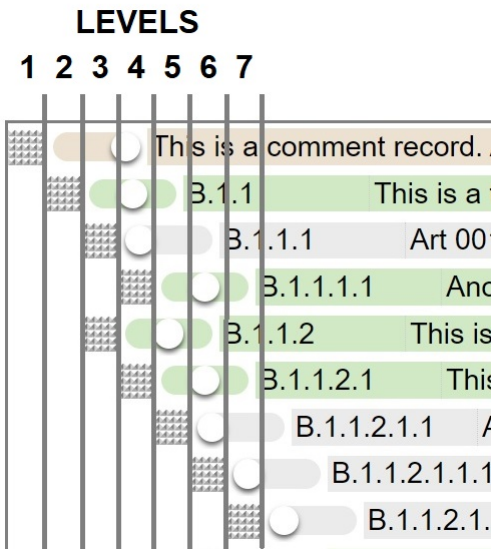
Shoveboxlist Demo



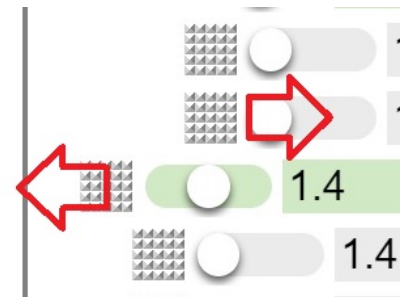
Firefox

Levels concept

Conventional tables and lists lack the hierarchy concept that tree widgets do have. The shoveboxlist introduces hierarchy through by a number of predetermined horizontal positions a record can occupy. This is represented graphically by a square 'grip' user interface that acts as a handle to enable horizontal movement. In the demo, 7 possible levels are configured:



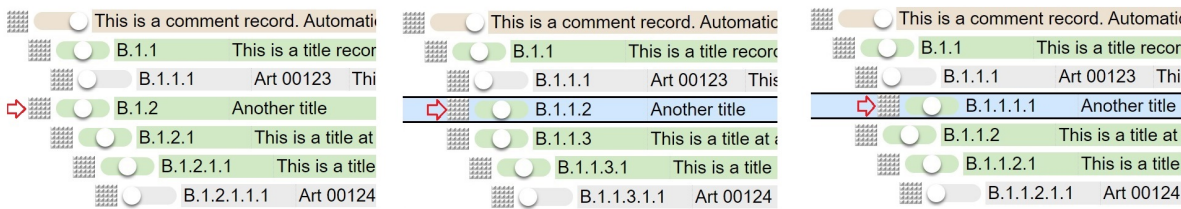
Clicking and holding the grip and subsequently shoving (= level change) gives the list its name.



Additional features

Automatic numbering

Depending on the use case, additional features can be introduced. In the demo, an automatic hierarchical item numbering is introduced.



Automatic calculation

The demo also showcases an automatic calculation for numerical fields. In this case it is the : quantity times unit price = total calculation. It is implement by means of the django-calculation app (Blas Isaias Fernández)

Quantity and unit price fields persisted to the database

Total price calculated on the fly (javascript)

<input type="checkbox"/>	B.1.2.1.1.1	Art 00124	Price item	Fixed Quantity	∨ m² ∨	10,00	20,00	200	
<input type="checkbox"/>	B.1.2.1.1.2	Art 00125	Another price	Lump Sum	∨ Piece ∨	1,00	1500,00	1500	
<input type="checkbox"/>	B.1.2.1.1.3	Art 00126	Another price	Fixed Quantity	∨ hour ∨	20,00	80,00	1600	