

# Spex+ V2

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*for Windows 98/NT/2000/XP computers*

## Operating Manual

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ISBN 1-894170-07-5

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## Contents

Intro	3
Starting Up	4
Selecting an Environment	4
Budget	5/13
Centre the room	13
Colour	12
Charts and Graphs	14
Currencies	5
Deleting Items	8
Dimensions	5
Environment Setup	4
Items Groups	6/12
Moving Items	8
New Design	13
Plan View	6/9
Rotating Items	7
Pan the room	9
Snap	15
Spreadsheet	11
Spreadsheet Export	11
Technical Setup	16/17
Toolbars Buttons	8
Walls View	10
Windows and Doors	9
Zoom	13
3D View	8

## ***Introduction***

The original Spex was released in 1994 and instantly became a bestseller; teachers love the program and pupils love it too. It's the same story years later in 2007!

Spex+ V2 is based on the original Spex and has a similar appearance but is easier than ever to use. The newer Spex is more intuitive, includes graphs and charts and is a valuable, popular and relevant resource in the classroom.

Best of all Spex is good fun!

Spex is for youngsters aged 4 - 99yrs to design places. It is one of the longest running and most successful education software programs available.

Spex is much more than a room design software. It is used in the classroom to introduce pupils to a variety of different and sometimes abstract areas of learning in Maths, Design and ICT.

- Spex makes **Computer Modelling** easy to understand.
- Spex is popular for addressing **Graphics Modelling** in ICT.
- Spex uses **Maths** concepts in a familiar 'Home' environment.
- Spex helps pupils get started with **Design & Technology**.
- Spex is a simple way to introduce **Spreadsheet Modelling**.

Children find it no problem to engage with the familiar 'Home' environment. As they design a home (or other environment) in Spex, they deal with measurements, units, shapes and spatial relationships. They see how the same information can be presented in different ways, with the simple Spex graphs and charts, budgets and real life costing.

Children begin to make links between the plans on the screen and the real solid world they live in. They exercise their thinking and verbal skills, asking and answering questions like **"What will happen if?"**, For instance, "If I put an extra bed in the bedroom, will there be enough room for it? How will it look? Will I have enough money left for a wardrobe?"

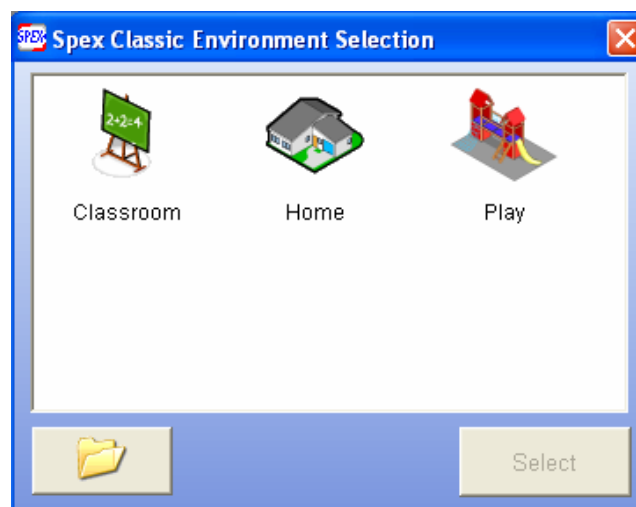
The basic Spex contains the Home, Classroom and Play Environments and more can be added. Look out for new Spex developments on our website:

## Starting up

To run Spex go to: START>Program Files>AspexSoftware> click on Spex

## Selecting an Environment

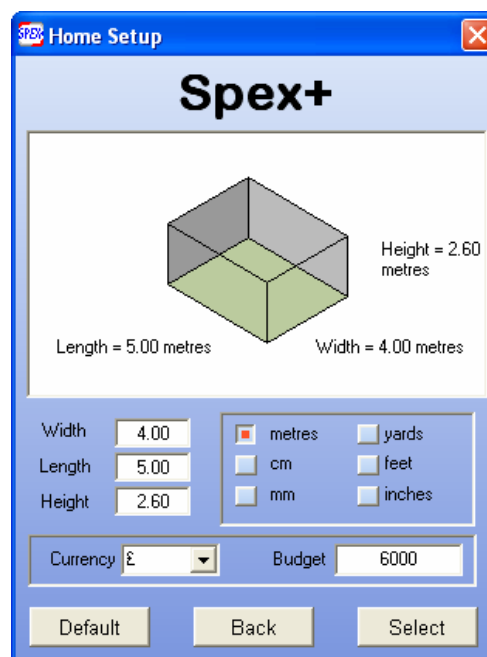
After loading Spex , the Environment Selection window (*fig 1.*) will allow you to select the place you want to design. Click on the place image and then click the select button.



*Fig 1  
Environment Selection*

## Environment Setup

After the Environment has been selected, the Environment Setup window (*fig 2*) will allow the budget and room dimensions to be set. All Spex Environments have default prices and dimensions so just clicking the select button will display a sensible sized room to design.

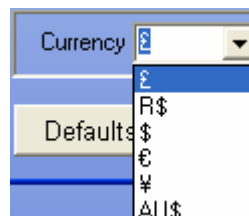


*Fig 2  
Environment Setup*

## Environment Setup *cont'd*

The Spex Environment Setup window enables dimensions to be changed as well as units and currency. Available currencies are:

<b>Currencies</b>	British Pound	£
	Australian Dollar	AU\$
	Brazilian Real	R\$
	Euro	€
	Japanese Yen	¥
	US Dollar	\$



The selected currency will be reflected throughout Spex including the budget and spreadsheet. There is a default set of exchange rates and these can be changed by editing a setup file if required. See page 16.

## Budget

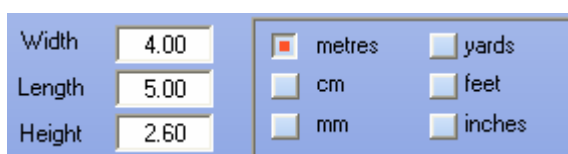
A default budget is set by individual environments but a new budget can be entered to represent the amount of money you have to spend.



The budget value can be changed by the pupil for use during the session or can be permanently changed if required by manually changing a setup file. See page 16.

## Dimensions

Each Environment also has a set of default values for measurements.



The dimension values can be changed by the pupil for use during the session or they can be permanently changed if required by manually changing a setup file. See page 16.

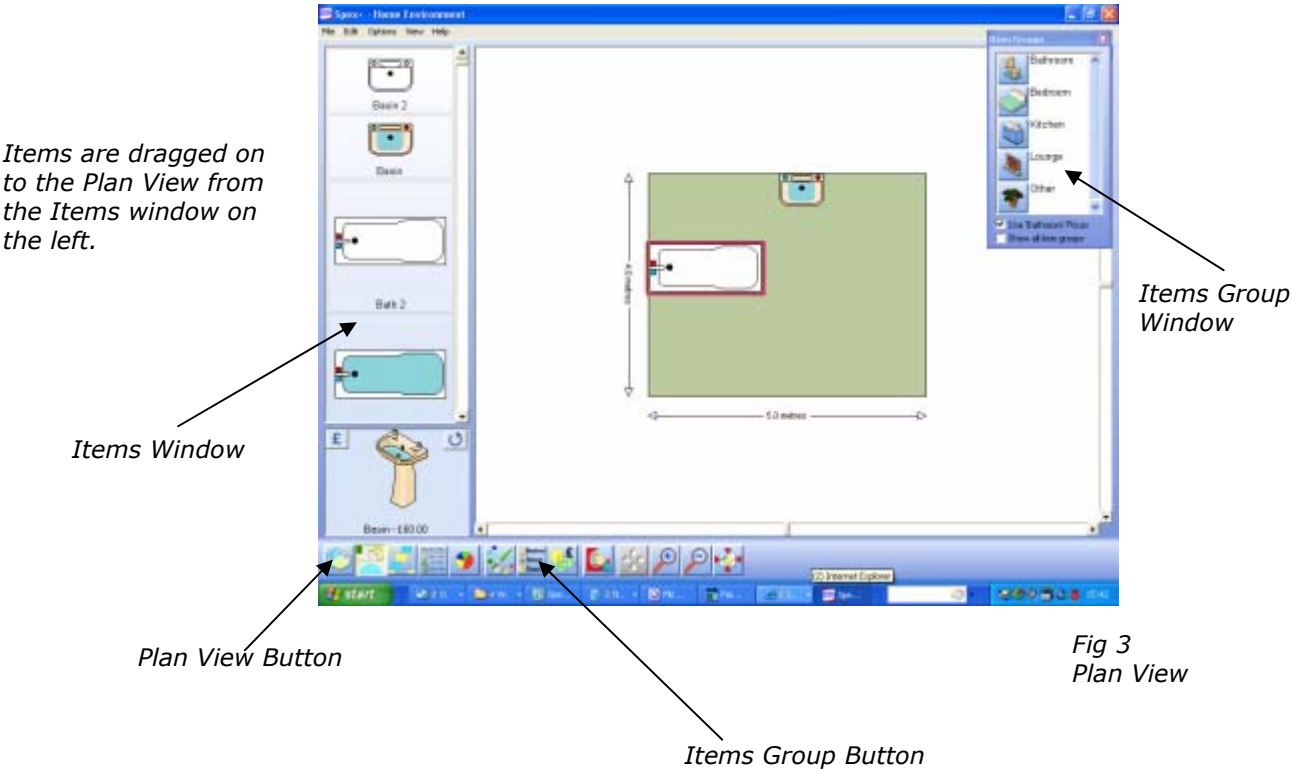
## Finish Environment Setup

Once you are happy with the budget, currency, units and dimensions click Select to display the Plan View of the design.

At first it is a good idea to use the default settings, just choose an environment to design and when the Environment Setup window is displayed simply click Select and the Plan View with default settings will be displayed.

## Plan

The design work is mainly carried out in the Plan View, or bird's eye view. The items of furniture are selected from a group of items in the Items Window (fig 3.). Press the mouse button over an item and drag the item on to the plan view.



## Item Groups

A selection of Item Groups will be available for your chosen environment.

You can select items from different groups to be placed within the same design.

Access the different groups by clicking the desired group in the Items Group window.




Use-Prices option includes the items and prices in the spreadsheet and graphs when ticked. Use this option, for example, to include only the furniture and not the doors.

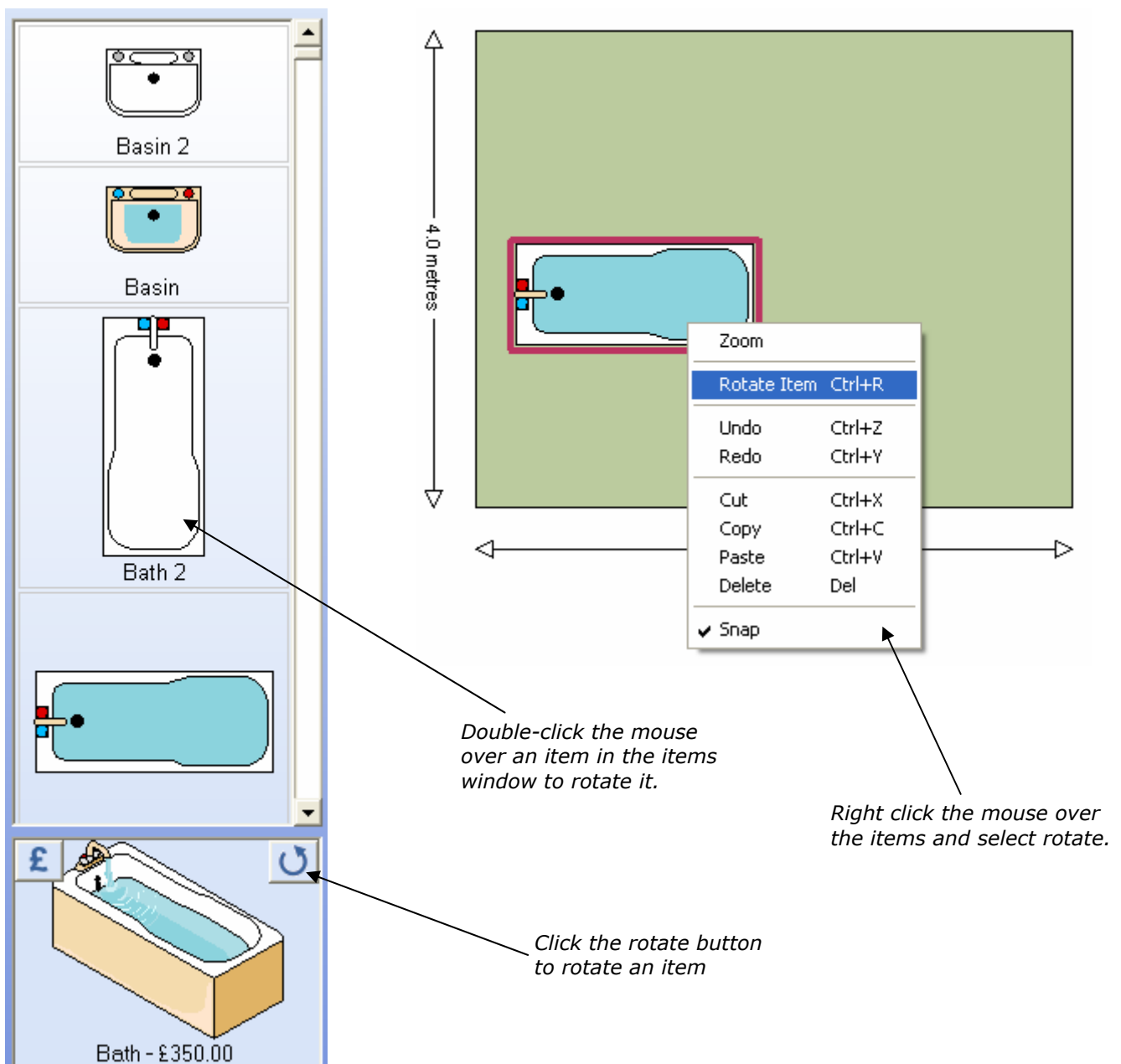
Items Group Window

## Rotating Items

Spex provides three different methods for rotating items:

1. Place the mouse pointer over an item in the items window and double-click the left mouse button. This will rotate the item to the desired view prior to placing it onto the plan.
2. Select the required item and click the Rotate button.  This will rotate the item to the desired view prior to placing it onto the plan.
3. Place the mouse over the item in the plan view, click the right mouse button and select the Rotate option. This will rotate the item in the plan.

Most Spex items will rotate by 90 degrees.



## Deleting Items

Select the item by clicking on it and then press the delete-key on the keyboard.

Alternatively you can press the right mouse button over the item and select the delete option in the menu.

When an item is deleted from the design it will also be removed from the charts, the graphs and the spreadsheet.

## Moving Items

Use the mouse to move items around, but remember that to rotate the item you must right-click the mouse over it and then select the Rotate option in the menu.

## Toolbar Buttons

All operations are controlled from the toolbar at the bottom of the Spex screen.

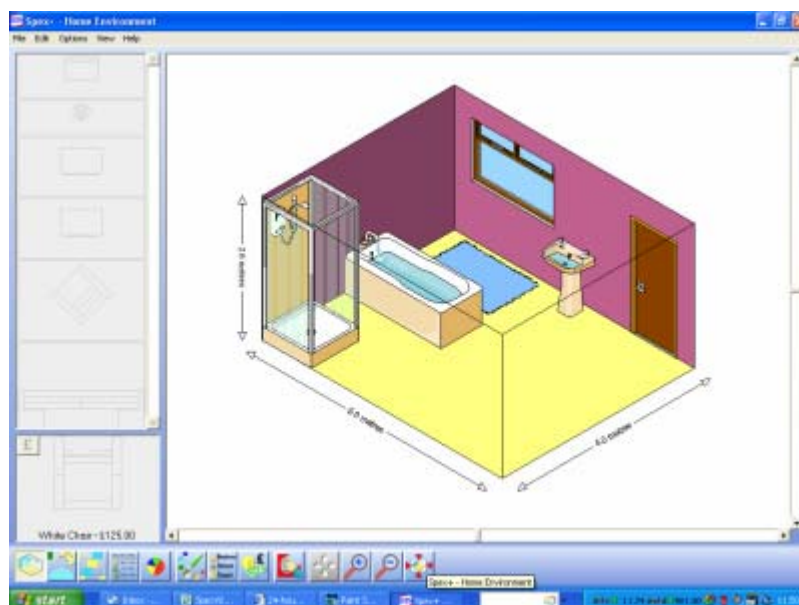


*SpexV2  
Toolbar*



### 3D View

Click this button to show the 3D version of your plan.

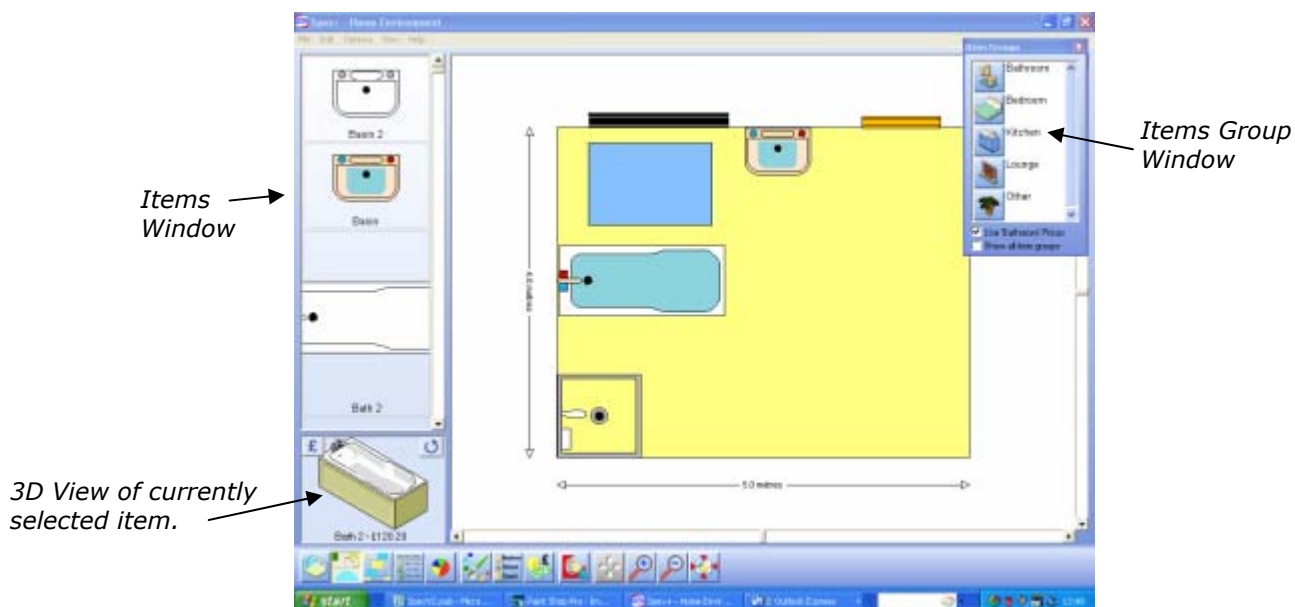


When the 3D view is shown, you can zoom in and out but you cannot select or move any of the items. Moving items is done only in the plan view. This means you have to visualise how you want the room to look, arrange the items in the plan, then look at the 3D view to see if it turns out the way you had visualised it.



## Plan View

Click this button to show the plan view of your room.



When the Plan View is shown items can be dragged onto it from the Items Window on the left. Scroll the Items Window to see more items and choose the one you want to use. Now drag it on to the plan using the mouse.

At the bottom of the Items Window there is a 3D view of the item that is currently selected. The angle of view of the item shows you how it will look in the 3DView. NB. you can't drag this into the plan, you can only drag items from the scrollable Items Window.

When the Items Group Window is shown you can select different groups of items to use in your room design.

## Windows and Doors on the Plan View

Windows and doors are represented by coloured rectangles attached to the sides of the plan view. Fittings that have been placed on walls are also represented by coloured rectangles. Windows, doors and fittings can be added to the room only when the Walls View is shown.

## Pan the room

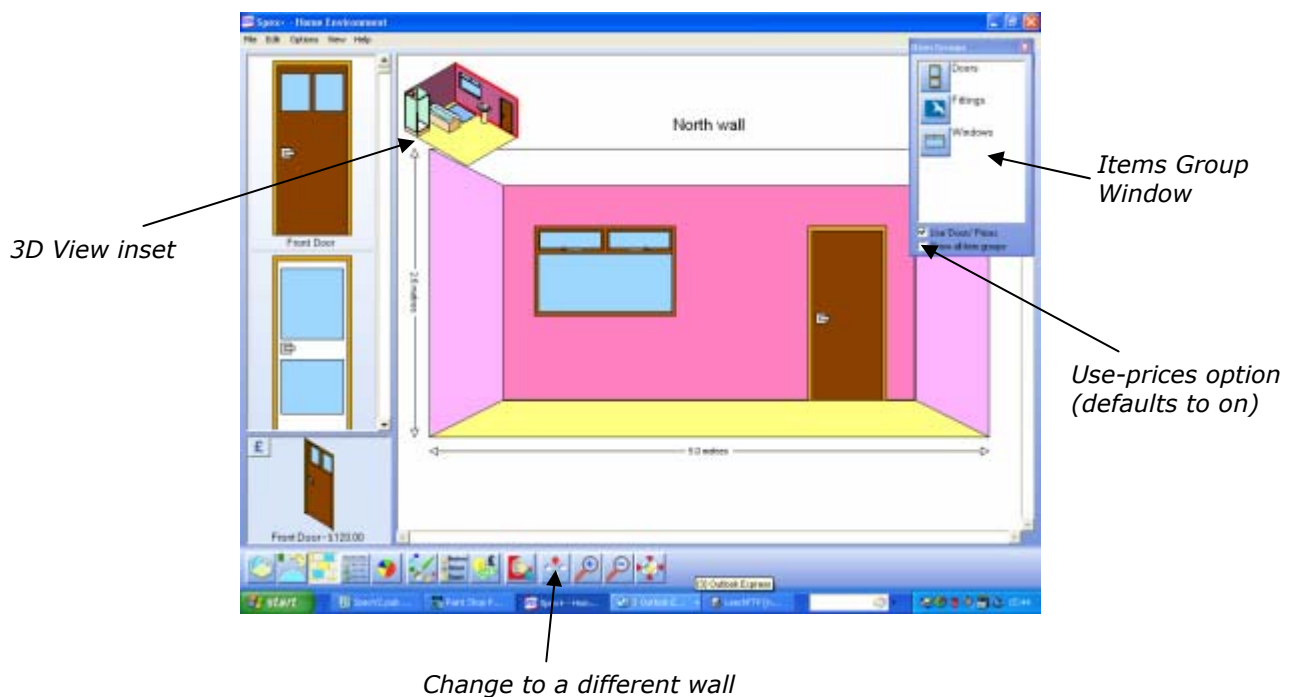
When the mouse is hovering over the floor, and not over an item, the mouse pointer changes into a 'hand'. Press the left mouse button and move the mouse to pan around the room. This is useful if the room view is zoomed in really close, you can pan the room into a particular part in order to accurately place a small object.



## Walls View

Click this button to show the walls of your room. If an Environment has walls, the Home Environment for example, you can choose doors and windows and a variety of other items to put on them. Some Environments, Spex Moonbase for example, do not have walls.

If you are designing an environment that doesn't have walls this button will be 'grey' and won't do anything if you click it.



When the Walls View is shown, a side view of the room is displayed without the furniture items so that you can see the walls clearly.

A small 3D view of the room is also shown which helps you check that you are placing the windows and doors on the right wall! One of the walls on this 3Dview inset is outlined in red to indicate which wall you are working on.

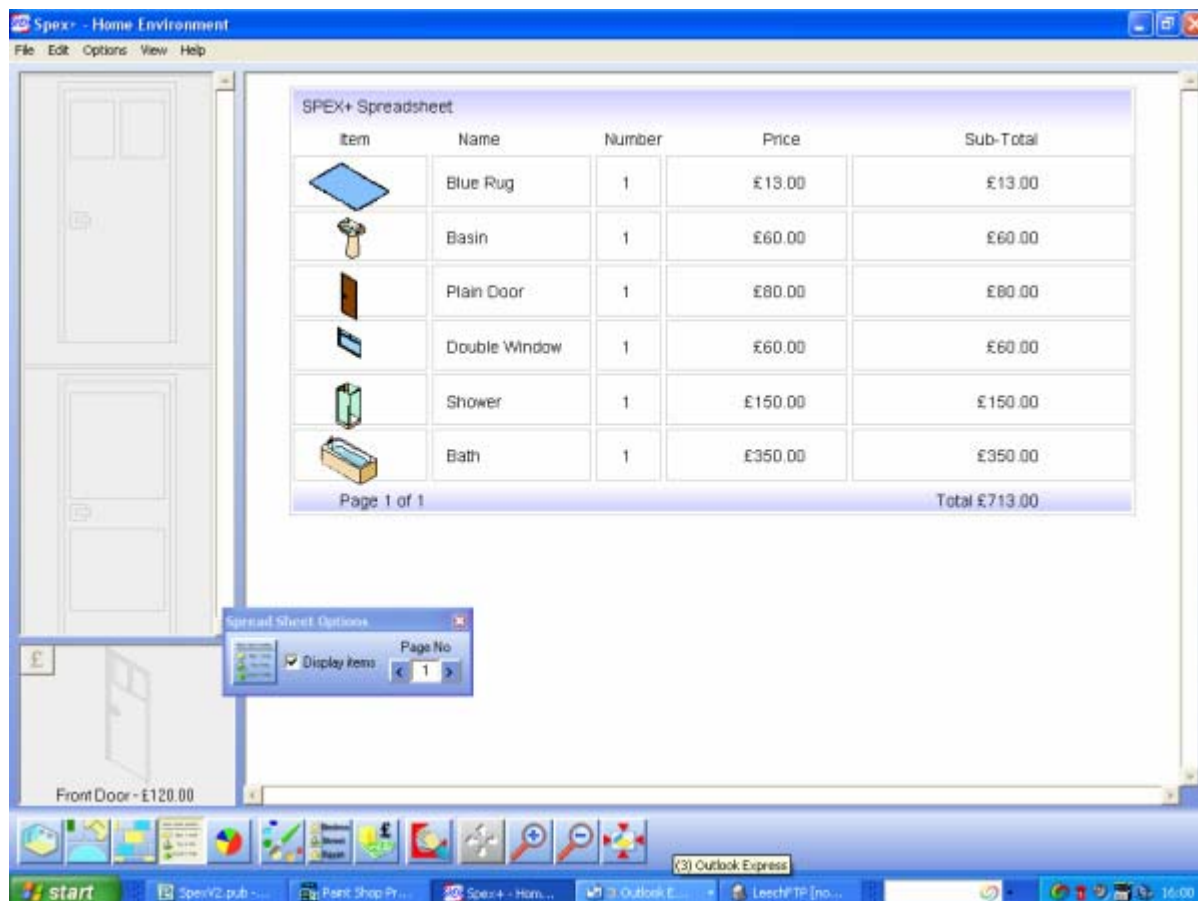


Click this button to change the wall that you can see. The red outline on the 3D view inset will also change to the new wall.



## Spreadsheet

Click this button to show the spreadsheet detailing the prices of the items in your room.



The simple spreadsheet in Spex shows the prices of all the items used in the design and displays the total price for all the items added together. You can choose to display the items with the prices or to display the prices only.

Every time an item is added to or deleted from the room design, the item and price will be added or deleted from the spreadsheet. The Spex spreadsheet is a great introduction to real spreadsheet modelling.

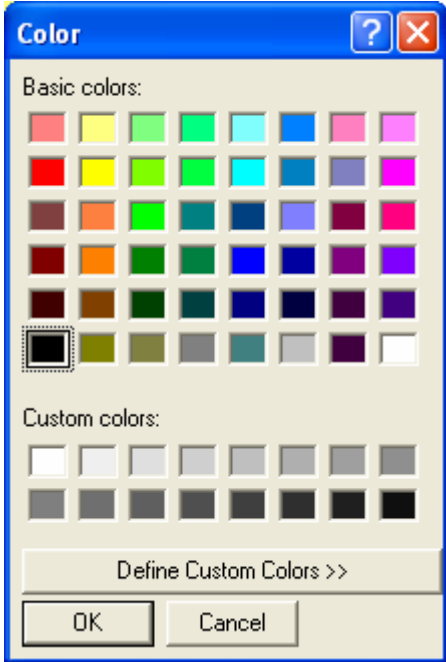
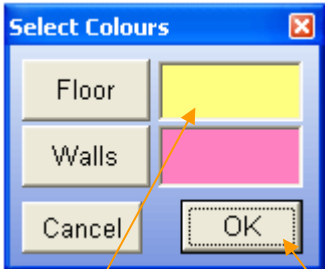
## Spreadsheet export

The spreadsheet data can be exported and displayed in a 'real' spreadsheet program like Microsoft Excel. In the file-menu choose the option 'Export CSV' and save the data in an CSV file. CSV stands for Comma Separated Value file and the Spex CSV file can be opened in all major spreadsheet programs.



## Colour

Click this button to display the colouring window. You can use the colour window to colour the floors and walls.



Selecting either the Floor or Walls button will display a standard colour picker as on the right. Pick a colour and click OK to colour the walls or floor in the window above.

Once you are happy with your colour choice, click OK.



## Items Groups

Click this button to show the Item Groups Window. Select one of the images in the window to display all the items in that group so you can place them in to the plan.

Items from different groups can be placed in the same plan simply by selecting a different item group during the design process.

The item groups displayed in the window are the ones normally associated with the environment you are working on. For example, Bathroom, Bedroom, Kitchen, Lounge and other Home items are shown for the HOME environment.

But, if you wish, you can use ALL the available item groups.

Suppose you want to put a Space Man in the Kitchen. Tick the box called 'Show all item groups'. Now while you are designing the kitchen you can search through the different item groups for the moonbase items. Perhaps you will find the Moon mouse as well!





## Budget

Click this button to show the budget window.

Budget	
Initial Budget	£6000.00
Spent so far	£713.00
Left to spend	£5287.00
Last Item	+ £120.20

The budget window shows the starting budget for the design, the amount spent so far and the amount left to spend. It also shows the price of the last item.

If an item is deleted from the room then its price is added back into the budget.



## Centre Room

Click this button to centre the room. This is useful when you've zoomed in close and panned around the room, and you get lost! Click the centre room button to show the whole room in the centre of the screen.



## New design

Click this button to start a new design. It functions the same as selecting NEW in the file menu.



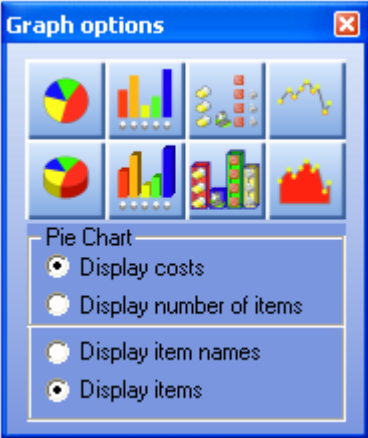
## Zoom

Click these buttons to zoom in close or zoom out further away.



## Charts and Graphs

Click this button to show the Graph Options Window.



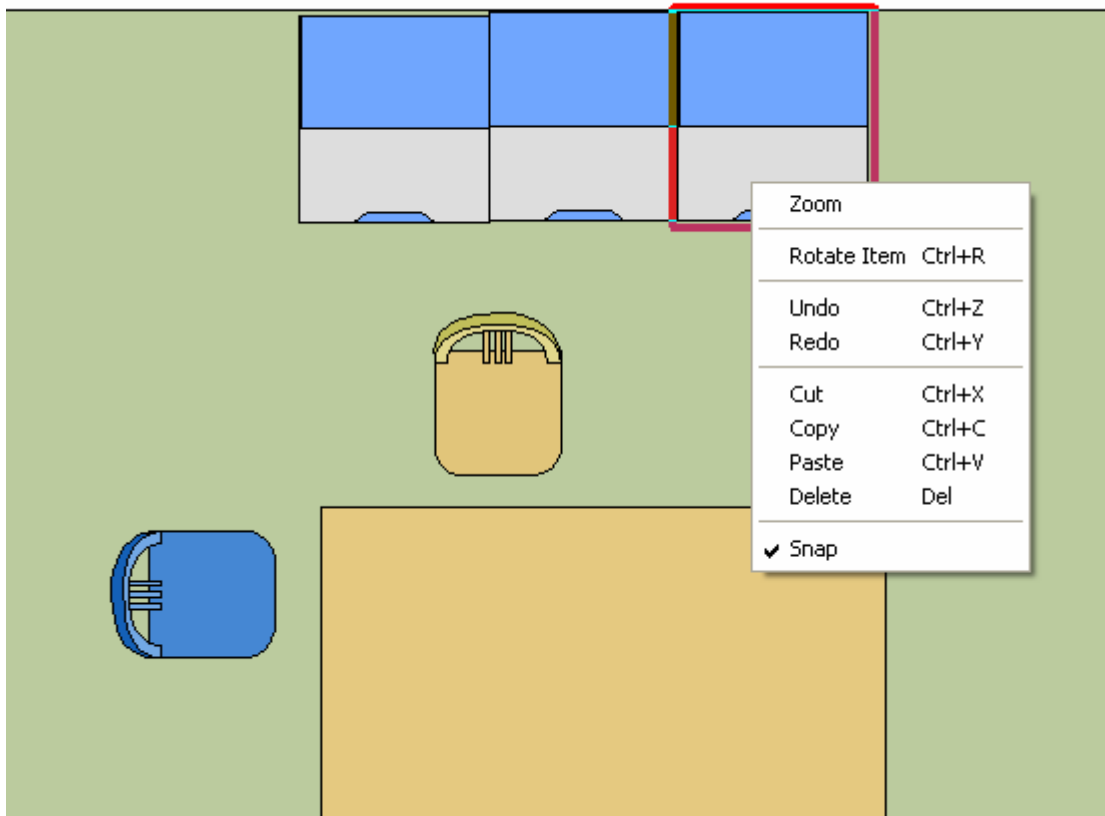
Here is a selection of the charts and graphs available. They can be displayed showing items or prices and in either 2D or 3D.

The charts and graphs in Spex can all be printed.



## Snap

Sometimes it can be difficult to position items precisely without them overlapping, particularly when lining up kitchen units or moonbase units. To make this task easy, use the SNAP function. This can be found in the menu when the right mouse button is clicked over an item. It's often best to leave the snap function switched on.



*Lining up kitchen units with the aid of 'snap'.*

The snap function applies a bit of magnetism to each object so that when they are close to each other they will automatically join. Snap is really useful when designing the moonbase.

## Technical Bits

A textfile **AdminSetup.txt** allows a few Spex parameters to be changed, including the default currency, exchange rates, and pathnames for User Files and Spex directories.

The textfile is initially installed automatically at: C:\program files\Spex\Adminsetup.txt

To modify a parameter, open the textfile, make the change and save it again.

### Currency

The following text appears in the Adminsetup file to set the default currency and also exchange rates for the available currencies.

The text shown below coloured **red** can be changed. All other text, preceded by the character ' is for information only and must not be altered.

' SET CURRENCY and EXCHANGE RATE DEFAULT

currency:£ ; **1.00**

' SET OTHER CURRENCY EXCHANGE RATES.

currency:R\$ ; **4.00**

currency:\$ ; **1.55**

currency:€ ; **1.40**

currency:¥ ; **120.00**

### Pathnames

'USER SAVED FILES PATH

' User directory points to work directory for user. 'default' selects local machine 'My Documents'

**userDir:default**

EXAMPLE DESIGNS

' Users should only read files from this directory. Saved work redirects to user directory.

' Examples directory points to example files. 'default' selects '<app\_path>.Examples'.

**examplesdir:default**

## Technical Bits cont'd

'ENVIRONMENTS PATH

' Main directory path for environments. 'default' selects '<app\_path>.Environments'

**environDir:default**

'ENVIRONPLUS PATH

' Main directory path for environPlus. 'default' selects '<app\_path>.EnvironPlus'

**environPlusDir:default**

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End