



Learning GeoProject – 2003

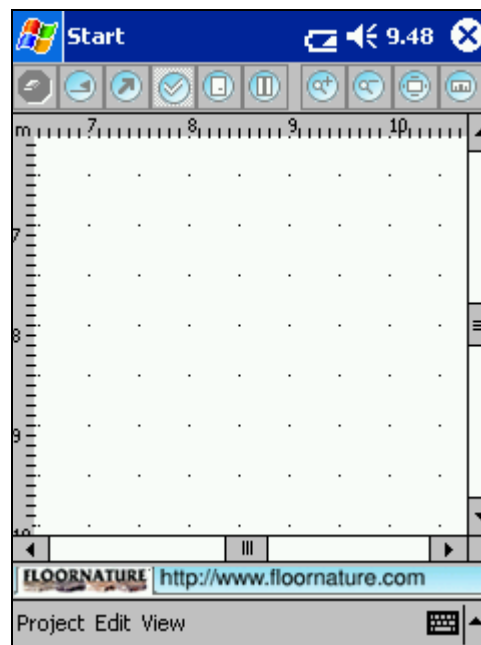
- 1 – Screen settings
- 2 – Drawing a plan
- 3 – Calculating area and perimeter
- 4 – Saving projects and exporting them to .DXF

N.B. Choose your preferred language the first time you start up the program after installation. 5 languages are available (Italian, French, English, German, Spanish) in the Project drop-down menu at the bottom of the screen. The program will then start up in your preferred language whenever you use it.

1 – Screen settings

When you start GeoProject on your Pocket PC a video screen will appear divided into the following parts (from the top down):

- icon bar with principal program functions (tools)
- drawing area with rulers at sides, grid which you may set as desired and scroll bar
- status bar
- vertical drop-down menus




Rulers may be eliminated to increase the area available for work (option: View – Rulers).

The reference grid on the worksheet may be rendered invisible as well (option : View – Grid) or the grid scale may be changed (option View – Enlarge Grid).

The toolbars and status bar may also be eliminated using the drop-down menu (option: View – Toolbar and View – Status Bar)


The size of the area available for drawing on the worksheet may be altered using the zoom options

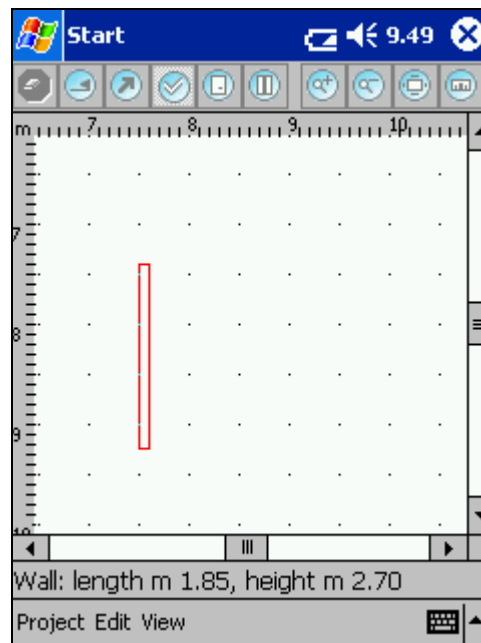
(among the icons on the toolbar  or under the option View – Zoom in/Zoom out). The horizontal and vertical scroll bars at the edge of the screen allow you to move around the worksheet. This allows the user to control the work area and change display parameters at any time.

2 – Drawing a plan

Geoproject is intended to facilitate drawing of 2D architectural drawings. This makes it slightly different from ordinary 2D CAD programs.

First of all, you do not draw simple, primitive lines without dimensions, but masonry which already has a width of its own. In addition, the program automatically creates joints between walls, eliminating a significant amount of work in drawing.

To draw a single wall, simply select the ‘wall’ icon  on the toolbar, or as an option appearing in the menu under Edit – Wall, and drag the pen into the drawing area (elastic dragging allows you to control length and angle directly)

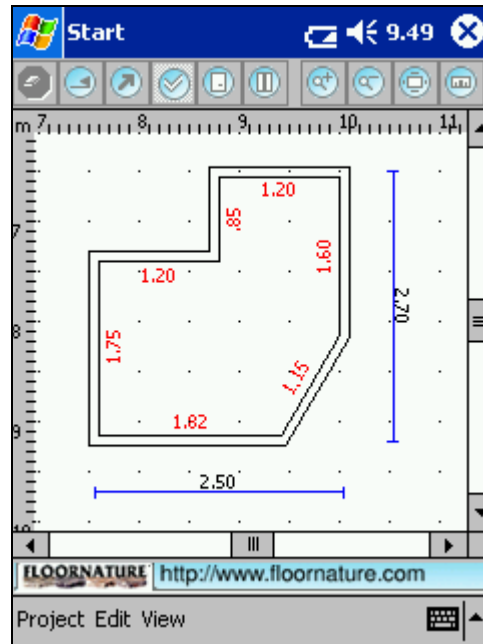


Draw a whole room (or a set of connected rooms) in two stages:

Stage 1 : draw the shape of the room

Use the wall drawing option to create the shape of the room, without worrying about the exact size of each wall. At this initial stage the important thing is to draw around the perimeter of the room,

paying attention to the relative position and angle of the walls and connecting them with one another (the program will automatically connect them when you move close to the ends of the walls).




GeoProject will then automatically draw in the length of each wall (internal measurements appear in red) as the walls are positioned.

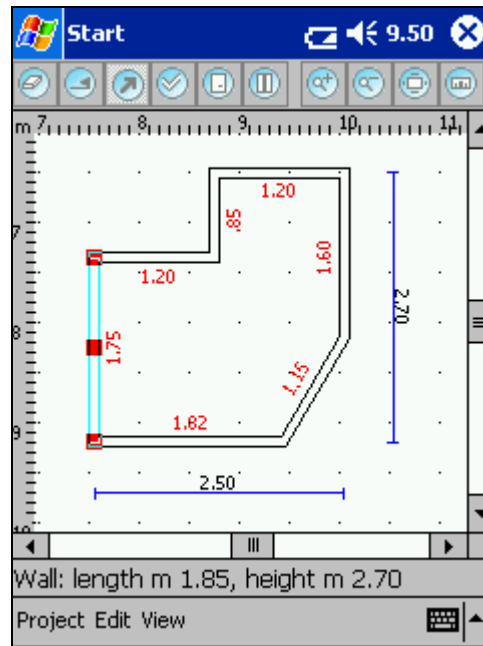
Stage 2 : correcting shape

At this point you may specify the exact length of each wall. There are different ways of doing this, recommended for use under different circumstances. Geometric measurements will continue to be displayed in the status bar.

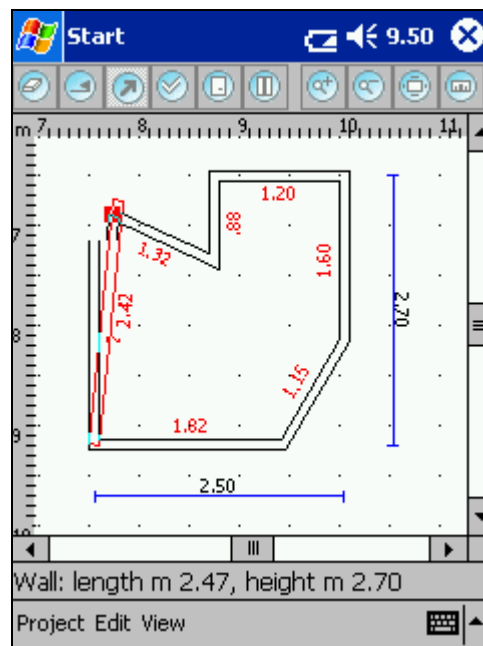
2.1 – Editing by dragging

Select the 'pointer' icon  or use the menu to select Edit – Pointer, then click on the wall to be edited.

3 red squares will appear on the screen, representing the ends and the middle of the wall.

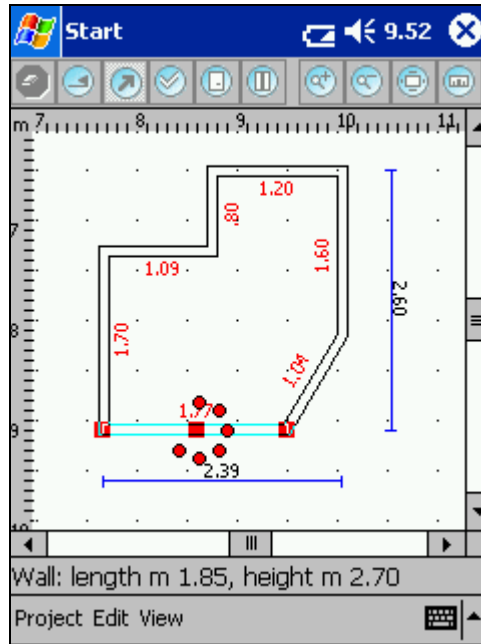



Select one of the end squares and use the pen to move it, producing an elastic stretching effect (the joints will follow accordingly)




You will see length change interactively while moving the wall. Remove the pen from the screen when you have finished editing.

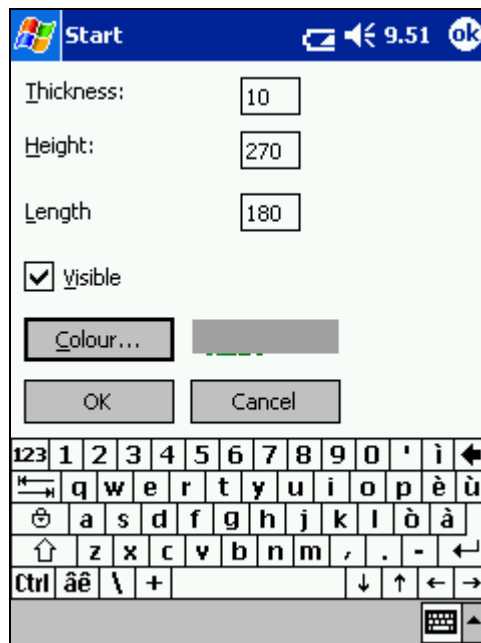
If you select the middle square, you will move the wall as a rigid, parallel unit, specifying an internal reference measurement.



While editing is underway ‘dirty’ lines may remain on the screen. To clean the screen, select the redraw option with the icon  or from the menu using Edit – Redraw.

2.1 – Editing by entering measurements

Just as before, select the ‘pointer’ icon  and click on the wall to be edited. The 3 red squares representing the ends and middle of the wall will appear on the screen. Click rapidly on one of the squares with your pen to call up the virtual keyboard input window




which allows you to enter a number or edit one of the parameters: length, height (3D), thickness, visibility, colour.


When correcting wall length (all values are expressed in cm), note that:

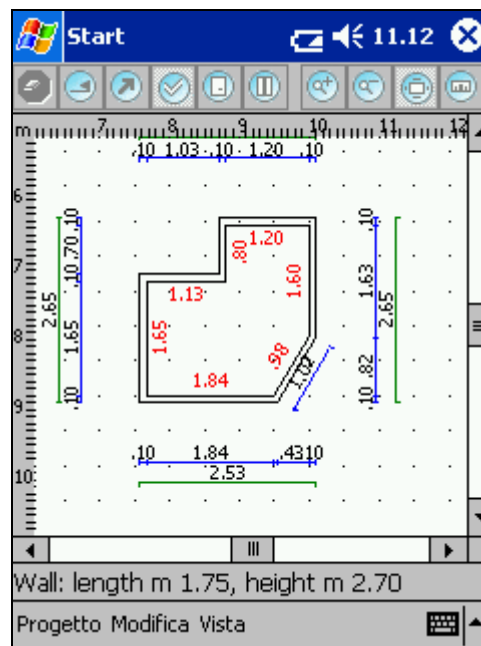
- if you click near the middle square, the length entered will be divided in two, half above the middle and half below;
- if you click near one of the ends, the length specified will be implemented by lengthening the wall at that end only, while the other end will not be changed.

This allows you to edit using the keyboard instead of the elastic dragging method we have looked at, entering precise numerical measurements.



If you need to make several changes, it is best to delete and redo the wall.

To do this, select the wall in the usual way and select the 'delete' icon  or select the option in the menu under Edit – Delete. Then redraw the wall.

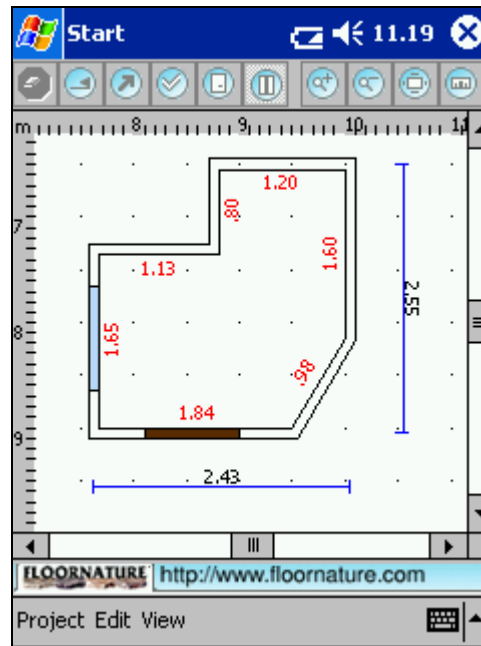
When finished input and editing, you may obtain detailed measurements by selecting the icon  or using the menu, View – Measurements



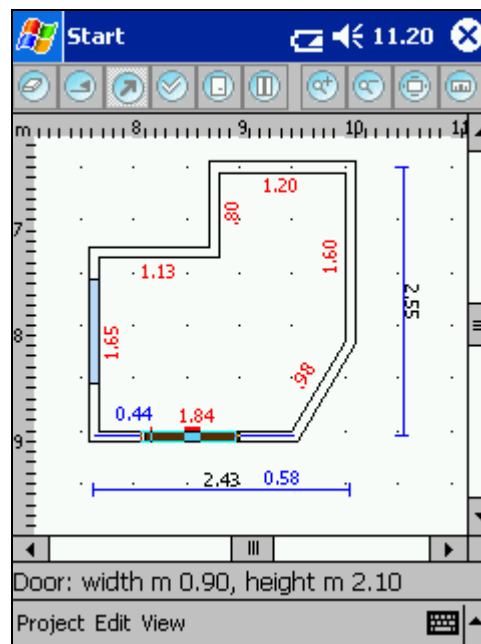
Stage 3 : completion

To complete your drawing, you may include windows and doors with the icons   or using the menu to select Edit – Door and Edit – Window.

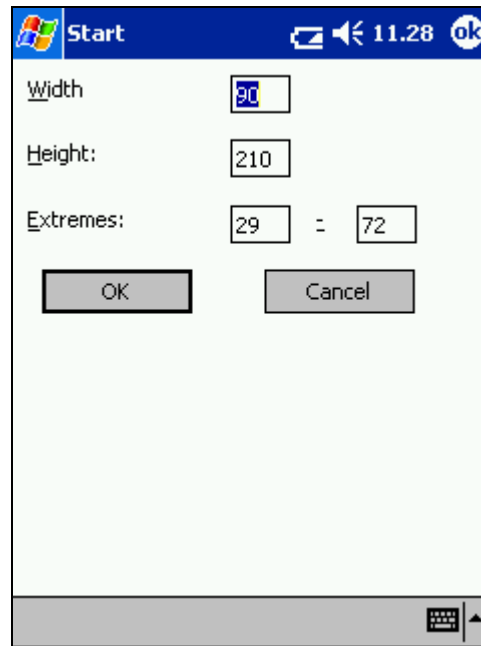
To enter new windows and doors, just click on the wall where you want them to appear, and the door or window will automatically be positioned using the default values, which you may then edit.




As we have seen for walls, you may change position by selecting the pointer and clicking on the window or door. Click on the red square in the middle to move it with reference to the ends of the selected wall.




If you want to change the length of the window or door, select one of the end squares and drag it to make the opening longer or shorter.
 Or, double click rapidly to go to a window in which you may edit the measurements with the virtual keyboard: width, height (3D), position of middle in relation to ends of wall.

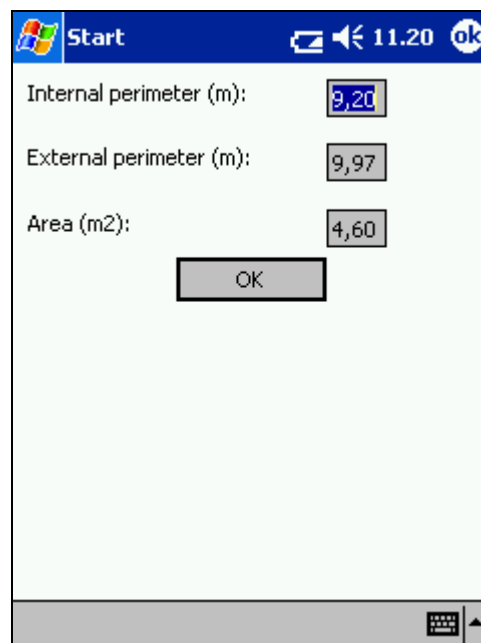


Here too, to delete a window or door simply select it with the pointer and delete it using the icon  or Edit – Delete.

3 – Calculating area and perimeter

To use this option after completing your 2D plan, select the icon  and click on any point inside the drawing of the room you want information on.

A window will appear providing the requested information, automatically calculating internal perimeter, external perimeter and area (in metres).



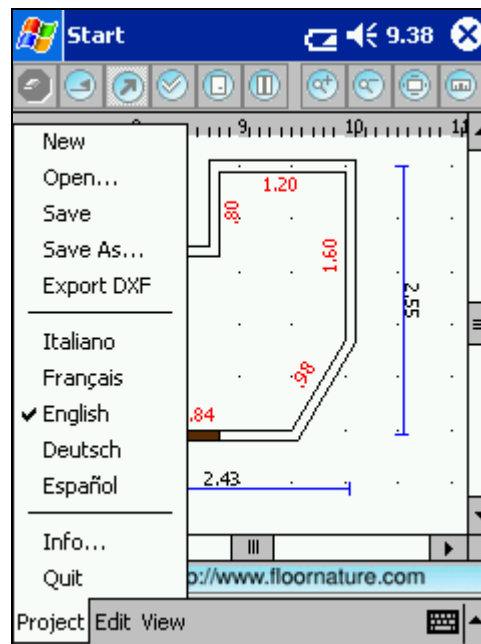
Please note: if the perimeter of the room in the drawing is NOT closed, that is, the walls have not been joined, area cannot be calculated.

4 – Saving projects and exporting them to .DXF

You may save the project you have created and reread it at any time using the options in the Project drop-down menu.

Save it using ‘Save as...’ or ‘Save’ if updating a project you have already saved.

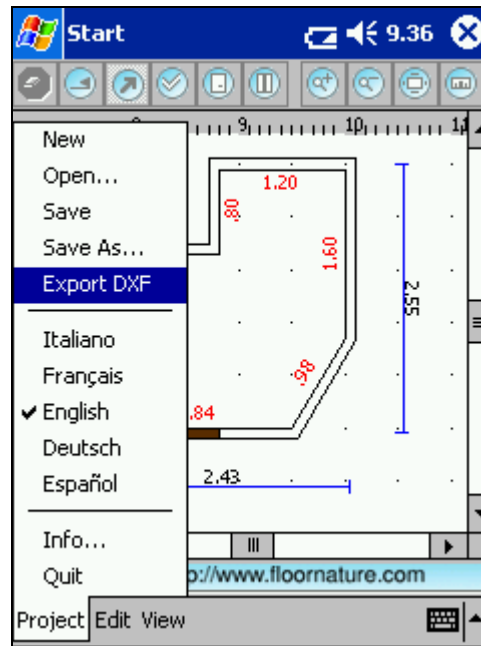
To look at an existing project, use ‘Open...’



To start a new project (deleting the current project, if one is open), select ‘New’. You will be asked to give the new project a name when you first save it.

These project files are fully compatible with other CAD programs for planning laying of ceramics (such as: GEOCOLOR – Floornature.com)

If you want to save your project in the Autocad® compatible .DXF format, select ‘Export DXF’. This will allow you to transfer your drawing, including all measurements, to your PC and open it with other CAD programs which accept this data exchange format, which is now a universal standard.



Here too you will be asked to enter the name of the .DXF file you want to create, which may be different from your project name, in a special screen allowing keyboard input.



By default, if you do not specify the directory, these files will be located in a file called CAD2D. From here they can be transferred to your PC with Microsoft Activesync®, with no further conversion, and you will be able to work on them on your PC.