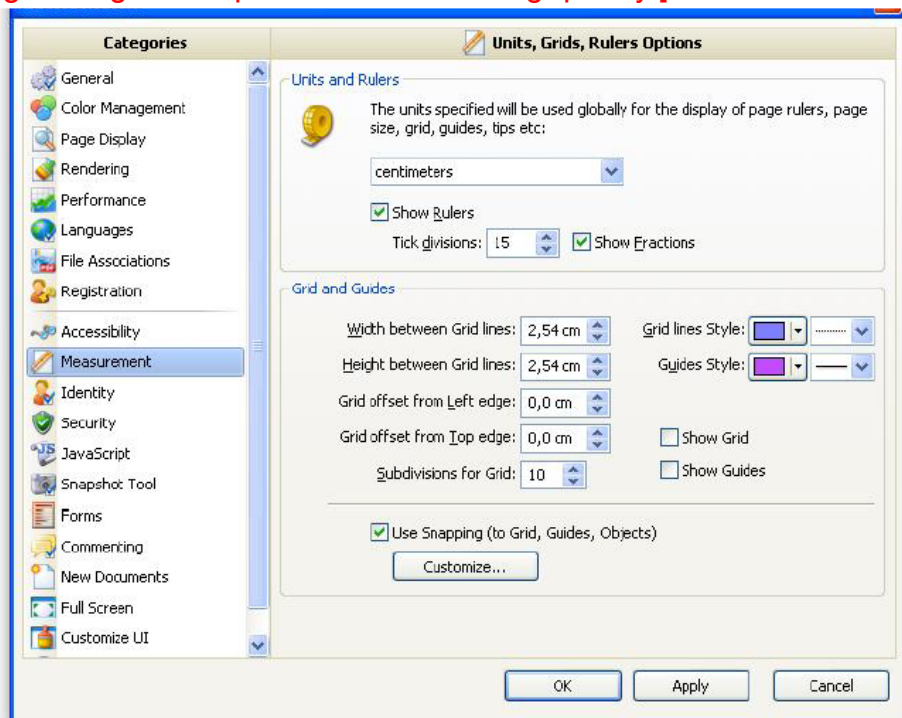## Construction Rates - Measurement Settings

Measurement determines the linear units to use for all displays.

[note the next two pages below are very technical and are for advanced use, you can start from page 3 to get set-up and start measuring quickly]

1) Units and Rulers.
Valid unit values are:

    Centimeters.

    Inches.

    Millimeters.

    Picas equal 1/72 of a foot and so to 1/6 inch. There are 12 points in the pica.

    Points. 1/72 inch.

a) Show Rulers. Shows or hides rulers.
b) Tick divisions. Evenly spaced numeric labels seen between the smaller increments displayed by the Ruler.
c) Show Fractions. Shows or hides fractions.
2) Grid and Guides. Grids provide a visual reference for aligning objects vertically and\or horizontally to specific page positions
according to Ruler increments.
a) Width between Grid lines. Allows you to specify the distance between the grid lines.
b) Height between Grid lines. Allows you to specify the distance between the grid lines.
c) Grid offset from Left edge. Allows you to change the grid offset.
d) Grid offset from Top edge. Allows you to change the grid offset.
e) Subdivisions for Grid. Allows you to specify the number of lines that appear within a given distance.
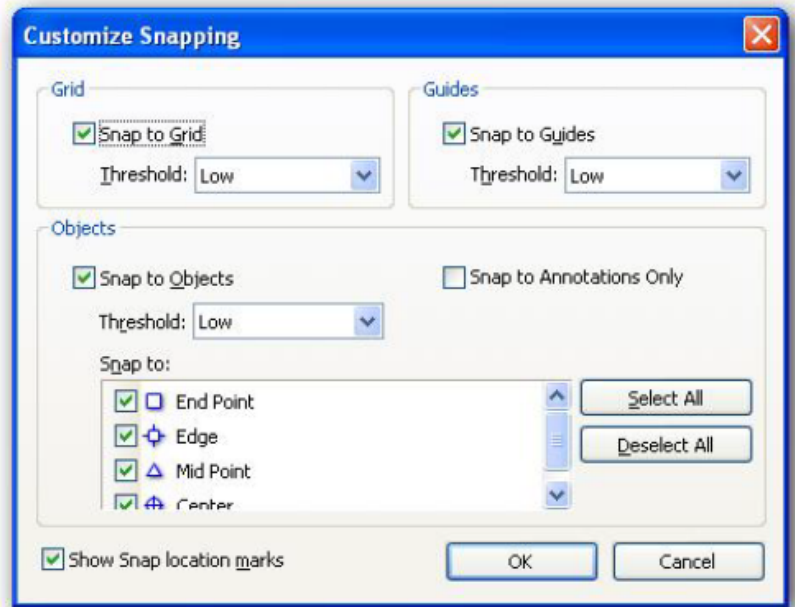f) Grid lines Style. Allows you to specify the grid lines' style.
g) Guides Style. Allows you to specify the guide lines' style.
h) Show Grid. Shows or hides grid.
i) Show Guides. Shows or hides guides.
j) Use Snapping (to Grid, Guides, Objects). When this option is checked, snapping will be used.
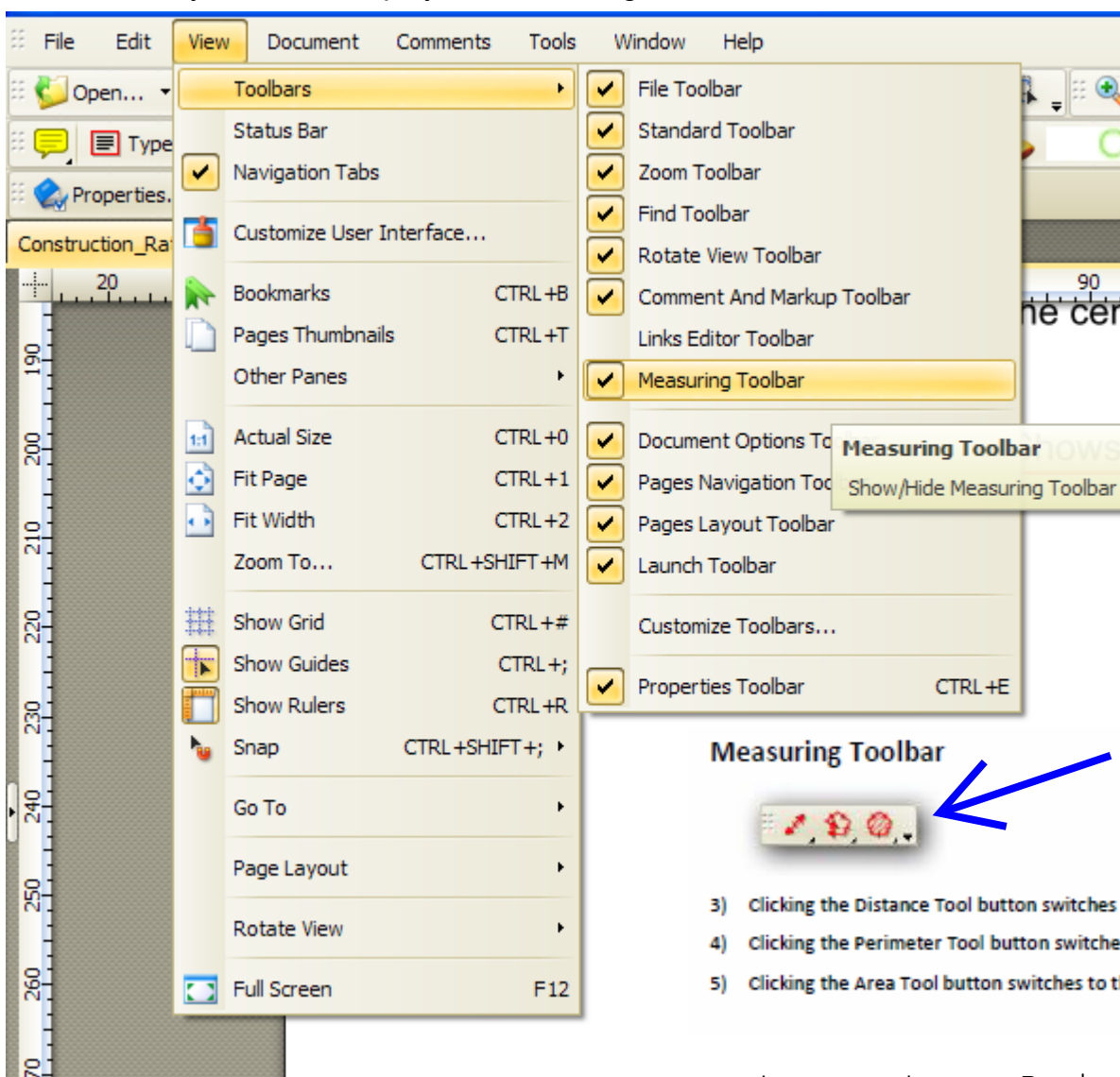i) Customize….

(1) Grid.

(a) Snap to Grid. Aligns an object with the nearest grid line when you move the object.

(b) Threshold. Allows you to choose the level of sensibility. Valid values are: Low, Medium, High.

(2) Guides.

(a) Snap to Guides. Aligns an object with the guide lines when you move the object.

(b) Threshold. Allows you to choose the level of sensibility. Valid values are: Low, Medium, High.

(3) Objects.

(a) Snap to Objects. Aligns shapes with other objects.

(b) Threshold. Allows you to choose the level of sensibility. Valid values are: Low, Medium, High.

(c) Snap to Annotations Only. Allows snapping to annotations only.

(d) Snap to.

(i) End Point. Allows snapping to end point of the object.

(ii) Edge. Allows snapping to the edge of the object.

(iii) Mid Point. Allows snapping to mid point of the object.

(iv) Center. Allows snapping to the center of the object.

(e) Select All. Selects all.

(f) Deselect All. Deselects all.

(4) Show Snap location marks. Shows or hides snap location marks.

How to View the Measurement Toolbars Menu

The Toolbars submenu selects or deselects the following toolbars,
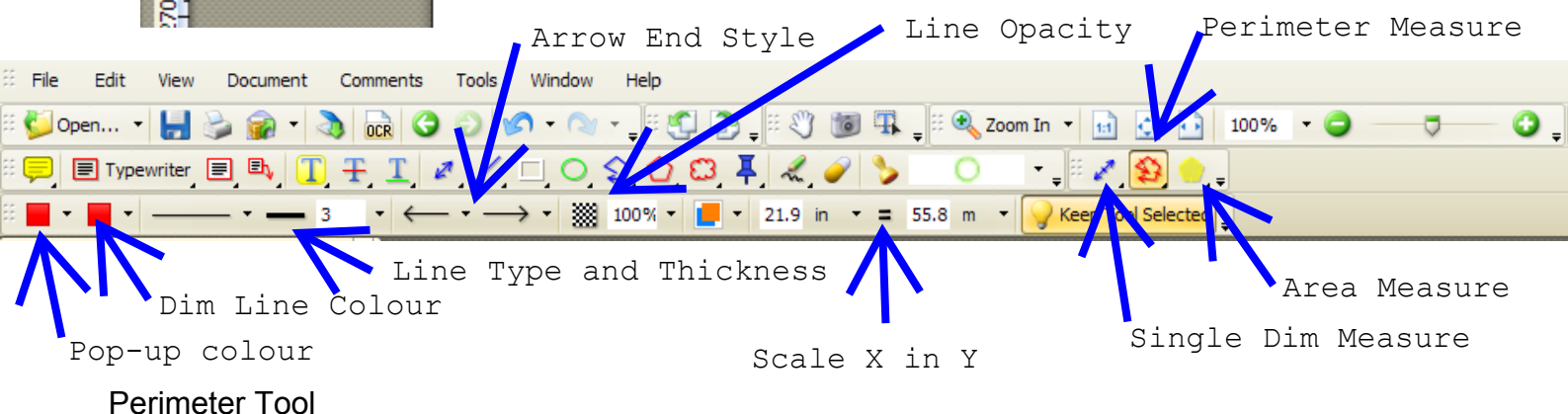below shows you how to display the Measuring Toolbar:

Measuring Toolbar

As it looks on the tool bar, below

3) Clicking the Distance Tool button switches to the Distance Tool.

4) Clicking the Perimeter Tool button switches to the Perimeter Tool.

5) Clicking the Area Tool button switches to the Area Tool.

Arrow End Style — Line Opacity — Perimeter Measure

Pop-up colour — Dim Line Colour — Line Type and Thickness — Scale X in Y — Single Dim Measure — Area Measure

Perimeter Tool

Perimeter tool allows you to measure a set of distances between multiple points.
To measure the distance between multiple points, click the Perimeter tool markup button and a small cross-hair cursor appears. Select a
starting point and click-and-drag the cursor to the next point. When you get there, click again to start a new segment that is
automatically connected to the first. Repeat until you reach your stopping point. The measurements appear in the tool dialog box in the
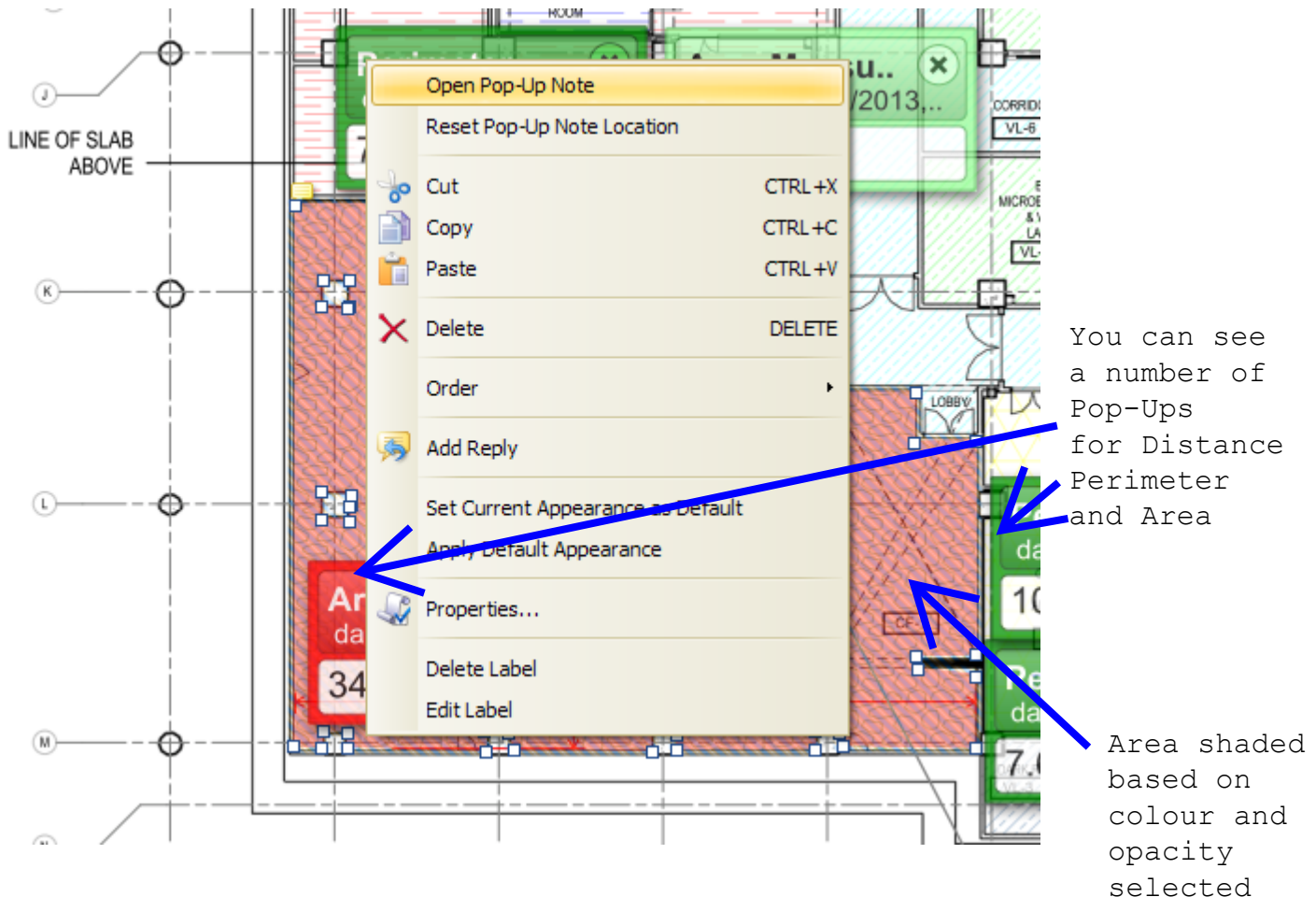process of dragging the cursor.

After you click the last point, right-click to bring up a menu with two choices:

Cancel cancels and erases the Dimension Polyline.
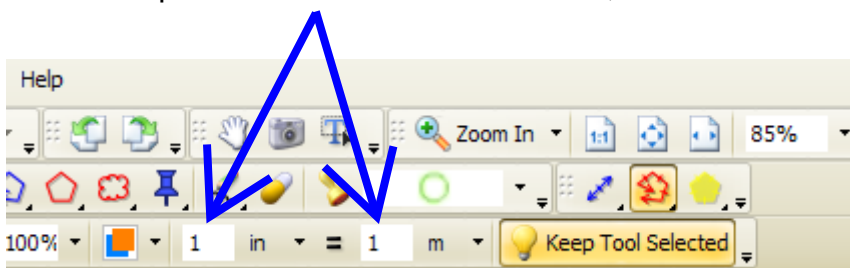
Complete completes the Dimension Polyline.

The tool dialog box reflects the final measurements of the perimeter and scale ratio of the Dimension Polyline.

After you complete the line, you may add a pop-up note to display the measurement, by right clicking the Dim Line and selecting to 'Open Pop-Up Note'.

You can see a number of Pop-Ups for Distance Perimeter and Area

Area shaded based on colour and opacity selected

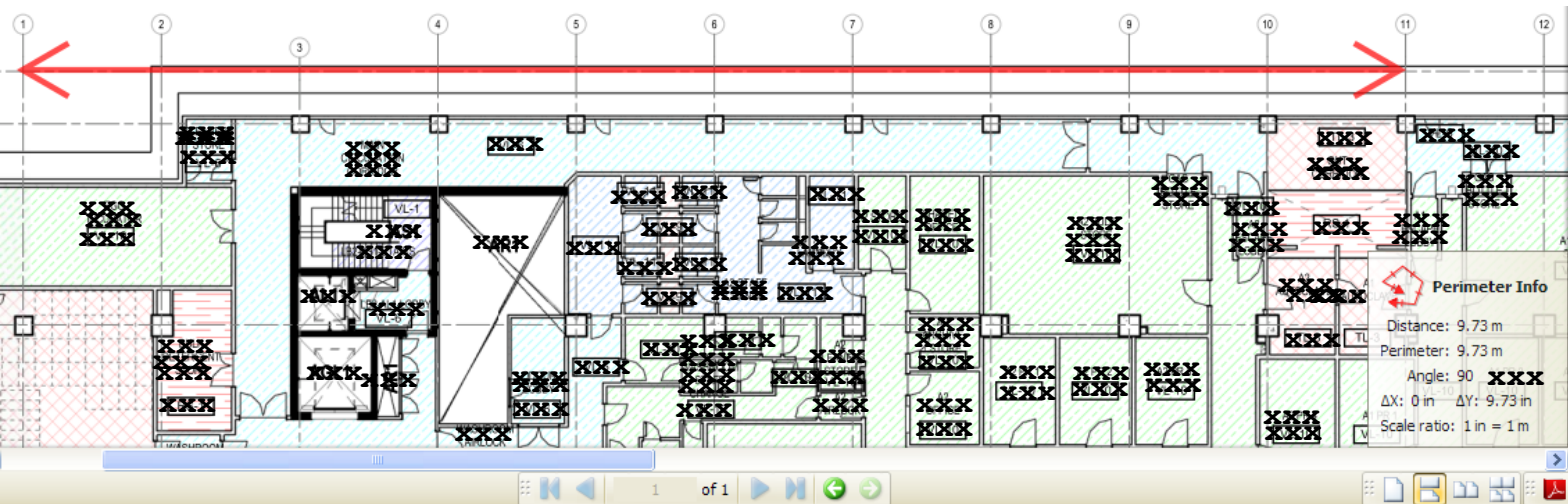## Example of Setting the Measurement Scale

To set a scale for measuring from the pdf you should set the two scale inputs to 1 and 1 as shown below;-
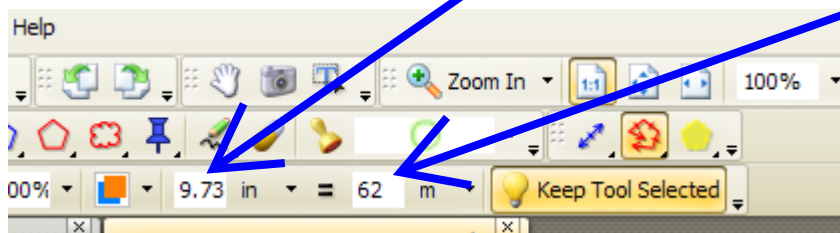
YOU MUST SET THE SCALE BEFORE YOU START MEASURING, Measured Mark-up cannot have the scale changed once complete is clicked

Then select a known distance on the drawing, the example below shows a distance selected form grid line 1 to 11, each grid is 6.20m giving 10 x 6.20m or 62m (note that the larger the distance the more accurate the measured results) the measure shows a pdf distance displayed of 9.73m at 90 Deg Angle (the angle should also represent a true line i.e. horizontal or vertical 0 or 90 Deg)
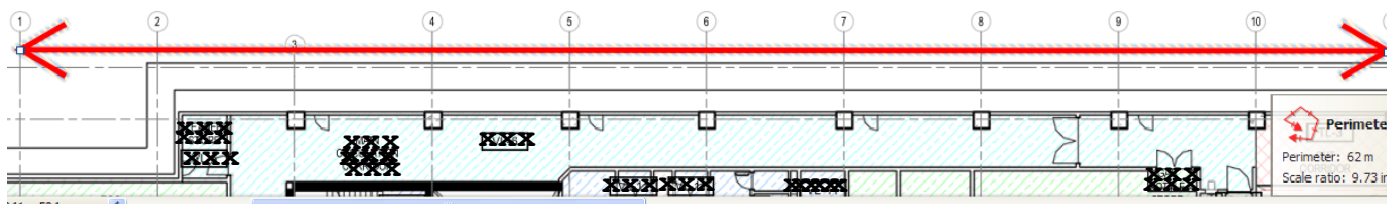
Then select the first scale input to 9.73m and the second scale input to 62m as shown below;-

This then allows you to measure directly on to the pdf drawing in the form of 'mark-up' 'comments' as shown below, the dim from grid 1 to 11 is now displayed at 62.00m;-

You need to set the scale for the 3 different measurement types at the derived scale as above, i.e. you need to set distance and area with the same scale e.g. 9.73 in 62.00m

```
if you make an error while clicking the measurement points
you can press the "esc" key to start again, or click 'undo' once complete
```

- -
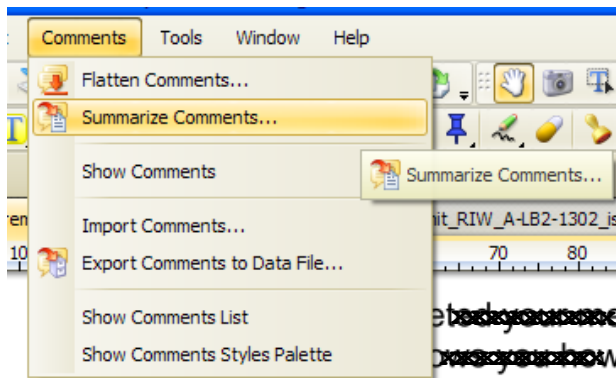
When you have finished the measurement for each dimension you need to right click and press the 'Complete' option shown to the left.
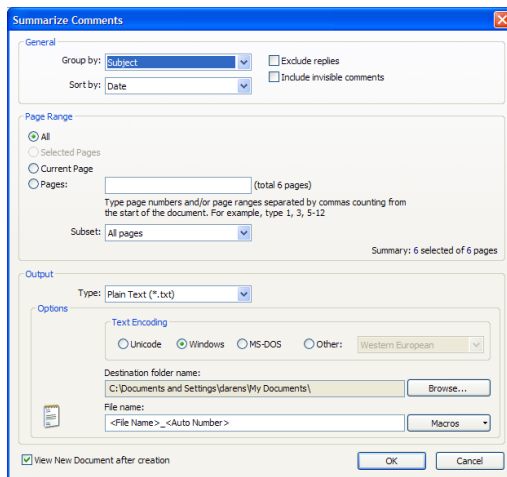

This will allow you to continue measuring other locations or complete your measure.

```
By double clicking your mark-up dim once complete it will  oprne a Pop-Up
note automatically
```

Once you have completed your measure you need to get your measurements in to a useable for, the example below shows you how to export them in to an Excel spread sheet.
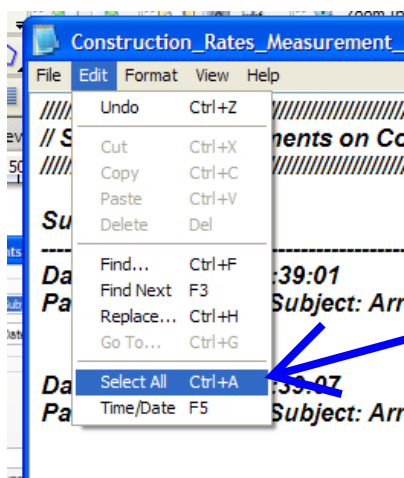
When you have measured your last dimension and your measure is complete, you need to select Comments, then Summerize Comments.. as shown to the left;-

When you click 'Summerize Comments..' the item shown to the left will appear. You can make changes to this as you require, but there is no real need for getting the dims.

So when you click 'OK' it will open the Output Type shown on the left, which is a text document.
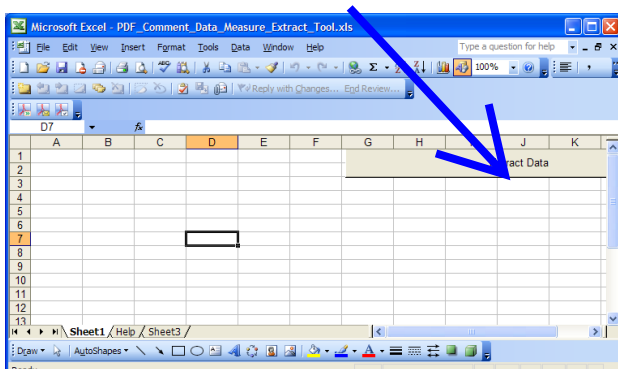

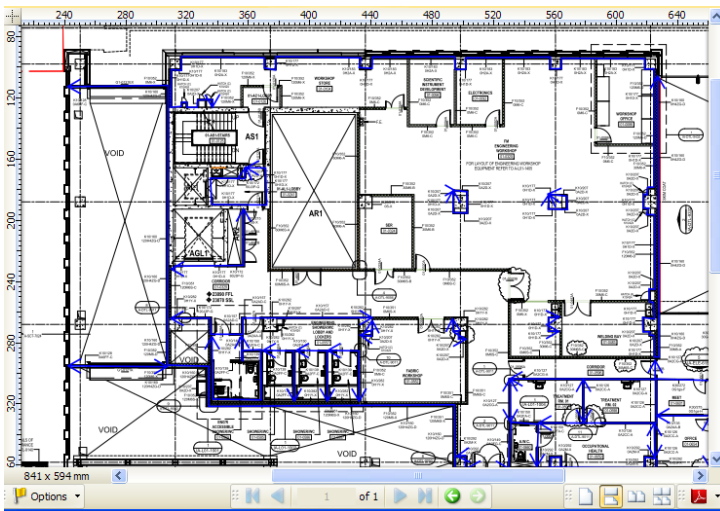Once the text document is displayed, click 'Edit' and 'Select All'

Once all the Text is Selected then click 'Edit' and 'Copy'

Now you can use the Construction Rates "PDF_Comment_Data_Measure_Extract_Tool.xls"

To do this you simply Open the File "PDF_Comment_Data_Measure_Extract_Tool.xls" and press the button 'Extract Data' as shown below;-

The example below shows a measure of plasterboard to walls (blue mark-up) and the measured data extracted using the procedure described above;-

Plasterboard measure shown in Blue

The blue mark-up measure took about 5 minutes to complete and extract the dims
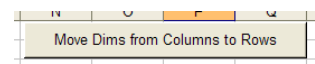

Dimension data extracted using the Construction Rates "PDF_Comment_Data_Measure_Extract_Tool.xls

This data can then be used with the other Construction Rates, take-off, abstract, billing, specification and price tools in order to build-up your, estimate, valuation, variation and or CVR (or the like)
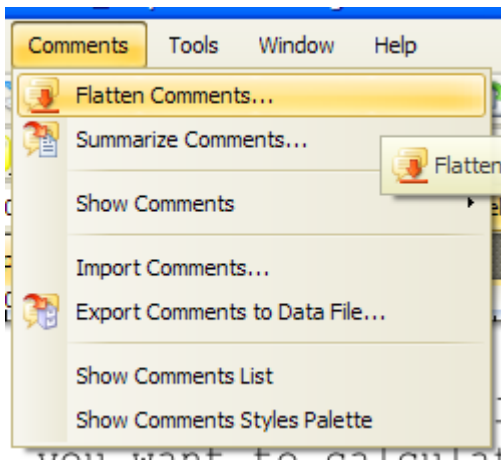
Note you can click the "Move Dims from Columns to Rows" button to use it in the "Dims Abstract Spec Rate& Billing" program (available seperately)

The same method applieds to distance, perimeter or plan area measures. If you want to calculate the area of say walls, then you would used the perimeter measure, extract the dims as shown above and use the girth sum linear measure and multiply it by the height of the wall, simple.

You should also remember that you can use all types of mark-up and comments to label and anotate your take-offs as you progress them for future reference. This includes printing and saving to pdf documents as you proceed.

If you want to measure multiple elements on one mark-up, then you need to 'flatten' you previous 'mark-up' (after you have extracted the dims) i.e. if you measured plasterboard walls and then you want to measure plasterboard ceilings on the same record drawing, then this is where you would want to flatten the previous comment data as shown below;-

By pressing 'Flatten Comments..'
this will ask you for confirmation
that you will lose the previous data
However, the mark-up lines and displayed
Pop-Ups will still be displayed, but your
new measure will be capable of being
extracted as before.

If you want to keep the detailed measured
data of the walls before you measure the
ceilings then you can simply "Save As"
using a differing file name i.e.
'project_name_pd-wall.pdf'

Support for the PDF-XChange Viewer

North/South America, Australia, Asia:
Tracker Software Products (Canada) Ltd.,
PO Box 79
Chemainus. BC
V0R 1K0, Canada
Sales & Admin
Tel: Canada (+00) 1-250-324-1621
Fax: Canada (+00) 1-250-324-1623

European Office:
7 Beech Gardens
Crawley Down., RH10 4JB
Sussex, United Kingdom
Sales
Tel: +44 (0) 20 8555 1122
Fax: +001 250-324-1623

Their Web Site: http://www.tracker-software.com
They also have offices and representatives in several other locations including: United States, France, Germany and Ukraine - in some instances after an initial contact with our UK office you may be referred to one of these locations if appropriate.

Construction Rates UK are a reseller of PDF-Change and the Serial Code you have been provided is fully authorised authentic licence for a single user (unless your purchase was for multiple users)

For support on the Data Extract Program of other Construction Rates programs please contact Construction Rates directly via the following email address constructionrates@gmail.com

I've lost my License information.
If for any reason you need to re-install PDF-XChange Viewer and no longer have your license info - please send an email to support@tracker-software.com containing as much info as possible regarding you and your purchase details : Product, the purchasers name and email address - and a physical address including our company name Construction Rates UK - if you know the receipt number - even better.