

INTRODUCTION

This document has been compiled to help you understand the behaviour of IFS EE Client with the variation of parameters that governs the quality and size of display devices.

PARAMETERS OF DISPLAY DEVICES

1. DPI

DPI (Dots per Inch) is a measurement of screen quality. In display devices, this is also called PPI (Pixels per Inch). That is the number of pixels that is covered in a '1 inch' length of the screen.

The higher the DPI, the less the actual metric space taken to show a fixed pixel dimension on a screen.

Example: Consider a button control that is defined with width = 90 pixels. When there are more pixels per inch the button is shown smaller.

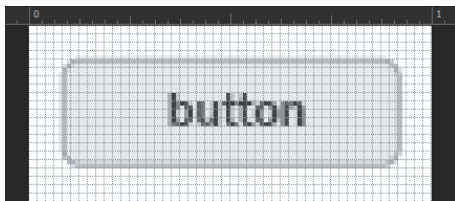


Figure 1: On a 96 DPI Screen

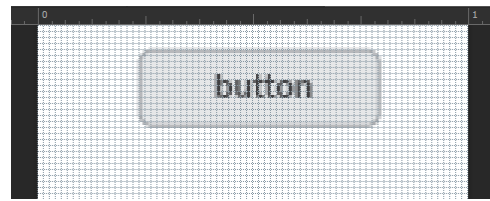


Figure 2: On a 144 DPI screen

2. SCALING

Scaling is a zooming action performed by a user depending on preference.

Example: Consider a button control that is defined with width = 90 pixels, on a 96 DPI screen

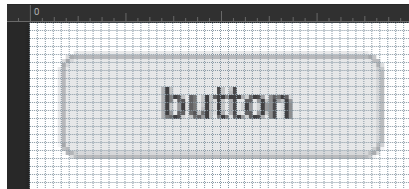


Figure 3: On a 100% Scaling

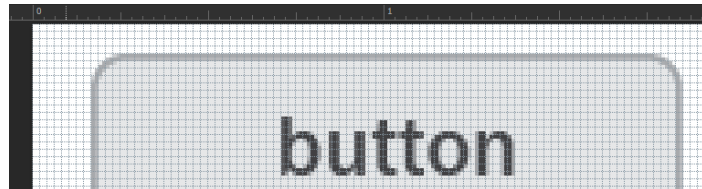


Figure 4: On a 200% Scaling

Example: Consider an application in full screen on a 22" monitor. When the scaling goes up the form need more space to display the content. As a result, the user will now see a partial screen and scrollbars will appear to view the rest.

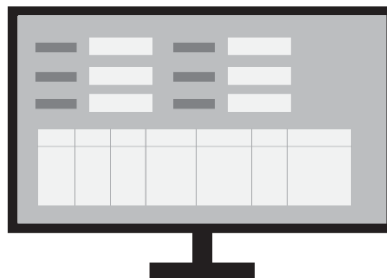


Figure 5: On a 100% scaling

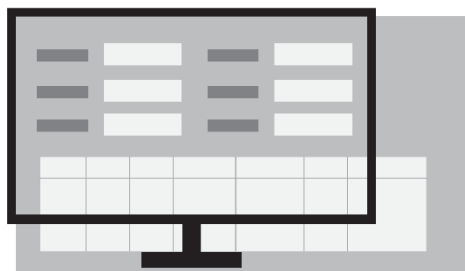


Figure 6: On a 150% scaling

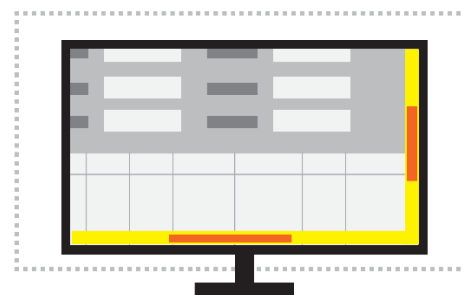


Figure 7: On a 150% scaling as user views with scrollbars

3. RESOLUTION

The dimension of pixels set to be displayed on a given screen upon user preference.

Example: Consider a dialog of dimensions 800 pixels X 600 pixels open on a 22" screen. When the resolution goes down the forms appear to increase in size.



Figure 8: On a resolution set as 1920 x 1080



Figure 9: On a resolution set as 1280 x 720

Example: Consider an application in full screen on a 22" monitor. When the resolution goes down the form needs more space to display the content. As a result, the user will now see a partial screen and scrollbars will appear to view the rest.

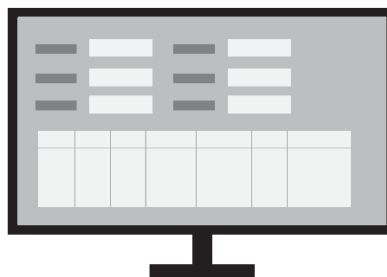


Figure 10: On a resolution set as 1920 x 1080

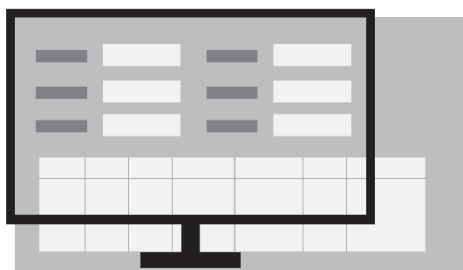


Figure 11: On a resolution set as 1280 x 720

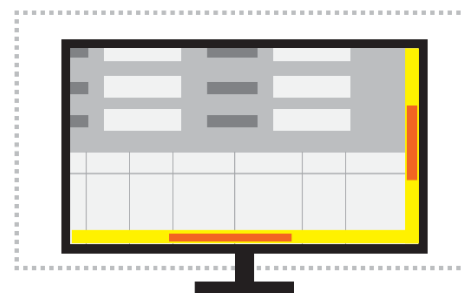


Figure 12: On a resolution set as 1280 x 720 as user views with scrollbars

HOW IT ALL WORKS TOGETHER

As illustrated in the above section, when DPI of a screen increases the items on a screen are shown smaller. To improve the visibility of controls and readability of text, users tend to use a scaling factors higher than 100%. Another approach is to reduce the resolution of the screen.

The combination of DPI, Scaling and Resolution changes result in what is known as the **effective resolution**.

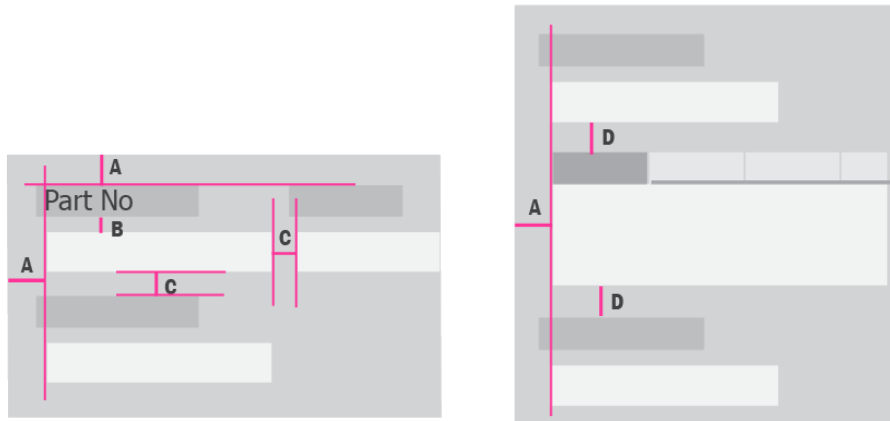
Example: For a screen with resolution 2736 x 1824 applying a scaling of 200% will result an effective resolution of 1368 x 912.

IFS EE CLIENT BEHAVIOUR

IFS EE Client is required to be usable in a minimum affective resolution of 1024 x 768. Leaving space for the chrome the recommended workspace is 1000 x 670.

APPENDIX A

IFS EE FORMS COMPATIBILITY GUIDELINE



A	Visual distance controls from the form frame	12 px
B	Visual Distance between data field label and textbox	6 px
C	Visual distance between controls	10 px
D	Visual distance between tabs, grids, panels, from the bottom controls of the header or the top controls of the footer.	10 px

When the distance between controls is compromised or ignored the scaling calculation can cause overlapping of controls.

SPECIAL SCENARIOS

MS Month Calendar

This control has the possibility to show multiple months depending on the width given in the control. To assure that it always shows the same date range when scaling, the month calendar needs to be docked inside a panel by setting the property 'Dock' to DockStyle.Fill.

VisSpinField

The VisSpinField control (from PPJ framework) has been used as an Up-Down Arrow control. This is achieved by placing its count indicator under another control like a textbox. This partner control is used to display the resulting value to the Up-Down click.

When the display screen (monitor) is scaled or the resolution is changed, the response calculation caused the count indicator of VisSpinField control becomes visible. To avoid this, set the newly introduced property of VisSpinField control ShowText to false and dock the VisSpinField control in a panel together with the partner control. This ensures that the two controls remain coupled when scaling is applied.