REFMAN *for windows*

All Drawing functions available from standard toolbars

Simply click the button on the toolbar for the function you require then click to the position on the drawing where you want to draw.

Dimensions

Add dimension lines and sizes with a single button click.

Zoom control for display

REFDRAW has zoom levels from full page width up to 1000%. Allows you to zoom in to draw close detail and zoom out to see the complete drawing.

Page format & drawing size

REFDRAW automatically sets the available size of the drawing area to match the available space on the REFMAN Job Text, Job Notes or Section Preface page. On completion, *REFDRAW* automatically inserts the drawings into the correct position on the Specification page.
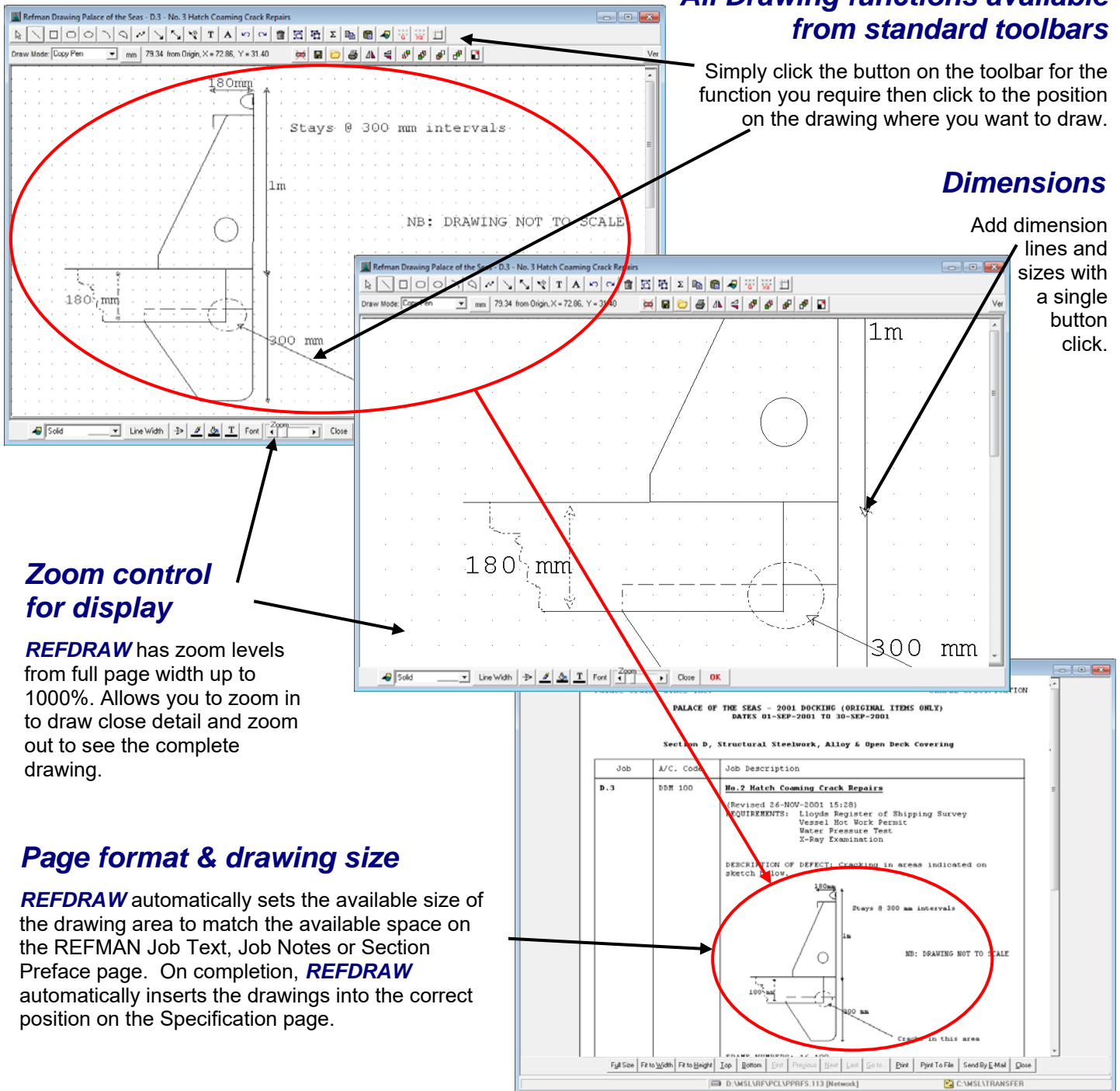
Overview

REFDRAW is a drawing tool designed especially for use in conjunction with REFMAN's Specification Generator and Shipboard Defect Recording modules. It has been designed to be used by anyone who needs to insert images or create simple drawings in a REFMAN Job or Defect Description.

The emphasis throughout REFDRAW is on speed, ease of use and <u>minimising file size</u>. All the main functions are accessible either via buttons on a toolbar or directly from a standard mouse.

REFDRAW allows users to create drawings using tools to insert lines, shapes and images/pictures. Items can be referenced individually and moved, re-sized or rotated in the drawing area.

REFDRAW automatically adjusts the size of the available drawing area to match the space that is available on the REFMAN specification page so that it automatically matches 'Full Page' & 'Box Format' Job Text, Job Notes, Job Remarks and Section Preface Text format page layouts.

REFDRAW – Refman's Drawing Module

Main Program Features:

- **Lines** – draw lines with control over thickness, colour, and style.

- **Rectangles** – draw squares and rectangles of any size.

- **Rounded Rectangles** – draw squares and rectangles with rounded corners of any size.

- **Ellipses** – draw circles /ellipses of any size.

- **Arc** – draw arcs of any size and length.

- **Pie** – draw pie shapes of any size.

- **Chord** - draw chord shapes of any size.

- **Polyline** – draw polylines with an unlimited number of points.

- **Polygon** – draw polygons with an unlimited number of points where the last point is automatically joined to the first point making a complete polygon.

- **Text** – insert text which matches the text size and style used in the Specification or Defect List.

- **Insert Pictures/Images** – .BMP, .JPG, .GIF, .PNG, .WMF, .EMF,.DXF (AutoCad) & PDF (Adobe Acrobat) format files. Other formats can be inserted via the Windows clipboard by using the Copy & Paste functions.

- **Cropping –** to remove unwanted areas around inserted pictures and images.

- **Dimension Lines** – insert dimension lines at any angle and length with arrows at both ends. Enter dimension text with control over positioning next to dimension line.

- **Select** individual objects or range of objects.

- **Select All** objects.

- **Group** and **Ungroup** selected objects.

- **Delete** selected objects.

- **Move** and resize selected objects.

- **Rotate** objects. Control over rotation angle and centre of rotation.

- **Layers –** move layers to top, bottom, up one layer or down one layer.

- **Copy** selected objects.

- **Paste** objects that have been copied in the drawing module or have been copied in external software. Use this function to insert pictures and text from other software.

- **Mirror** or **flip** objects horizontally or vertically

- **Undo** and **Redo** function.

- **Colour** – use standard colours or define custom colours for lines, filling and text.

- **Page Size**. Switch between 'box format' and 'full page' layout

- **Unit of measurement**. Display cursor position and distance from origin (line length) in Inches or in milimetres.

- Drawing elements & images automatically '**snap**' to grid points for accurate alignment.

- Drawing area displayed with scalable background "**grid**" for easy and accurate positioning/alignment of drawing elements.

- **Not to Scale** – inserts a 'Not to Scale' label

Line Style - select from solid lines, dash lines, dotted lines, or combinations of these.

Line Width - select from 1 to 6 point width.

Fill Pattern - includes: transparent, solid, diagonal lines, and vertical lines. Used with rectangles, ellipses, circles, pie, chords and polygons.

Zoom – from full screen width to 1000%.

Drawing Mode – specify the way in which an objects attributes are combined with objects already in the drawing.

Built in File Size Reduction Aids – Includes on screen sizing guide points & pop-up tips to reduce the size of inserted images; image save options which ignore the source file resolution and only save the minimum amount of information which is required to reproduce the image at the size it was inserted at and optional company-wide file size limits which prevent images which exceed that limit being inserted.

System Requirements: As per REFMAN's Specification Generator or Shipboard Defect Recording module as appropriate.