

CADS Scale User Guide



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1 Introduction

Chapter Objectives

This chapter provides an overview of CADS Scale and instructions for starting and setting up the program for each system.

1.1 Overview

CADS Scale is a program designed to enable drawings with details at different scales to be created easily with a logic similar to that employed on the drawing board.

The key features which CADS Scale provides can be summarised as follows:

- ▶ Drawing setup utility;
- ▶ Re-scaling of details;
- ▶ Enlarged part details;
- ▶ Text heights need only be specified in plotted mm regardless of drawing scale;
- ▶ Dimensions remain unaffected when drawing scale is adjusted;
- ▶ Paper space and model space drawing support.

Although CADS Scale can run stand-alone, it has been designed to integrate fully with other CADS Detailing Applications, such as CADS Drawing Environment, CADS RC for reinforced concrete detailing and CADS Steelwork for steelwork detailing to provide a complete detailing environment within AutoCAD.

These manual guides you through the program's features and explains their use. The program also includes on line help, which describes how to use each of the functions.

It is a policy of CADS to constantly refine and improve its products. Users with any comments or suggestions regarding CADS Detailing Applications can contact our Customer Support Department who will be pleased to provide help or listen to suggestions.

1.2 Installing CADS Scale

Details of installing CADS Scale can be found in the accompanying Installation Guide and Product Note. The Installation Guide gives general information on how to install the program on the various platforms for which it is available. The Product Note gives any special instructions for CADS

Scale and other useful information such as a list of the files it writes, highlighting those that are updated by upgrades.

1.3 Loading CADS-Scale inside AutoCAD

To load CADS Scale for the first time, select the CADS pull-down menu and then choose the CADS Scale option. The licence page will be displayed as the program is being loaded into memory. CADS Scale remains loaded until the current AutoCAD editing session is ended.

1.4 Loading Other CADS Applications

CADS Scale is designed to reside alongside other CADS Detailing applications such as CADS Drawing Environment, CADS RC for reinforced concrete detailing and CADS SW for detailing steelwork. These are ARX applications (as is CADS Scale) and they can be started using the usual AutoCAD methods for running CADS applications. However, a much easier method is to load them using the CADS pull-down menu, which lists the principal applications.

Clicking on the required application will load it alongside CADS-Scale. Generally, you are advised to only have those applications loaded that you intend to use during that session, since they all take up valuable memory that would otherwise be available for the drawing.

1.5 The CADS Drawing Organiser

CADS Scale now has an optional enhancement called the Drawing Organiser, which enables simple drawing management to be undertaken from within AutoCAD and includes some additional features over the original CADS Drawing Manager. Existing users of CADS Drawing Environment & CADS Scale can still use the original Drawing Manager from the CADS Application Manager. The new Drawing Organiser is described in the CADS Drawing Environment manual. You can obtain more information on CADS Drawing Organiser by contacting CADS Customer Support.

1.6 Starting a Drawing for use with CADS-Scale

This section gives an outline of starting a drawing or resuming a drawing for use with CADS Scale on installations which do not include CADS Drawing Environment. The procedure is the same for all platforms. For installations which include CADS Drawing refer to the CADS Drawing Environment manual.

1.6.1 Starting a New Drawing

Start AutoCAD using the icon.



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AutoCAD begins with the start up dialogue box. Choose a suitable template and pick OK. This loads an unnamed drawing file. You can begin working immediately and save the drawing to a filename later, using the SAVE, SAVEAS or QSAVE commands. Alternatively, you can specify a filename for your drawing first and then begin to work, using the NEW command.

What you do next depends on your intentions. You could start drawing straightaway but you are more likely to want to start a new drawing of a given size, scale and border.

The procedure is detailed in chapter 2 but basically you select the Drawing Setup command which allows you to choose the drawing size with appropriate border, scale and any title information you require and the drawing 'sheet' is created. From there you can carry on drawing.

1.6.2 Starting an Existing Drawing

AutoCAD's own OPEN command can be used as described in its manual.

2 Drawing Setup

Chapter Objectives

This chapter describes the facilities provided in CADS Scale to assist you in setting up a drawing.

Setting up a drawing is one area many CAD packages overlook but as nearly every drawing needs some setting up, CADS-Scale provides a utility to assist. This chapter describes these facilities along with worked examples.

2.1 . Managing your Drawings

Once you have a number of drawings, it is helpful to have a method of managing them. CADS Scale can be supplied with an optional Drawing Organiser, which enhances AutoCAD's own file control methods by allowing you to include extra data about a drawing and a slide representing its content.

2.2 Selecting the Drawing Setup Option

The Drawing Setup utility is available as the first option from the CADS Scale pull down Menu. Its main use is to enable you to select the drawing size and border layout you wish to use.

2.3 Selecting a Setup

When you select Drawing Setup, a dialogue box is displayed listing the setups that have been defined. You may select one of them for use by highlighting it and picking OK or double clicking it directly from the list.

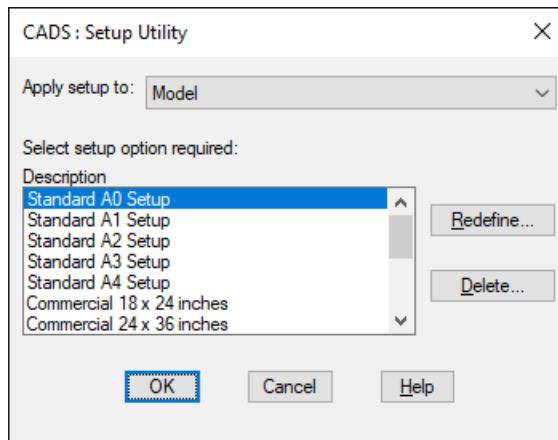


Figure 2.1 Setup Utility Dialogue Box

By default, there are five standard A size drawing sheets already set up, each with a border and bearing the CADS logo. One of your first tasks may be to re-define them to suit your own house style. The program allows up to 15 setups to be defined as described in the next section.

Having selected a set up, the program will display a dialogue box from which the working scale may be chosen. Alternatively, a non-standard scale may be entered. The drawing limits LIMMIN and LIMMAX will be set to 0,0. The drawing size x scale and any border and title block will be added ready to start drawing. See also the section "Paper Space Setup".

If the title block includes attributes, a dialogue edit box will be opened for the title and other data to be entered. Furthermore, if there are attributes called Date and Scale, then the current date and chosen scale will be entered into them automatically.

A number of other settings are made, mainly to assist in supporting CADS Scale. They are: -

- ▶ A dimension style called DIM_xx (where xx is the scale chosen) is created for use by CADS Scale and becomes the current style;
- ▶ DIMSCALE and LTSCALE are set to the chosen scale and TEXTSIZE is set to 2.5 x DIMSCALE to give a default 2.5 mm plotted height of text;
- ▶ USERR3 is set to DIMSCALE and is used by CADS Scale to detect DIMSCALE changes;
- ▶ If paper space is being used, then PSLTSCALE is set to 1, so that the line image will scale in proportion to the zoom in paperspace viewports.

2.4 Re-defining an Existing Setup

The CADS Setup Utility dialogue box has a Redefine button which opens a further dialogue box (the CADS Setup Options dialogue box-Figure 2.2) in which you can alter the settings to suit your own requirements. If an existing setting is highlighted, then its data will appear in the dialogue box ready for editing as described in "Setting up the options".

2.5 Creating a New Setup

To create a new setup, move the cursor to the first <Undefined> line before picking Redefine. Enter the appropriate information in the CADS Setup Options dialogue box which then appears as described in "Setting up the options" which follows.

2.6 Setting up the Options

Whether you are redefining an exiting setup or creating a new one, the options are selected from the CADS Setup Options dialogue box shown in Figure 2.2 and described in the following paragraphs: -

Description

This is the text which appears in the setup list. It should be unique for each entry. Bear in mind that as these setups are likely to be in use for some time by many people, the descriptions should clearly indicate the type and size of the drawing to be setup.

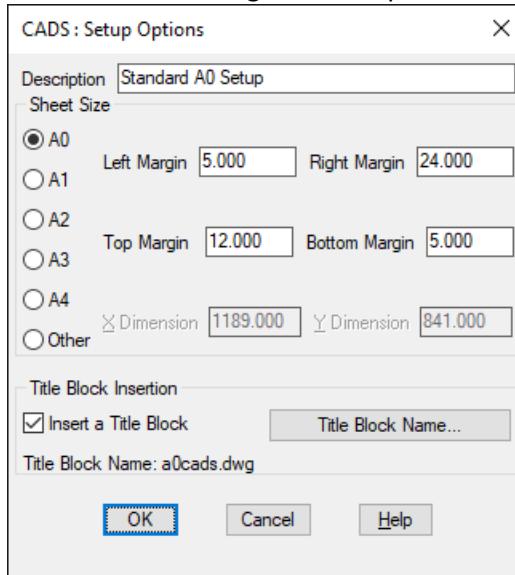


Figure 2.2 Setup Options Dialogue Box

Sheet size

The items in this panel are largely self explanatory. The radio buttons on the left select standard sheet sizes, except the Other button, which activates the X and Y dimension fields to allow you to specify the page size. You may need to use this option if your plotter requires oversize paper.

The margins are used in two ways. When inserting a title block the values of the left and bottom margins are used to offset the insertion point of the block from 0,0 (the bottom left corner of the sheet). If no title block is being inserted, a border, inset by the margin values, is drawn.

All values are in mm.

Note: If you already have margins defined on your title block, change each of the setup margins to 0.

Paper Space Setup

CADS Scale can be used in two modes, namely Normal Mode and Fast Mode.

Normal Mode



In Normal Mode the title block is inserted and scaled as described in the section "Selecting a Setup". The title block is placed in Model Space and all editing is also carried out in Model Space.

Fast Mode

Fast Mode is selected by activating the Paper Space Setup option in the CADS Setup Options dialogue box.

In Fast Mode the title block is placed in Paper Space at a scale of 1:1 regardless of the scale selected from the CADS: Setup Scale dialogue box. The Scale Areas when in Fast Mode consist of Paper Space Mview viewports zoomed to boundaries in Model Space to produce details at the required scale.

NOTE - If a drawing is created in Fast Mode, it cannot be changed at a later date to Normal Mode or vice versa.

Title Block insertion

The title block includes the border and any other 'pre-printed' items which should appear on the drawing sheet. The tick box indicates whether the title block is to be added or not. The title block name is the name of the block used and alternative blocks may be selected by picking the Title Block Name button. This opens an enhanced file dialogue box using the default path to the title blocks. An alternative title may be selected and after picking OK it will be shown in the block insertion panel.

Picking OK to confirm the changes will return you to the set up dialogue box, where any new setup will be added to the list. On selecting OK to exit this dialogue box you will be asked if you wish to save your setup changes by writing the prototype configuration to disk, to which you would normally respond Yes. If you do not write them out then they will only apply to the current drawing and not be retained for future drawing setups.

2.6.1 Creating your own title blocks

As suggested earlier, you will probably want to create your own title blocks. You can either edit one of the CADS examples provided or create your own from scratch.

Note: All title blocks should be created in Mode 1. Spaced at a scale of 1:1.

You will need a drawing for each drawing size you use, as the blocks are inserted 1:1 and not scaled to fit. You can easily create various layouts to suit particular projects or clients. These drawings can include any layers you would normally set up. This may be better than setting them in your ACAD prototype drawing, since the layers can be tailored to the project or client style for your drawing sheets.

You may wish to include text attributes for titles, site details, drafting personnel, drawing numbers etc. and if they are present, CADS Scale calls the ATTEDIT command when it inserts the drawing, so the details can be entered. If you include text attributes called DATE and SCALE, then the current date and the chosen scale will be entered automatically as the drawing is set up. These fields can of course be edited if required.

Save this drawing either in the CADS-SC\BLOCKS directory or any other you choose. Having created the drawing, Re-define one of the undefined entries in the Setup Options dialogue box as described earlier.

2.7 Examples of Drawing Setup

The following sections guide you step by step through setting up an A1 drawing with a standard CADS title sheet and a scale of 1:50 for use with CADS Scale in:

- ▶ Normal Mode – CADS Scale will work in a similar fashion to previous versions;
- ▶ Fast Mode - CADS Scale will work in Paper Space, which was a new feature that was introduced in Ver. 5.0.

2.7.1 Example 1 - Normal Mode Drawing Setup

To create an A1 drawing with a standard CADS title block set to a scale of

1:50 working in Normal Mode: -

- ▶ Create a new drawing in AutoCAD using AutoCAD's NEW command;
- ▶ Select the Drawing Setup option from the CADS Scale pull down menu. Users who have CADS Drawing Environment installed on their workstation could select the Drawing Setup option from the CADS-DE pull down menu as this is identical to that available from CADS Scale;

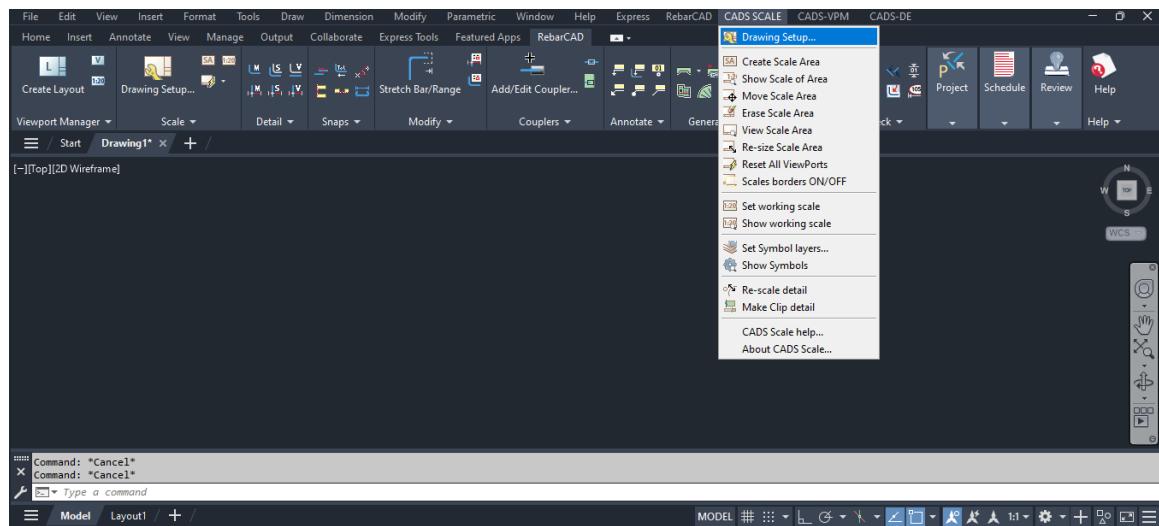


Figure 2.3 CADS Scale Menu Structure

On picking the Drawing Setup option, the CADS Setup Utility dialogue box will be displayed listing the available Title Sheet options. Highlight the Standard A1 setup as shown in Figure 2.1.

- ▶ To ensure that the setup will be for Normal Mode, you can check this option's current settings by picking the Redefine button. This will access the CADS Setup Options dialogue box as shown in Figure 2.2. You should ensure that the current settings do not have the Paper Space Setup activated i.e. the check box does not have an X in it. Once you are happy with the settings, exit the dialogue box via the OK button;

You will then be returned to the CADS: Setup Utility dialogue box which you exit via the OK button.

- ▶ A dialogue box will then appear asking 'Do you wish to save your setup changes by writing the prototype configuration to disk'. This message appears if you enter the CADS: Setup Options dialogue box. If you pick the YES button, any alterations made will be written to disk and become the defaults for future new drawings;
- ▶ The CADS : Setup Scale dialogue box will next be displayed as shown below, pick and highlight the required scale (the required drawing scale), in this case 1:50, and exit the dialogue box via the OK button.

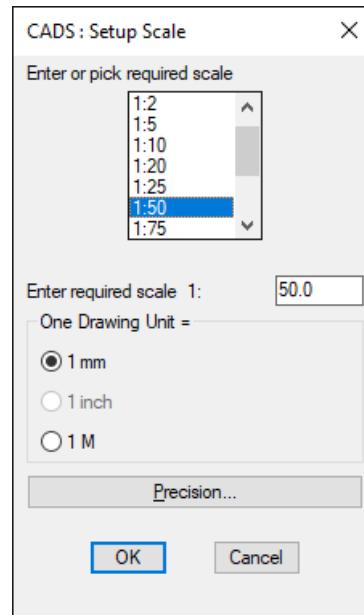


Figure 2.4 CADS: Setup Scale Dialogue Box

The title block will then be inserted to the required scale, any attributes within the title block will be asked for and, on completion, the screen will be displayed as in Figure 2.5.

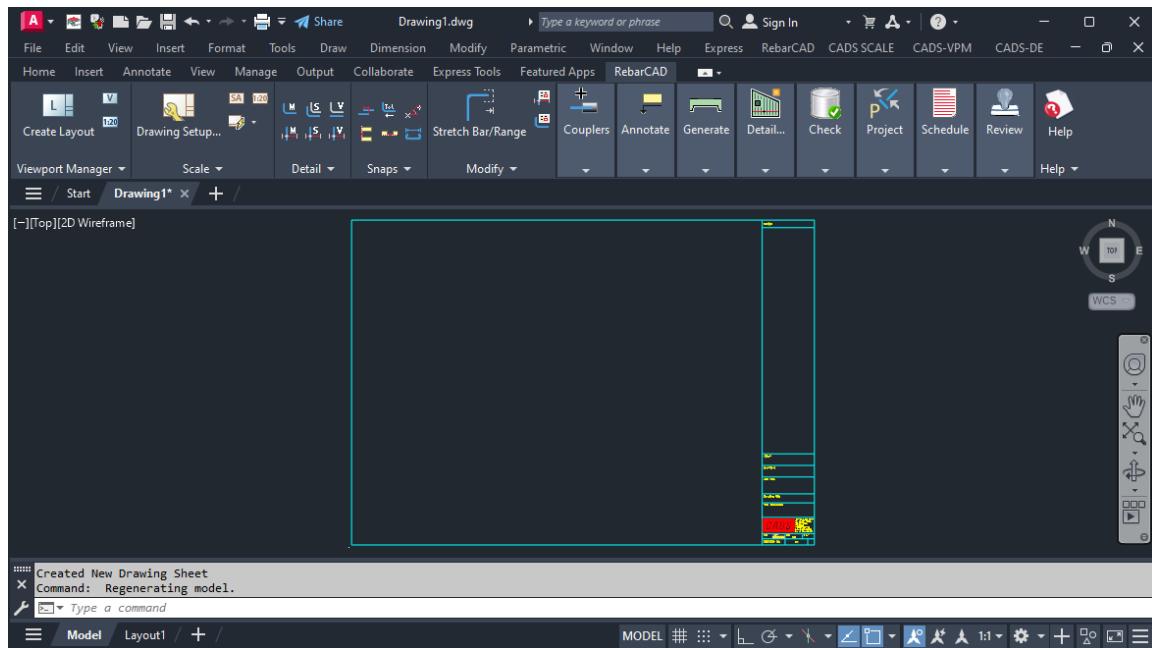


Figure 2.5 Completed A1 Normal Mode Setup

The Drawing Setup option defines a number of settings to assist in supporting use of CADS-Scale on the drawing. They are: -

A Dimension Style called DIM_xx (where xx is the scale chosen) is created and made current. This means that all dimensions added to the drawing will be to this style. If the working scale is altered then another Dimension style called DIM_xx (where xx is the

scale chosen as the new working scale) will be created and made current. Subsequent dimensions added will be placed on the new current dimension style. The process of making current the dimstyle related to the working scale enables CADS-Scale to maintain dimension values when the working scale is altered.

DIMSCALE and LTSCALE are set to the working scale, and TEXTSIZE is set to 2.5 x DIMSCALE to give a default 2.5mm plotted height of text.

2.7.2 Example 2- Fast Mode Drawing Setup

To create an A1 drawing with a standard CADS title block set to a scale of 1:50 working in Fast Mode.

- ▶ Create a new drawing in AutoCAD using AutoCAD's NEW command or the CADS Drawing Organiser, if installed;
- ▶ Select the Drawing Setup option from the CADS Scale pull down menu. Users who have CADS Drawing Environment installed on their workstation could select the Drawing Setup option from the CADS-DE pull down menu, as this is identical to that available in CADS Scale;

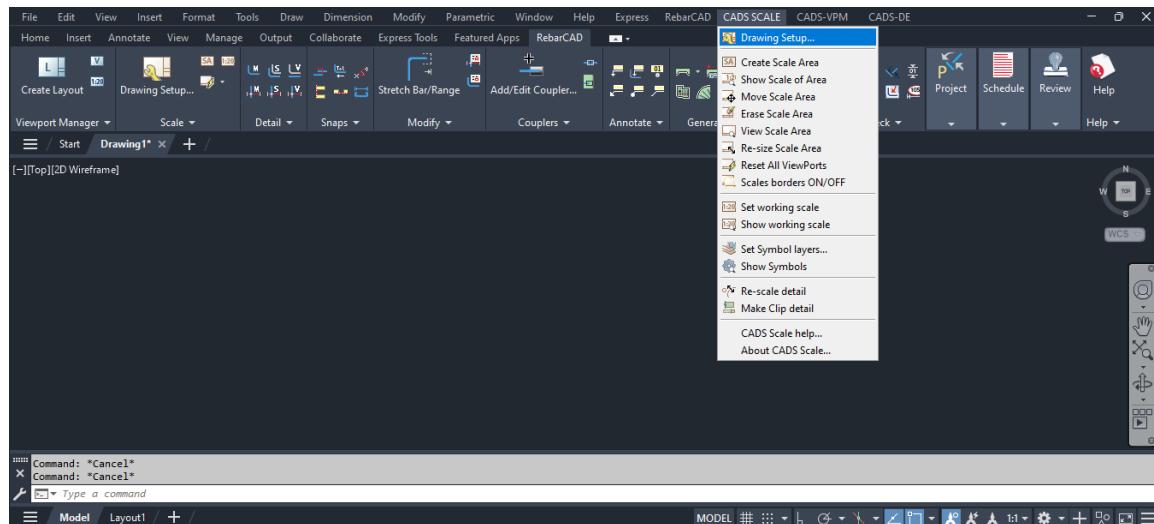


Figure 2.6 CADS Scale Menu Structure

On picking the Drawing Setup option the CADS: Setup Utility dialogue box will be displayed listing the available Title Sheet options. Highlight the Standard A1 setup as shown in Figure 2.1.

- ▶ To ensure that the setup will be for Fast Mode, check this option's current settings by picking the redefine button. This will access the CADS: Setup Options dialogue box as shown in Figure 2.2. Ensure that the current settings have the Paper Space Setup activated, i.e. the check box has an X in it. Once you are happy with the settings, exit the dialogue box using the OK button.

You will be returned to the CADS: Setup Utility dialogue box which you exit via the OK button.

- ▶ A dialogue box will then appear asking 'Do you wish to save your setup changes by writing the prototype configuration to disk'. This message appears if you enter the CADS: Setup Options dialogue box. If you pick the YES button, any alterations made will be written to disk and become defaults for future new drawings.
- ▶ The CADS: Setup Scale dialogue box will then be displayed as shown in Figure 2.4. When defining a drawing setup in Fast Mode, the Title Sheet is always inserted into Paper Space at a scale of 1:1 regardless of the scale selected from the CADS: Setup Scale dialogue box. You may therefore select 1:1 as the scale by using Set Working Scale as described later.

The title block will then be inserted to the required scale, any attributes within the title block will be asked for and, on completion, the screen will be displayed as in Figure 2.7.

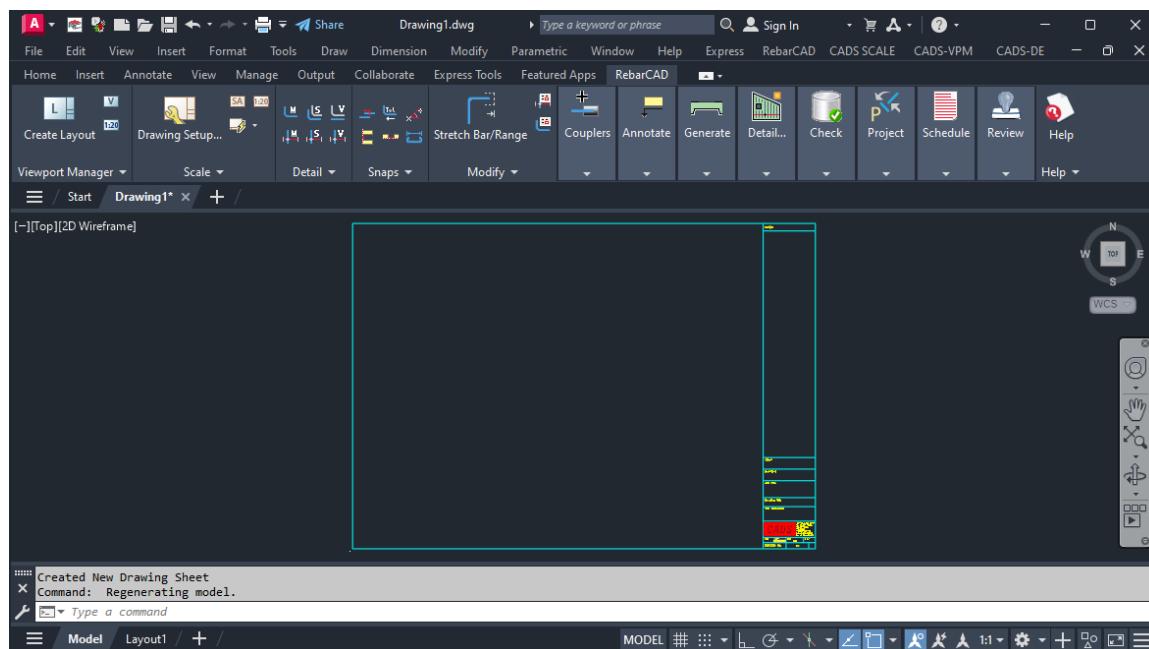


Figure 2.7 Completed A1 Fast Mode Setup

You will notice that PAPER is in dark type on the status bar, confirming that Paper Space is current.

- ▶ Before you can work on a drawing setup in Fast Mode, a scale area must be created at the required scale, in this case 1:50. Scale Areas are created using the Create Scale Area option from the CADS-Scale pull down menu. Select the Create Scale Area from the CADS-Scale pull down menu. You will be asked to define 'First corner of ScaleArea' and the 'Second corner of Scale-Area'. For this exercise you can define the scale area to fit the available drawing area within the title sheet.
- ▶ When you have defined the scale area, the CADS: Setup Scale dialogue box will appear and you may select the required scale, in this case 1:50. Upon leaving the dialogue box via the OK button, the drawing will be displayed as shown in Figure 2.9.

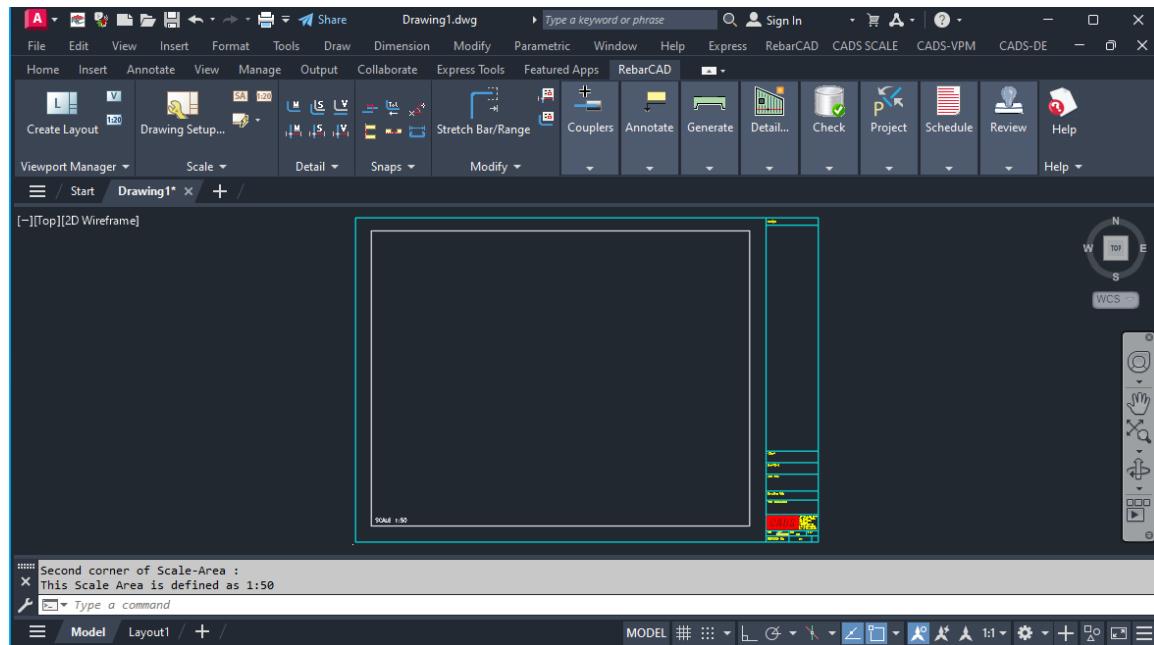


Figure 2.9 Completed A1 Fast Mode Setup with 1:50 Scale Area

You are now free to detail inside the Mview vport created using Create Scale Area at a scale of 1:50.

The Set Working Scale option defines a number of settings to assist in supporting the use of CADS-Scale on the drawing. They are :-

A Dimension Style called DIM_xx (where xx is the scale chosen) is created and made current. All dimensions added to the drawing will be to this style.

If the working scale is altered, then another Dimension style called DIM_xx (where xx is the scale chosen as the new working scale) will be created and made current. Subsequent dimensions added will be placed on the new current dimension style.

The process of making current the dimstyle related to the working scale enables CADS-Scale to maintain dimension values when the working scale is altered.

DIMSCALE and LTSCALE are set to the working scale.

TEXTSIZE is set to $2.5 \times \text{DIMSCALE}$ to give a default 2.5mm plotted height of text.

PSLTSCALE is set to 1, so that the line image will scale in proportion to the zoom in Paperspace viewports.

USERR3 is set to DIMSCALE and is used by CADS-Scale to detect DIMSCALE changes.

3 CADS Scale Commands

Chapter Objectives

This chapter describes the CADS-Scale functions and each command available within the program. Guidance in using CADS-Scale with some relevant AutoCAD commands and on plotting is also given in this chapter.

3.1 How Does CADS-Scale Work?

Before you can understand how CADS-Scale works, it is essential that you understand three important concepts - Drawing Scale, Working Scale and Scale Areas. These can be defined as follows:

3.1.1 The Drawing Scale

This is the scale to which the drawing was created using the Drawing Setup command option. (Not applicable in Fast Mode).

3.1.2 The Working Scale

This is the scale to which the drawing is currently set and the scale to which any objects are being drawn or dimensioned.

3.1.3 Scale Areas

These can be thought of as boundaries which contain drawing details at a particular scale. If the Working Scale is changed items within Scale Areas will remain unaltered. (This is particularly important with dimensions and text which, if scaled using AutoCAD scale, are often set to incorrect values for the scale of the detail).

Therefore, if you create a 1:100 drawing and subsequently add details at 1:10 and 1:5, the Drawing Scale is 1:100 and the Working Scale can be 1:100, 1:10 or 1:5, depending which Scale Area you are working in.

CADS Scale works mainly by defining scale areas in which you wish to detail at specific scales. This can be a lengthy process in standard AutoCAD but CADS Scale provides tools to easily swap between scales (Using Set Working Scale) and to define areas at different scales on the drawing (Using Create Scale Area). Details started at one scale can easily be changed to another scale midway through detailing using Re-Scale Detail and part details can be created from existing drawing items at a larger scale using Make Clip Detail. Both of these functions maintain original text heights

and dimension values automatically. At all times CADS Scale provides on-screen help pages which can be requested to give information on specific functions.

3.2 CADS Scale Commands

3.2.1 Create Scale Area

Normal Mode

This command defines a rectangular boundary at the required scale. If you wish to work to the scale of this boundary then you must ensure that the working scale is set to that scale by using the Set Working Scale command (described later the section “Set Working Scale”).

Note: As the scale areas work like “Crossing Windows” i.e. anything inside or touching the scale box is considered at that scale, do not put scale areas inside each other or touching.

Fast Mode

This command creates a Mview viewport sized to produce details at the required scale.

This Mview viewport is made current and the Working Scale set to that of the viewport.

3.2.2 Show Scale of Area

This command is active in Normal & Fast Mode. It informs you of the scale of a selected Scale Area.

3.2.3 Move Scale Area

This command is active in Normal & Fast Mode. It allows you to move an existing Scale Area and its contents to another position on the drawing.

If you are working in Normal Mode, then you are given the opportunity to remove any items you do not wish to move with the scale area. Any items you have removed will remain in their original positions on the drawing.

3.2.4 Erase Scale Area

Normal Mode - This command allows you to erase an existing scale area and its contents from the drawing. You are given the opportunity to remove any items you do not wish to erase with the scale area. Any items you have removed will remain in their original positions on the drawing.

Fast Mode - This command allows you to erase an existing scale area and its contents from the drawing. This will also delete the Mview viewport which formed the scale area. If only some of the items are to be erased, you are recommended to use AutoCAD ERASE.

3.2.5 View Scale Area

Normal Mode - This command uses AutoCAD Zoom - Window to view the selected scale area. The first corner of the window is taken as the lower left intersection of the scale area and the other corner as the top left intersection of the scale area.

Fast Mode - This operates as in Normal Mode but it also sets the Working Scale to that of the scale area viewed.

3.2.6 Re-size Scale Area

Active in Normal & Fast Mode, this command lets you increase or decrease the size of an existing scale area. The size of the scale area is adjusted by selecting one corner of the scale area and dragging it to the required size. In Fast Mode the Working Scale is also set to that of the Scale Area re-sized.

3.2.7 Reset All Viewports

This command is not available in Normal Mode.

In Fast Mode the command zooms to each Scale Area Mview vport original extents, switches to paper space and zooms to extents and finally switches back to model space.

3.2.8 Scales borders ON/OFF

This command is available in Normal & Fast Mode. It freezes the layer on which the scale area boundary and text is placed. If the scale borders have been switched off and a command is selected which requires them to be on, then CADS-Scale will automatically switch them back on. The most common use of this command is to switch the scale areas off for plotting purposes.

3.2.9 Set Working Scale

In Normal Mode this command sets the Working Scale to that of a selected scale area or to that entered via the keyboard. The AutoCAD variable Dimscale is also set to the same value as the working scale i.e. Working Scale 1:20 sets Dimscale to 20. When the Working Scale is set, CADS Scale creates and sets the dimension style to one suffixed with the drawing scale i.e. Working Scale 1:20 sets Dimension Style to Dim_20. The setting of Dimstyle enables CADS Scale to recognise to what scale particular dimensions were created. This placing of dimensions under relevant Dimstyles allows CADS Scale to maintain correct dimension values when the working scale of a drawing is altered.

In Fast Mode the command sets the Working Scale to that of a selected scale area and makes the selected scale area current. The selected scale area and all other scale areas of the same scale are highlighted in magenta. This highlighting of scale areas at the current working scale enables you to see which scale areas can be worked in correctly at present without having to Set Working Scale.

3.2.10 Show Working Scale

Active in Normal & Fast Modes, this command displays the current working scale on the AutoCAD command line.

3.2.11 Set Symbol Layers

This command is available in Normal & Fast Mode. If you change the scale of a detail then, usually, any text or symbols associated with it should stay the same size. CADS-Scale detects text and prevents it from being altered, but it is unable to detect symbols. Symbols are therefore placed on specified Symbol Layers so CADS-Scale can maintain the symbols plotted size in mm regardless of the working scale. This applies also when the detail on which the symbol is placed is re-scaled using Re-scale Detail.

Another point to note is that while associative dimensions are dealt with automatically, non-associative dimensions are not. Therefore, if you wish CADS Scale to handle non-associative dimensions correctly, then you must arrange that the layer dimensions are placed on a Symbol Layer.

To define a layer as a Symbol Layer, select the Set Symbol Layers option from the CADS-Scale pull down menu. The CADS Scale: User Options dialogue box will be displayed as in Figure 3.1.

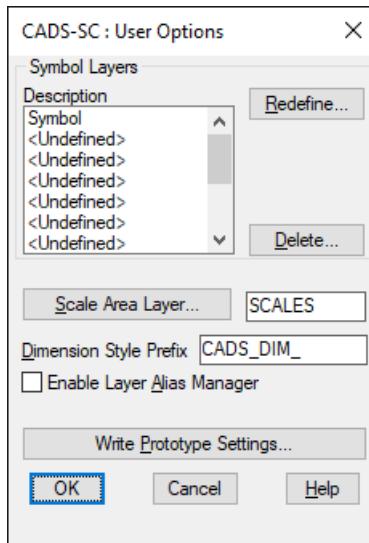


Figure 3.1 CADS Scale: User Options Dialogue Box

Highlight one of the undefined options and pick the Redefine button. This will display a standard layer selection dialogue box where the required layer can be selected. The selected layer will then replace the <Undefined>. This layer has now been defined as a Symbol Layer and items placed on this layer will not be scaled by CADS-Scale. If you wish to remove a layer from the Symbol Layers, highlight the required layer and pick the Delete button.

This dialogue box also allows you to define the layer Scale Area borders and text is placed on via the Scale Area Layer setting, the prefix used when CADS-Scale creates dimension styles along with support for the CADS Layer Aliasing Manager, if purchased. Any alterations made to the user options can be saved to disk using the Write Prototype Settings. These settings will then act as defaults for new drawings created.

3.2.12 Show Symbols

In Normal & Fast Modes this command highlights all objects which have been placed on Symbol Layers.

3.2.13 Re-scale Detail

Normal Mode - This command lets you change the scale of an existing scale area. There is an option to remove the existing scale area and its contents or to leave them in place. This allows you to copy an existing detail to a different scale.

Fast Mode - This command operates as in Normal Mode but it also sets the Working Scale to that which the detail has been Re-scaled to. It also makes the Re-scaled detail Mview viewport current.

3.2.14 Make Clip detail

Normal Mode - This command lets you reproduce part of an existing scale area detail at a different scale.

Fast Mode - This command operates as in Normal Mode but it also sets the Working Scale to that of the clip detail and makes the Clip detail Mview viewport current.

3.2.15 About CADS Scale

This command activates the About dialogue box, giving information on CADSScale.

3.2.16 CADS Scale help

Accesses the CADS Scale on line help pages.

3.3 CADS Scale and AutoCAD

Since CADS-Scale is a utility which works with AutoCAD, it affects the way in which some AutoCAD procedures are carried out. The following recommendations should help you avoid any problems:

3.3.1 Inserting Blocks or Drawings

If you wish to insert a block or drawing into a drawing which has several scale areas, you may use the normal AutoCAD procedure but with the following additional steps:

Before insertion: Make sure that the Working Scale is set to the same scale as the drawing or block you wish to insert. If you do not do this, the drawing or block will probably be inserted at an incorrect scale.

After insertion: Break up the block by using the AutoCAD EXPLODE command if you need to.

After you have inserted the block or drawing, all text and dimensions will conform to the scale which applies in the scale area where it was inserted.

3.3.2 Inserting Notes or Symbols

You can use the normal AutoCAD methods for inserting notes or symbols into your drawing. However, you must:

Ensure that they are at a scale of 1:1 (with one drawing unit representing one millimetre).

Make the notes or symbols into a block. Text within symbols should be attributes defined within the block.

Change the layer of the inserted symbols to one of the specified symbol layers after insertion into the drawing.

For further information on inserting Blocks refer to the AutoCAD reference manual.

3.3.3 CADS Scale and text

CADS Drawing Environment lets you specify text at actual plotted mm text heights, rather than drawing units, regardless of the drawing scale. CADS-Scale supports this feature with any text style, provided it has been defined with a text height of zero. This lets CADS-Scale control the height of the text. Text can be placed on any layer. There is no need to define text layers as Symbol Layers.

3.3.4 Plotting a drawing with CADS Scale

Normal Mode

Drawings created using CADS-Scale in Normal Mode are plotted in the normal AutoCAD fashion. However, there are 3 points to watch:

- ▶ If you do not want the Scale Area borders to be plotted, then use the Scale Borders ON/OFF option within CADS-Scale to turn them off before selecting the Plot command;
- ▶ Ensure that the Paper Size & Orientation option is set to MM;
- ▶ Ensure that the Plotted MM = Drawing Units value is set to the current Working Scale (e.g. 1:20). For instance, if a drawing was created at 1:50 (Drawing Scale) and subsequently Set Working Scale was used to set the Working Scale to 1:20 and the drawing plotted, the Plotted MM = Drawing Units would be set to 1:20, since the current Working Scale is 1:20.

Fast Mode

Drawings created using CADS-Scale in Fast Mode are plotted in the normal AutoCAD fashion. However, there are 4 points to watch:

- ▶ If you do not want the Scale Area borders to be plotted, use the Scale Borders ON/OFF option within CADS-Scale to turn them off before selecting the Plot command;
- ▶ Ensure that all viewports are at their original display scale by selecting Reset all Viewports;
- ▶ Ensure that the drawing is in Paper Space before selecting the plot command. This is done by selecting the View pull down menu and picking the Paper Space option or by picking PAPER from the status bar;
- ▶ Ensure that the Paper Size & Orientation option is set to MM;

- ▶ Ensure that the Plotted MM = Drawing Units value is always set to 1:1 regardless of Drawing or Working Scale values.

Customer Enquiry Fax Sheet

To: CADS Ltd. **Fax:** +44(0) 1202 690284

Number of sheets **(inclusive)**

From:

Name: **Company:**

Phone: **Fax:**

CADS Application: **Version:**

Processor type and speed: **Memory size:**

Hard disk size: **Operating system:**

Other applications running:

Details of the enquiry:

CADS Address Details

If you would like to contact CADS, please do so on the following:

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