

CADS RC Configuration Guide









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1 Introduction

This guide gives a brief overview on how CADS RC can be configured to suit different code of practises or project requirements such as Bar Shape, Bar Grade, Drawing Annotations, Bar Schedule, Reports etc. A summary of important configuration settings is provided along with tips on best practises to help customise CADS RC.

2 Configuring CADS RC

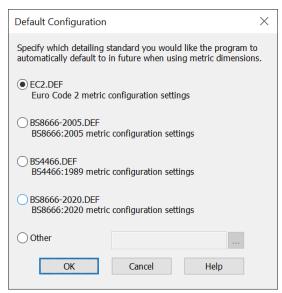
This chapter describes how to customise CADS RC to work according to your work settings, which might include standard codes of practice for reinforcement detailing and scheduling, bars and ranges representation, annotations, schedule settings etc,.

This chapter also describes where CADS RC saves the configuration settings.

2.1 Setting Default Configuration

CADS RC is shipped with standard code of practice normally used for reinforcement detailing and scheduling. You may choose default settings depending on the standard code of practice you normally use.

When you run CADS RC for the first time, a dialog is presented, asking you to select the default configuration.

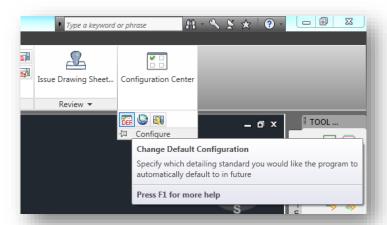


You may also access this dialog from the menu bar, as shown below.

Go to: CADS RC > Configuration > Change Default Configuration.







- 1. Select the detailing standard you desire.
- 2. If you want to choose a configuration (DEF file) you have created, or was supplied by CADS Support, select Other and browse and select that configuration (DEF file). For example, you may have a configuration (DEF file) whereby you can use BS 8666:2005 standard shapes, but with different annotation styles. Pl. refer to Section 2.2 for more details on how to create **DEF** files.
- 3. Settings selected here will be automatically applied to all NEW drawings created in CADS RC.

2.2 Creating Configuration Settings

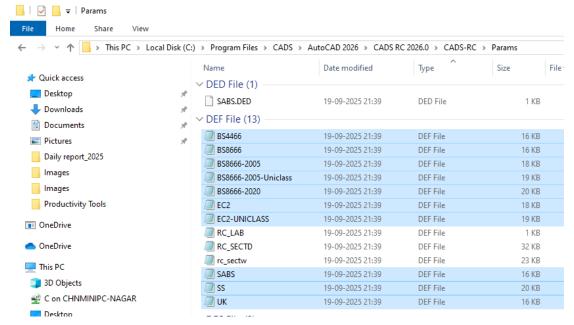
The configuration settings are saved in a physical file. These files are called **DEF** files and are saved with *.DEF extension. CADS RC places them in the following path in your local system by default.

C:\Program Files\CADS\AutoCAD XXXX\CADS RC XXXX.XX\CADS-RC\params

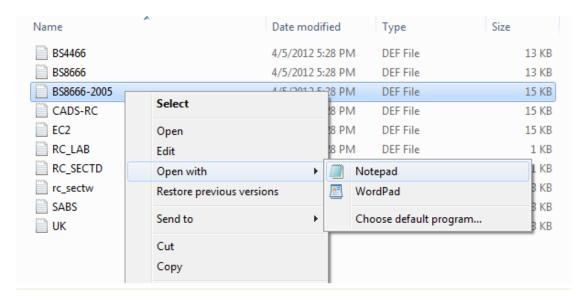
The first part of the file location, i.e. C:\Program Files\CADS\AutoCAD XXXX depends on the installation location you have chosen while installing CADS RC and the AutoCAD version on which CADS RC is installed.

The **DEF file** can be used to share configuration settings across different computers.





You can open DEF files as text file (*.txt) using the Open with options provided by Windows Explorer, as shown below.

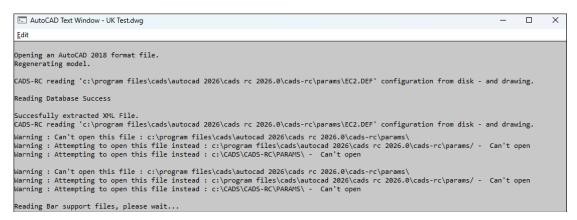


The installed **DEF files** are generally named after the standard code of practice supported. When a new drawing file is opened the configuration, settings are inherited by the drawing.

Therefore, if a drawing is opened in an environment where the **DEF** file is not found in the specified folder then CADS RC will report the same when opening the file and will work with the configuration settings last saved with the drawing. You will get the following message in the command line.

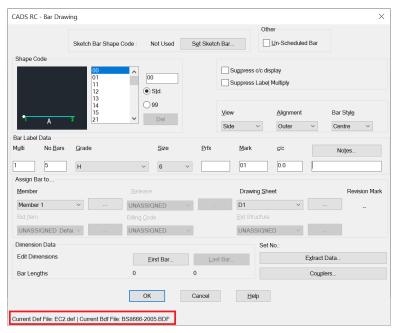






If a drawing is opened in an environment where there is a DEF file available with the same name but with different configuration settings then the configuration settings saved in the drawing file will be used. But note that - any new drawing created in that environment will inherit the configuration settings from the local DEF file.

The DEF file used with the current drawing is shown in the Draw Bar or Draw Range dialog.

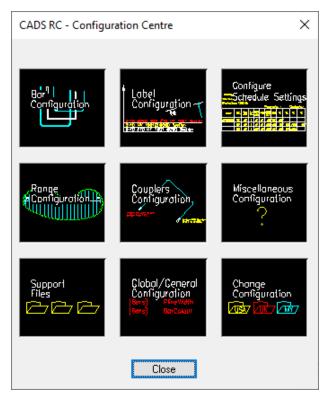


Majority of the drawing related configuration settings are stored within the **DEF file**, such as label format, Bar mark format etc, but many configurations such as Bar shape library, Schedule configuration etc. are stored in different physical files but are only referenced in the DEF file. The more information about the same is available in Section 7. If you wish to transfer configuration settings from one system to another then please ensure all the referenced files are also transferred. More details are available in Section 2.4.

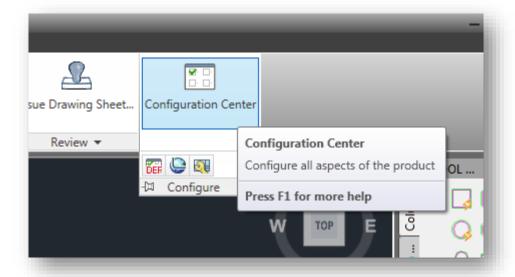


2.3 Creating DEF File

You can create your configuration settings file by changing configuration settings available in the configuration centre.



You can access this as a separate Panel in the CADS RC ribbon



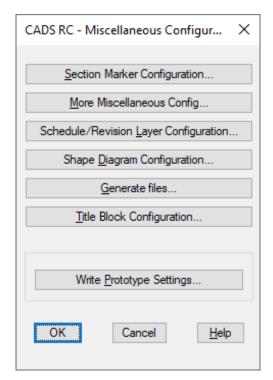
Or from menu bar CADS RC -> Configuration -> Configuration Centre

Detailed information about different sections of the configuration centre is given in sectionSection 7

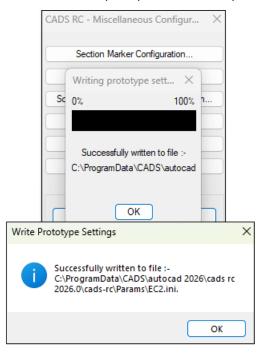
You can change any of the configuration setting used in this dialog and then save the settings into an external file from Configuration Centre->Miscellaneous Configuration option using Write Prototype Settings.. button.







Write Prototype Settings... button will write any changes to the configuration settings to an external file. The file name and location is prompted in a subsequent dialog.



The default folder where *.ini file is generated is

C:\ProgramData\CADS\AutoCAD XXXX\CADS RC XXXX.XX\CADS-RC\params

The first part of the file location, i.e. C:\ProgramData\CADS\AutoCAD XXXX depends on the installation location you have chosen while installing CADS RC and the AutoCAD version on which CADS RC is installed.

You may rename the file generated as a new **DEF file** containing your configurations settings. Ensure that you change the file extension to *.def from *.ini.









- ▶ If you have both *.def file and *.ini file in the same name then the configuration settings stored in *.ini file prevails. Hence when you rename your *.ini file into *.def file remember to name the *.ini file also differently.
- Avoid saving your configuration settings into **DEF files** supplied by CADS RC or with the same name otherwiser you might lose your settings the next time you upgrade CADS RC to higher version.
- Write prototype settings.. does not write changes to the DEF file in use, rather it update the *.ini file and the drawing.

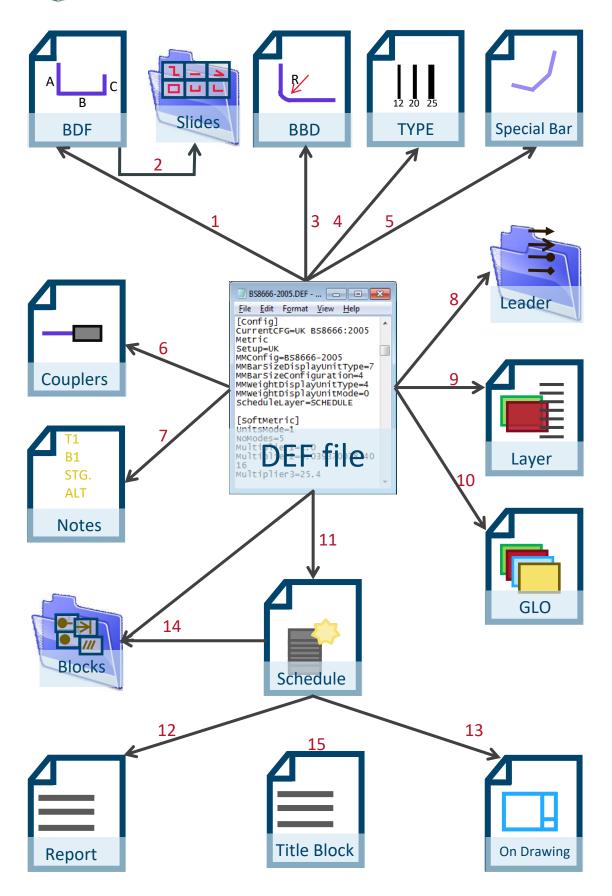
2.4 Configuration Settings Structure

Configuration settings in CADS RC are organised across various physical files in the system. These files are stored in different folders based on their usage. A schematic representation of the configuration setting is given below along with detailed description.











Please refer to the table below for detailed description of each component

Ref	File Name	Default location	Details
1	BDF	C:\Program Files\CADS\AutoCAD XXXX\CADS RC XXXX.XX\CADS- RC\params Where folder path C:\Program Files\CADS refers to the location where you have installed CADS RC and\AutoCAD XXXX\ refers to the AutoCAD version on which CADS RC is installed File extension *.BDF	Bar Definition File There are a number of BDF files included in the CADS RC installation based on standard code of practise or normally used bar shapes in any region. BDF files form the basic building block for CADS RC whereby all information about the bar shape geometry is stored in this file. The data in BDF File is very complex and you should avoid editing it manually. If you want BDF file to be customised based on your company practise then you can contact CADS Support for more information. Normally a single BDF file is sufficient to detail a CADS RC drawing. In special cases you can load up to three BDF files for a single job. The three different BDF files are called Primary, Secondary and Tertiary files. More details are available in Section 7.7.1.
2	Slides	C:\Program Files\CADS\AutoCAD XXXX\CADS RC XXXX.XX\CADS-RC\params Where folder path C:\Program Files\CADS refers to the location where you have installed CADS RC and\AutoCAD XXXX\ refers to the AutoCAD version on which CADS RC is installed File extension *.SLB	The slide files contain the image of the bar shape defined in BDF file. This image is used in various places in the application such as draw bar dialog to display bar shape on the dialog. For each bar shape AutoCAD blocks are stored in the following locations: C:\Program Files\CADS\AutoCAD xxxx\CADS RC xxxx\CADS-RC\DWGSketches. The shape blocks stored here are the 'master' blocks used for Bar Shedule on Drawing and Reports C:\Program Files\CADS\AutoCAD xxxx\CADS RC xxxx\CADS-RC\DWGSketches\DimSketches. The shape blocks stored here are used display of for Dimensioned Sketches in bar schedule C:\Program Files\CADS\AutoCAD xxxx\CADS RC xxxx\CADS-RC\DWGSketches\LabelSketches. The shape blocks stored here are used for display of bar shapes on Bar label. The name and location of the slide file is referenced in the BDF file.
3	BBD	C:\Program Files\CADS\AutoCAD XXXX\CADS RC XXXX.XX\CADS- RC\params Where folder path C:\Program Files\CADS refers to the location where you have installed CADS RC and\AutoCAD XXXX\ refers to the AutoCAD version on which CADS RC is installed	BBD file stores bending rules based on supported standard code of practise. The data in BBD File is very complex and you should avoid editing it manually. If you want BBD file to be customised based on your company practise then you can contact CADS Support for more information.





		File extension *BBD.TXT	
4	ТҮРЕ	C:\Program Files\CADS\AutoCAD XXXX\CADS RC XXXX.XX\CADS- RC\params Where folder path C:\Program Files\CADS refers to the location where you have installed CADS RC and\AutoCAD XXXX\ refers to the AutoCAD version on which CADS RC is installed File extension *TYPE.TXT	TYPE file stores different bar grades and diameter as defined in supported standard code of practise or any special bar grade or diameter used in particular region.
5	Special Bar	C:\ProgramData\CADS \AutoCAD XXXX\CADS RC XXXX.XX\CADS- RC\Params\AutoCAD XXXX\ refers to the AutoCAD version on which CADS RC is installed File name Specials.spl	As per default configuration settings, new bar shape definition created using Special Bar feature in CADS RC is saved in the drawing. If you choose to save in an external file, then all the special shapes created will be saved in this file. You will also have to enable the configuration to load Special Bars from this file when you open the drawing next time or this Special Bar file is used in some other system. It is recommended to get bars customised as BDF file rather than Special Bar in case you wish to use the special shapes repeatedly. If situation warrants that you have to use Special Bar for repetitive use then it is recommended to create Specials.spl file in one system and then distribute to others. Avoid multiple systems appending Special bars to the same Specials.spl file.
6	Couplers	C:\Program Files\CADS\AutoCAD XXXX\CADS RC XXXX.XX\CADS- RC\Couplers Where folder path C:\Program Files\CADS refers to the location where you have installed CADS RC and\AutoCAD XXXX\ refers to the AutoCAD version on which CADS RC is installed File extension *.CPL	A majority of the coupler manufacturers are supported by CADS RC and are available in the standard installation by default. The file name is known by the coupler manufacturer's name and can be opened as a text file. In the same folder you will find sub folders for each manufacturer where additional details about the coupler are available and CADS RC invokes them from coupler dialog as and when required. You can also create your own coupler file, for example single file containing couplers from more than one manufacturer and can specify the folder location and file name from where the coupler details are to be read. Please refer to the Section 7.5 for more details.
7	Notes	C:\ProgramData\CADS \AutoCAD XXXX\CADS RC XXXX.XX\CADS-	Standard notes can be used while drawing bars or ranges in CADS RC. The Notes file can be opened as a text file and you can add or amend Standard notes as per your project





		RC\Params	requirements.
		NC (Farallis	requirements.
		\AutoCAD XXXX\	
		refers to the AutoCAD	
		version on which CADS	
		RC is installed	
		File name RC_LAB.def	
8	Leaders	C:\Program Files\CADS\AutoCAD XXXX\CADS RC XXXX.XX\CADS- RC\Blocks	CADS RC can be configured to use up to three types of Leaders in a drawing. The leader type is required to be configured in the Label Configuration. The leader arrow is defined by AutoCAD blocks which have to be placed in default folder location.
		Where folder path C:\Program Files\CADS refers to the location where you have installed CADS RC and\AutoCAD XXXX\ refers to the AutoCAD version on which CADS RC is installed	
		File extension *.dwg	
9	Layer	C:\Program Files\CADS\AutoCAD XXXX\CADS RC XXXX.XX\CADS- RC\params	You can define the layers you wish to populate by default in your new drawings.
		Where folder path C:\Program Files\CADS refers to the location where you have installed CADS RC and\AutoCAD XXXX\ refers to the AutoCAD version on which CADS RC is installed	
		File name RC-LAY.txt	
10	GLO	C:\Program Files\CADS\AutoCAD XXXX\CADS RC XXXX.XX\CADS- RC\Params	Group Layering Option data is stored in the file which can be opened as text file. This file is used only when GLO is configured as per Configuration centre->Global/General Configuration->GROUPLAYERING
		Where folder path C:\Program	
		Files\CADS refers to	
		the location where you have installed CADS RC	
		and\AutoCAD	
		XXXX\ refers to the	
		AutoCAD version on	
		which CADS RC is	





		installed	
		File extension *.glo	
11	Schedule	C:\ProgramData\CADS \AutoCAD XXXX\CADS RC XXXX.XX\CADS-RC\AutoCAD xxxx\ refers to the AutoCAD version on which CADS RC is installed	The bar schedule related configuration as available with Configuration centre->Configure bar schedule settings is stored in this file.
		File type *.xml	
12	Reports	C:\ProgramData\CADS \AutoCAD XXXX\CADS RC XXXX.XX\CADS- RC\Templates\Reports\AutoCAD XXXX\ refers to the AutoCAD version on which CADS RC is installed File type *.repx	There are three types of Reports which can be configured. Minor changes could be done using in built report editor, for major changes you can request <u>CADS Support</u> to customise the same for you.
13	On Drawing	C:\ProgramData\CADS \AutoCAD XXXX\CADS RC XXXX.XX\CADS- RC\Templates\SOD_Ta bles\AutoCAD XXXX\ refers to the AutoCAD version on which CADS RC is installed File type *.xml	Schedule on Drawing template can be customised using CADS RC features as well as can be customised by CADS Support on request.
14	Blocks	C:\Program Files\CADS\AutoCAD XXXX\CADS RC XXXX.XX\CADS- RC\Blocks Where folder path C:\Program Files\CADS refers to the location where you have installed CADS RC and\AutoCAD XXXX\ refers to the AutoCAD version on which CADS RC is installed File extension *.dwg	CADS RC relies on numerous AutoCAD blocks for drawing bars and ranges, such as Range end markers, revision clouds, leader arrows etc. All these Blocks are stored in the file path as given here. These blocks are configured through Configuration centre.
15	Title Blocks	C:\ProgramData\CADS \AutoCAD XXXX\CADS	This file keeps the details of title block which are configured as well as how the attributes are mapped to Bar Schedule .

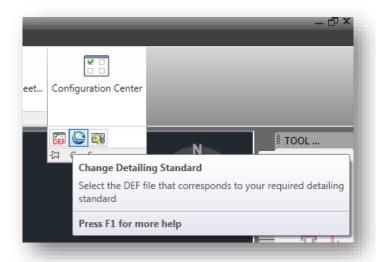




RC XXXX.XX\CADS-RC\AutoCAD XXXX\ refers to the AutoCAD version on which CADS RC is installed	The file location cannot be configured hence it should be always placed in the default location.
File name Titleblockconfig.xml	

2.5 Change Configuration Settings

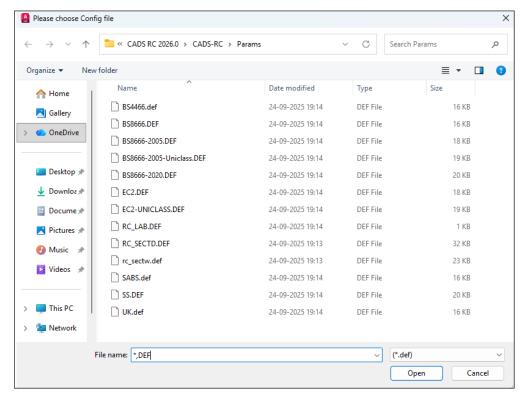
You can change configuration settings for the drawing you are working on from Ribbon



Or from Menu bar: CADS RC ->Configuration -> Configuration Centre->Change Detailing Standard

When you select this option you get a dialog to select the **DEF file** you wish to use.





It is recommended to use this option ONLY to apply simple configuration changes to an existing drawing file such as annotations, drawing entities etc. In case there are bars in the drawing drawn with different Bar Shape library or Bar Grade library then you may face unexpected errors.



2.6 Transferring Configuration Settings

This section explains in detail how to transfer your CADS RC settings from one computer to another.

If you have a large number of CADS RC users in your team, it is recommended to create the configuration settings in one system then copy the same to another system. This will ensure consistency in drawing and schedule produced by your team.

As explained in Section 2.2 and Section 2.4, the DEF file stores a large number of configuration settings. At the same time, it references to other physical files such as bar shape library file. Therefore, if you wish to transfer configuration settings from one system to another please copy all the edited configuration files to the new system to the appropriate folder locations. Note that you have to copy only the edited files, the default configuration files are installed automatically in each system when CADS RC is installed. For example, you are using the default Revision Callout (RevisionCallout.dwg) block then the block is not required to be copied to the new system.



- As far as possible try not to change the default folder locations, this will help to transfer files to systems where CADS RC is installed in different location or different version of AutoCAD without much problem. Otherwise CADS RC will be forced to refer to the 'hardwired' folder location of the original system.
- You may keep your configuration files in a network location and configure all instances of CADS RC to share the same. Although it is not a recommended practice, if you still wish to do so, then use the Windows standard Map network drive.. option to map a network location as a local drive.



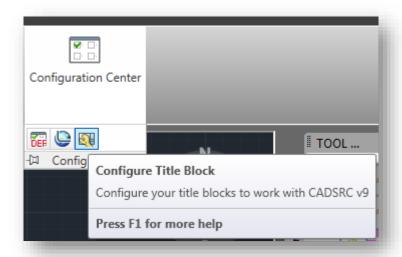
3 Title Blocks

This chapter describes how to configure your Drawing Title Block to create Drawing Sheets in CADS RC.

3.1 Configuring Title Blocks

CADS RC recognises whether an AutoCAD block is a title block by reading through its attributes. CADS RC keeps a library of commonly used attribute for the parameter Drawing Number, and matches the same to with any title block to automatically recognise the Drawing title block.

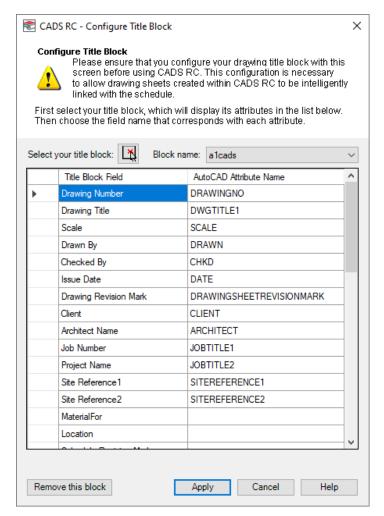
You can configure any AutoCAD block as a title block by mapping its attribute with CADS RC Schedule parameters. You an access the mapping dialog from CADS RC Ribbon, **Configuration Centre Panel**



Or from CADS RC Menu Bar Configuration->Configure Title Block.

The **Configure Title Block** dialog is also presented when you open CADS RC for the first time.





You can select the title block you wish to configure as CADS RC drawing Sheet using the option Select your title block:. This command will take you to AutoCAD and you can select any AutoCAD block you wish to configure.

Once the block is selected it will list all the attributes available in the AutoCAD block in the right hand side panel AutoCAD Attribute Name. The left hand side panel Title Block fields are CADS RC parameters which is expected to be mapped. You should assign each CADS RC parameter to a AutoCAD Attribute such that whenever you edit any value in the Title block in future, it will automatically get updated to CADS RC.

If your Title Block has no attributes, the Configure Title Block dialog box will offer you the chance to add a single attribute automatically, to represent the drawing number. Alteast one attribute, mapped as Drawing Number is required for a AutoCAD block to be used as CADS RC title block.

You can select the Remove this block button if you want to remove the Title Block from the configured list of Title Blocks. Once the configured title block is removed, inserting the AutoCAD block in the drawing will not be considered as CADS RC drawing sheet.

You can configure any number of Title Blocks in CADS RC. You can always review the blocks you have configured and make changes in the Block name list. The details are saved to the title block configuration file as explained in <u>Section 2.4</u>.





3.2 Configuring Revision Table in Title Block

A revision table is added when you issue a drawing for the first time. Thereafter, the same table is updated on every drawing issue. The revision table can be configured as defined in Section 6

The location of the revision table in the title block is recognised by the attribute **REVISIONTABLE**





The direction in which the revision table should grow is defined in the revision table customisation as described in Section 6.

For more information on attribute please refer to any of the title blocks supplied with CADS RC installation and are available in the following location.

C:\Program Files\CADS\AutoCAD XXXX\CADS Viewport Manager XXXX.XX\Blocks

and

C:\Program Files\CADS\AutoCAD XXXX\CADS Scale XXXX.XX\Blocks

In case the REVISIONTABLE attribute is not available in the title block then CADS RC will ask you to place the revision table manually when doing the drawing issue for the first time.



In case AutoCAD block is having an attribute name similar to generally used for Drawing number attribute then the AutoCAD block might get added to the drawing as a title block. Use the Remove this block option in the Configure Title Block dialog to reinstate the block as ordinary AutoCAD block. Once done ensure you distribute the **titleblockconfig.xml** (refer Section 2.4) to all affected systems.

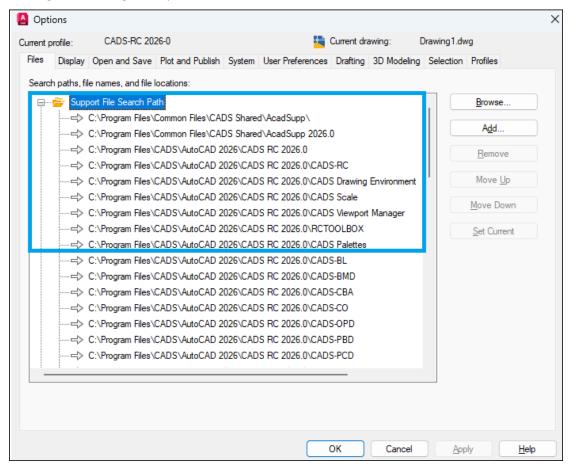




4 Profiles & Workspaces

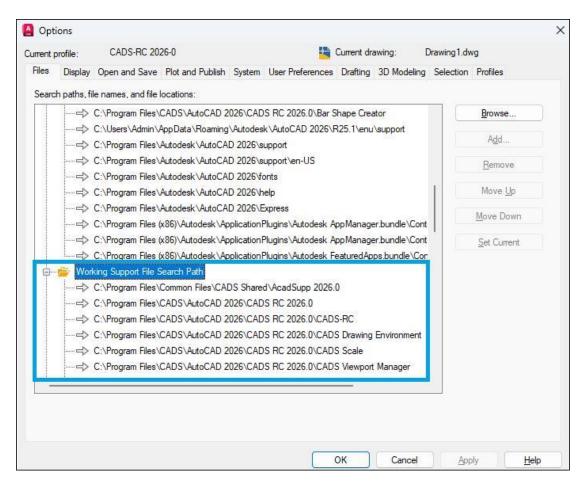
AutoCAD Profiles store your drawing environment settings. You can create AutoCAD profiles for different users or for different projects. You can share these profiles by importing and exporting them as files (*.arg).

When you install CADS RC, a new profile (for example CADS-RC 2025-0 for CADS RC 2025.0), based on the default AutoCAD profile is created. This profile includes the following Support File Search Path and Working Support File Search Path. These paths are essential for loading and running CADS products.









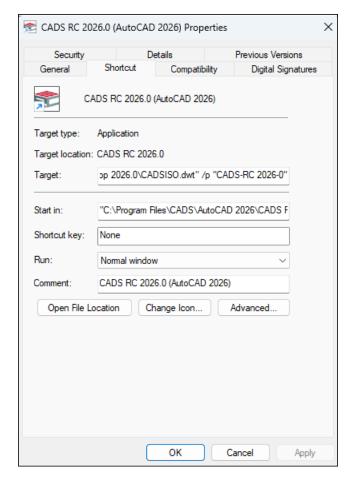
To run CADS RC using your own profile, you will have to port these paths to your profile. You can also copy the CADS RC profile and rename and update this to your requirements. When you install any upgrades in future, they will overwrite this CADS RC profile. Therefore, you will have to update the same whenever you upgrade to higher version of CADS RC.

When you install CADS RC, a desktop icon is created on your desktop. The CADS RC desktop loads the default profile when CADS RC is started. It is specified in the desktop item property

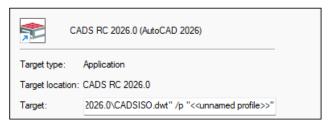
"C:\Program Files\CADS\AutoCAD XXXX\CADS RC XXXX\CADS RC XXXX.XX (AutoCAD XXXX).exe" /t "C:\Program Files\Common Files\CADS Shared\AcadSupp\CADSISO.dwt" /p "CADS-RC VXXXX-XX"

Where, keyword /t points to the default drawing template file and \p the default profile. If you wish you can specify your own profile - provided you have configured your profile to load CADS RC. Every time you install CADS RC it will overwrite the default icon. Therefore, it will be useful to create your own shortcut in case you are using different template file and/or profile.





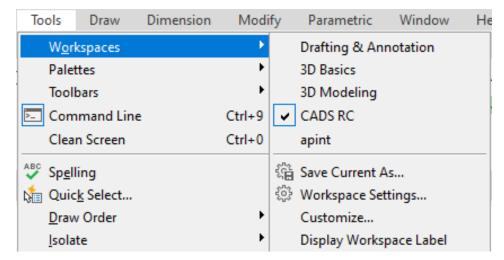
Similarly, if you want to run AutoCAD without loading any CADS application, you can specify a /p profile designator that loads AutoCAD << Unnamed Profile>> as shown below.



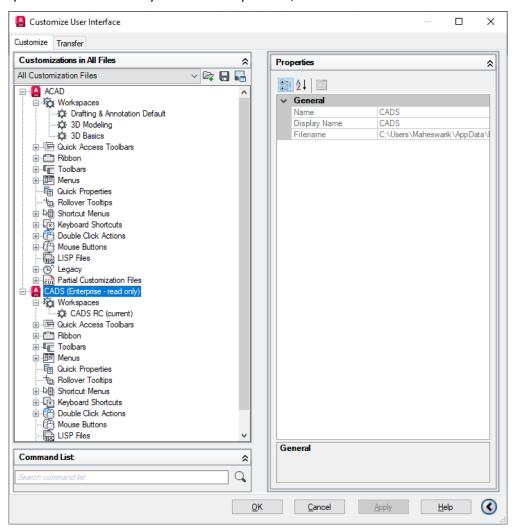
AutoCAD Workspace is a set of menus, toolbars, palettes, and ribbon control panels that are grouped, and organized to work in a custom, task-oriented drawing environment.

When CADS RC is installed, a CADS RC Workspace is created, (as shown below).





The CADS RC Workspace shown above is a custom version of the standard 2D Drafting and Annotation workspace. It has added menus, toolbars, palettes, and ribbon control panels necessary for running CADS products. CADS RC Workspace (CADS.CUI file) is supplied as an enterprise CUI which is always in a read-only format, as shown below.

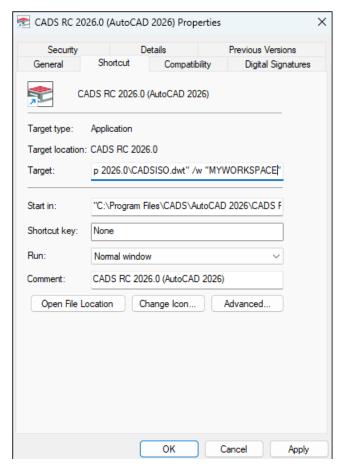


If you wish to customise your user environment, you can either create a new workspace and port CADS RC items into the same or Save As.. CADS RC workspace in a different name and port your settings into the same.



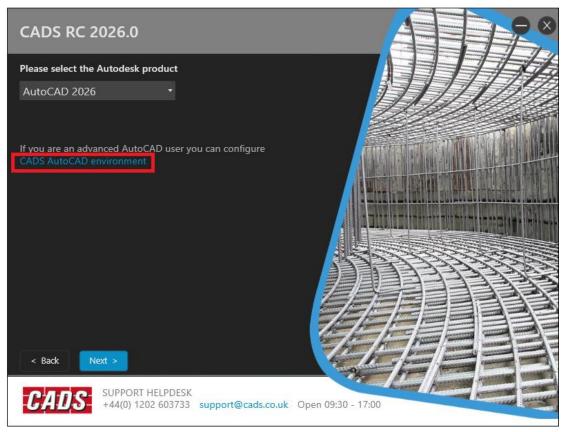


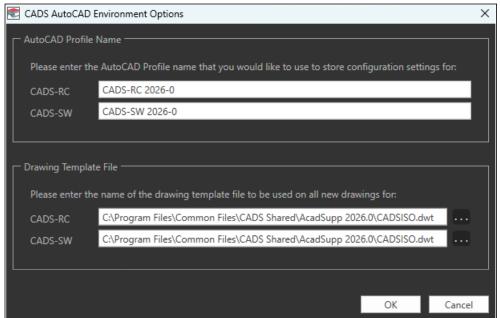
By default, CADS RC is set as your default workspace, if you wish to force open a particular workspace every time you launch AutoCAD then you can use the keyword \w and specify your workspace in the shortcut icon.



As stated above CADS RC creates its own profile and adds CADS RC as enterprise CUI. If you wish you can specify your own profile name to which you wish to use while installing CADS RC. Note that the profile you specify should not have any Enterprise CUI as AutoCAD supports only one Enterprise CUI and CADS RC is always created as an Enterprise CUI.







Please get in touch with CADS Support if you have any queries or wish to get your AutoCAD profile customised to work with CADS RC.



Hints & Tips

- By default, menu bar is not displayed, you may enable it by typing MENUBAR in the AutoCAD command line and setting the value to 1. You can also customise your workspace to always display the menu bar.
- Your last changed settings is saved when you close AutoCAD and you are presented with the same when you open AutoCAD subsequently.
- ▶ There is no profile file (*.arg) supplied by CADS RC, but you can save any profile as AutoCAD profile file (*.arg) and reuse in different machine.

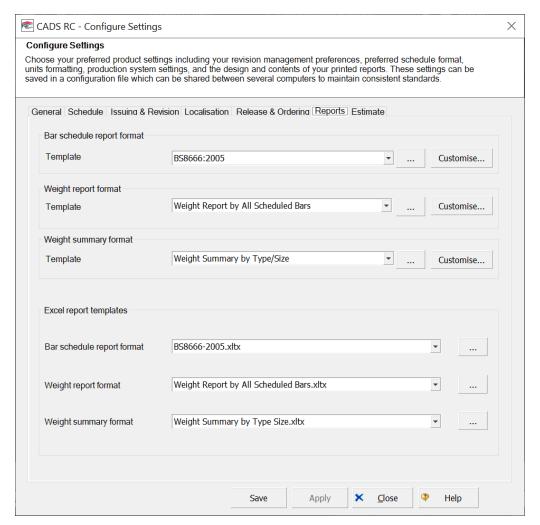
5 Report Templates

This section describes how to undertake some of the most common report template customisation tasks.

CADS RC contains a free report designer. You can access this through CADS RC > Configuration > Configuration Centre > Configure Schedule Settings > Report > Customise buttons, as show below.







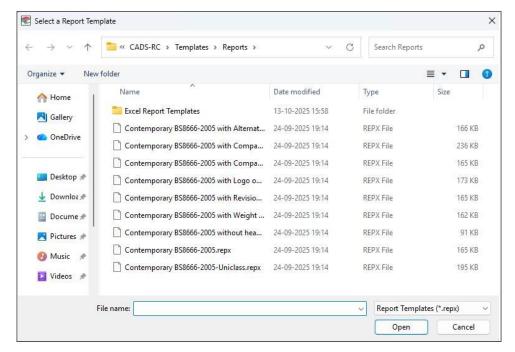
The Report Designer has many options to customise reports as per your requirement. These report formats are stored as *.REPX files as explained in Section 4. At a time given time you can work with up to three report formats. By default, CADS RC support the following

- Bar Schedule Report;
- Weight Report;
- Weight Summary Report.

There are many reports available in the default location given in section 4. Select the one which resemble closest to your requirement and save the report in a different name.

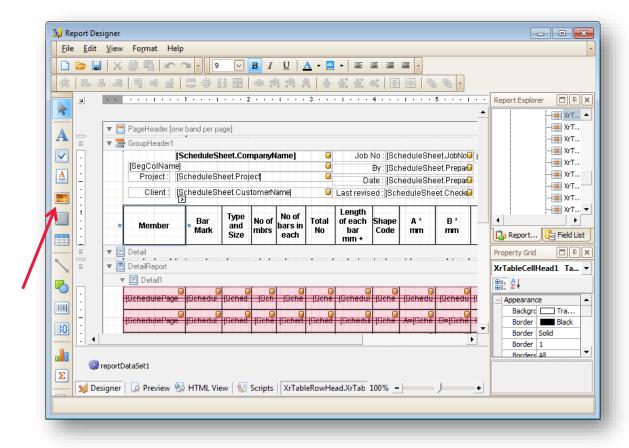






With **Report Designer** you can configure any type of report. A simple overview is given below. CADS also provides free report customisation service hence do not hesitate to contact <u>CADS Support</u> for your report customisation request.

By default, the Report Designer will open in Designer mode

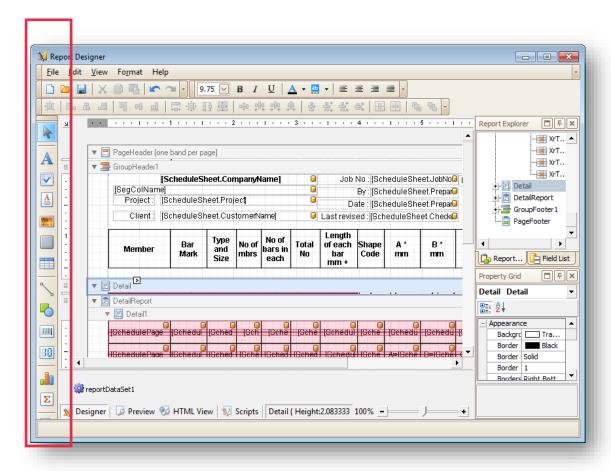








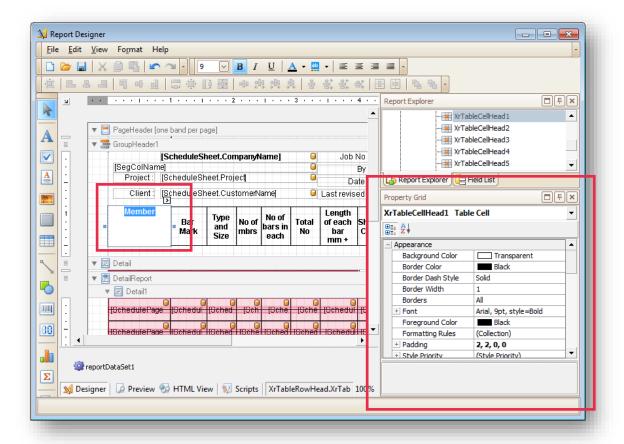
You can create new controls by copying existing ones or by selecting a new one from left hand side explorer.



You can double click on any edit box to edit the text. Also, the text format, border, shading etc can be controlled by the Property Grid.



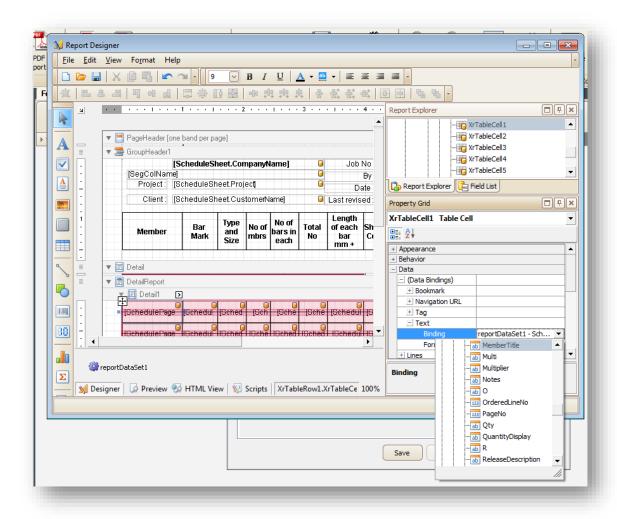




You can assign any bar parameter to cell from Property Grid ->Data ->Data Binding->Text ->Binding. All bar parameters exposed by CADS RC to the Report Designer is available here.



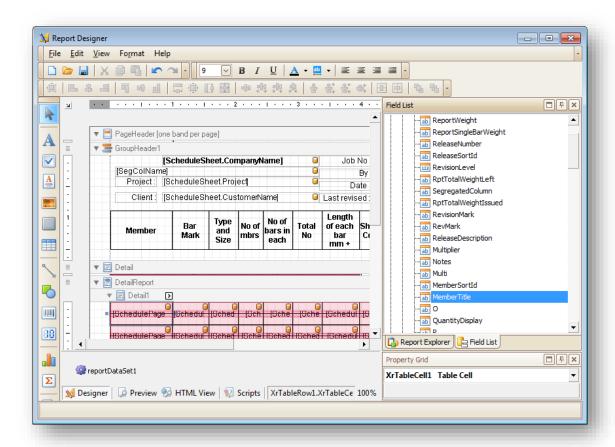




The supported bar parameters can also be viewed in the Field List



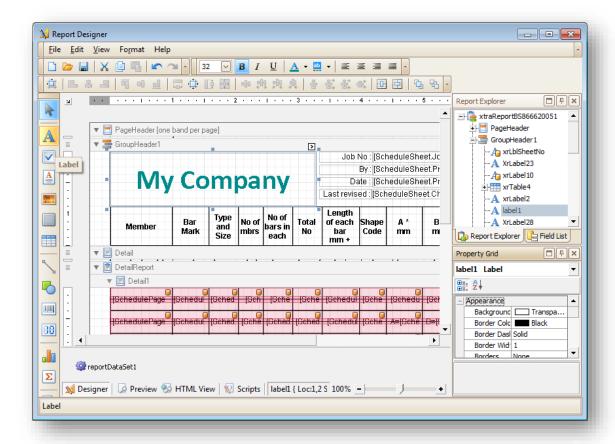




You can carry on simple customisation to your header likewise. For example, if you wish to add your company name in the header then select the option Label from the Standard Control toolbar and add it to the report. You may customise the appearance as explained earlier from Appearance option in the Property Grid.



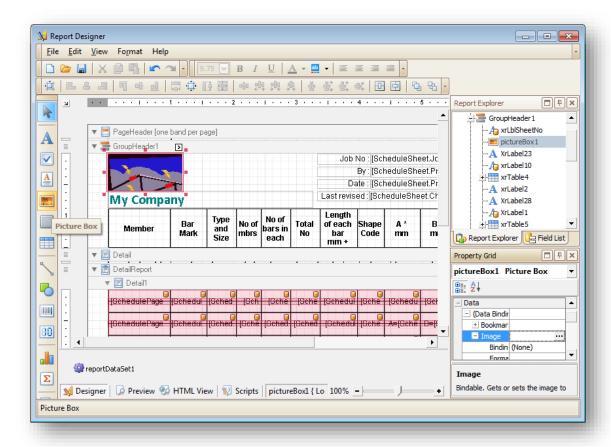




Similarly, you may add logo in the header by choosing the Picture Box option form the Standard Control toolbar and uploading a picture in the Data Binding ->Image option in the **Property Grid.**

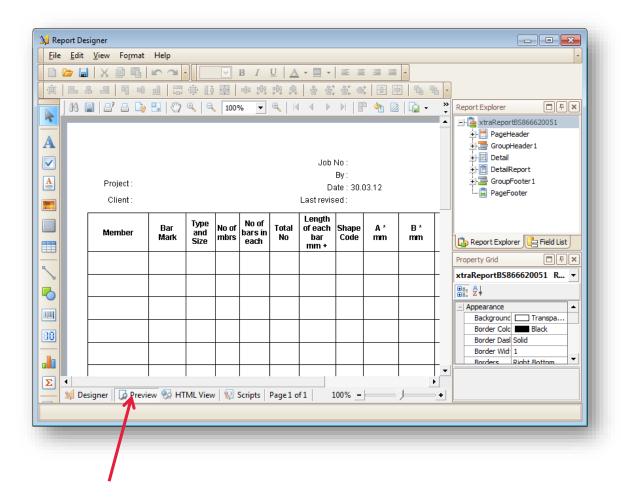






Once you are done with your customisation you can preview the report by clicking on the **Preview** tab available in the left bottom tab.







- It is always easier to customise the report by editing an existing Report Template (*.repx).
- Never update the default Report Templates (*.repx) supplied in the CADS RC installation as they will get overwritten when you reinstall CADS RC. Therefore, always Save As.. the customised Report Template (*.repx) in a different name than the default ones.
- The Report Designer is very powerful and can handle literally all types of reports. At the same time, its versatility could confuse any new user, therefore when in doubt, please do not hesitate to contact CADS Support to get your report template customised.



6 Schedule on Drawing

CADS RC uses AutoCAD Tables to generate the schedules on drawings based on predefined templates. You can customise the schedule on drawing report format by defining a series of AutoCAD tables i.e. describing the various rows in the schedule on drawing.

The Schedule on Drawing template is stored in the form of XML file (*.xml) and is called a Table Template. Each Table Template file can contains more than one format. For example, in the same XML file you can define a Schedule on Drawing with logo and another without logo. The **Table Template** file (*.xml) may also contain

- Revision Table template;
- Weight Table on Drawing template;
- Text List on Drawing template.

A set of default template files are installed when you install CADS RC. These Table Template files are installed in the following location:

C:\ProgramData\CADS\AutoCAD XXXX\CADS RC XXXX.XX\CADS-RC\Templates\SOD_Tables

Sample AutoCAD drawing containing AutoCAD tables used to create the Table Template files (*.xml) are also provided in the following location:

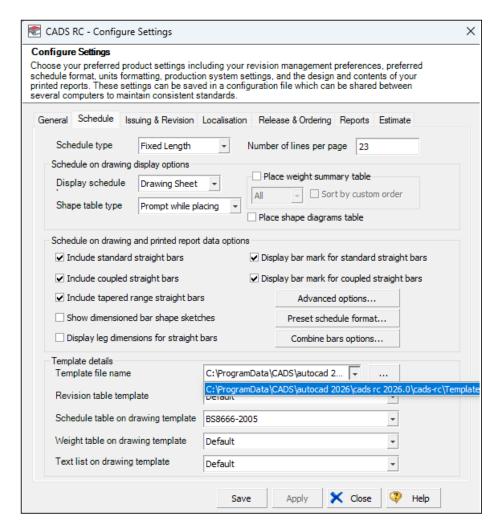
C:\ProgramData\CADS\AutoCAD XXXX\CADS RC XXXX.XX\CADS-RC\Templates\Template Creation **Tables**

Where AutoCAD XXXX is the version of AutoCAD on which CADS RC is installed.

The Schedule on Drawing Template can be configured from Configuration Centre-> Configure Schedule Settings->Schedule->Template file name. You can browse for the Table Template file (*.XML) and the formats contained in the file will be displayed in the corresponding template type options.



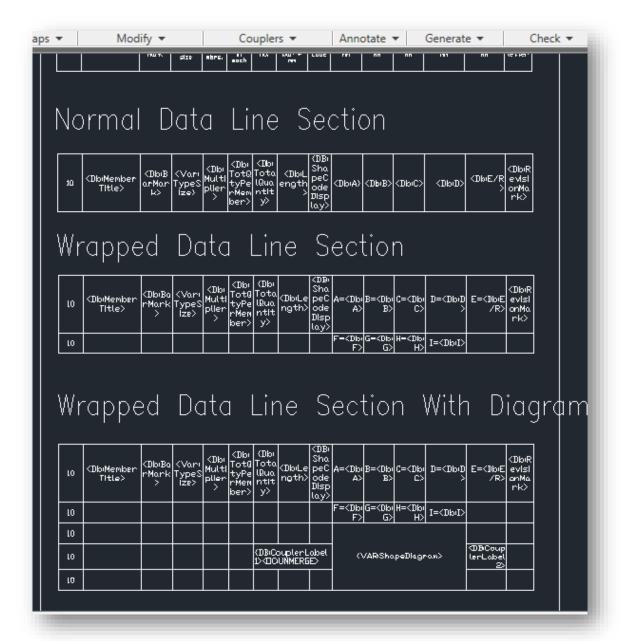




You may wish to use the supplied AutoCAD tables to create your own schedule template file. Alternatively, you may draw your own AutoCAD table and customised as described below.

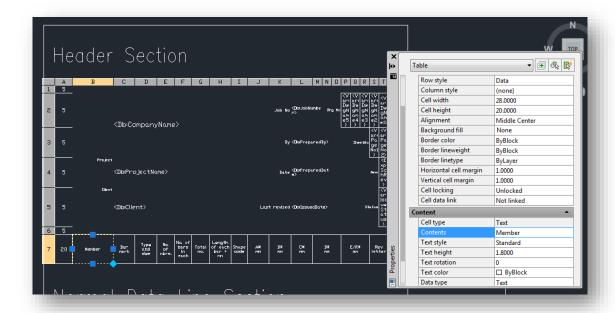
1. Create an AutoCAD DWG file containing AutoCAD Table entities to describe different types of row - for example Header Row, Normal data row, Data row with Attached diagram etc. Please refer to one of the drawings supplied with the installation as explained above.



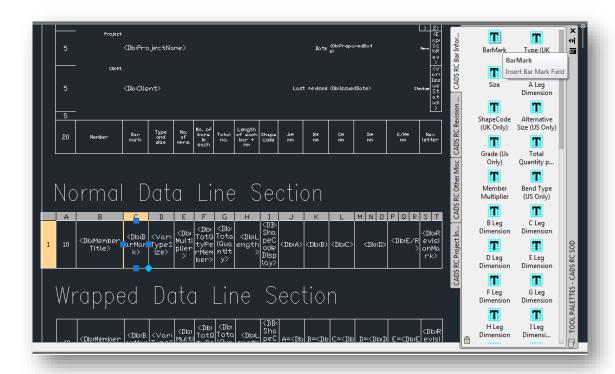


- 2. Format the AutoCAD table style to suit the way you wish to represent Schedule on drawing, i.e. borders, cell widths, cell margin etc . The first column in the table should provide the height of the table row.
- 3. If the row is supposed to show a static text then you may enter the same using standard AutoCAD Table Content. For example, header rows as shown below. You may also attach an image to the cell.





4. If the table row is linked to standard bar parameter then it should be described using CADS RC SOD Tool Palette. The tool palette has four palettes with different bar parameters. You may click on the Icon and then select the cell in the table to link it to the parameter, for example Bar Mark as shown below.

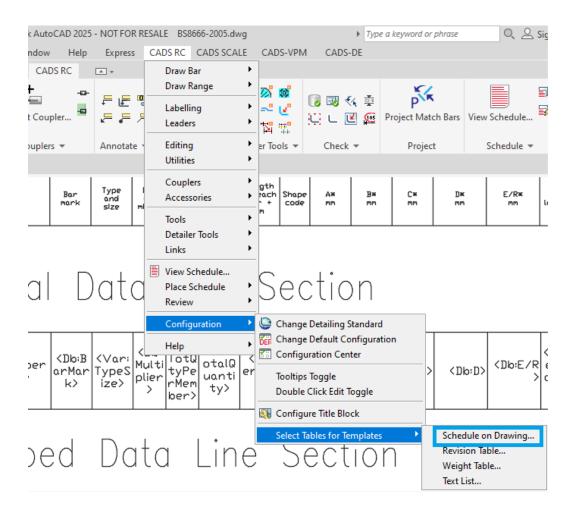


5. Once you are through with all the sections i.e. Header, Data row, Footer etc you may invoke the CADS RC feature which will save the description here as Schedule on Drawing





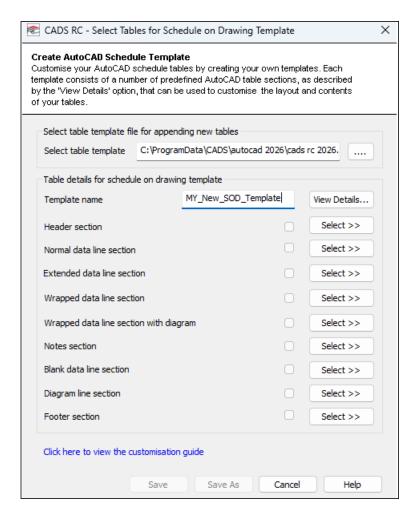
Template. The command is available in the Menu bar command CADS RC->Configuration->Select Tables for Templates->Schedule on Drawing.



6. The command will invoke a dialog, browse for the Table template file you might wish to add your new template to. For example, you might be fine with the existing revision table template but would like to update a new Schedule on Drawing template. Once done give a new name to the Schedule on Drawing template name.







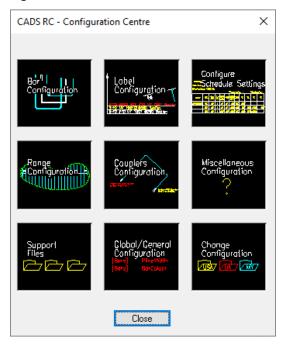
- 7. Now for each of the section defined on the left select the table as was customised in point 1 to point 4 above. You may choose to ignore any section if you envisage you will not be using for your Schedule on drawing, for example Footer section.
- 8. Once done you may save the new Schedule on template in the same Table Template (*.xml) file or Save As.. the Schedule on Drawing Template to a new Table Template (*.xml) file.
- 9. Now the Table Template (*.xml) file is ready to be configured in CADS RC.

The same procedure is to be followed when customising Revision Table, Weight Table on Drawing and Text List on Drawing. If you have any issue with customising your own Table **Template** then please get in touch with <u>CADS Support</u> to request one.



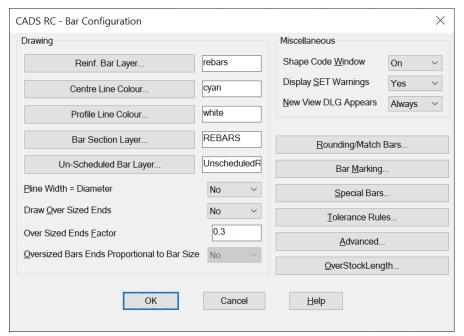
7 Configuration Centre

As the name implies, the Configuration Centre controls all the configuration requirements in CADS RC. The feature is divided into sub section for better management of relevant data. There are more than 500 configuration options, details of some of the important configuration options are given below.



7.1 **Bar Configuration**

Configurations related to bars representation, bar marking, match bar etc are stored here. You can update the configurations based on your requirement

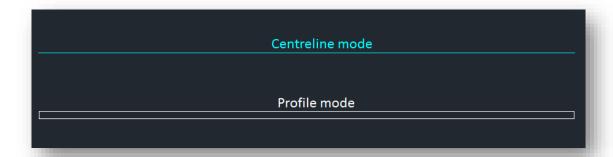






7.1.1 General

You can change the bar layer, colour etc using this section from the **Drawing** sub group. You may choose to either draw bar in profile mode or in centre mode and if required in different colours too.



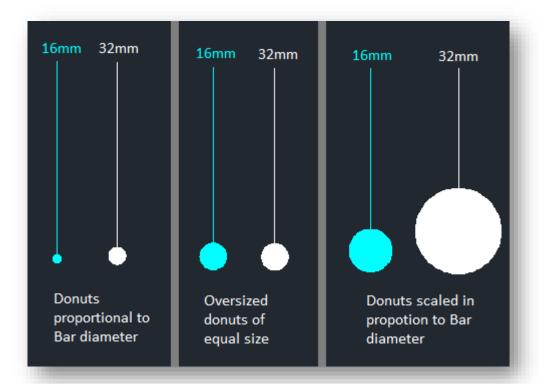
The profile mode is always drawn proportional to the bar diameter and the centreline mode is drawn with zero line width irrespective of the bar diameter.

You may also draw bars as solid lines with thickness proportional to the bar diameter by setting Pline Width = Diameter as Yes.



How to display the bar donuts can also be configured from here from **Oversized end** options here.





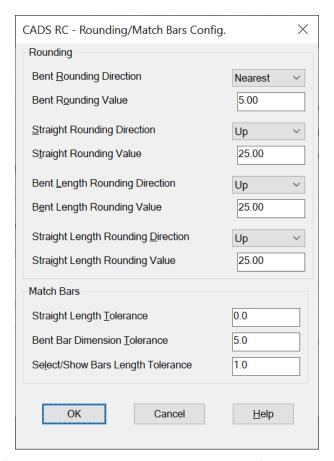
The Miscellaneous sub group is used to default how to invoke dialogs, but is recommended not to change the same as the configurations mentioned here aid in error checking.

Rounding/Match Bars 7.1.2

This is a very important configuration option in relation to bar fabrication as you can specify whether you want to round up or round down the bar lengths. You may specify the rounding for both individual bar lengths and the total bar lengths. Note that the rounded data as configured here is sent to Bar Schedule and there is no other option in Bar Schedule for rounding the data. The rounding should not be confused with precision data available with Configure Schedule Settings.





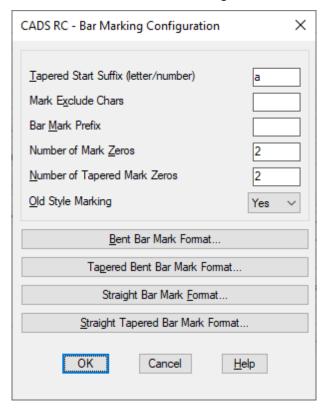


You can also specify length tolerance which should be used for matching identical bars. All the values given here are in millimeters.



Bar Marking 7.1.3

You can specify the Bar Mark format for the below dialog.

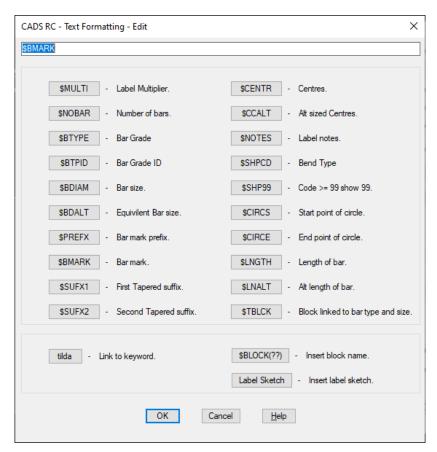


You can configure your drawing to use predefined prefix from the Bar Mark Prefix option here and similarly suffix to be used for Tapered ranges with varying length bars. The Number of Mark Zeros is used to specify the leading zeros if any you would like to have have for the bar marks, for example if the value is 3 then the first Bar Mark will be 001.

The Bar Mark format can be defined for bent and straight bars separately. The same applied for Tapered bars.





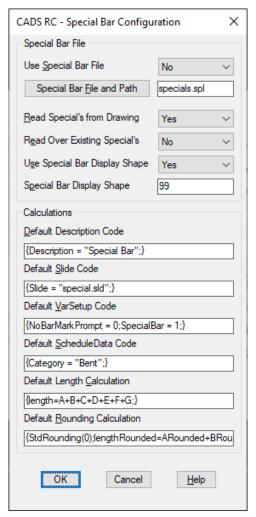


The variables could be specified by keywords preceded by \$. The Keywords are applied as soon as you click on the button. You may also include static text if you so desire. Avoid special characters such as *, + as they might conflict with normal numbering system. You may also include AutoCAD Blocks if you so desire. AutoCAD Blocks and Label Sketch do not work with AutoCAD leaders.



7.1.4 **Special Bars**

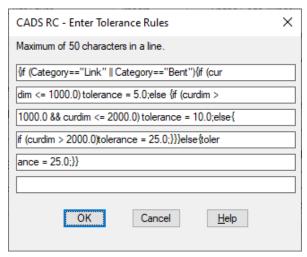
You may choose to either save the special bars in a separate file or with the drawing (Refer <u>Section 2.4</u>). Also, you can apply various default options when you create a new special bar.





7.1.5 Tolerance rule

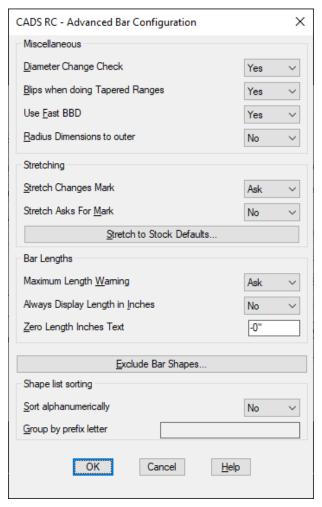
You can specify tolerance rules from here. The default for bent bars and links is 5 mm up to bar length of 1000 mm, 10 mm for bar length of 1001 to 2000 mm and 25 mm for bar lengths more than 2001 mm or straight bars.





7.1.6 Advanced

There are some advance configurations related to Bars are stored here. Many are related to default behavior of the system when you opt to draw a tapered range, stretch bars, change bar diameters etc. It is recommended to keep the default settings as it aids error checking



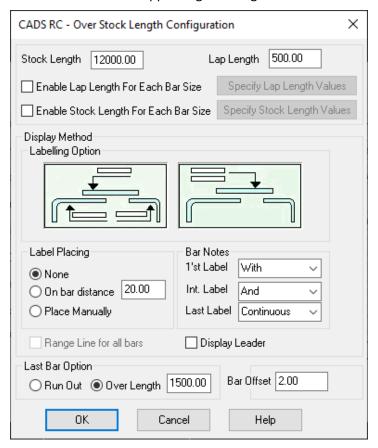


Over Stock Length 7.1.7

You may set the Stock Length of the bars here. CADS RC automatically lap the bars when the bar length exceeds the Stock Length specified here. You may choose to specify the Lap Length for each bar diameters. You can specify how you wish to label the bars along with the default Label notes when bars exceed the stock length.

Generally, the bars supplied at site are of slightly different lengths. You may specify some Over Length such that the last bar is not trimmed for small increases beyond stock length. These bars are handled at site by using the larger of the stock bars.

The distance between two bars when lapped together is given in **Bar Offset** field.

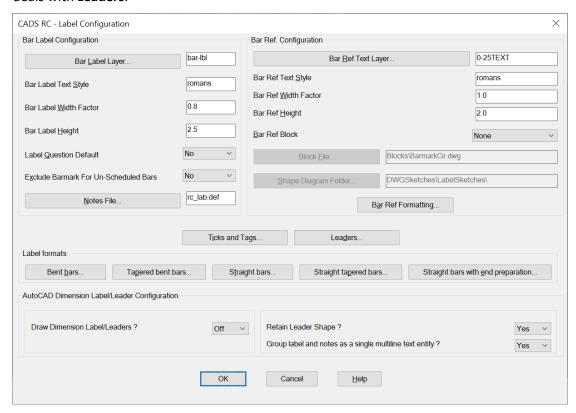






7.2 Label Configuration

The Label Configuration dialog contains the configuration settings for all type of annotations used in CADS RC, namely, Bar Label, Bar Reference and Ticks and Tags. This section also deals with Leaders.



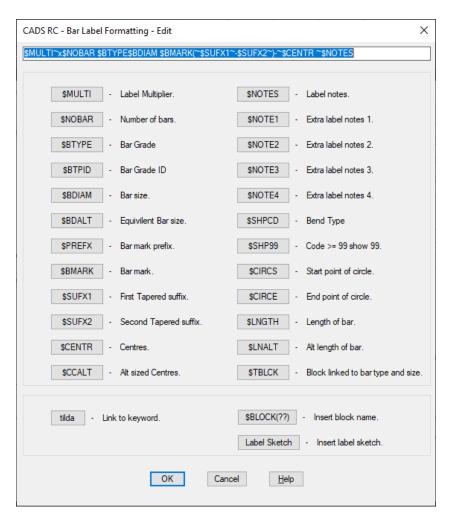
Bar Labels 7.2.1

You can configure layers in which you would like the bar labels to be drawn along with the bar label text properties. As explained in section 2.4, the Notes are specified in a separate file and can be configured here.

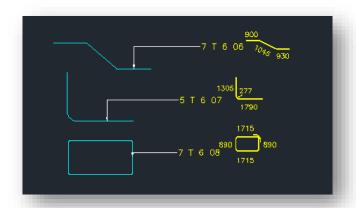
The Bar Label format should be defined separately for Straight and Bend bars. Bar Label format is also required to be specified separately for Tapered bars.

The Bar Label format is driven by a keywords and you can specify the same in dialogs provided for the same





You may include static text such as c/c, X, etc. You may include AutoCAD blocks - for example to encircle the bar mark. Label sketches are also possible provided the relevant AutoCAD blocks are provide as described in Section 2.4.



Multiline Bar Label is also possible from Global/Central Configuration

Configuration Centre->Global/General Configuration->Label->LabelFormatExtraNotes1 Configuration Centre->Global/General Configuration->Label->LabelFormatExtraNotes2 Configuration Centre->Global/General Configuration->Label->LabelFormatExtraNotes3 Configuration Centre->Global/General Configuration->Label->LabelFormatExtraNotes4







You may also configure to place AutoCAD Blocks automatically when the Bar Label is placed or choose to place it manually after placing the Bar Label, which is useful when you have congested drawings or multiline labels. This setting is controlled by Global/Central Configuration

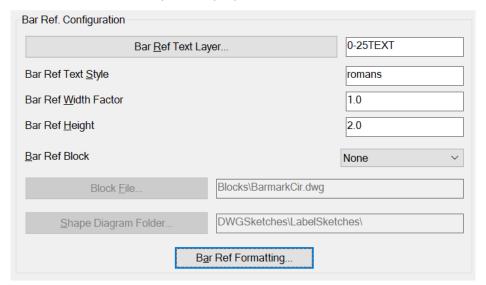
Configuration Centre->Global/General Configuration->Label->PlaceLableBlockManually

There are two additional configurations, LabelBlockXoffset & LabelBlockYOffset, to control the position of the Label Block when automatic placement of Label Block is in use.

AutoCAD Blocks in Bar Label and Label Sketches are supported for AutoCAD Dimensioned Leaders.

Bar reference 7.2.2

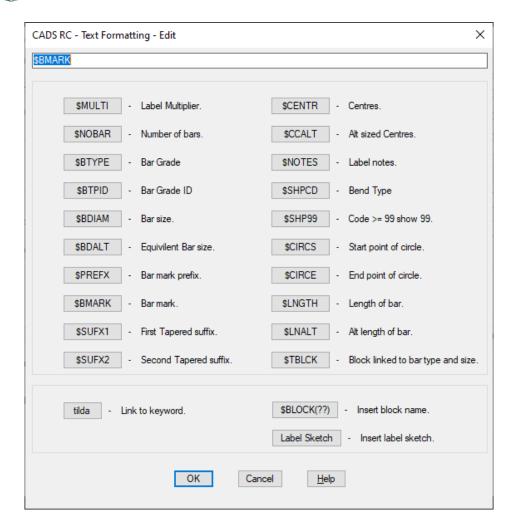
You can format Bar Reference layer, text properties etc. from here.



Also, the Bar Reference could be formatted from the Bar Ref Formatting option.



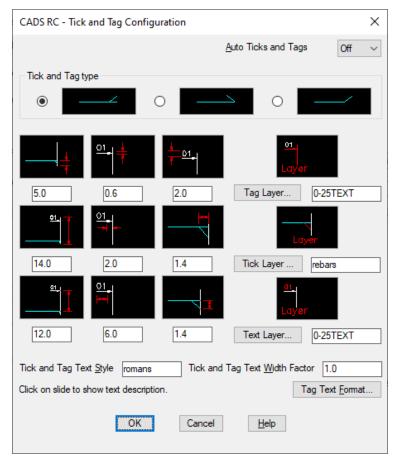
Configuration Guide





Tick & tag configuration 7.2.3

The **Tick & Tag Configuration** dialog can be invoked from **Ticks and Tags..** button.



In the Tag, Tick, Text Layer tabs, you can enter the layers in the respective fields, as per your need. Alternatively, you can call in a standard list to select the required layers. The location of Ticks and Tags respective to the bar can also be configured from here using different options provided.

You can choose to automatically Ticks and Tags all bars when drawing the bar using the option Auto Ticks and Tags to Yes.

7.2.4 Leaders

There are two types of Leaders supported by CADS RC. The default one is called CADS RC Leaders where the leader is created by CADS RC using other AutoCAD entities.

CADS RC also uses AutoCAD Leaders and draws leader as defined in current AutoCAD **DIMSTYLE.** AutoCAD Leaders can be enabled by setting the option **Draw Dimension Label/** Leader to Yes.

You can configure up to three types of Leaders for a drawing in CADS RC, a particular type of leader can be drawn from the following option in CADS RC->Annotation panel.

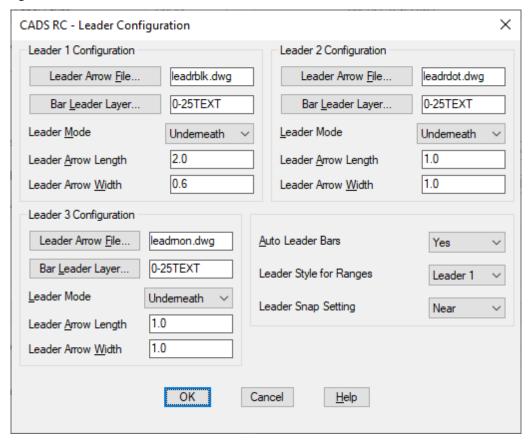








These leader options can be configured from Leaders.. button in the Label Configuration dialog.



You can configure the three types of leader differently over here. Based on the options provided here CADS RC creates appropriate AutoCAD DIMSTYLES when the AutoCAD Leader option is switched on.

You may also default Leader snap settings, default Leader to be used for Ranges etc from here.





7.3 Configure Schedule Settings

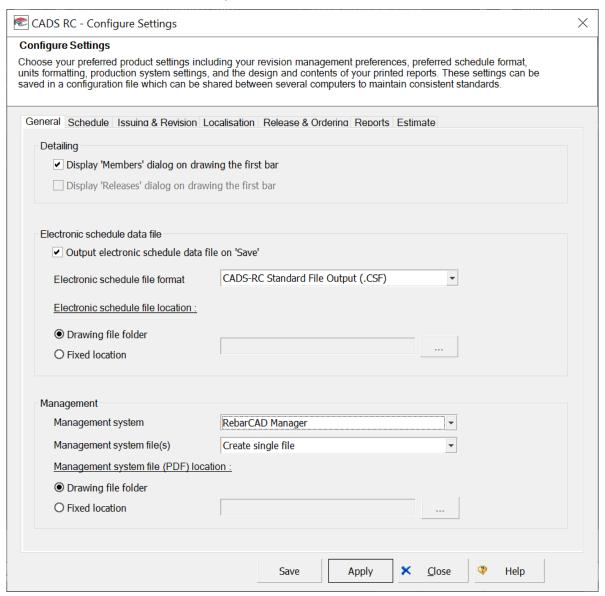
You can configure your Bar Schedule and related functionalities from here. Each section is described in details below.

General 7.3.1

The Detailing options helps you control the Members and Releases dialog display when drawing the first bar. The Electronic schedule data file helps you configure CADS RC to automatically generate a data file. You can configure to save CADS RC bar data into a particular format and save it to a folder location. This option is generally used by many customers to push data from drawing into their enterprise database.

The **Management** option is similar to the previous option.

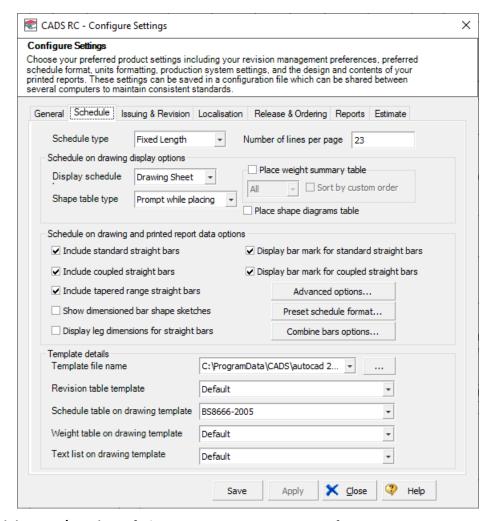
Please Note: Here, PDF refers to Project Data File, not the Adobe format.







7.3.2 Schedule



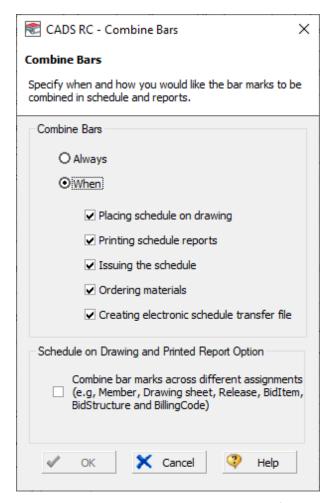
Schedule Type/Number of Lines Per Page - You can configure CADS RC to use a fixed number of lines per page. Should you change the number of lines per page then you will need to update/define some accompanying report formats (*.repx) to match. The variable length option allows for more control on page placement whilst placing a schedule on drawing.

Display Schedule by – You can configure the schedule on drawing to be displayed on either a Drawing Sheet, Member or Release basis. You will need to ensure that appropriate template is selected for Schedule Table on Drawing Template.

Place Weight Summary Table/Place Shape Diagrams Tables – You can configure whether to automatically add additional Weight summary table or Shape diagram tables as part of process of placing a Schedule on Drawing. The additional Shape table type option controls the layout of the additional shape diagram table.

Schedule on Drawing and Print Report Data Options - These options allows for the inclusion/exclusion of specific data from all reports. You can also configure when you want CADS RC to combines bars as shown below:



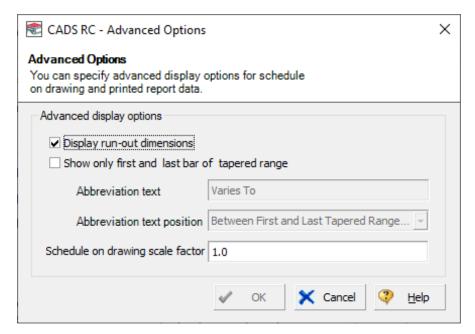


Selecting Always will result in bars being combined immediately following creation, although the continuous combining of the schedule may have implications for the performance (speed) of the software. If you would rather control exactly when the schedule is combined then you should disable all the. When options and instead use either the Combine Bars command or option within the Format Bar List dialog.

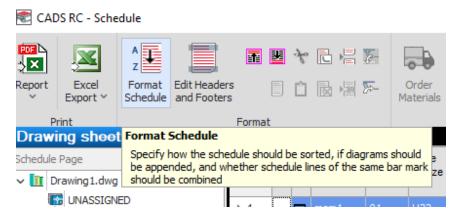
You may also also choose to combine bars across Drawing Sheet, Release, Member, Bid Item or Bid Structure. The bars will be combined only when you place Schedule on Drawing or print Reports.

Additional options are available via the Advanced Options button where you can specify how the Tapered Ranges should be displayed in Bar Schedule.





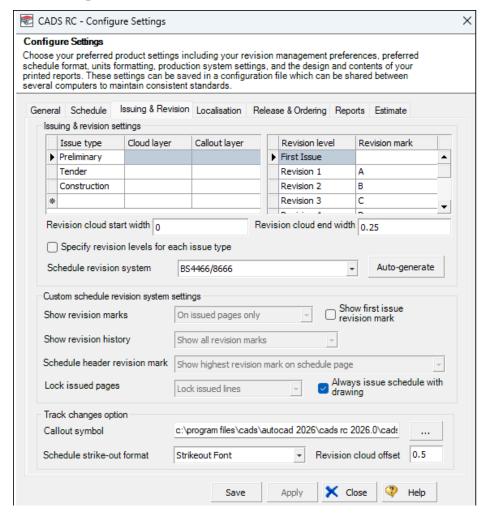
Preset Schedule Formats - This dialog allows you to define your default Bar Schedule formatting options. These options are applied only to new drawings. If you wish to change the format settings of an existing drawing you will have to use the option Format Schedule available in Bar Schedule ribbon.



Template Details – You may select the Table Template file and define Schedule on Drawing, Revision Table, Weight Table and Text List format, please refer Section 6 for more details on how to create a **Table Template** and define table formats.



Issuing & Revision 7.3.3



Issue Type – List all the issue types that should be offered when issuing a drawing sheet. Click on the * row to add additional entries. You may also edit the default ones provided by CADS RC.

Revision Level – Define the revision marks that should be offered when issuing a schedule or drawing sheet. Auto-Generate button will automatically generate all the Revision Levels if you specify the first revision level i.e. **Revision 1**.

Schedule Revision System - You may either opt for the BS 4466 / BS 8666:2005 standards or may specify your own. Once you select BS 4466/ 8666, the Custom schedule revision **system settings** are disabled. You may enable them by selecting *Custom*.

Show Revision Marks - This option determines whether bars being added to new pages following an issue, should receive a revision mark.

Show Revision History – This option determines whether all revision marks are shown in the schedule, or whether only the changes in the current revision are displayed.

Schedule Header Revision Mark – The option determines which revision mark is displayed in the header of each schedule page

Lock Issued Pages – This option determines whether issued schedules pages are locked so that they can't be formatted and new bars can't be added. e.g. set this option to lock issued pages and new bars will be add to a new page following an issue. Set this to lock issued lines and new bars will be appended to the issued schedule page.



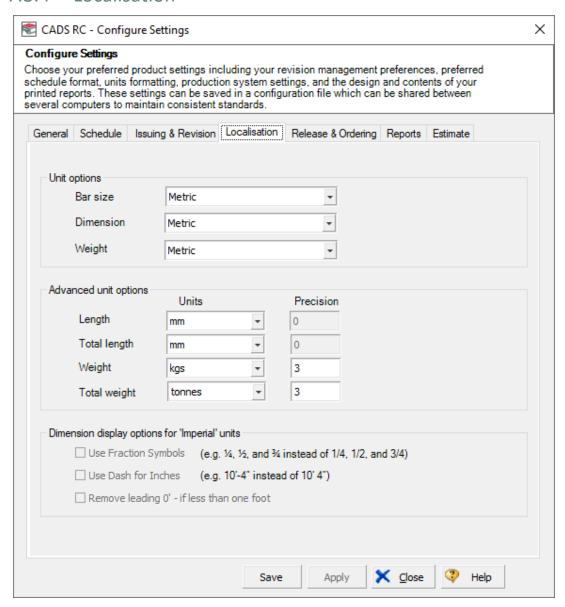


Always Issue Schedule with Drawing - If this option is selected then the corresponding **Schedule Sheet** is always issued when a Drawing is issued.

Callout Symbol – Specify the AutoCAD block that should be used to contain the revision mark on the drawing.

Schedule Strike-out Format - Specify your preferred way of denoting a stuck out line. The strike out is applicable for Schedule on Drawing and Reports. The bar schedule view might not show the option as selected here.

7.3.4 Localisation

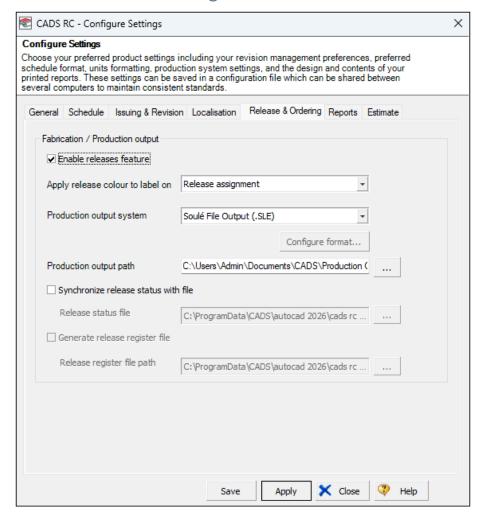


The Localisation Settings dialog offers various settings that control the units and unit precision to be used for Bar Schedule.





Release and Ordering 7.3.5

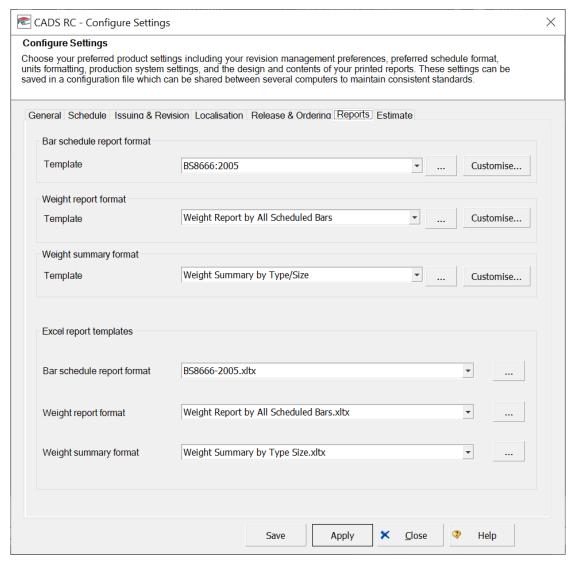


You may use this dialog to specify your default Production output system for Ordering materials. There are advance settings available which automatically reads Release status (fabricated or not) from an external file.

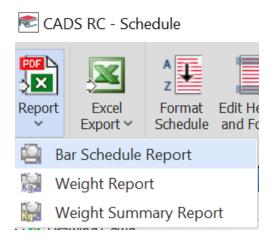
You can also specify the name and location of the Offcut file which is used in Stock Bar Optimisation and display of Offcut list during detailing.



7.3.6 Report settings



Report Settings allow you to specify the format of your printed reports. There are three report sections - each related to the three options offered under the Print and Print Preview commands, as shown below. Please refer to Section 5 on how to customise Report Templates.

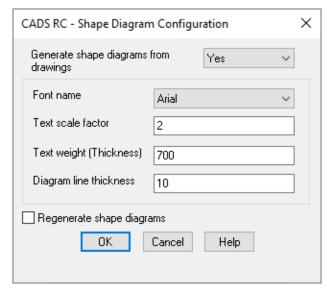




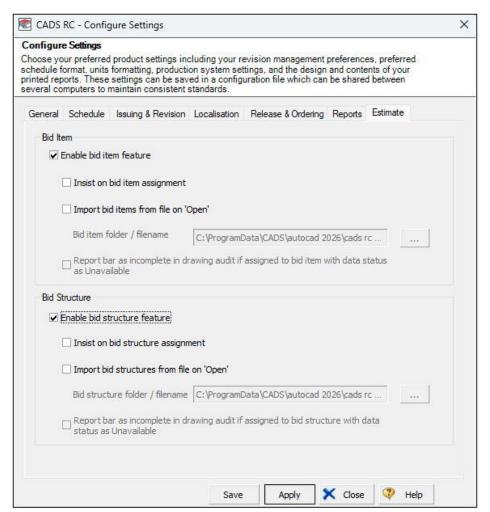


You can control the presentation of diagrams within reports using the Configuration Centre > Miscellaneous Configuration > Shape Diagram Configuration dialog box.

It may be necessary to experiment a little with the settings before arriving at diagrams that best match with your quality and presentation requirements.



7.3.7 Estimate



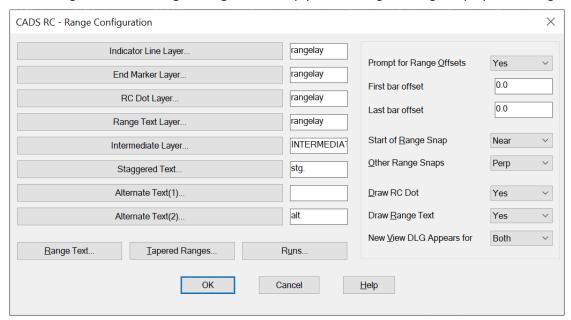




You can control Bid Item and Bid Structure settings from here. Bid Item and Bid Structure may be configured to be read from external file and made a mandatory field while drawing Bars and Ranges.

7.4 Range Configuration

The settings within the Range configuration help you to configure Range display in drawings.



You may also configure how you wish the Draw Range command to work. For example if you always draw ranges using cover lines, then you may set the Prompt for Range Offsets to No. You may also define default range offset if you are using it.

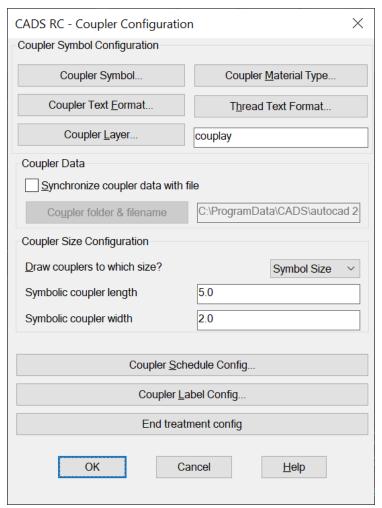
The Range snap settings can also be configured along with how you wish to display the Range indicator in the drawing. You can configure the AutoCAD blocks used in Range indicator display as indicated in Section 2.4.

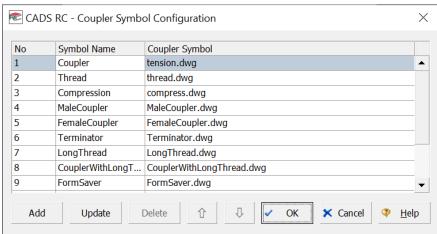
The Bar Runs can be configured from the Runs.. button, similar to options available for donuts (Bar in section) as explained in Section 7.1.



7.5 Coupler Configuration

The Coupler Configuration dialog contains configuration for the symbols and labels that are used to indicate coupled bars.



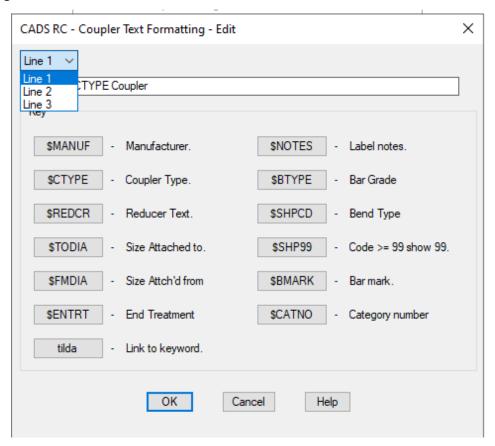


You can specify the AutoCAD blocks you would like to use for couplers & threads and define the AutoCAD layer too. Coupler and Thread Labels can be formatted through Coupler Text Format.. and Thread Text Format.. respectively. You can use up to 3 lines for Coupler and Thread Label, and each line can be configured from here. the Keywords can be used along

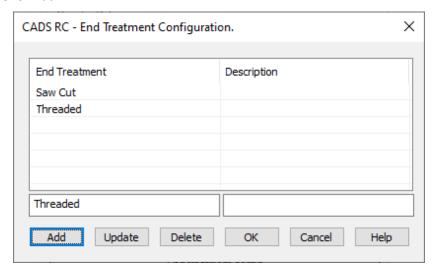




with static text. Coupler and Thread Label properties can be configured from Coupler Label Config..



As described in Section 2.4, you can configure additional file from where the coupler data is to be retreived. This is generally usefull if you have couplers of different manufacturers to be used in a project. You can enable this option from Synchronise couper data with file and configure the file name and location. Please get in touch with CADS Support if you need the coupler file format.

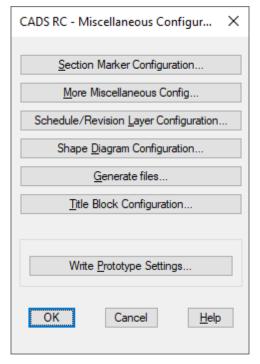


You can specify a list of End Treatment for your project from the End treatment config button.





7.6 Miscellaneous Configuration



As the name suggests, this section holds a large number of miscellaneous configuration options.

The Section Marker Configuration controls the size and layers used for the Section Markers available from the tools & symbols option.

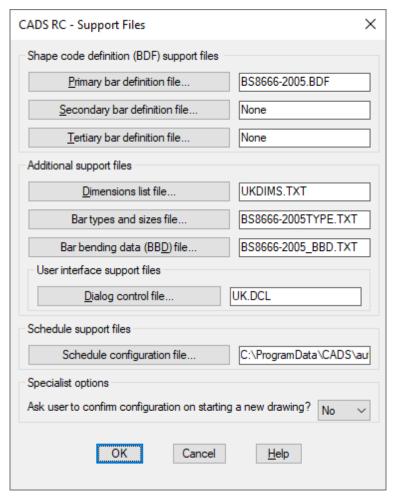
Shape Diagram Configuration controls the display of shape diagram on Bar Schedule. The dimensioned sketches are controlled by the AutoCAD blocks supplied, please refer Section 2.4. You may configure CADS RC to create a new Drawing Sheet whenever a Title Block is copied from Title Block Configuration..

Write Prototype Settings.. is a very important configuration and it's purpose is outlined in Section 2.3.



7.7 Support files

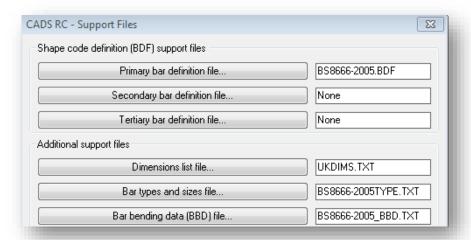
The configuration support files used by CADS RC are listed in Section 2.4. This dialog helps in configuring some of the commonly used Support Files.



Dimensions List file. , Dialog Control file.. and Specialist options are still available due to legacy issues, you are recommended to keep them with their default settings.



7.7.1 **BDF Files**



CADS RC allows up to three BDF files to be configured. As mentioned in Section 2.4, the BDF files contain the shape definitions. Normally you need only one BDF file to list all the shapes to be used in a project. Sometimes you have additional bar shape requirement and those can be updated to your project without changing your Primary BDF file through Secondary and Tertiary BDF files.

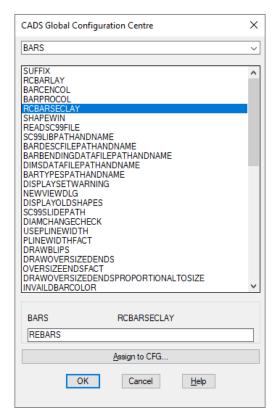
In case there is a Bar Shape with same name defined in more than one BDF file then the shape defined in Tertiary BDF file take higher priority than Secondary BDF file which in turn has higher priority than the Primary BDF file. Therefore in between a project you can overwrite your existing Bar Shape with new Bar Shape definition by using Secondary and Tertiary BDF file.

7.8 Global/General Configuration

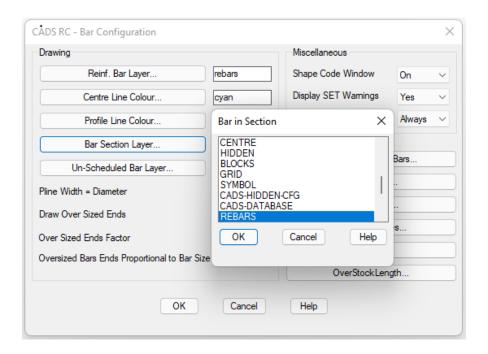
The Global / General Configuration option allows access to all the configuration variables used by CADS RC. To view individual configuration item values, you have to highlight the configuration item in the scrolling list; values can be changed by entering the required value in the input field. The edited values will be assigned only if the Assign to CFG.. button is clicked and will be applied only to the current drawing.

The configuration settings exposed here is meant for expert users of CADS RC, therefore do take caution when editing them. Please contact CADS Support whenever you are in doubt.





The configuration settings available here may or may not be available in other configuration settings dialog as described in Section 7. For example, RCBARSECLAY under sub group BARS refer to Bar Configuration -> Bar in Section Layer, Section 7.1.







The configuration settings available here are divided into sub groups as shown below

