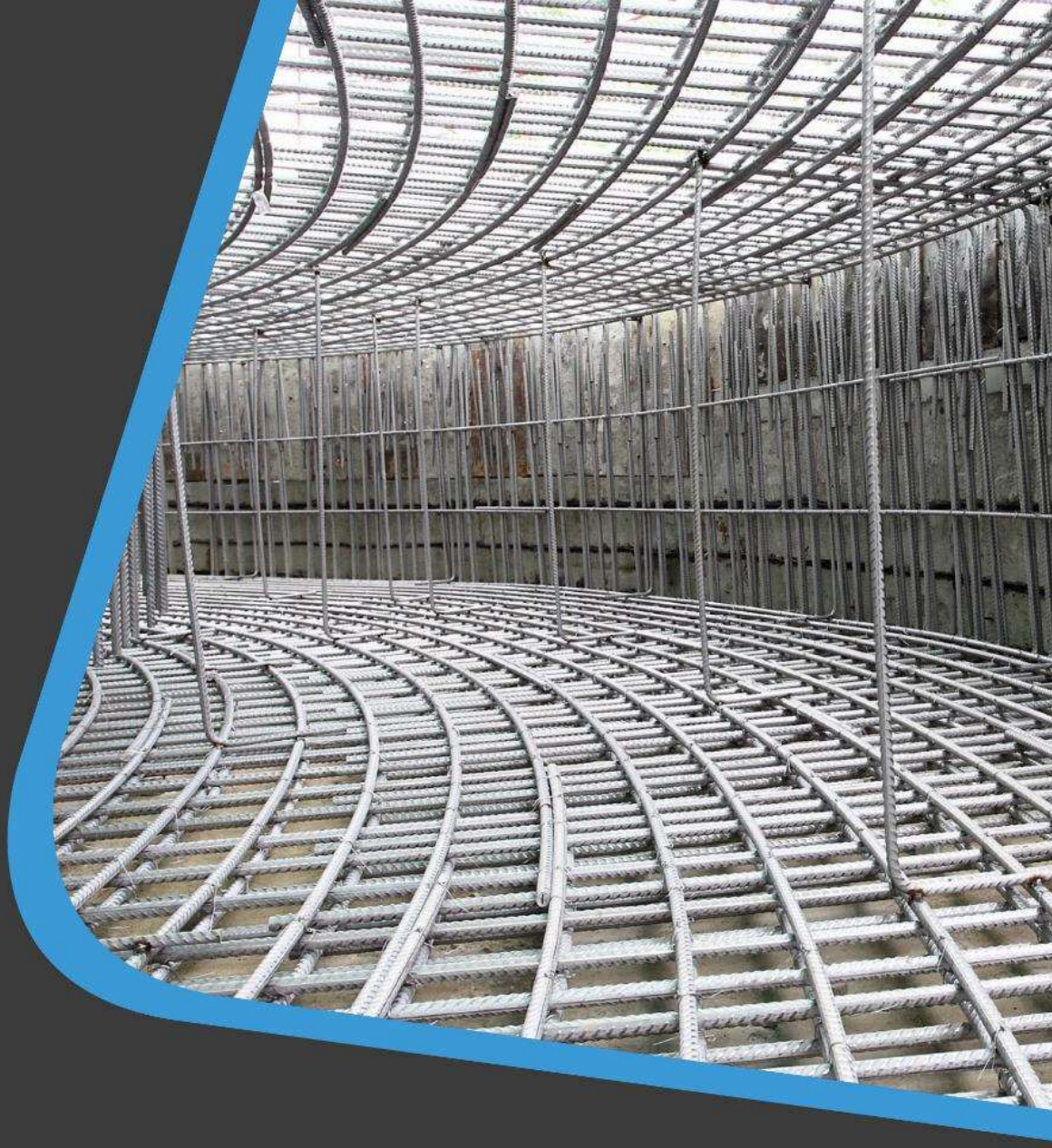


RebarCAD
Configuration Guide

CADS
GLOBAL CONSTRUCTION
SOFTWARE AND SERVICES

AUTODESK
Authorised Developer

Microsoft
Partner

Contents

1 Introduction....1-3
2 Configuring RebarCAD....2-4
2.1 Setting Default Configuration....2-4
2.2 Creating Configuration Settings....2-5
2.3 Creating DEF File....2-8
2.4 Configuration Settings Structure....2-10
2.5 Change Configuration Settings....2-16
2.6 Transferring Configuration Settings....2-17
3 Title Blocks....3-19
3.1 Configuring Title Blocks....3-19
3.2 Configuring Revision Table in Title Block....3-21
4 Profiles & Workspaces....4-23
5 Report Templates....5-30
6 Bar List on Drawing....6-36
7 Configuration Centre....7-41
7.1 Bar Configuration....7-41
7.2 Label Configuration....7-49
7.3 Configure Bar List Settings....7-54
7.3.3 Issuing & Revision....7-58
7.4 Range Configuration....7-63
7.5 Coupler Configuration....7-64
7.6 Miscellaneous Configuration....7-66
7.7 Support files....7-67
7.8 Global/General Configuration....7-68

1 Introduction

This guide gives a brief overview on how **RebarCAD** can be configured to suit different code of practises or project requirements such as **Bend Type**, **Bar Grade**, **Drawing Annotations**, **B**ar **List**, **Reports** etc. A summary of important configuration settings is provided along with tips on best practises to help customise **RebarCAD**.

2 Configuring RebarCAD

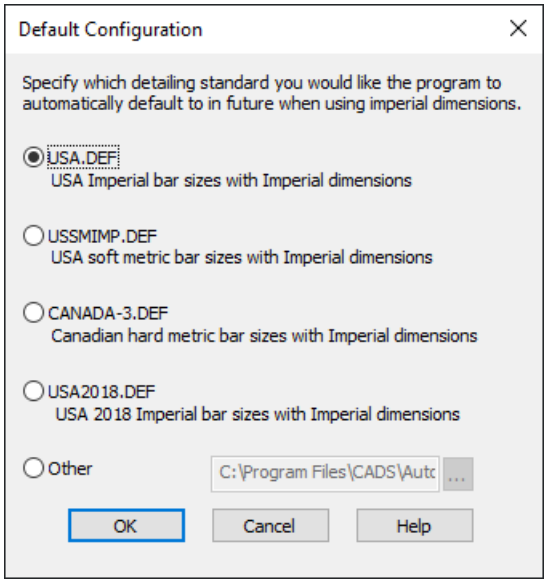
This chapter describes how to customise **RebarCAD** to work according to your work settings, which might include standard codes of practice for reinforcement detailing and scheduling, bars and ranges representation, annotations, BarList settings etc,.

This chapter also describes where **RebarCAD** saves the configuration settings.

2.1 Setting Default Configuration

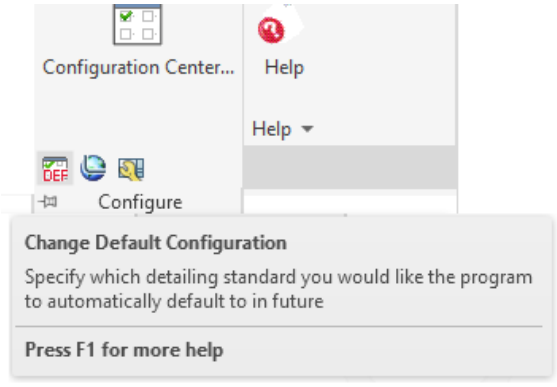
RebarCAD is shipped with standard code of practice normally used for reinforcement detailing and scheduling. You may choose default settings depending on the standard code of practice you normally use.

When you run **RebarCAD** 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: **RebarCAD > 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 USSMIMP standard bend types, 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 **RebarCAD**.

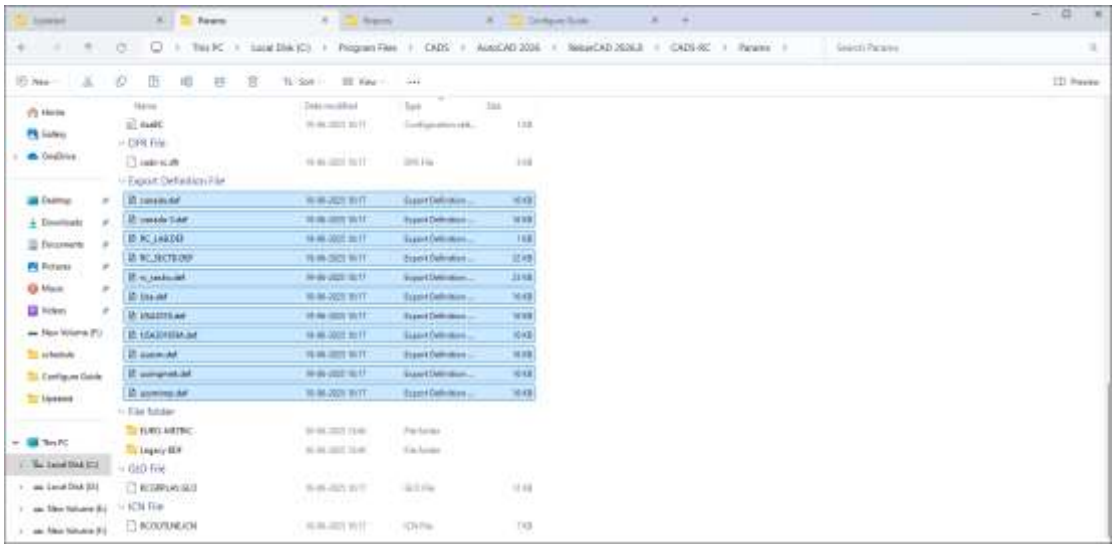
2.2 Creating Configuration Settings

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

C:\Program Files\CADS\AutoCAD XXXX\RebarCAD 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 **RebarCAD** and the AutoCAD version on which **RebarCAD** is installed.

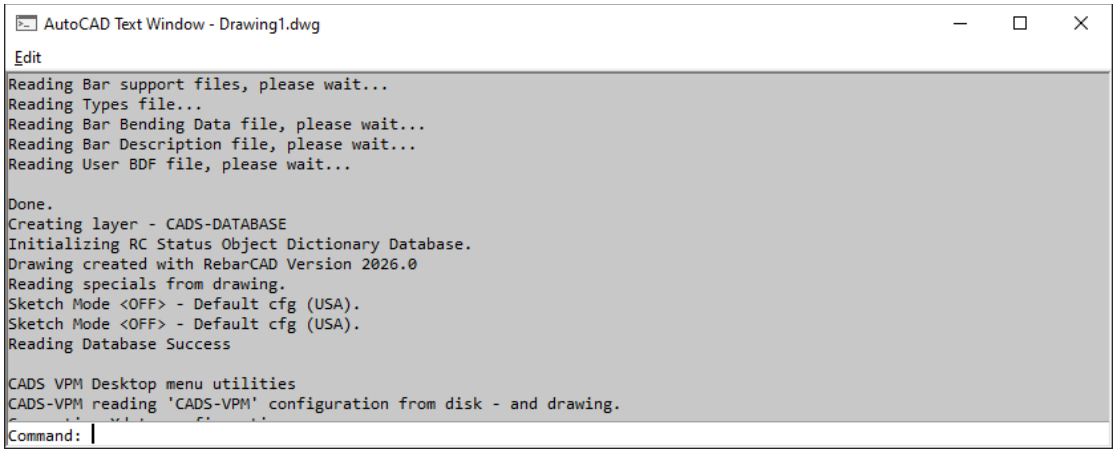
The **DEF file** can be used to share configuration settings across different computers.



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

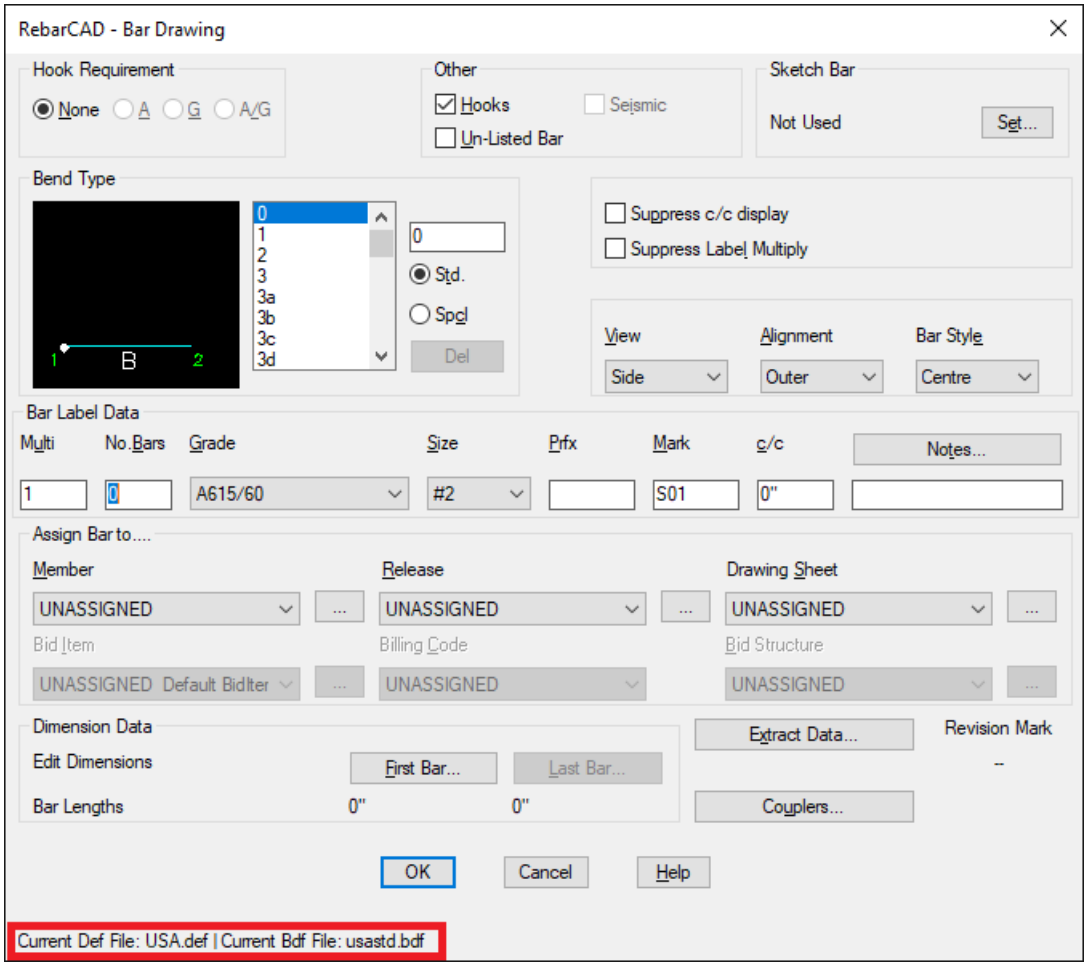
The installed **DEF files** are generally named after the standard code of practice supported. When a new drawing file is opened, the configuration settings are inherited by the drawing.

- Therefore, if a drawing is opened in an environment where the **DEF** file is not found in the specified folder then **RebarCAD** 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.



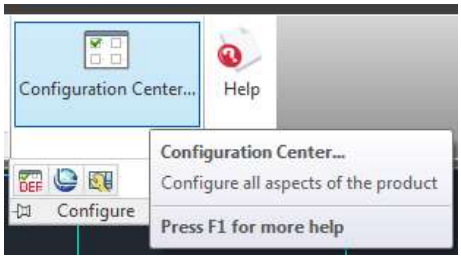
Majority of the drawing related configuration settings are stored within the **DEF file**, such as label format, Bar mark format etc, but many configurations such as Bent type library, Bar list configuration etc. are stored in different physical files but are only referenced in the **DEF** file.

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.

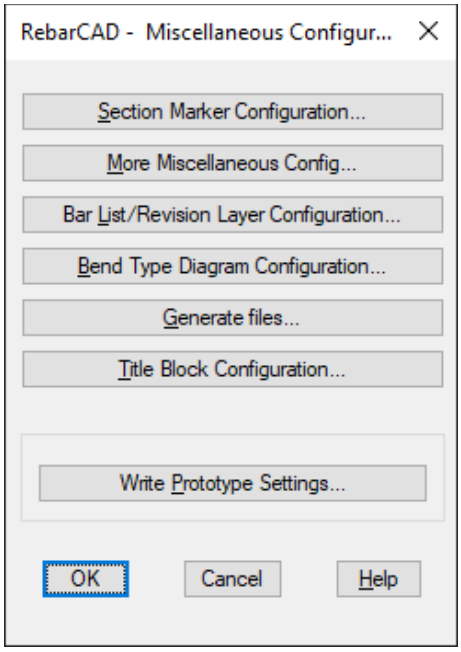
You can access this as a separate Panel in the **RebarCAD** ribbon



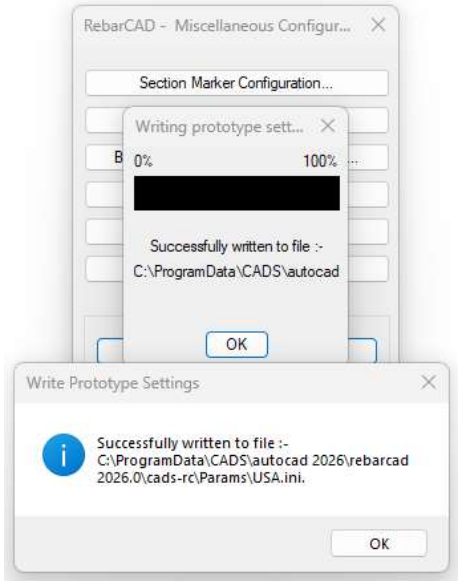
Or from menu bar **RebarCAD ->Configuration -> Configuration Centre**

Detailed information about different sections of the configuration centre is given in Section 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 are prompted in a subsequent dialog.



The default folder where *.ini file is generated is

C:\ ProgramData\CADS\AutoCAD XXXX\RebarCAD 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 **RebarCAD** and the **AutoCAD** version on which **RebarCAD** is installed.

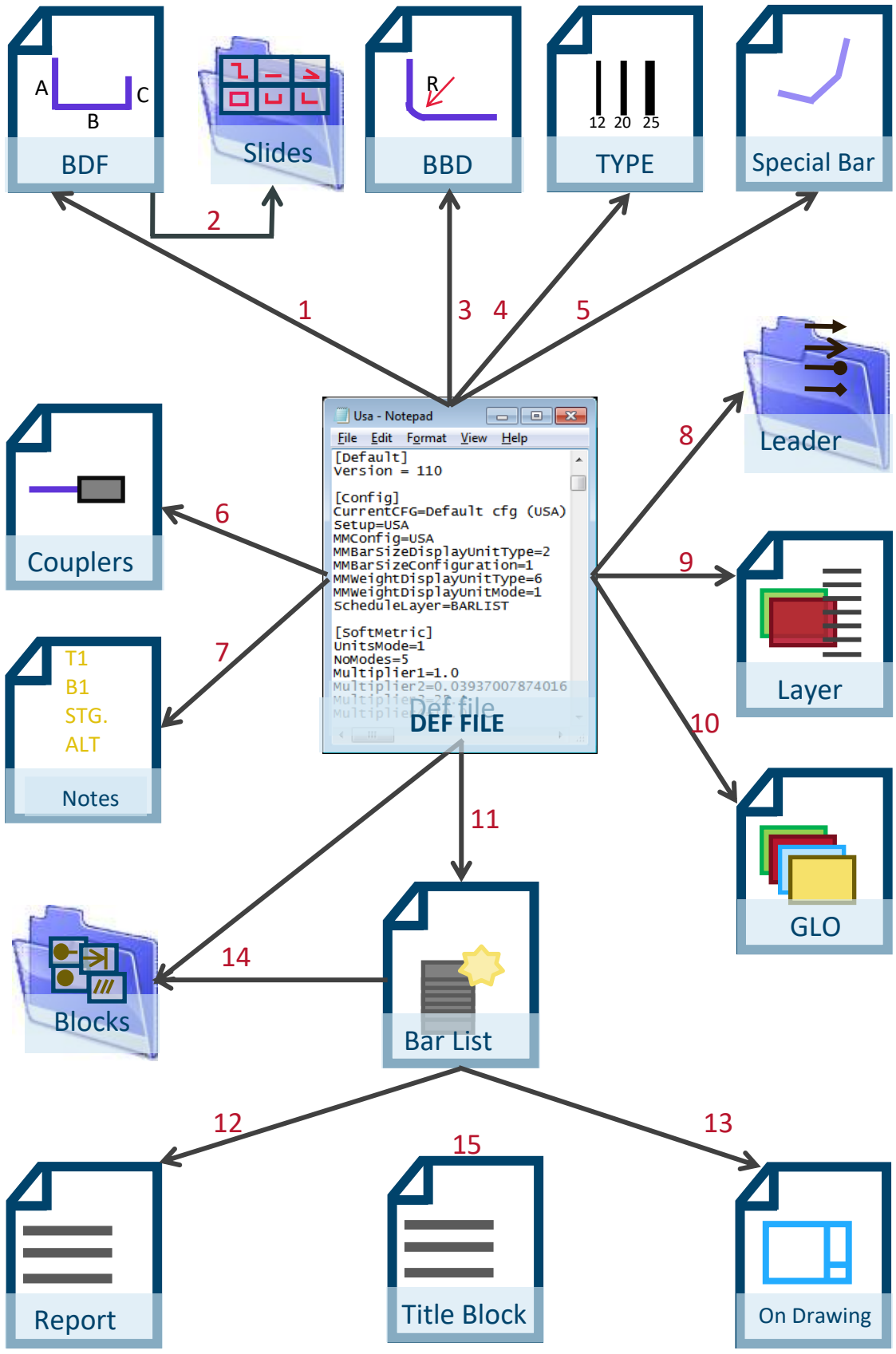
You may rename the file generated as a new **DEF file** containing your configurations settings. Ensure that you change the file extension to *.def from *.ini.

Hints & Tip

- 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 **RebarCAD** or with the same name otherwise you might lose your settings the next time you upgrade **RebarCAD** 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 **RebarCAD** 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\RebarCAD XXXX.XX\CADS-RC\params** Where folder path **C:\Program Files\CADS..** refers to the location where you have installed RebarCAD and **..\AutoCAD XXXX\...** refers to the AutoCAD version on which RebarCAD is installed File extension ***.BDF**	**Bar Definition File** There are a number of **BDF** files included in the RebarCAD installation based on standard code of practise or normally used bar bend types in any region. **BDF** files form the basic building block for RebarCAD whereby all information about the bend type 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 RebarCAD 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\RebarCAD XXXX.XX\CADS-RC\params** Where folder path **C:\Program Files\CADS..** refers to the location where you have installed RebarCAD and **..\AutoCAD XXXX\...** refers to the AutoCAD version on which RebarCAD is installed File extension ***.SLB**	The slide files contain the image of the bend type defined in **BDF** file. This image is used in various places in the application such as draw bar dialog to display bend type on the dialog. For each bend type AutoCAD blocks are stored in the following locations: ▶ **C:\Program Files\CADS\AutoCAD XXXX\RebarCAD XXXX.XX\CADS-RC\DWGSketches.** The bend type blocks stored here are the 'master' blocks used for **Bar List on Drawing** and **Reports** ▶ **C:\Program Files\CADS\AutoCAD XXXX\RebarCAD XXXX.XX\CADS-RC\DWGSketches\DimSketches.** The bend type blocks stored here are used for display of **Dimensioned Sketches** in bar list ▶ **C:\Program Files\CADS\AutoCAD XXXX\RebarCAD XXXX.XX\CADS-RC\DWGSketches\LabelSketches.** The Bend type blocks stored here are used for display of bar bend types 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\RebarCAD XXXX.XX\CADS-RC\params** Where folder path **C:\Program Files\CADS..** refers to the location where you have installed RebarCAD and **..\AutoCAD XXXX\...** refers to the AutoCAD version on which RebarCAD 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	**TYPE**	**C:\Program Files\CADS\AutoCAD XXXX\RebarCAD XXXX.XX\CADS-RC\params** Where folder path **C:\Program Files\CADS..** refers to the location where you have installed **RebarCAD** and **..\AutoCAD XXXX\...** refers to the AutoCAD version on which **RebarCAD** 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\RebarCAD XXXX.XX\CADS-RC\Params** **..\AutoCAD XXXX\...** refers to the AutoCAD version on which **RebarCAD** is installed File name **Specials.spl**	As per default configuration settings, new bend type definition created using **Special Bar** feature in **RebarCAD** is saved in the drawing. If you choose to save in an external file, then all the special bend types 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 bend types 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\RebarCAD XXXX.XX\CADS-RC\Couplers** Where folder path **C:\Program Files\CADS..** refers to the location where you have installed **RebarCAD** and **..\AutoCAD XXXX\...** refers to the AutoCAD version on which **RebarCAD** is installed File extension ***.CPL**	A majority of the coupler manufacturers are supported by **RebarCAD** 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 **RebarCAD** 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.

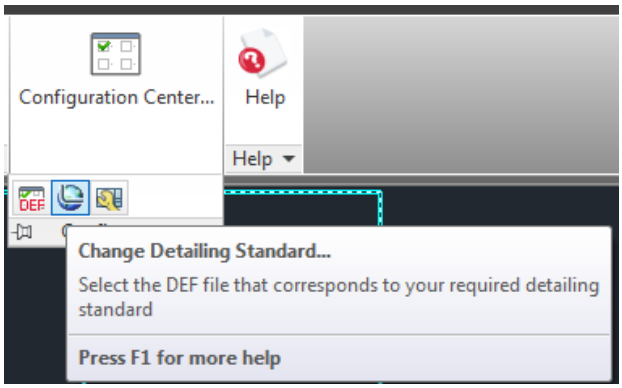
7	**Notes**	**C:\ProgramData\CADS\AutoCAD XXXX\RebarCAD XXXX.XX\CADS-RC\Params** **..\AutoCAD XXXX\...** refers to the AutoCAD version on which **RebarCAD** is installed File name **RC_LAB.def**	**Standard notes** can be used while drawing bars or ranges in **RebarCAD**. The **Notes** file can be opened as a text file and you can add or amend **Standard notes** as per your project requirements.
8	**Leaders**	**C:\Program Files\CADS\AutoCAD XXXX\RebarCAD XXXX.XX\CADS-RC\Blocks** Where folder path **C:\Program Files\CADS..** refers to the location where you have installed **RebarCAD** and **..\AutoCAD XXXX\...** refers to the AutoCAD version on which **RebarCAD** is installed File extension ***.dwg**	**RebarCAD** 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.
9	**Layer**	**C:\Program Files\CADS\AutoCAD XXXX\RebarCAD XXXX.XX\CADS-RC\params** Where folder path **C:\Program Files\CADS..** refers to the location where you have installed **RebarCAD** and **..\AutoCAD XXXX\...** refers to the AutoCAD version on which **RebarCAD** is installed File name **RC-LAY.txt**	You can define the layers you wish to populate by default in your new drawings.
10	**GLO**	**C:\Program Files\CADS\AutoCAD XXXX\RebarCAD XXXX.XX\CADS-RC\Params** Where folder path **C:\Program Files\CADS..** refers to	**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**

		the location where you have installed **RebarCAD** and **..\AutoCAD XXXX\...** refers to the AutoCAD version on which **RebarCAD** is installed File extension ***.glo**	
11	**Bar List**	**C:\ProgramData\CADS\AutoCAD XXXX\RebarCAD XXXX.XX\CADS-RC** **..\AutoCAD XXXX\...** refers to the AutoCAD version on which **RebarCAD** is installed File type ***.xml**	The bar list related configuration as available with **Configuration centre->Configure bar list settings** is stored in this file.
12	**Reports**	**C:\ProgramData\CADS\AutoCAD XXXX\RebarCAD XXXX.XX\CADS-RC\Templates\Reports** **..\AutoCAD XXXX\...** refers to the AutoCAD version on which **RebarCAD** 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 CADS Support to customise the same for you.
13	**On Drawing**	**C:\ProgramData\CADS\AutoCAD XXXX\RebarCAD XXXX.XX\CADS-RC\Templates\SOD_Tables** **..\AutoCAD XXXX\...** refers to the AutoCAD version on which **RebarCAD** is installed File type ***.xml**	**Bar list on Drawing** template can be customised using **RebarCAD** features as well as can be customised by CADS Support on request.
14	**Blocks**	**C:\Program Files\CADS\AutoCAD XXXX\RebarCAD XXXX.XX\CADS-RC\Blocks** Where folder path C:\Program **Files\CADS..** refers to the location where you have installed	**RebarCAD** 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**.

		RebarCAD and **..\AutoCAD XXXX\...** refers to the AutoCAD version on which **RebarCAD** is installed File extension ***.dwg**	
15	**Title Blocks**	**C:\ProgramData\CADS\AutoCAD XXXX\RebarCAD XXXX.XX\CADS-RC** **..\AutoCAD XXXX\...** refers to the AutoCAD version on which **RebarCAD** is installed File name **Titleblockconfig.xml**	This file keeps the details of title block which are configured as well as how the attributes are mapped to **Bar List.** The file location cannot be configured hence it should be always placed in the default location.

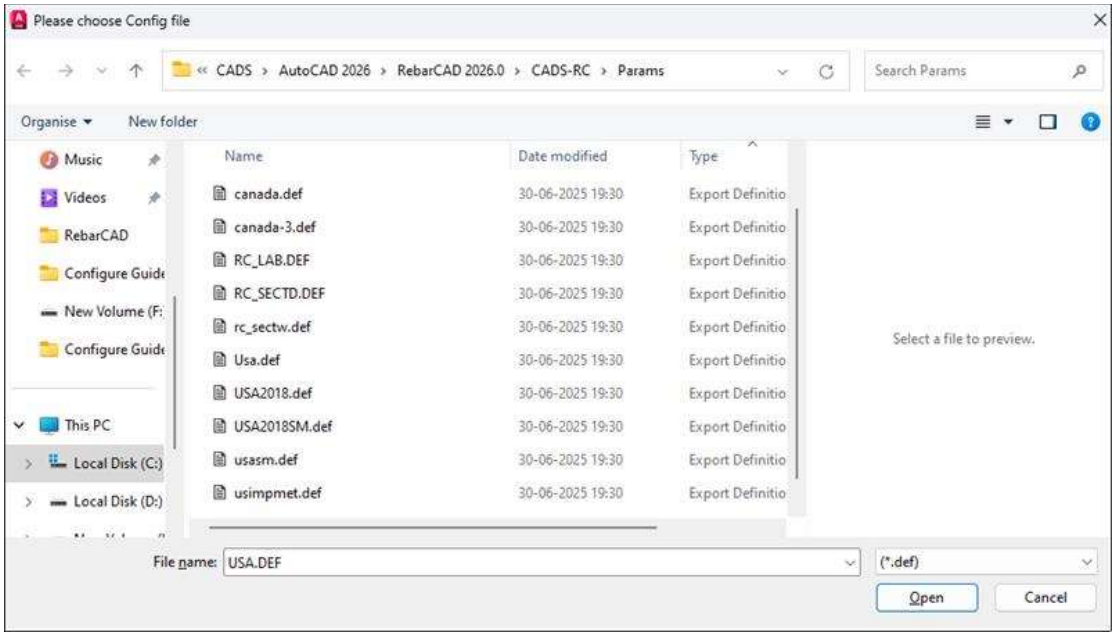
2.5 Change Configuration Settings

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



Or from Menu bar: **RebarCAD ->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 **Bend Type 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 **RebarCAD** settings from one computer to another.

If you have a large number of **RebarCAD** 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 bar list 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 bend type 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 **RebarCAD** 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.

Hints & Tip

- As far as possible try not to change the default folder locations, this will help to transfer files to systems where **RebarCAD** is installed in different location or different version of AutoCAD without much problem. Otherwise **RebarCAD** 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 **RebarCAD** 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.

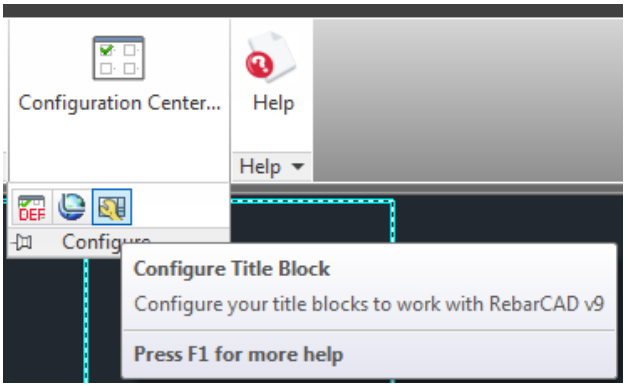
3 Title Blocks

This chapter describes how to configure your Drawing Title Block to create **Drawing Sheets** in **RebarCAD**.

3.1 Configuring Title Blocks

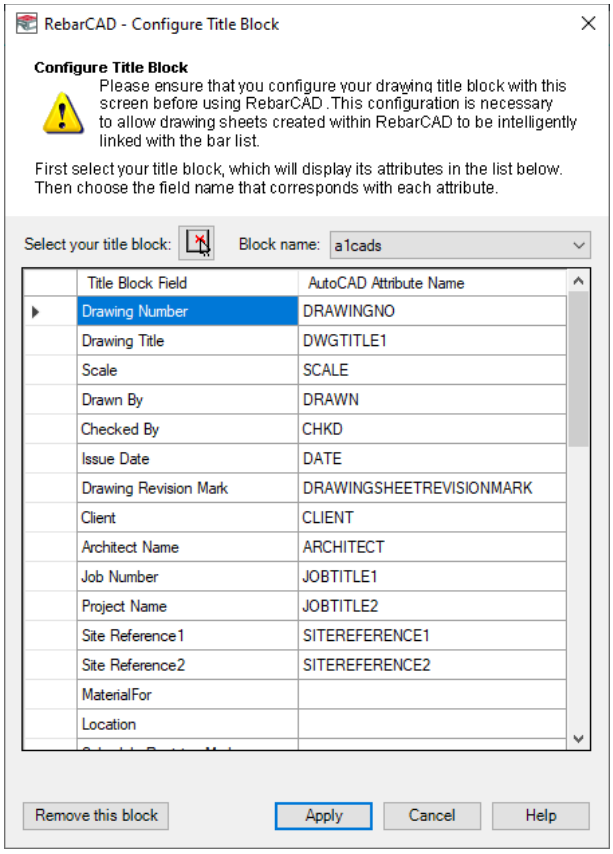
RebarCAD recognises whether an AutoCAD block is a title block by reading through its attributes. **RebarCAD** keeps a library of commonly used attribute for the parameter Drawing Number, and matches the same to with any title block to automatically recognise the Drawing title block.

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



Or from **RebarCAD** Menu Bar **Configuration->Configure Title Block.**

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



You can select the title block you wish to configure as **RebarCAD** 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 **RebarCAD** parameters which is expected to be mapped. You should assign each **RebarCAD** parameter to a AutoCAD Attribute such that whenever you edit any value in the Title block in future, it will automatically get updated to **RebarCAD.**

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 **RebarCAD** title block.

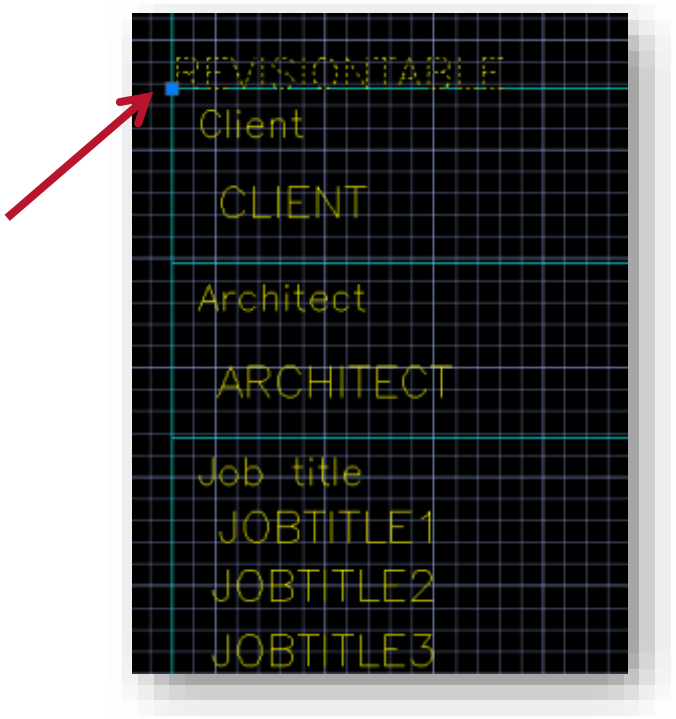
You can select the **Remove this block** button if you want to remove the Title Block from the configured list of Title Blocks. Once the configured title block is removed, inserting the AutoCAD block in the drawing will not be considered as **RebarCAD** drawing sheet.

You can configure any number of Title Blocks in **RebarCAD**. 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 Section 2.4.

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 **RebarCAD** 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 **RebarCAD** will ask you to place the revision table manually when doing the drawing issue for the first time.

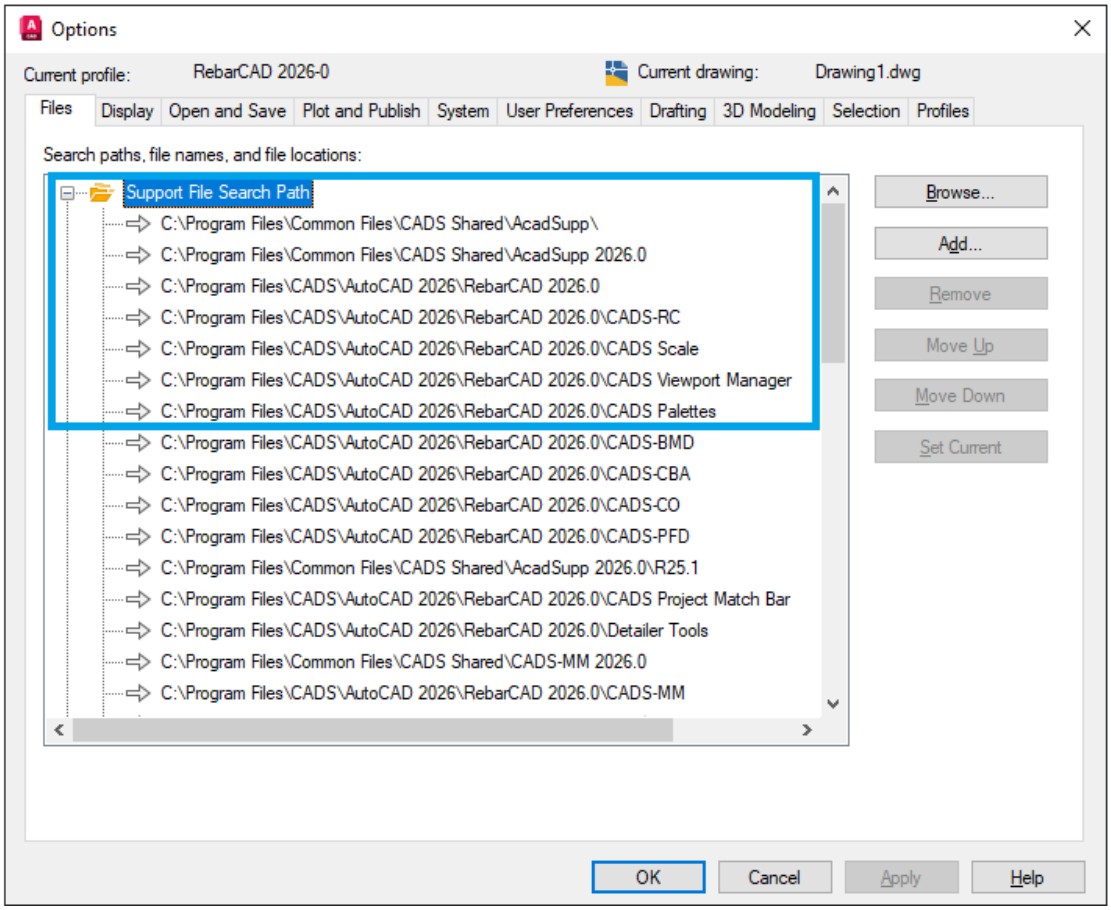
Hints & Tip

- 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

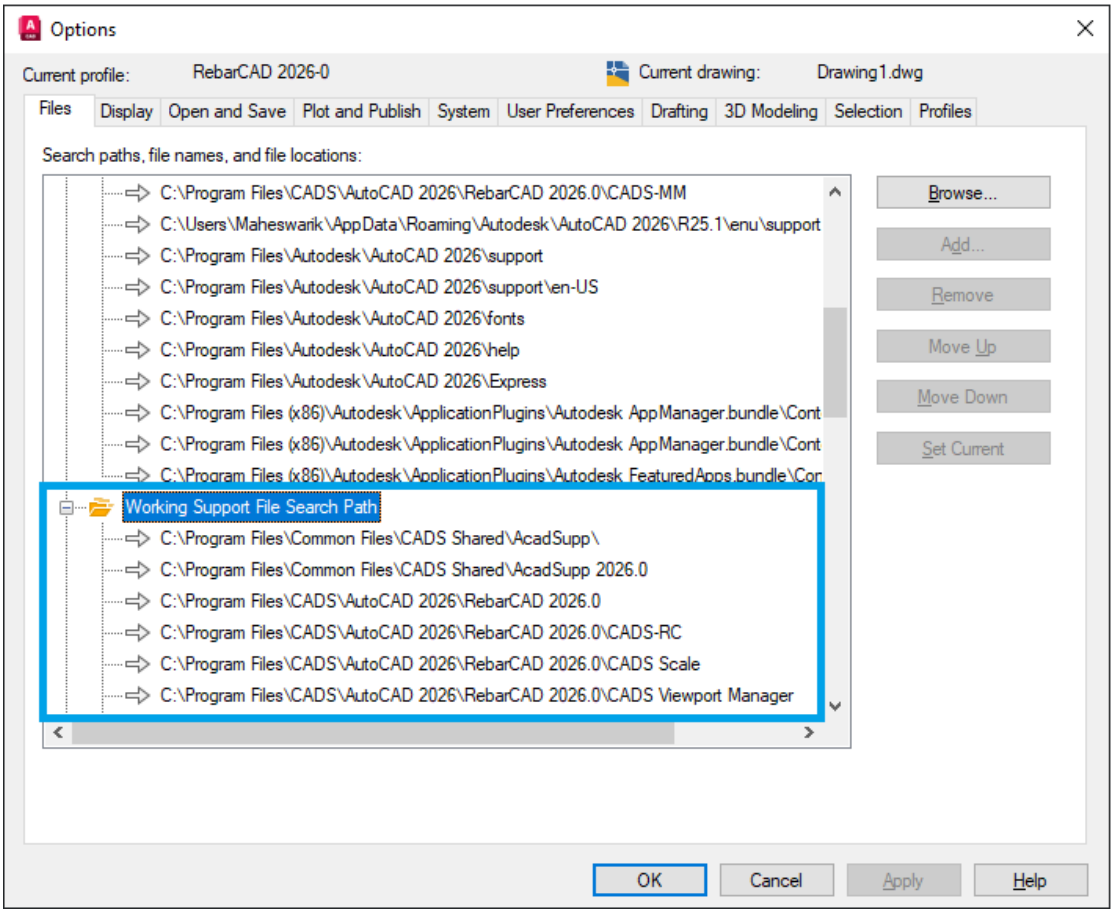
AutoCAD Profiles store your drawing environment settings. You can create AutoCAD profiles for different users or for different projects. You can share these profiles by importing and exporting them as files (*.arg).

When you install **RebarCAD**, a new profile (for example **RebarCAD V9-10** for **RebarCAD** v9.10), 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 **RebarCAD** using your own profile, you will have to port these paths to your profile. You can also copy the **RebarCAD** profile and rename and update this to your requirements. When you install any upgrades in future, they will overwrite this **RebarCAD** profile. Therefore, you will have to update the same whenever you upgrade to higher version of **RebarCAD**.

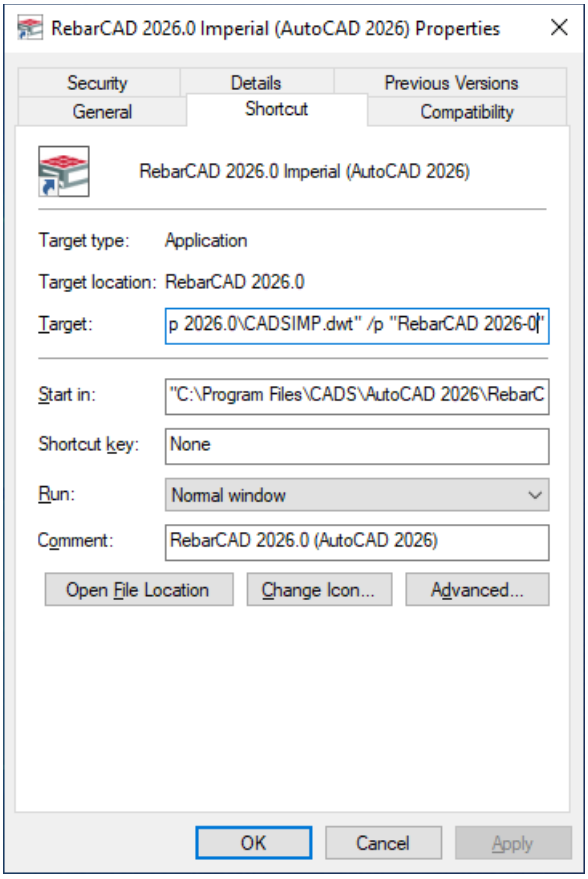
When you install **RebarCAD**, a desktop icon is created on your desktop. The **RebarCAD** desktop loads the default profile when **RebarCAD** is star



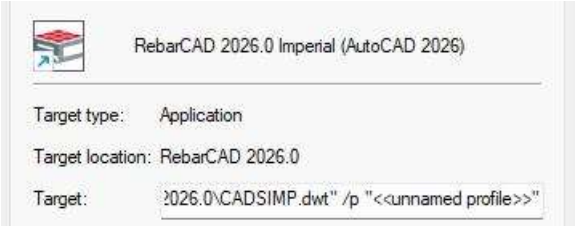
ted. It is specified in the desktop item property

"C:\Program Files\CADS\AutoCAD XXXX\RebarCAD XXXX.XX\RebarCAD XXXX.XX (AutoCAD XXXX).exe" /t "C:\Program Files\Common Files\CADS Shared\AcadSupp\CADSISO.dwt" /p "RebarCAD 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 **RebarCAD**. Every time you install **RebarCAD** 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.

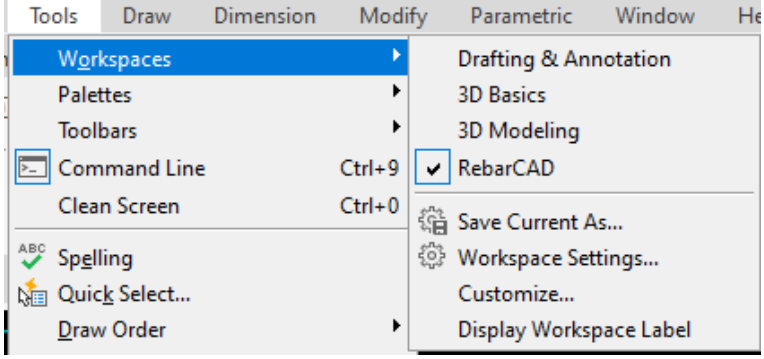


Similarly, if you want to run AutoCAD without loading any CADS application, you can specify a **/p** profile designator that loads AutoCAD **<<Unnamed Profile>>** as shown below.

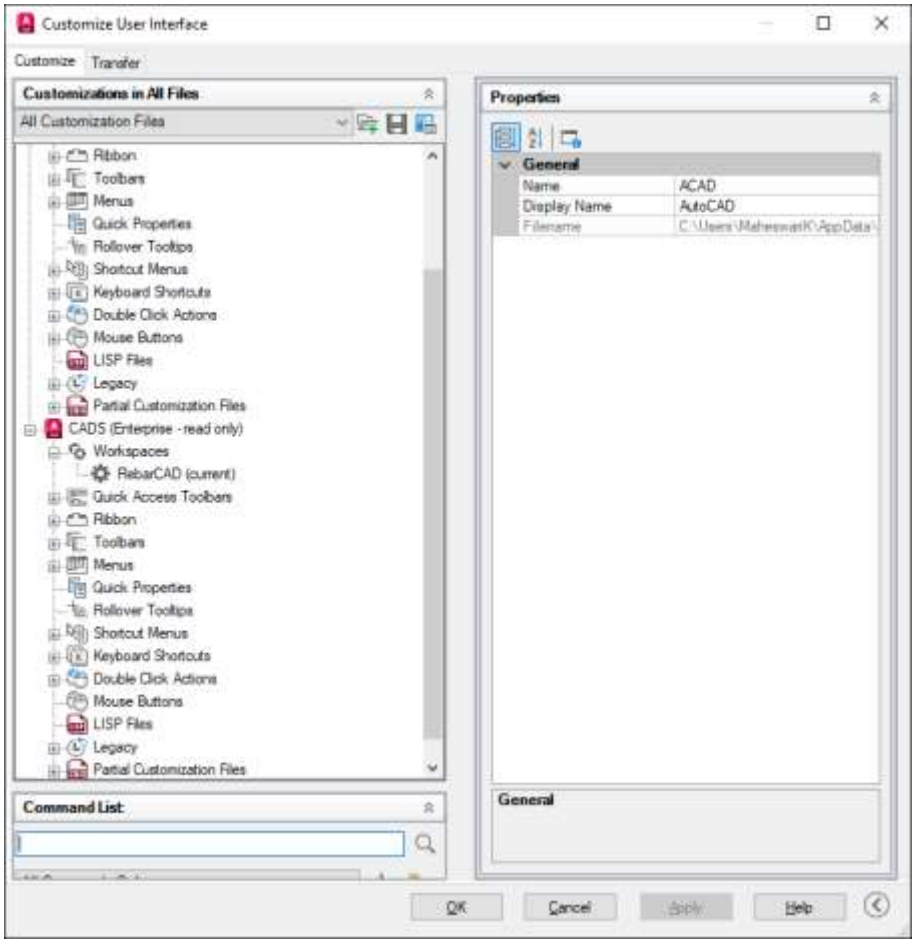


AutoCAD Workspace is a set of menus, toolbars, palettes, and ribbon control panels that are grouped, and organized to work in a custom, task-oriented drawing environment.

When **RebarCAD** is installed, a **RebarCAD** Workspace is created, (as shown below).

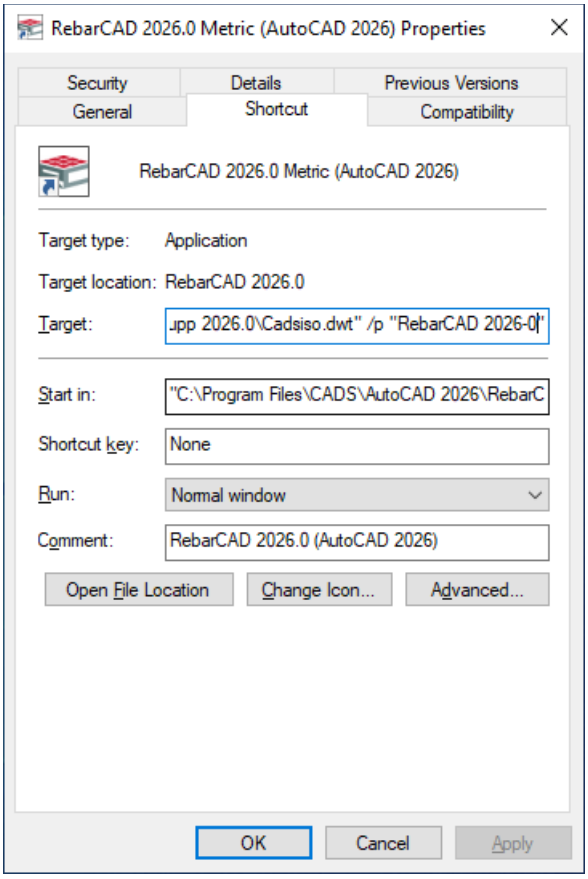


The **RebarCAD** Workspace shown above is a custom version of the standard 2D Drafting and Annotation workspace. It has added menus, toolbars, palettes, and ribbon control panels necessary for running **CADS** products. **RebarCAD** Workspace (**CADS.CUI** file) is supplied as an enterprise CUI which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

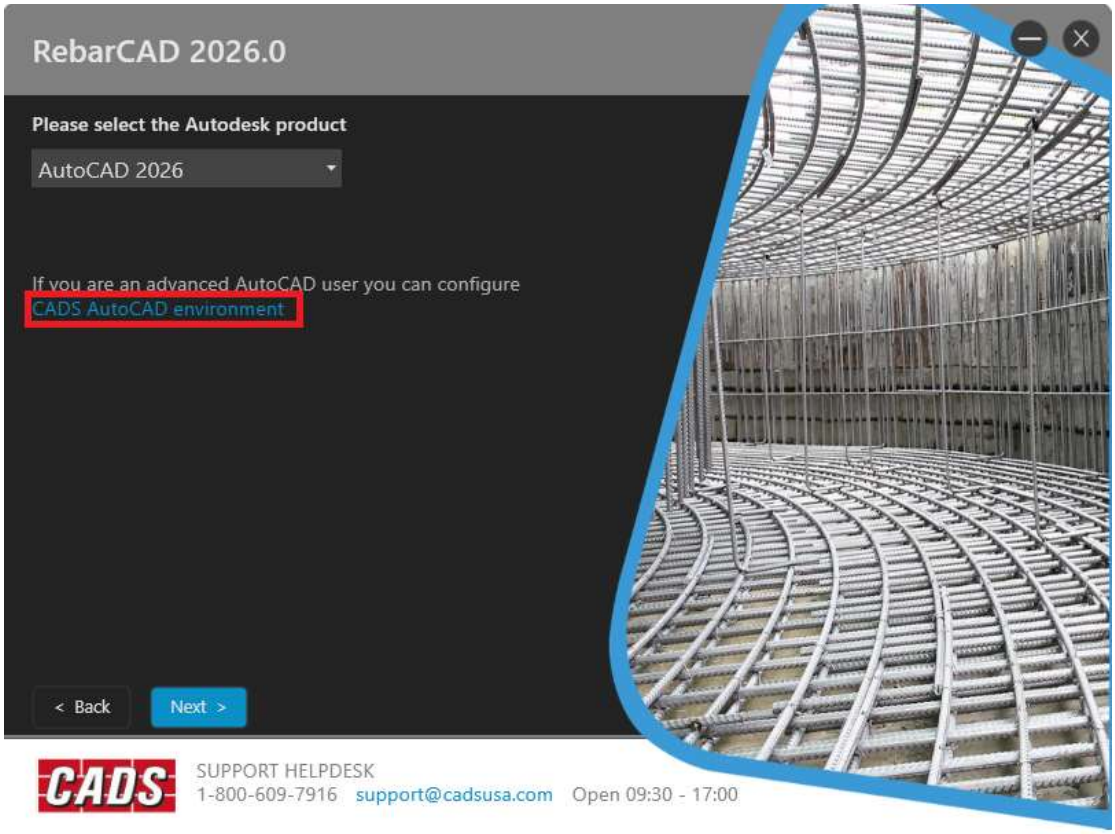


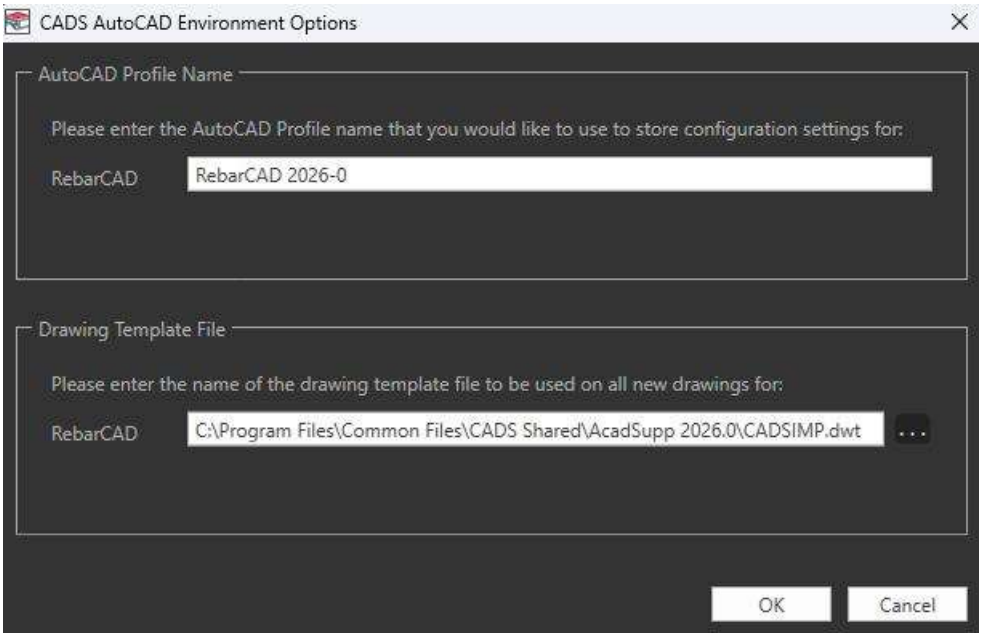
If you wish to customise your user environment, you can either create a new workspace and port **RebarCAD** items into the same or **Save As.. RebarCAD** workspace in a different name and port your settings into the same.

By default **RebarCAD** 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 **RebarCAD** creates its own profile and adds **RebarCAD** as enterprise CUI. If you wish you can specify your own profile name to which you wish to use while installing **RebarCAD**. Note that the profile you specify should not have any Enterprise CUI as AutoCAD supports only one Enterprise CUI and **RebarCAD** 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 **RebarCAD**.

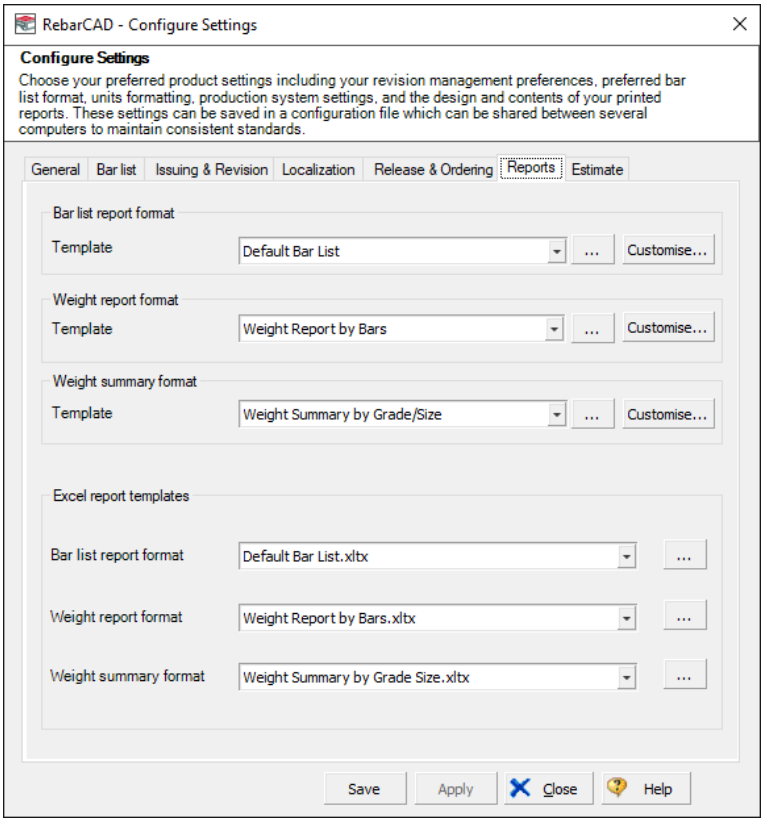
Hints & Tips

- 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 are 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 **RebarCAD**, 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.

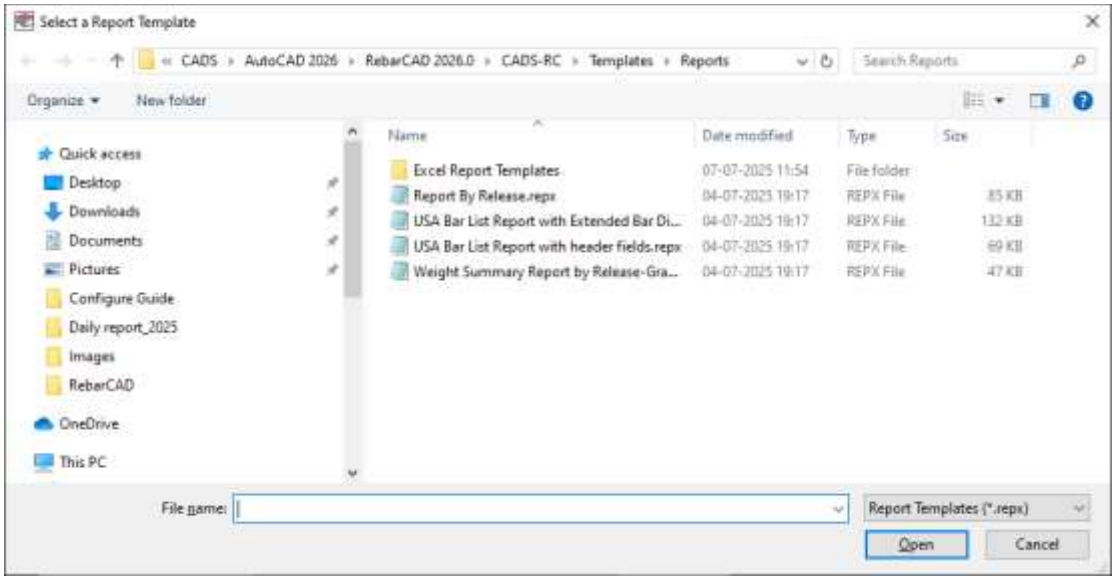
RebarCAD contains a free report designer. You can access this through **RebarCAD > Configuration > Configuration Centre > Configure Bar List Settings > Report > Customise** buttons, as show below.



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, you can work with up to three report formats. By default, **RebarCAD** support the following

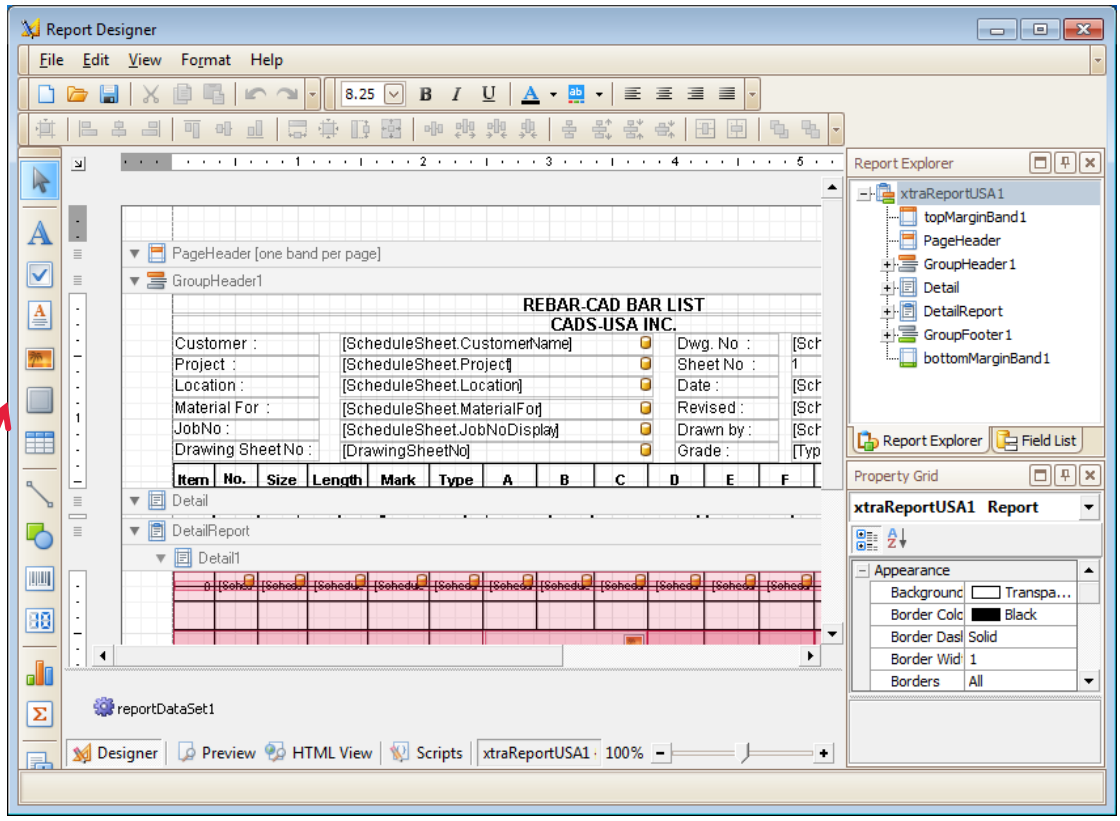
- Bar List Report
- Weight Report
- Weight Summary Report

There are two 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.

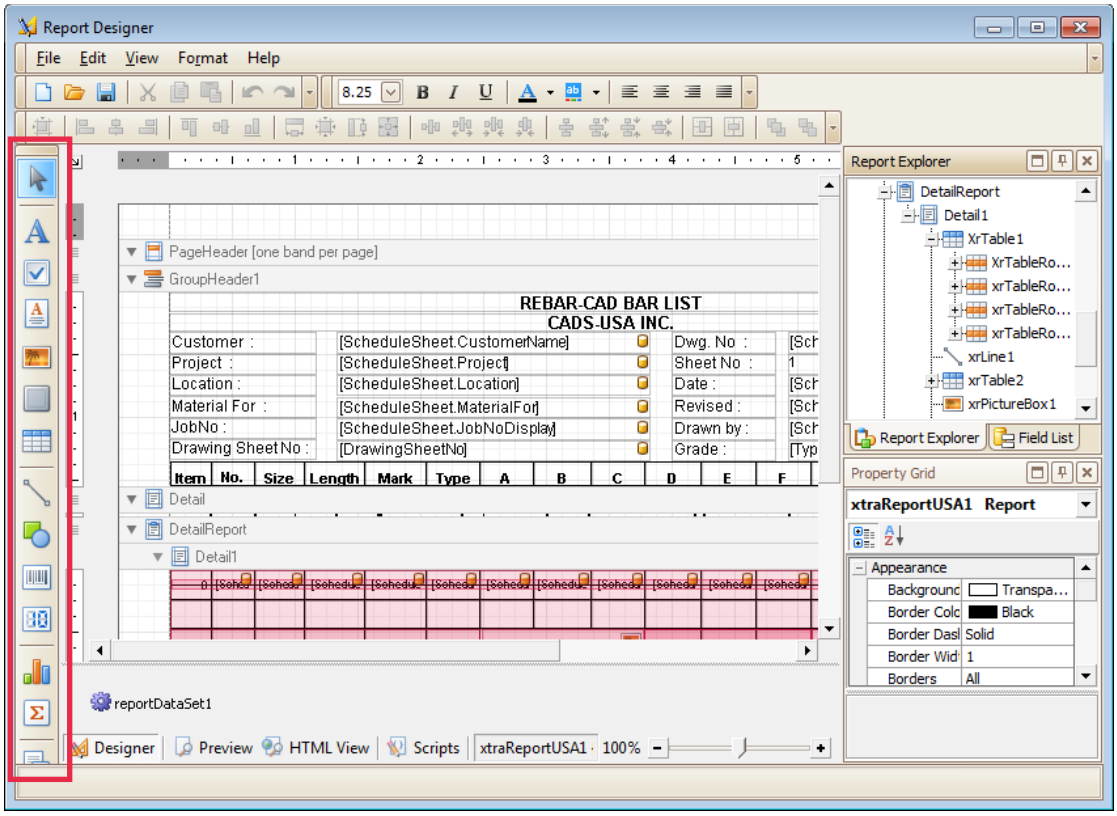


With **Report Designer** you can configure any type of report. A simple overview is given below. **CADS** also provides free report customisation service hence do not hesitate to contact CADS Support for your report customisation request.

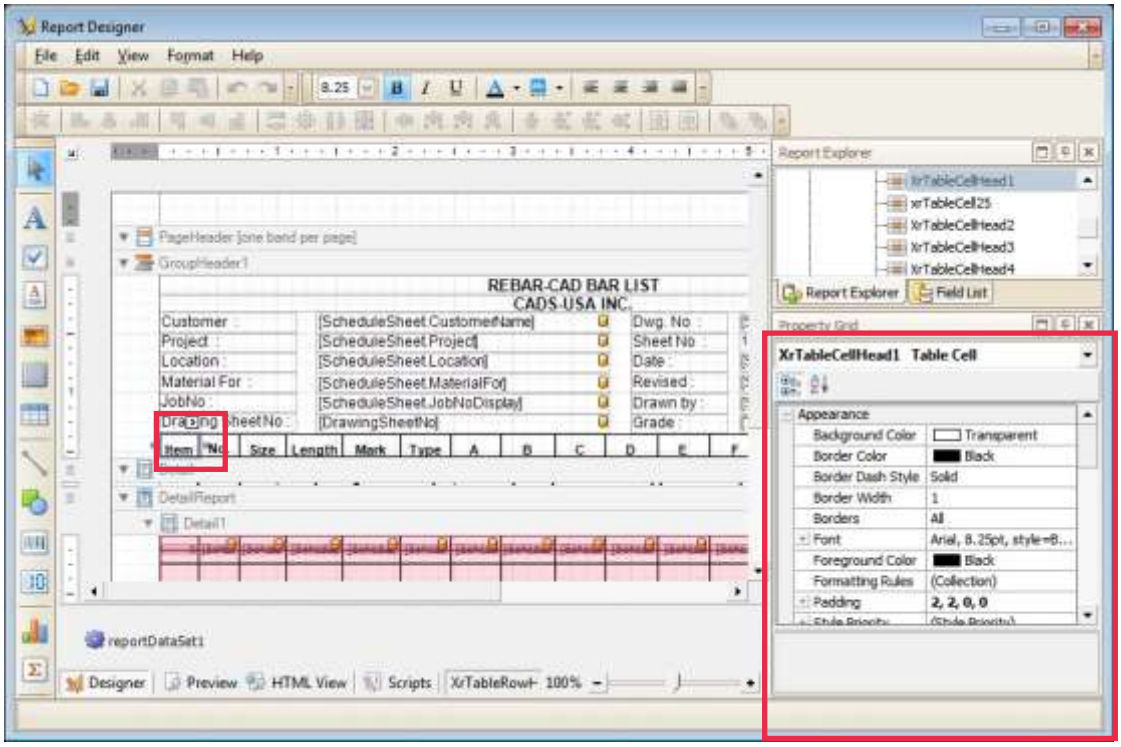
By default, the **Report Designer** will open in **Designer** mode



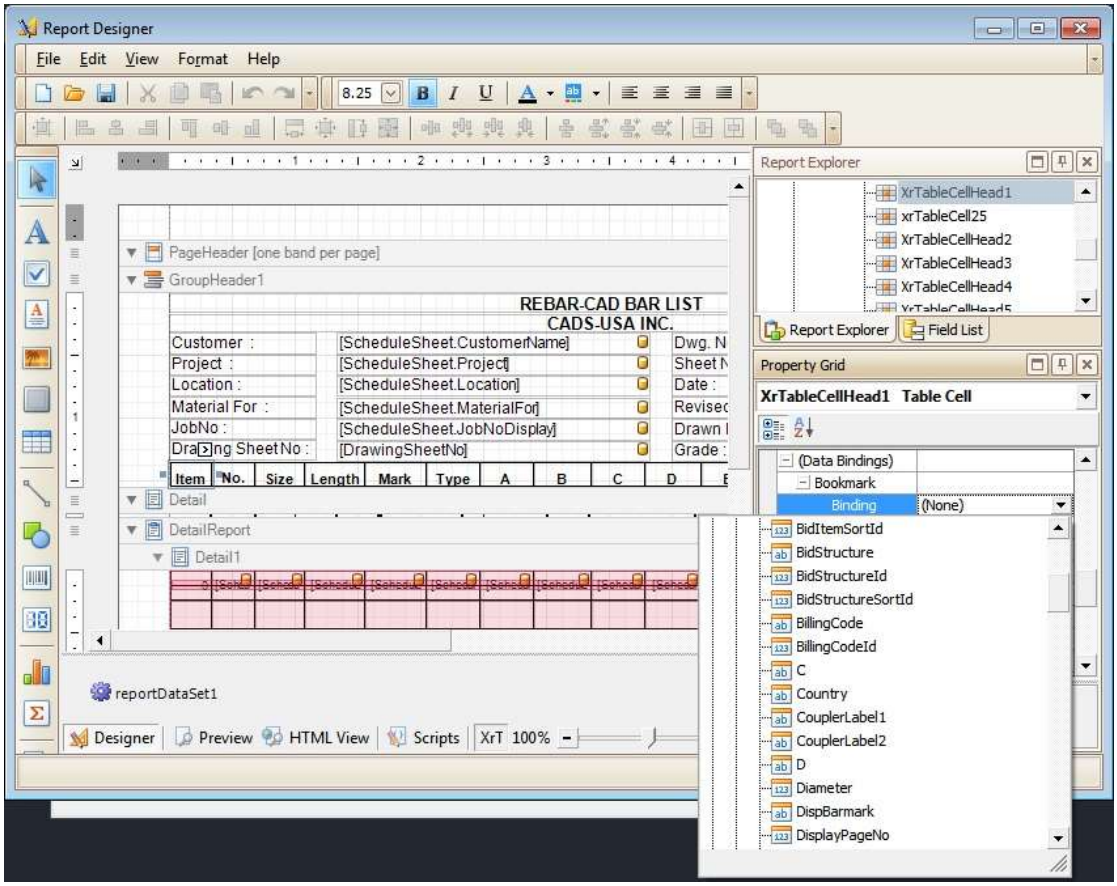
You can create new controls by copying existing ones or by selecting a new one from left hand side explorer.



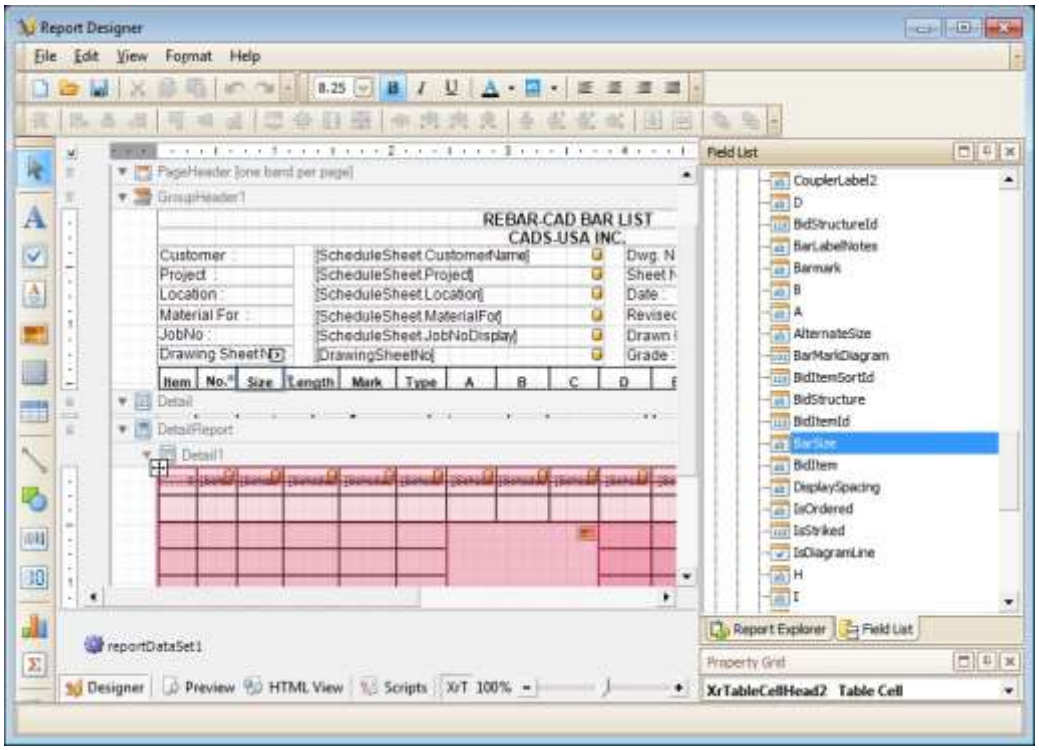
You can double click on any edit box to edit the text. Also, the text format, border, shading etc can be controlled by the **Property Grid**.



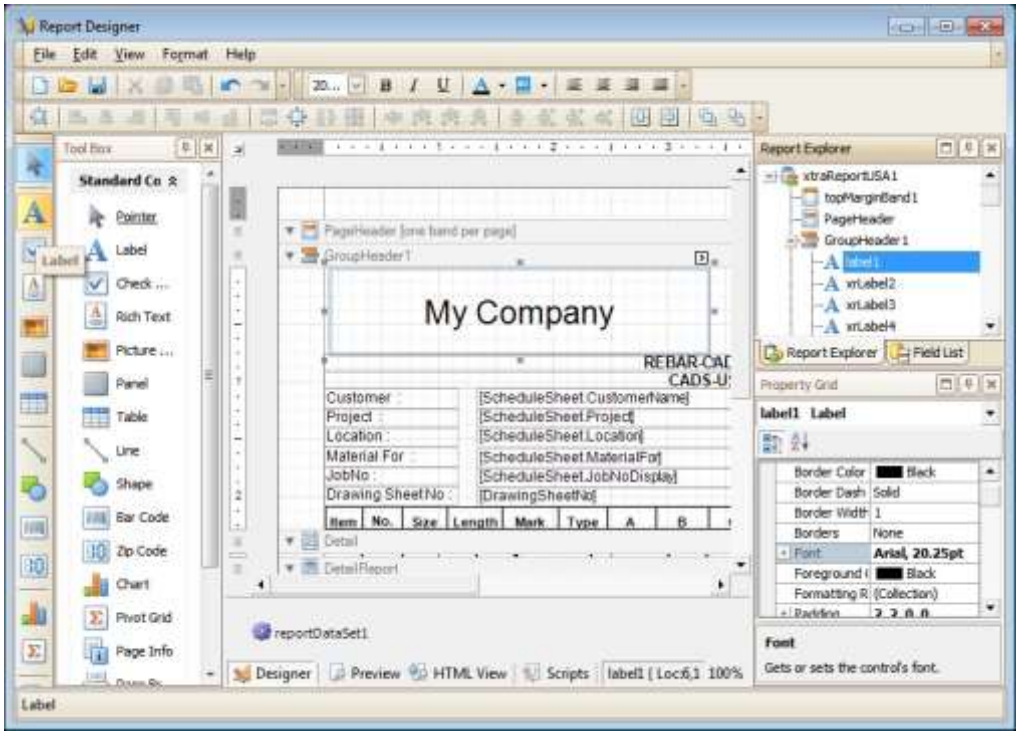
You can assign any bar parameter to cell from **Property Grid ->Data ->Data Binding->Text ->Binding**. All bar parameters exposed by **RebarCAD** to the **Report Designer** is available here.



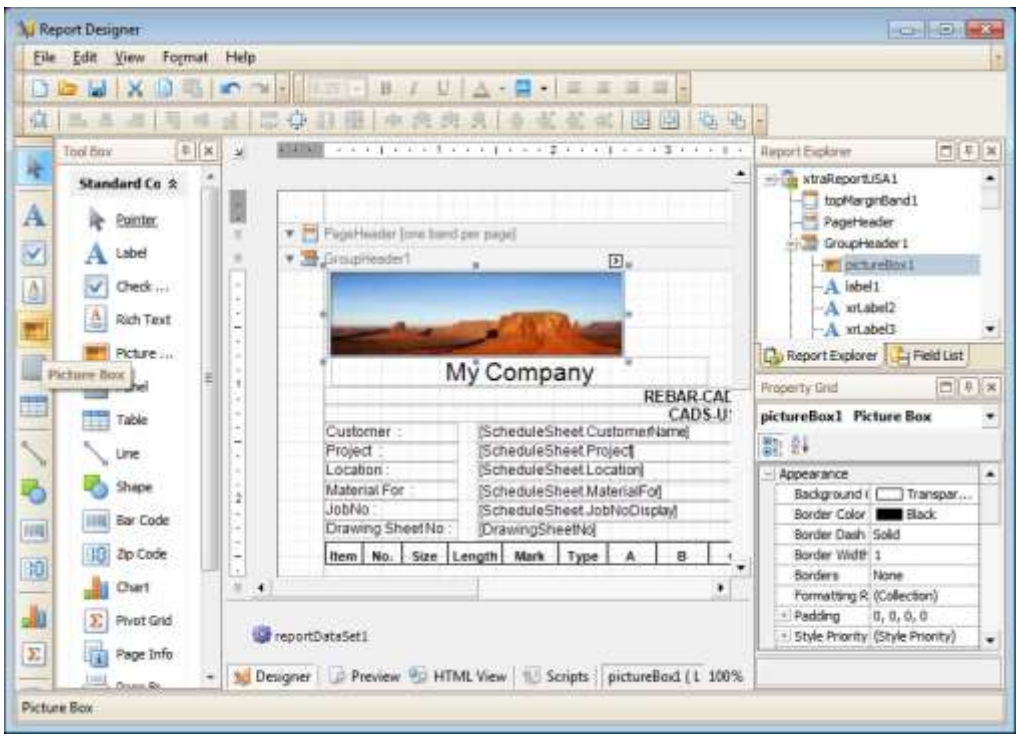
The supported bar parameters can also be viewed in the **Field List**



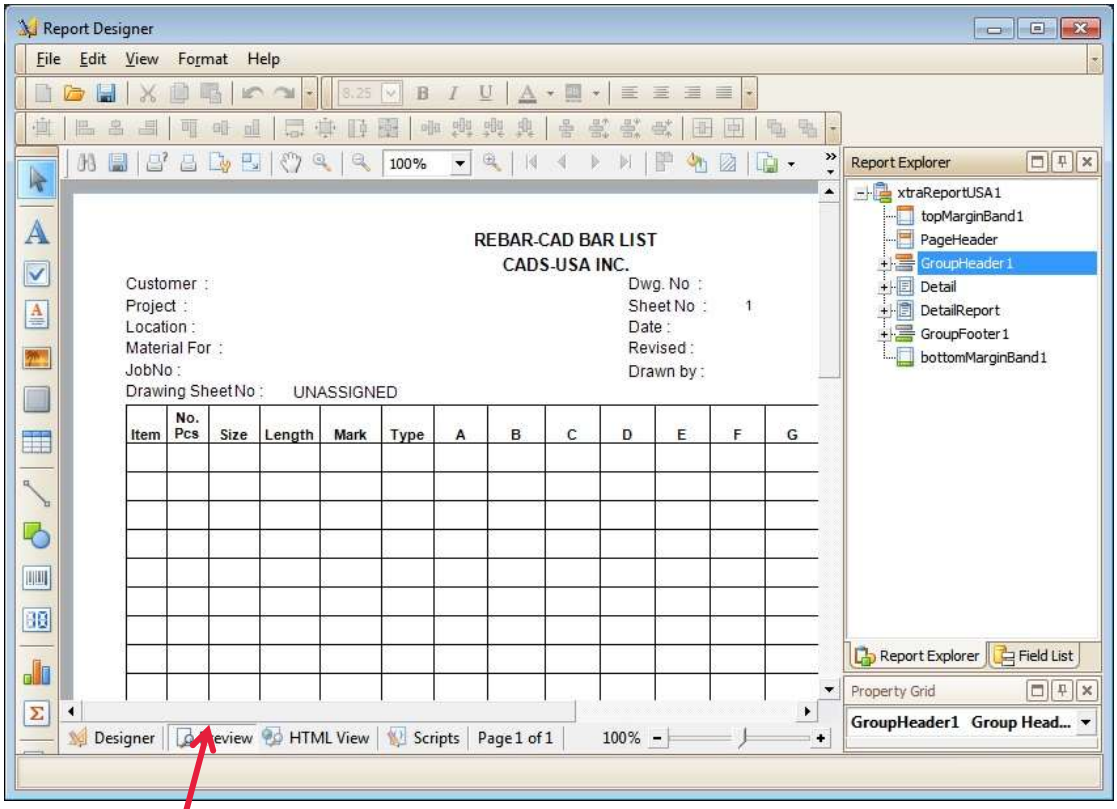
You can carry on simple customisation to your header likewise. For example, if you wish to add your company name in the header then select the option  **Label** from the **Standard Control** toolbar and add it to the report. You may customise the appearance as explained earlier from **Appearance** option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



Hints & Tips

- 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 **RebarCAD** installation as they will get overwritten when you reinstall **RebarCAD**. 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 Bar List on Drawing

RebarCAD uses AutoCAD Tables to generate the Bar Lists on drawings based on predefined templates. You can customise the Bar List on drawing report format by defining a series of AutoCAD tables i.e. describing the various rows in the Bar List on drawing.

The Bar List on Drawing template is stored in the form of XML file (*.xml) and is called a **Table Template**. Each **Table Template** file can contain more than one format. For example, in the same XML file you can define a **Bar List 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 **RebarCAD**. These **Table Template** files are installed in the following location:

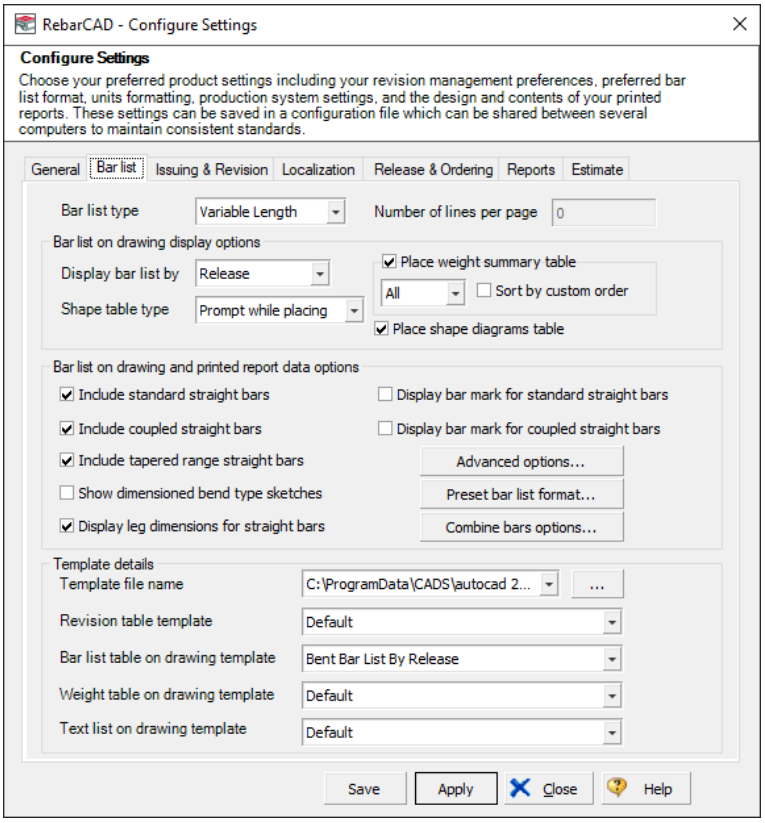
C:\ProgramData\CADS\AutoCAD XXXX\RebarCAD XXXX.XX\CADS-RC\Templates\SOD_Tables

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\RebarCAD XXXX.XX\CADS-RC\Templates\Template Creation Tables

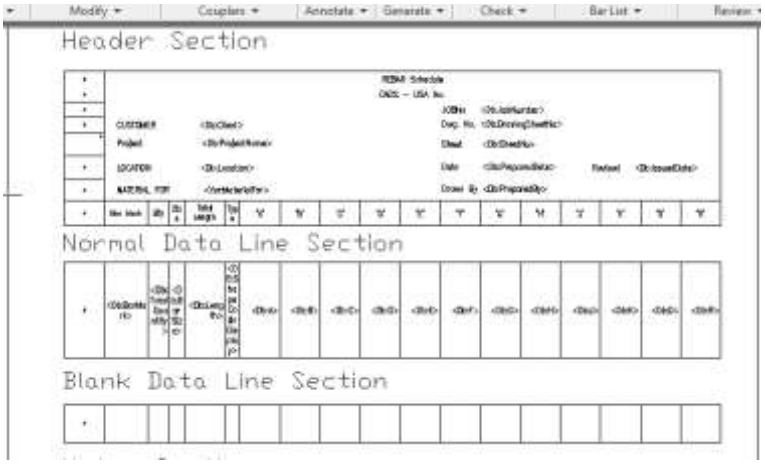
Where AutoCAD XXXX is the version of AutoCAD on which **RebarCAD** is installed

The Bar List on Drawing Template can be configured from **Configuration Centre-> Configure Bar List Settings->Bar List->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.

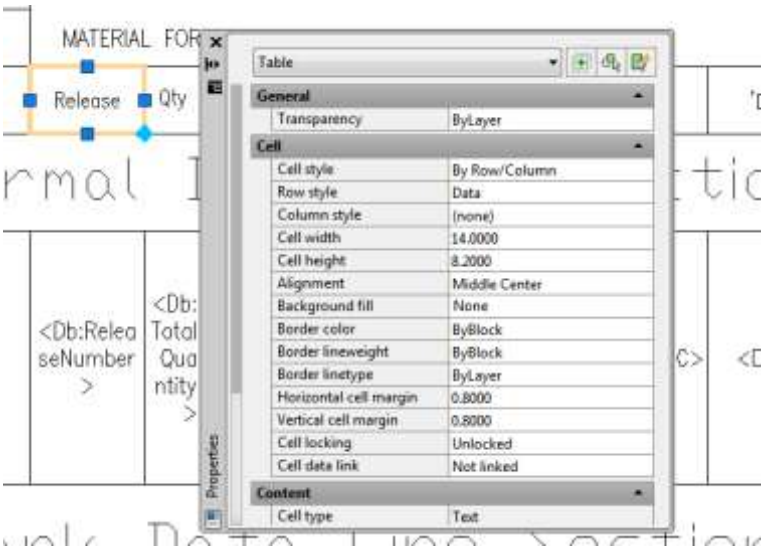


You may wish to use the supplied AutoCAD tables to create your own Bar List template file. Alternatively, you may draw your own AutoCAD table and customised as described below.

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.

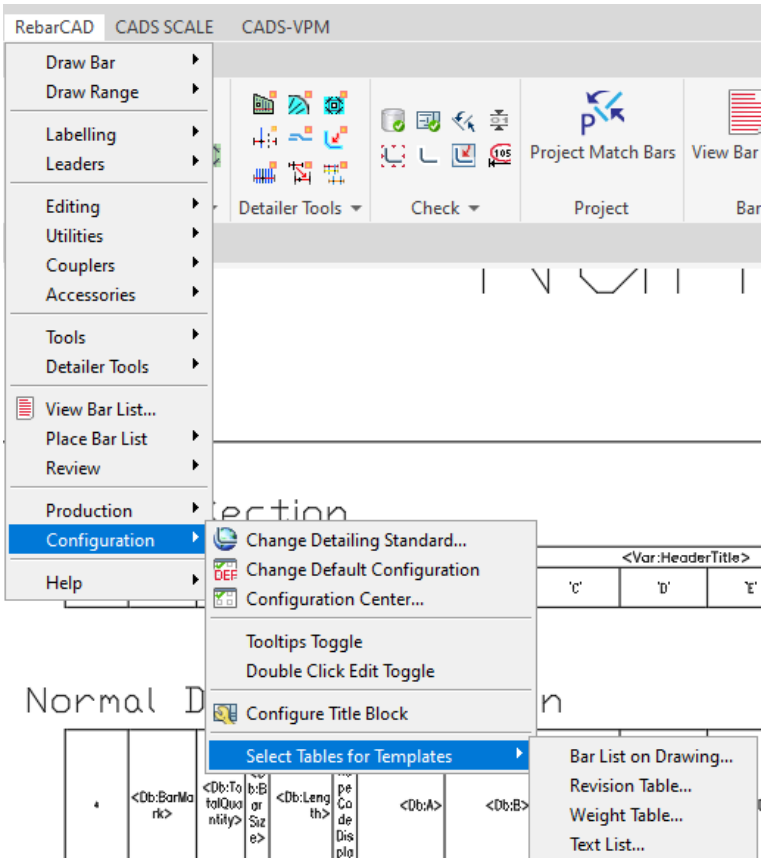


2. Format the AutoCAD table style to suit the way you wish to represent Bar List on drawing, i.e. borders, cell widths, cell margin etc. The first column in the table should provide the height of the table row.
3. If the row is supposed to show a static text then you may enter the same using standard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

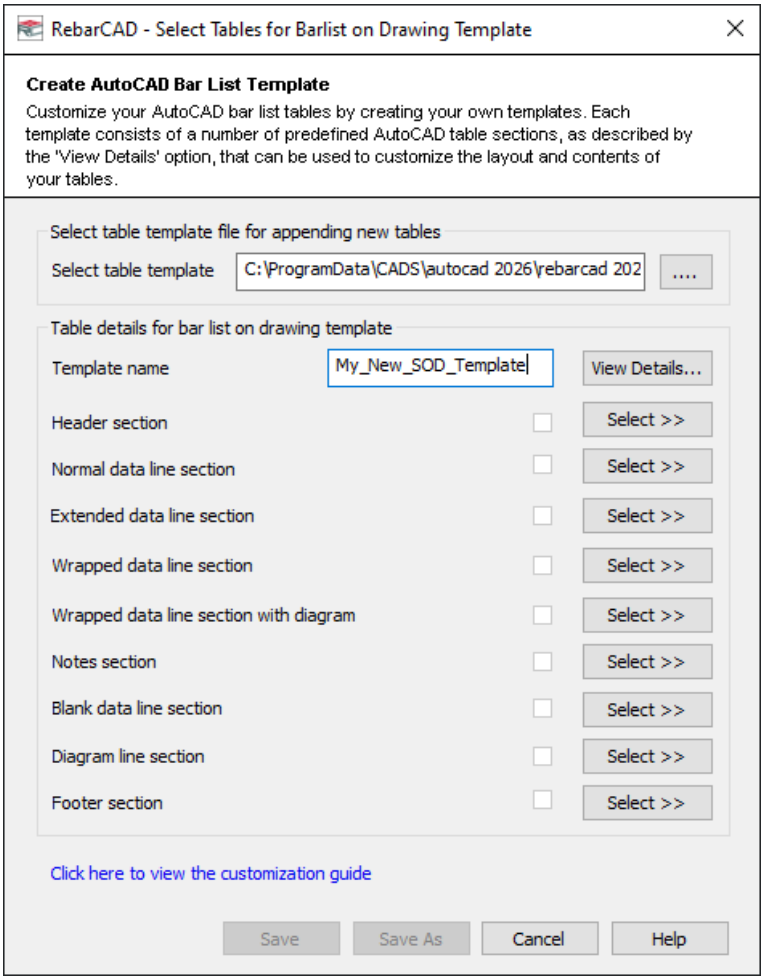


4. If the table row is linked to standard bar parameter then it should be described using **RebarCAD SOD** Tool Palette. The tool palette has four palettes with different bar parameters. You may click on the Icon and then select the cell in the table to link it to the parameter, for example Bar Mark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

5. Once you are through with all the sections i.e. Header, Data row, Footer etc you may invoke the **RebarCAD** feature which will save the description here as Bar List on Drawing Template. The command is available in the Menu bar command **RebarCAD ->Configuration->Select Tables for Templates->Bar List 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 Bar List on Drawing template. Once done give a new name to the Bar List 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 Bar List on drawing, for example Footer section.
8. Once done you may save the new Bar List on template in the same Table Template (*.xml) file or **Save As..** the Bar List on Drawing Template to a new Table Template (*.xml) file.
9. Now the Table Template (*.xml) file is ready to be configured in **RebarCAD.**

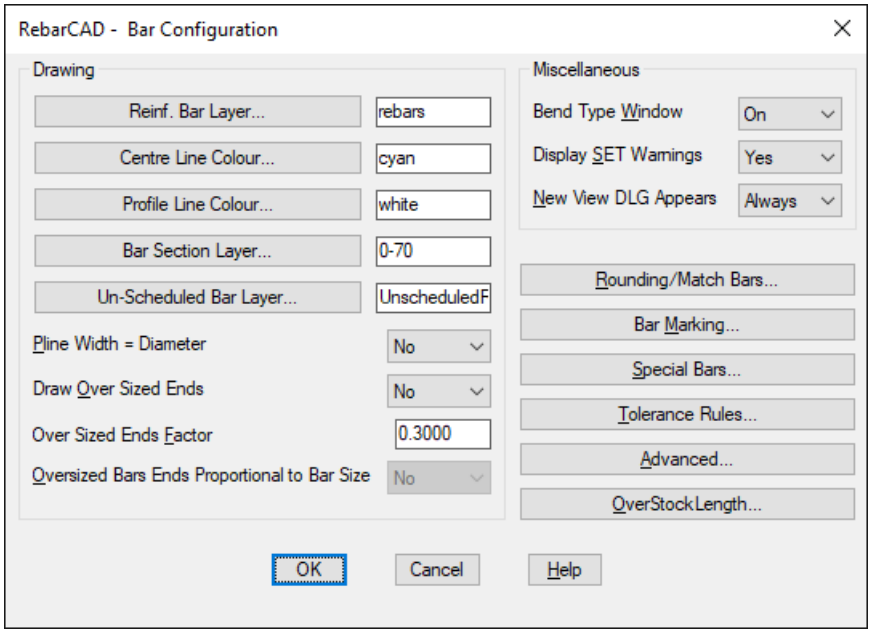
The same procedure is to be followed when customising Revision Table, Weight Table on Drawing and Text List on Drawing. If you have any issue with customising your own **Table Template** then please get in touch with CADS Support to request one.

7 Configuration Centre

As the name implies, the **Configuration Centre** controls all the configuration requirements in **RebarCAD**. 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.

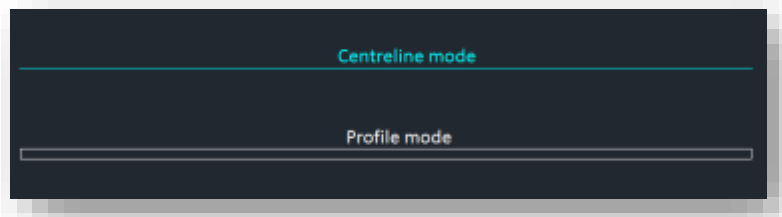
7.1 Bar Configuration

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

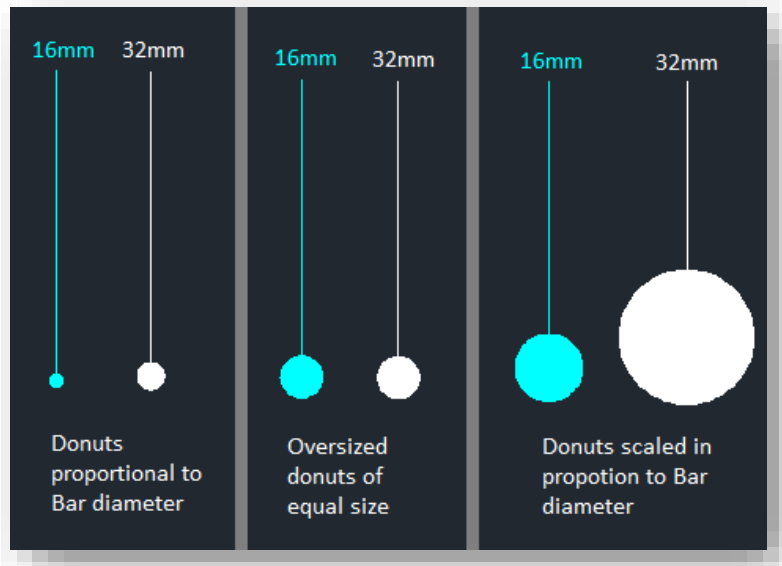
You can change the bar layer, colour etc using this section from the **Drawing** sub group. You may choose to either draw bar in profile mode or in centre mode and if required in different colours too.



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***.

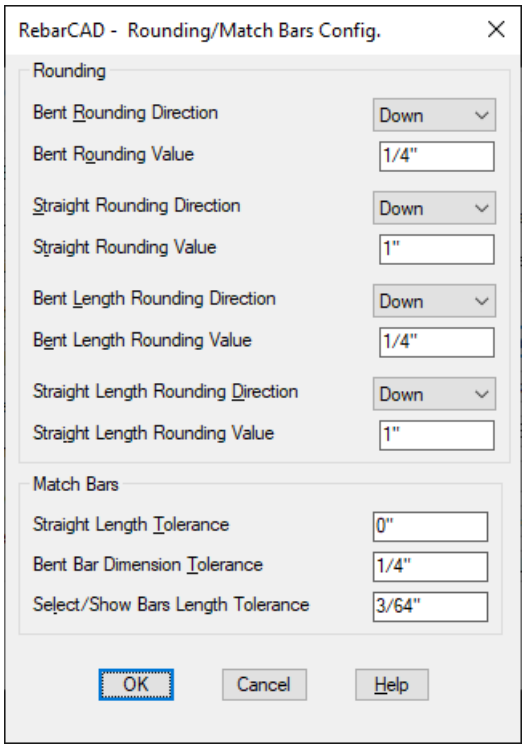
How to display the bar donuts can also be configured from here from **Oversized end** options here.



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.

7.1.2 Rounding/Match Bars

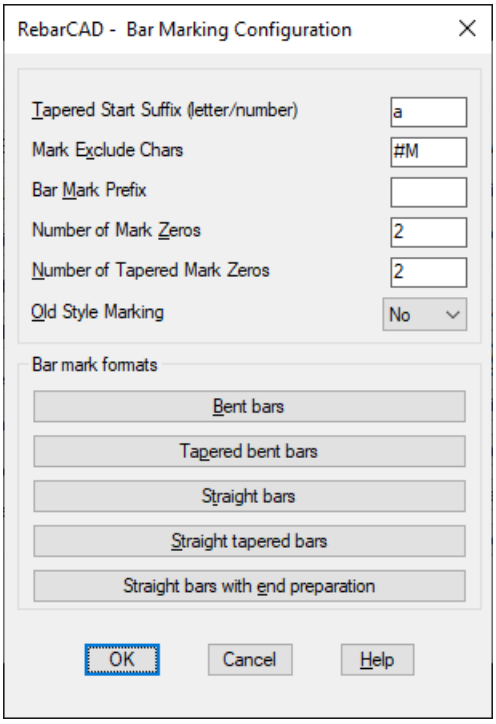
This is a very important configuration option in relation to bar fabrication as you can specify whether you want to round up or round down the bar lengths. You may specify the rounding for both individual bar lengths and the total bar lengths. Note that the rounded data as configured here is sent to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



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

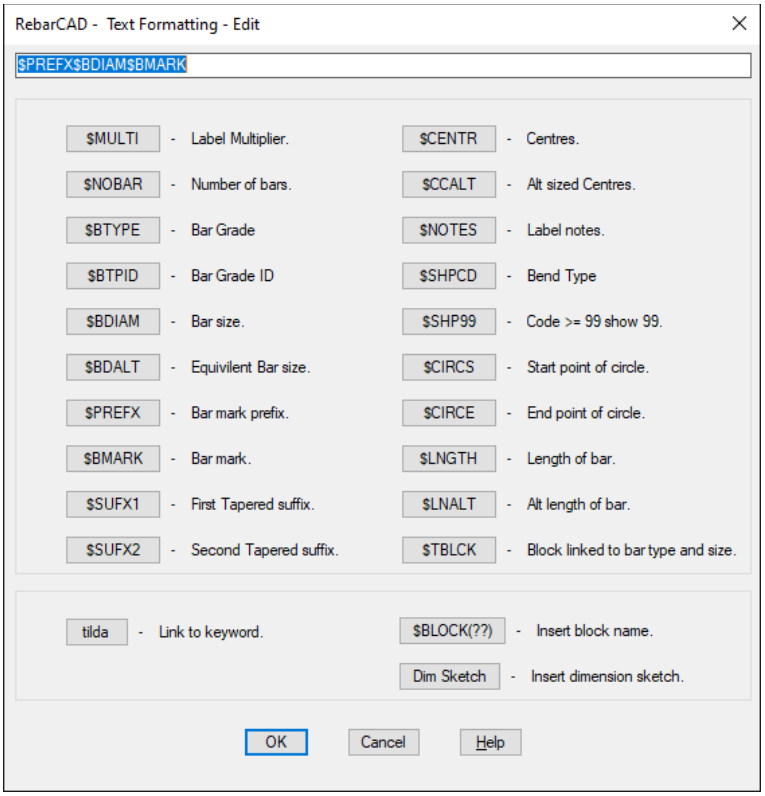
7.1.3 Bar Marking

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.

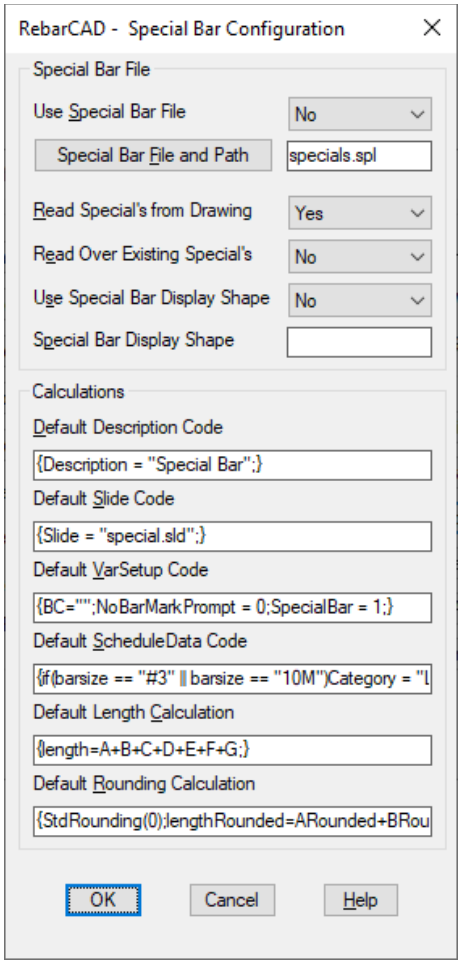
The Bar Mark format can be defined for bent and straight bars separately. The same applied for Tapered bars.



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.

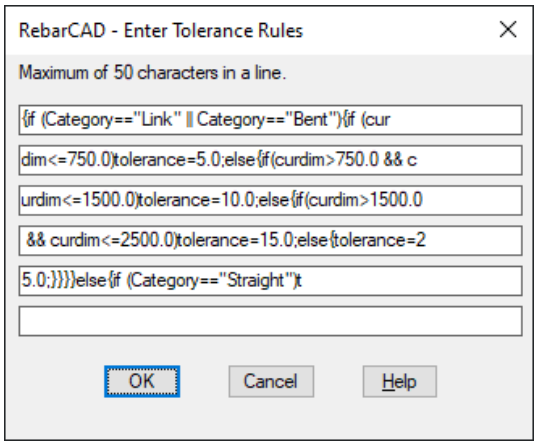
7.1.4 Special Bars

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



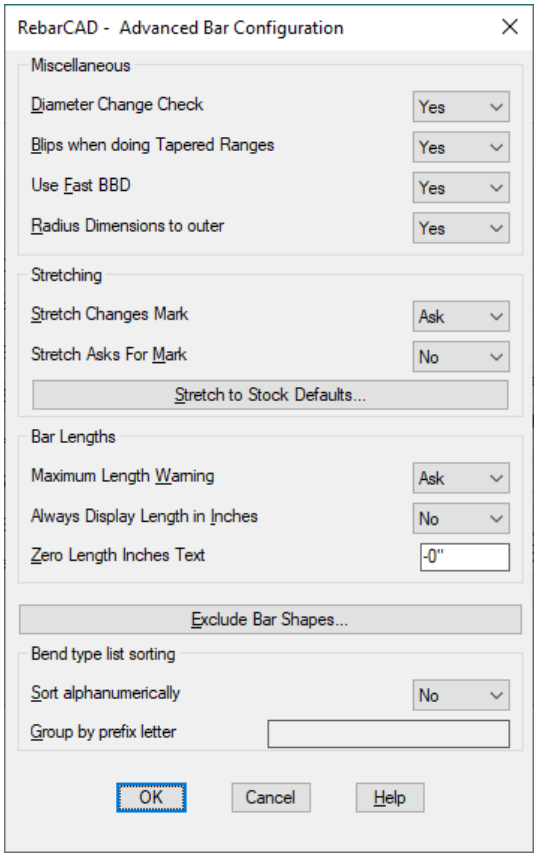
7.1.5 Tolerance rule

You can specify tolerance rules from here. The default for bent bars and links are 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 aid error checking

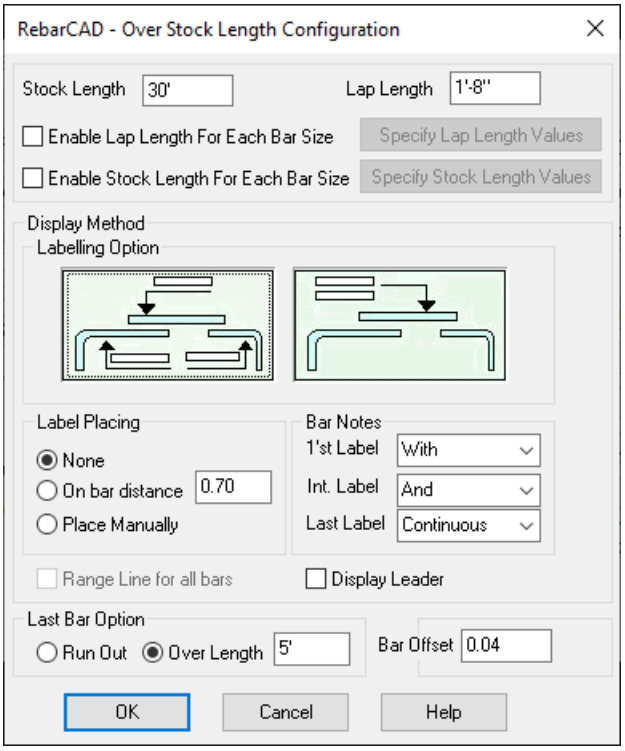


7.1.7 Over Stock Length

You may set the **Stock Length** of the bars here. **RebarCAD** 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.

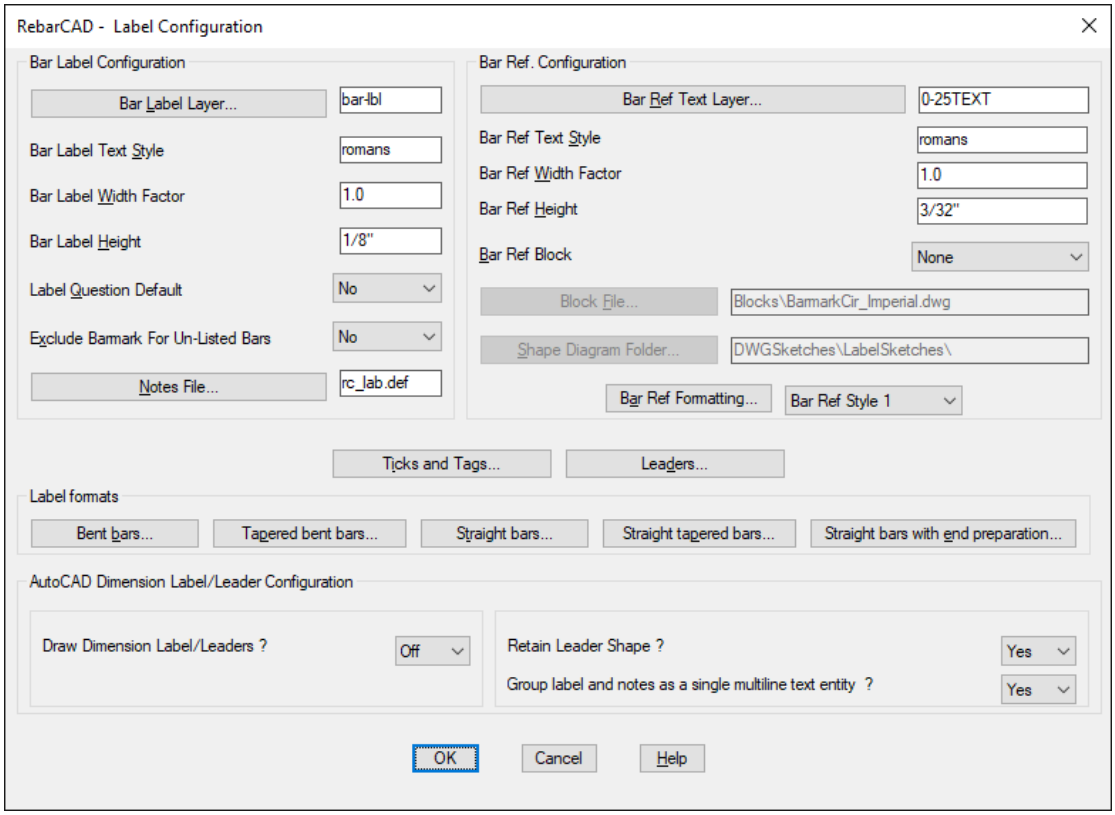
Generally, the bars supplied at site are of slightly different lengths. You may specify some **Over Length** such that the last bar is not trimmed for small increases beyond stock length. These bars are handled at site by using the larger of the stock bars.

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 **RebarCAD**, namely, **Bar Label**, **Bar Reference** and **Ticks and Tags**. This section also deals with **Leaders**.

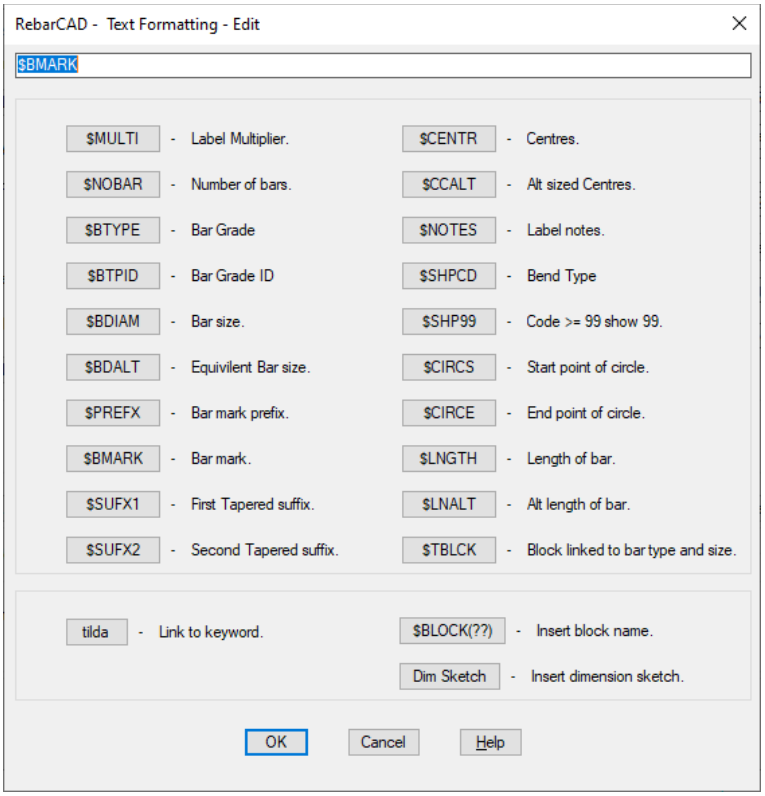


7.2.1 Bar Labels

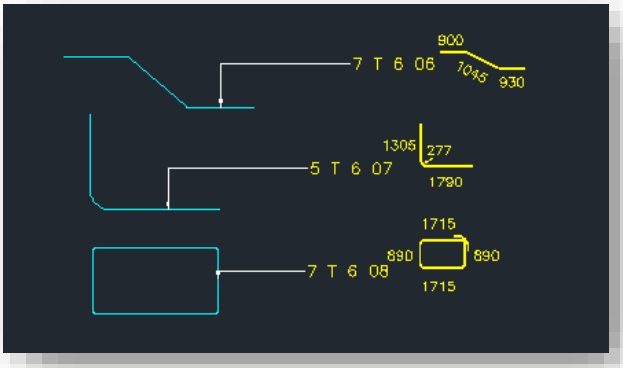
You can configure layers in which you would like the bar labels to be drawn along with the bar label text properties. As explained in section 2.4, the Notes are specified in a separate file and can be configured here.

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 keywords and you can specify the same in dialogs provided for the same

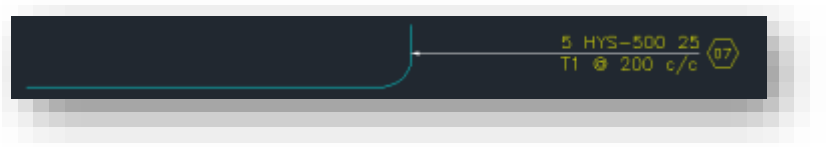


You may include static text such as **c/c**, **X**, etc. You may include AutoCAD blocks – for example to encircle the bar mark. **Label sketches** are also possible provided the relevant AutoCAD blocks are provide as described in Section 2.4.



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

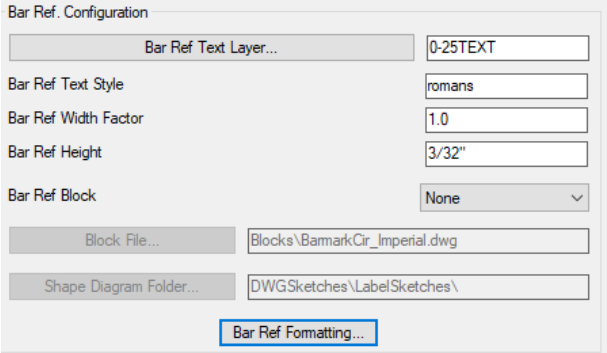
Configuration Centre->Global/General Configuration->Label->PlaceLableBlockManually

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

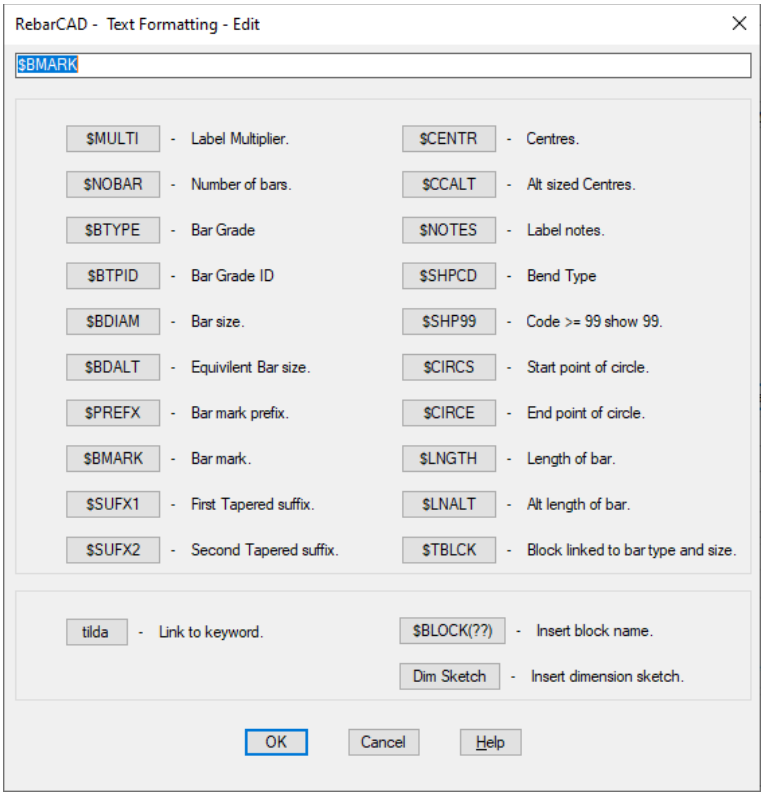
AutoCAD Blocks in Bar Label and Label Sketches are supported for **AutoCAD Dimensioned Leaders.**

7.2.2 Bar reference

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

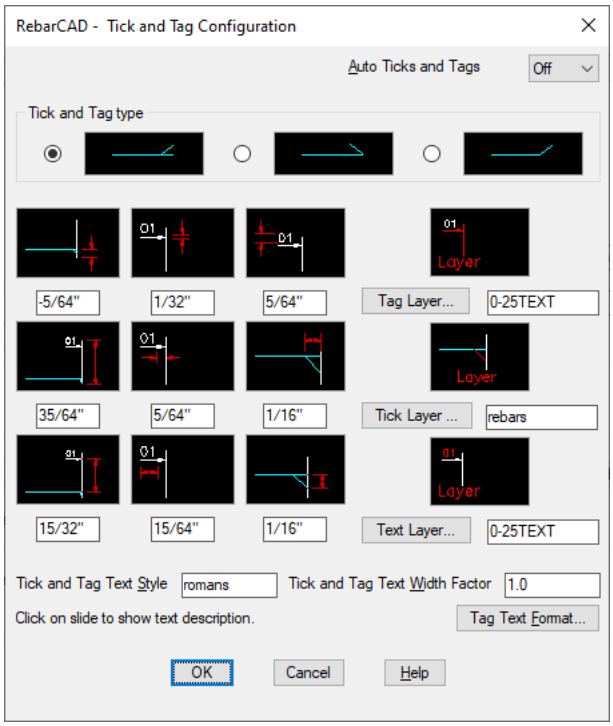


Also, the **Bar Reference** could be formatted from the **Bar Ref Formatting** option.



7.2.3 Tick & tag configuration

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.

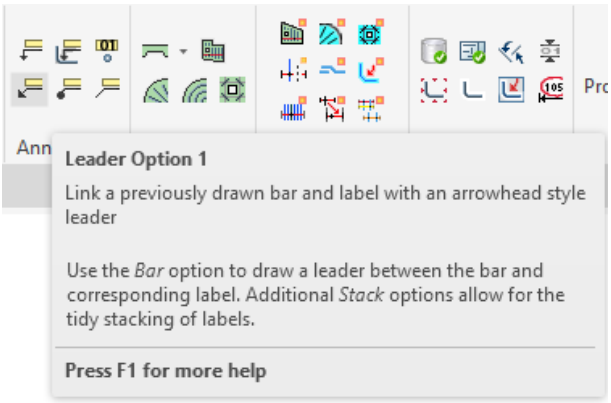
You can choose to automatically **Ticks and Tags** all bars when drawing the bar using the option **Auto Ticks and Tags** to ***Yes***.

7.2.4 Leaders

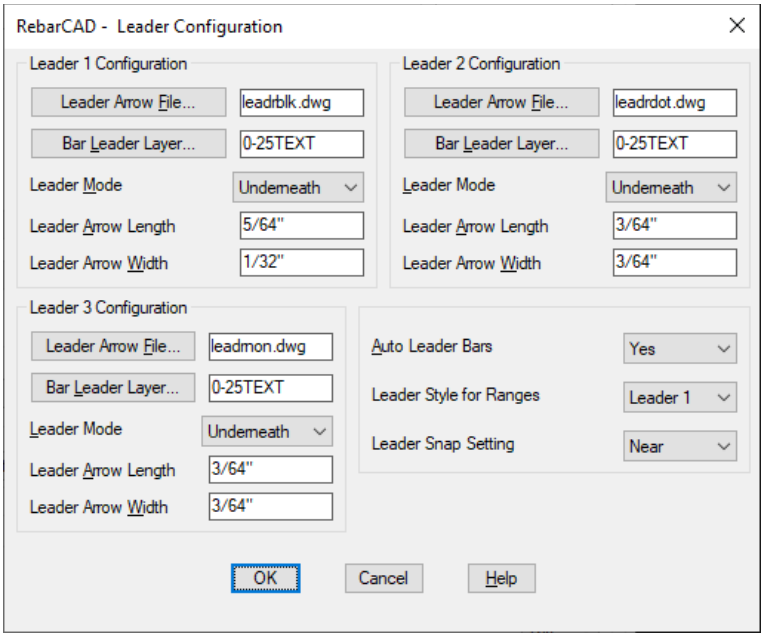
There are two types of **Leaders** supported by **RebarCAD**. The default one is called **RebarCAD** Leaders where the leader is created by **RebarCAD** using other AutoCAD entities.

RebarCAD 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 **RebarCAD**, a particular type of leader can be drawn from the following option in **RebarCAD ->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 **RebarCAD** 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 Bar List Settings

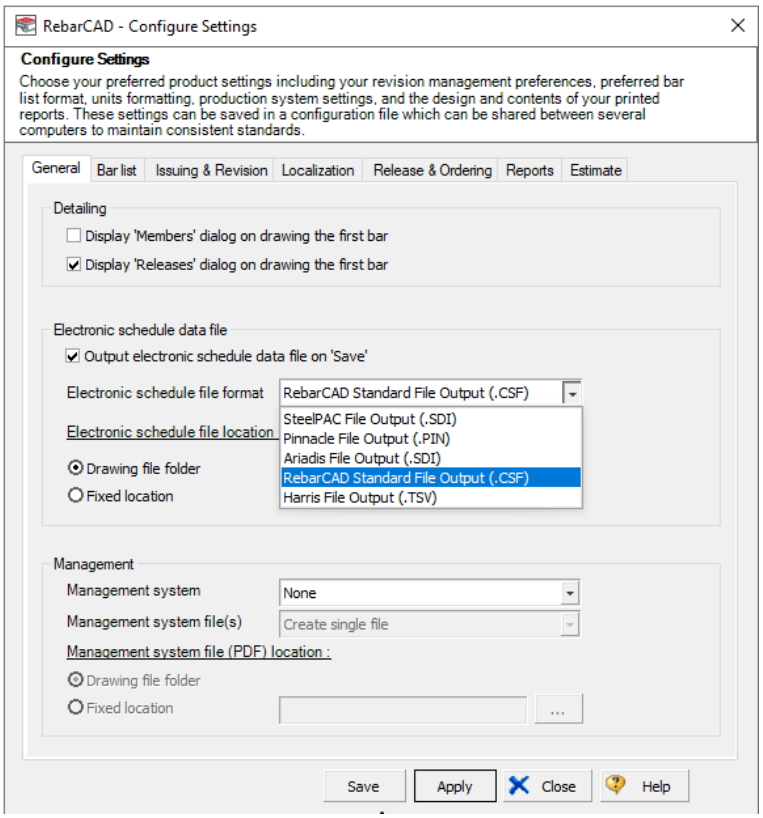
You can configure your Bar List and related functionalities from here. Each section is described in details below.

7.3.1 General

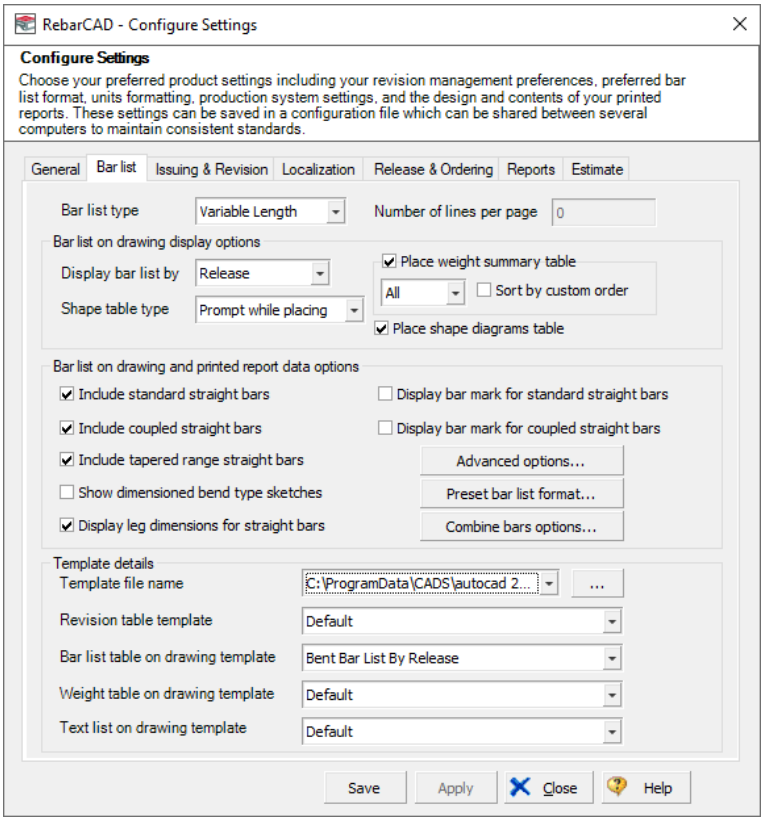
The **Detailing** options helps you control the Members and Releases dialog display when drawing the first bar. The **Electronic Bar List data file** helps you configure **RebarCAD** to automatically generate a data file. You can configure to save **RebarCAD** bar data into a particular format and save 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 Bar List

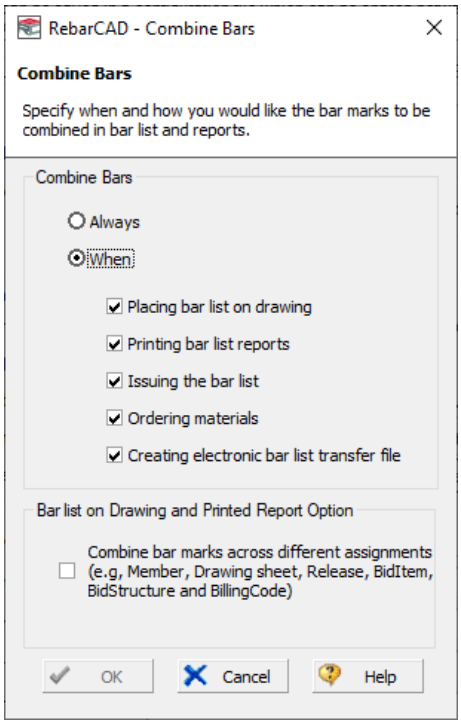


Bar List Type/Number of Lines Per Page – You can configure **RebarCAD** to use a fixed number of lines per page. Should you change the number of lines per page then you will need to update/define some accompanying report formats (*.repx) to match. The variable length option allows for more control on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

Display Bar list by – You can configure the Bar list 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 **Bar list Table on Drawing Template**.

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

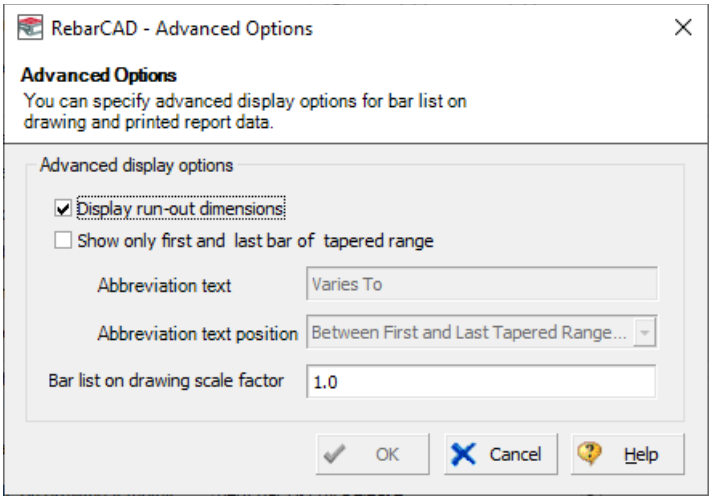
Bar List on Drawing and Print Report Data Options – These options allows for the inclusion/exclusion of specific data from all reports. You can also configure when you want **RebarCAD** to combines bars as shown below:



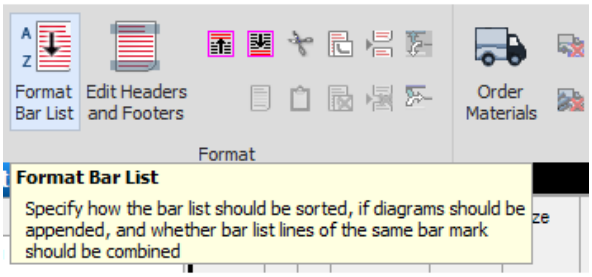
Selecting ***Always*** will result in bars being combined immediately following creation, although the continuous combining of the Bar list may have implications for the performance (speed) of the software. If you would rather control exactly when the Bar list is combined then you should disable all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

You may also choose to combine bars across **Drawing Sheet**, **Release**, **Member**, **Bid Item** or **Bid Structure**. The bars will be combined only when you place **Bar list 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 List**.

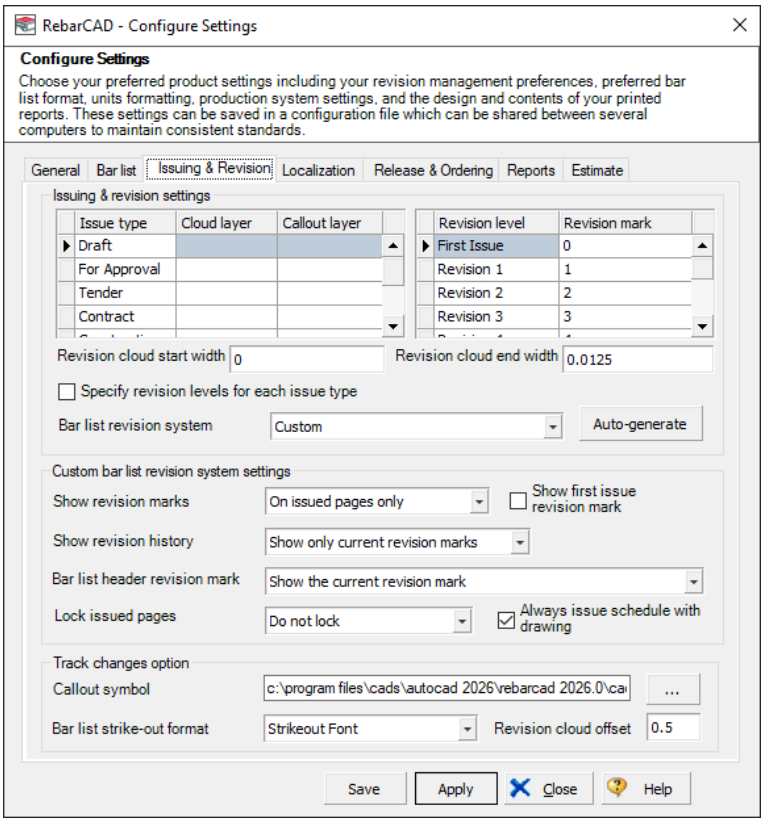


Preset Bar List Formats – This dialog allows you to define your default **Bar List** formatting options. These options are applied only to new drawings. If you wish to change the format settings of an existing drawing you will have to use the option Format Bar List available in **Bar List** ribbon.



Template Details – You may select the **Table Template** file and define **Bar List 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.

7.3.3 Issuing & Revision



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 **RebarCAD**.

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

Bar List Revision System – You may either opt for the **USASM/USSMIMP** standards or may specify your own. Once you select **USASM/USSMIMP**, **the Custom Bar List 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 Bar List, or whether only the changes in the current revision are displayed.

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

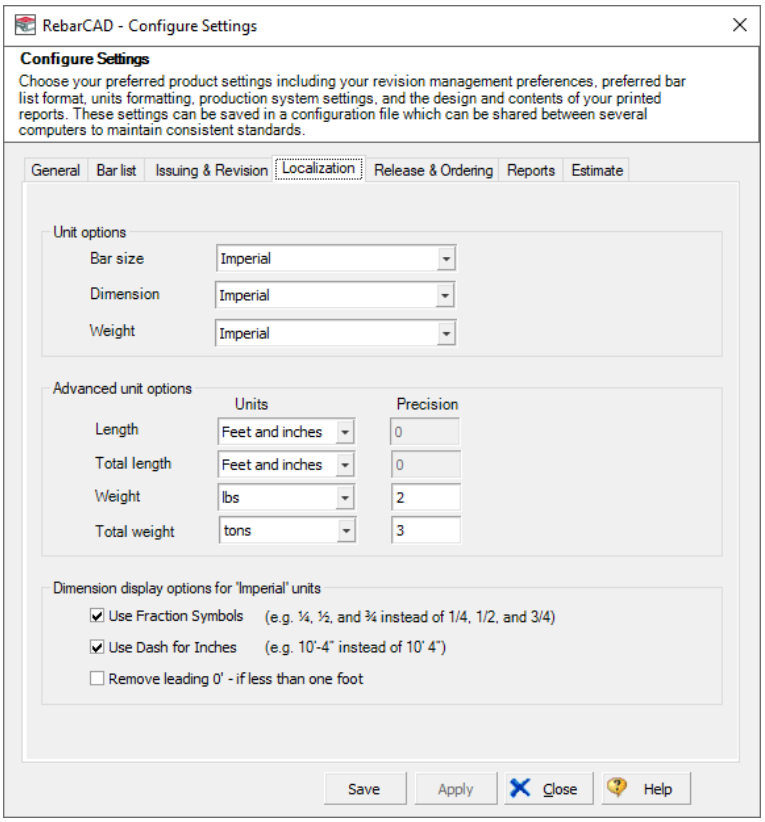
Lock Issued Pages – This option determines whether issued Bar List pages are locked so that they can't be formatted and new bars can't be added. e.g. set this option to lock issued pages and new bars will be add to a new page following an issue. Set this to lock issued lines and new bars will be appended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

Always Issue Bar List with Drawing – If this option is selected then the corresponding **Bar List 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.

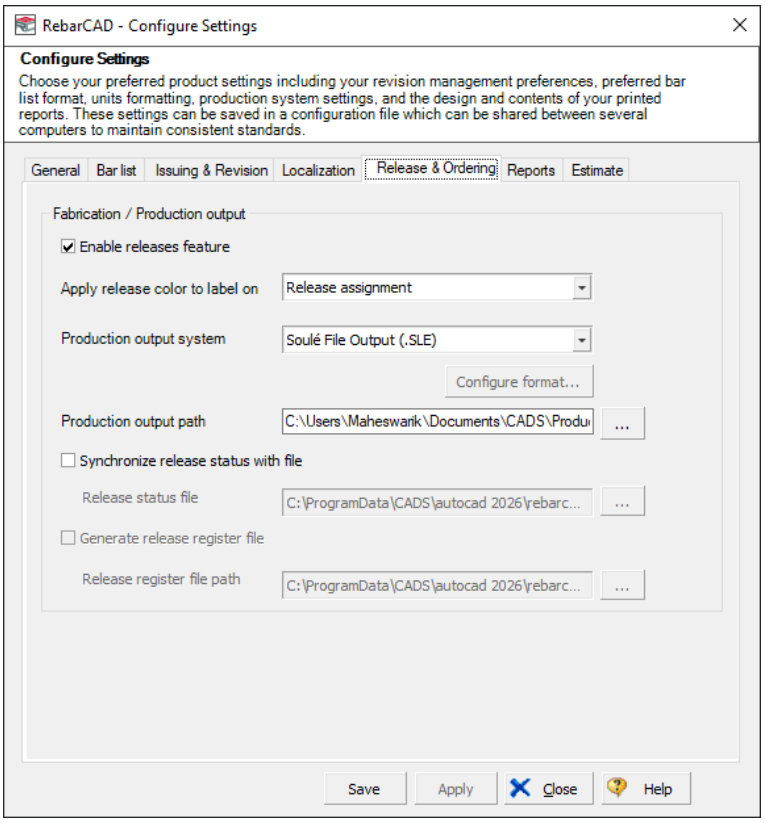
Bar List Strike-out Format - Specify your preferred way of denoting a stuck out line. The strike out is applicable for **Bar List on Drawing** and **Reports**. The bar list view might not show the option as selected here.

7.3.4 Localisation



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

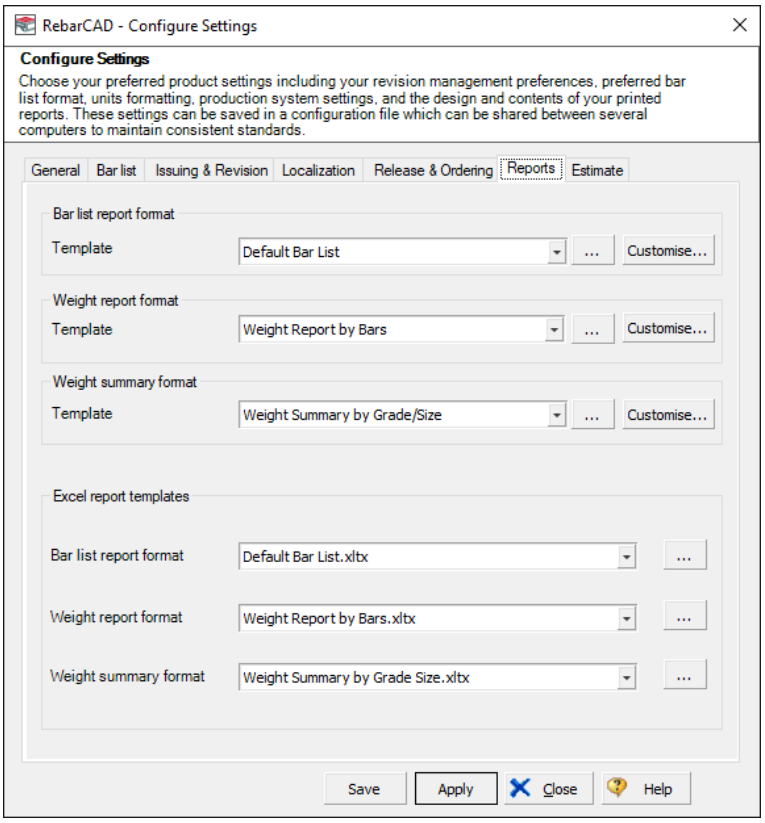
7.3.5 Release and Ordering



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.

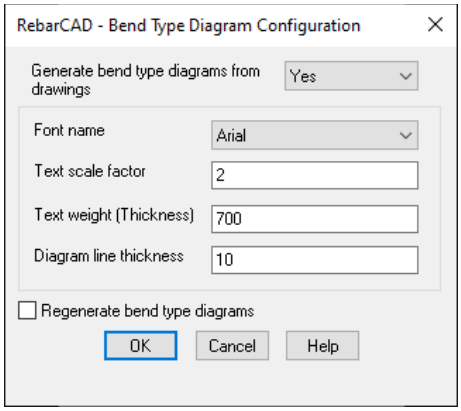
7.3.6 Report settings



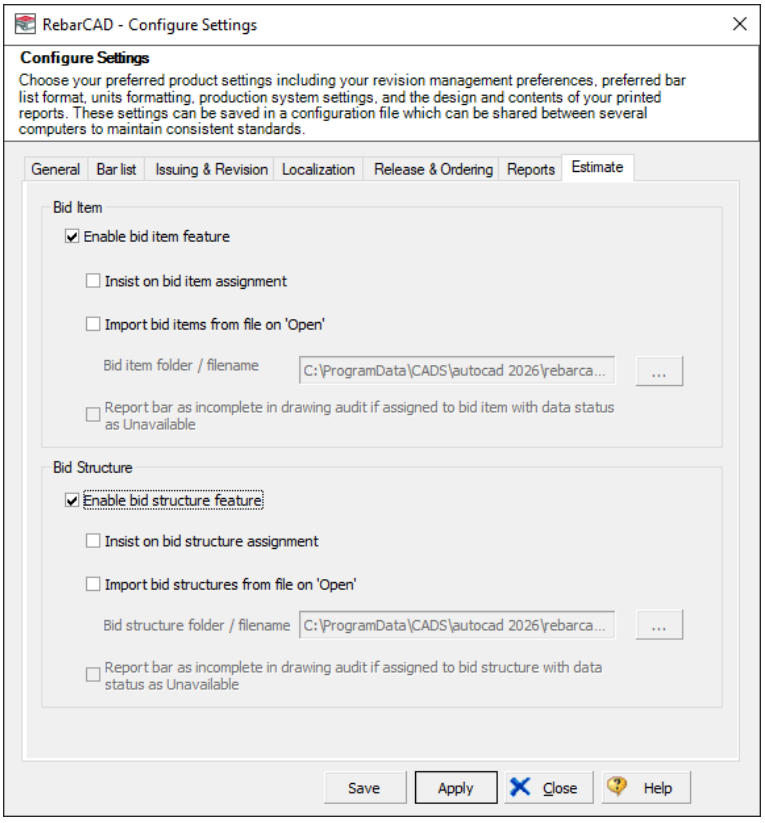
Report Settings allow you to specify the format of your printed reports. There are three report sections – each related to the three options offered under the **Print** and **Print Preview** commands, as shown below. Please refer to Section 5 on how to customise **Report Templates.**

You can control the presentation of diagrams within reports using the **Configuration Centre > Miscellaneous Configuration > Bend Type 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.



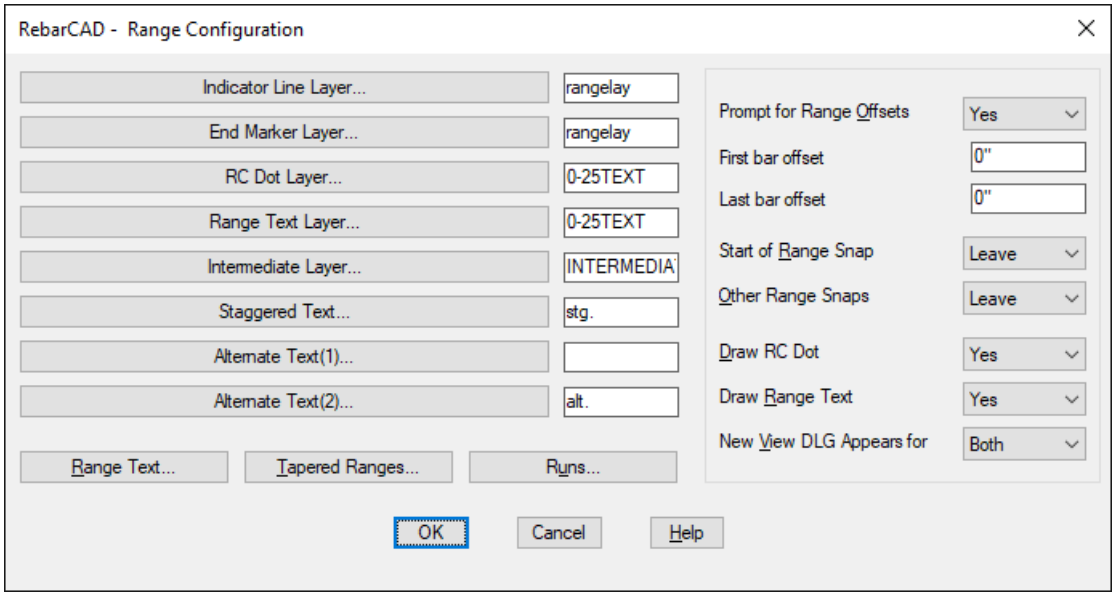
7.3.7 Estimate



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.



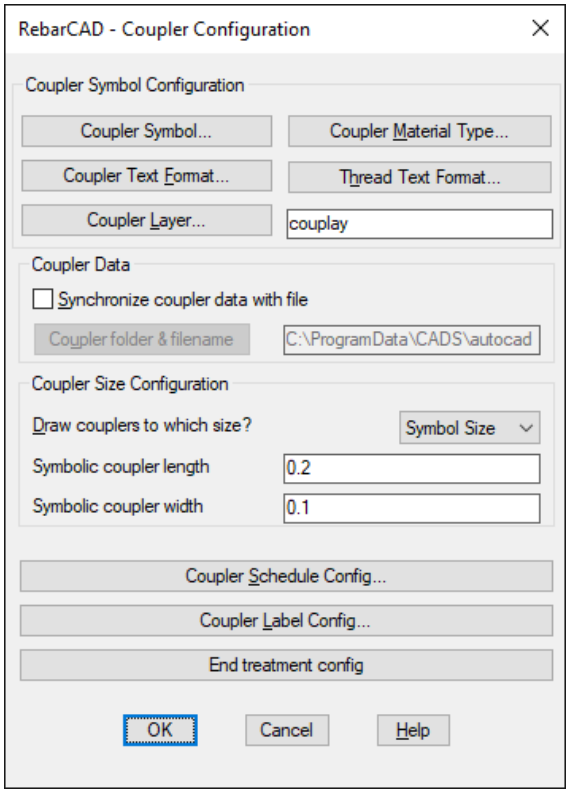
You may also configure how you wish the **Draw Range** command to work. For example, if you always draw ranges using cover lines, then you may set the Prompt for Range Offsets to No. You may also define default range offset if you are using it.

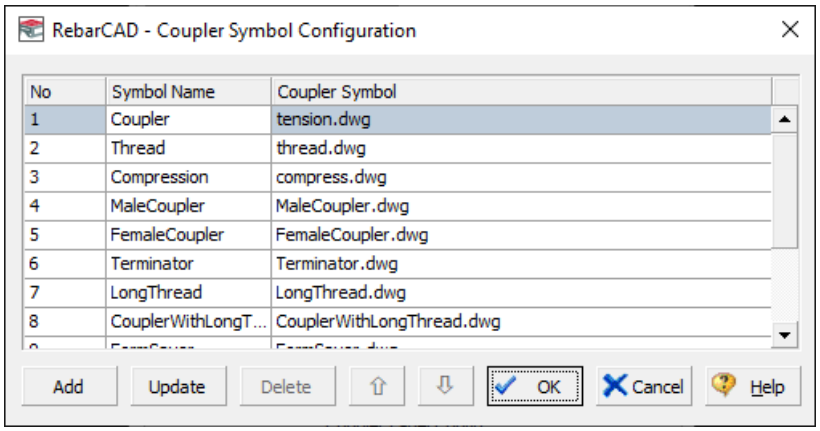
The **Range** snap settings can also be configured along with how you wish to display the **Range** indicator in the drawing. You can configure the AutoCAD blocks used in **Range** indicator display as indicated in Section 2.4.

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.

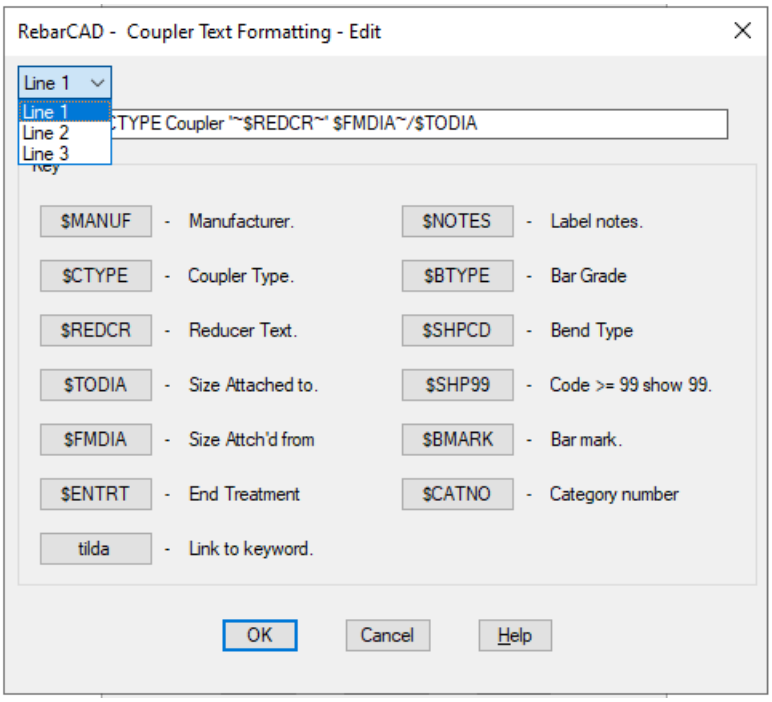
7.5 Coupler Configuration

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

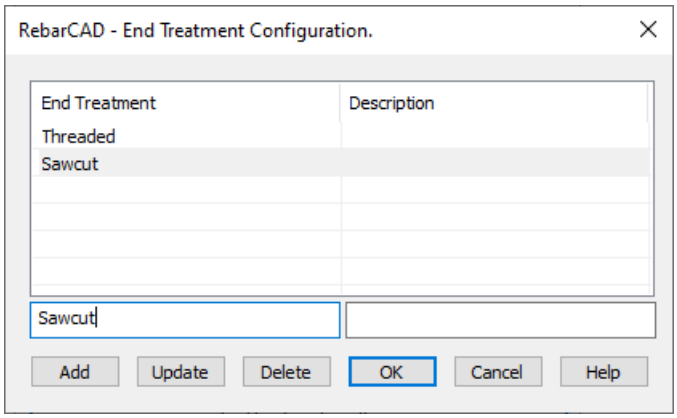




You can specify the AutoCAD blocks you would like to use for couplers & threads and define the AutoCAD layer too. **Coupler** and **Thread Labels** can be formatted through **Coupler Text Format..** and **Thread Text Format..** respectively. You can use up to 3 lines for **Coupler** and **Thread Label**, 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..**

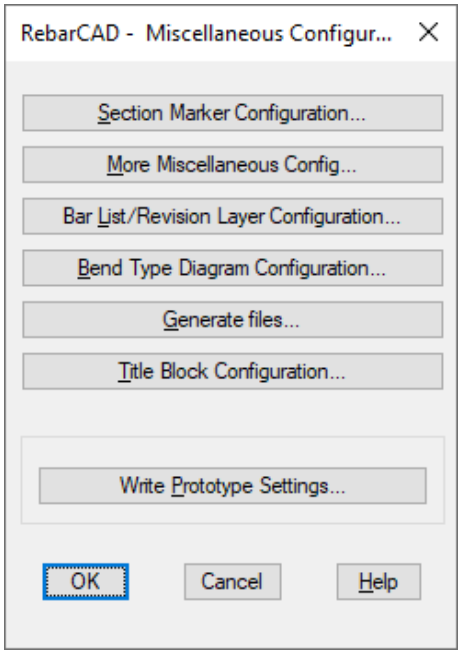


As described in Section 2.4, you can configure additional file from where the coupler data is to be retreived. This is generally usefull if you have couplers of different manufacturers to be used in a project. You can enable this option from **Synchronise couper data with file** and configure the file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

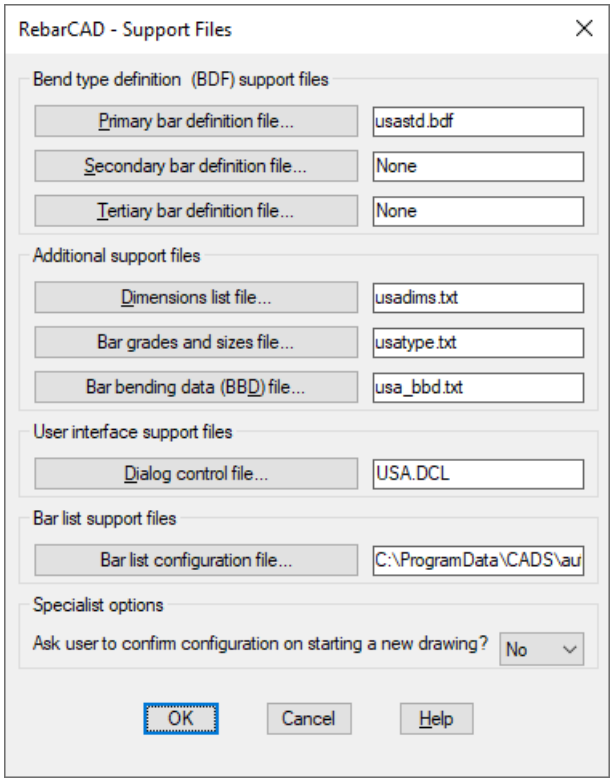
The **Section Marker Configuration** controls the size and layers used for the **Section Markers** available from the tools & symbols option.

Bend Type Diagram Configuration controls the display of Bend type diagram on **Bar List**. The dimensioned sketches are controlled by the AutoCAD blocks supplied, please refer Section 2.4. You may configure **RebarCAD** 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.

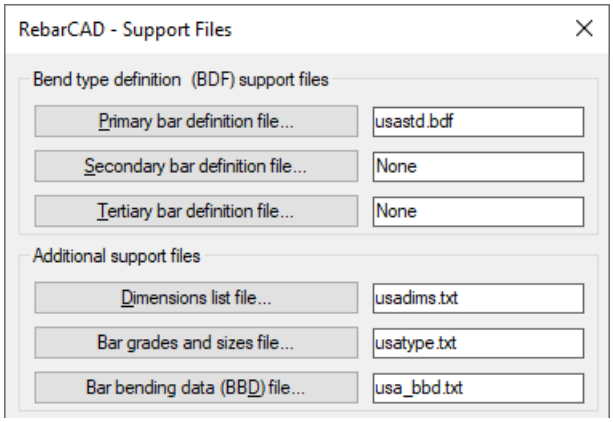
7.7 Support files

The configuration support files used by **RebarCAD** 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



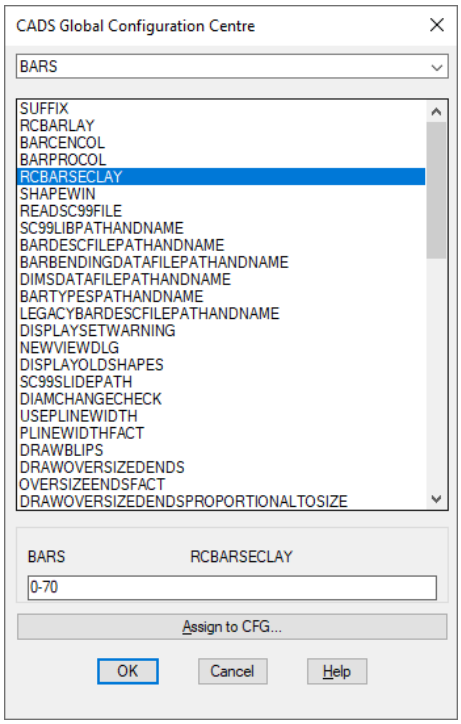
RebarCAD allows up to three **BDF** files to be configured. As mentioned in Section 2.4, the **BDF** files contain the bend type definitions. Normally you need only one **BDF** file to list all the bend type to be used in a project. Sometimes you have additional bar bend type requirement and those can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

In case there is a **Bend type** with same name defined in more than one **BDF** file then the bend type 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 **Bend Type** with new **Bend type** definition by using **Secondary** and **Tertiary BDF** file.

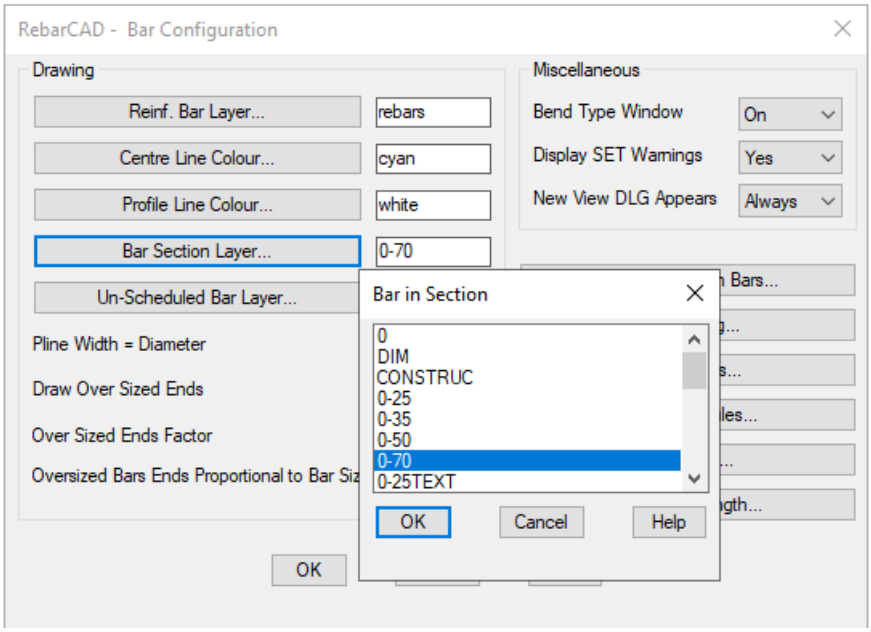
7.8 Global/General Configuration

The **Global / General Configuration** option allows access to all the configuration variables used by **RebarCAD**. 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 **RebarCAD**, 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