



GSTARCAD 2015

Complete Guide to What's New

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Customization

.Net Framework Support

.NET API has been added in GstarCAD 2015 which enables you to manipulate the application and drawing files programmatically with libraries that are exposed and can be accessed by many different programming languages such as VB.NET、C# and Managed C++ etc. Users are able to automate tasks such as creating and modifying objects stored in the database of a drawing file or change the contents of a customization file.

VB.NET

```
Public Class Class1
End Class
```

C#

```
using System;
using System.Collections;
using System.Linq;
using System.Text;

namespace MyFirst
{
    public class Class1
    {
    }
}
```

```
Public Class Class1
<CommandMethod("AdskGreeting")> _
Public Sub AdskGreeting()
    '' Get the current document and database, and start a transaction
    Dim acDoc As Document = Application.DocumentManager.MdiActiveDocument
    Dim acCurDb As Database = acDoc.Database

    Using acTrans As Transaction = acCurDb.TransactionManager.StartTransaction()
        '' Open the Block table record for read
        Dim acBlkTbl As BlockTable
        acBlkTbl = acTrans.GetObject(acCurDb.BlockTableId, _
            OpenMode.ForRead)

        '' Open the Block table record Model space for write
        Dim acBlkTblRec As BlockTableRecord
        acBlkTblRec = acTrans.GetObject(acBlkTbl(BlockTableRecord.ModelSpace), _
            OpenMode.ForWrite)

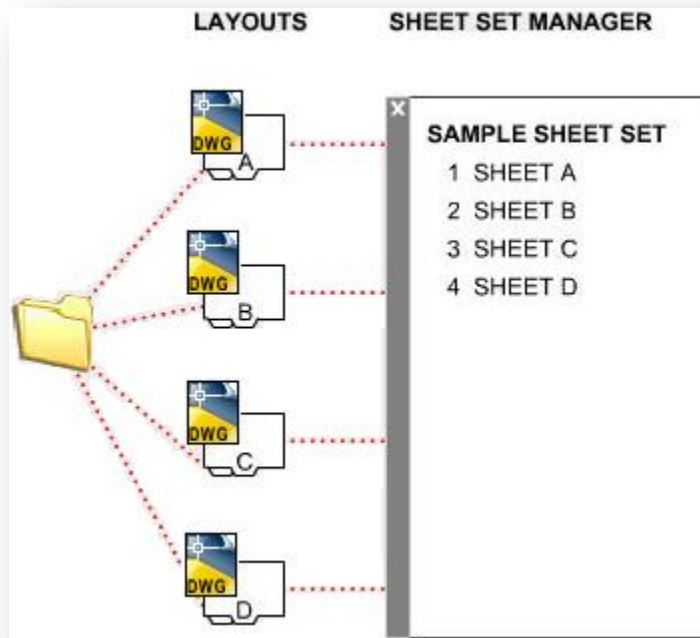
        '' Creates a new MText object and assigns it a location,
        '' text value and text style
        Using objText As MText = New MText

            '' Specify the insertion point of the MText object
            objText.Location = New Autodesk.AutoCAD.Geometry.Point3d(2, 2, 0)
        End Using
    End Using
End Sub
End Class
```

Documentation

Sheet Set Manager

Managing large sets of drawings manually can be complicated and time consuming. In GstarCAD the Sheet Set Manager allows you to manage the entire project drawing sheet sets. It can manage all the work flow from sheets creation, printing and publishing.etc.



In Sheet Set Manager, a sheet set is an organized collection of sheets from several drawing files and each sheet in a sheet set is a layout in a drawing file.

Begin taking advantage of sheet set functionality for your current projects with minimal effort by importing your current drawing layouts into a sheet set. You can easily open drawings from a central location while you continue edit them using traditional tools.

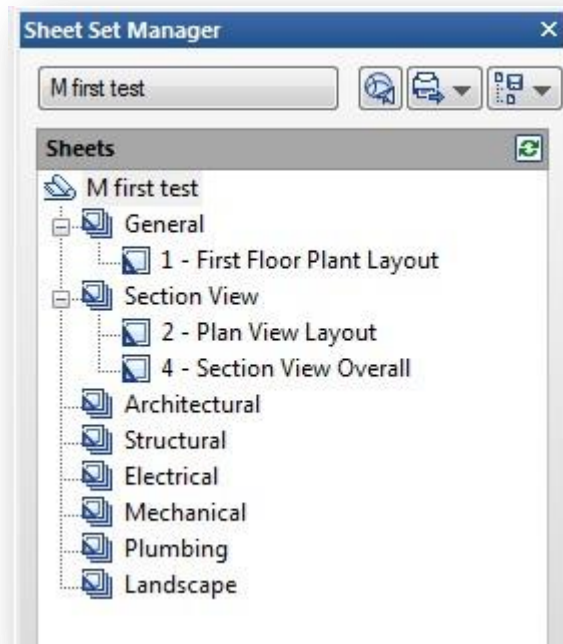
Create new sheets using traditional tools and then import those sheets into your current sheet set. Easily plot, publish, archive or create an electronic transmittal of the entire set of drawings. When you feel comfortable using the most basic sheet set functionality, you can begin assigning sheet set properties.

Using sheet set properties, you can easily plot to any named page setup, regardless of the page setup that is saved in each of the drawing layouts. You can also assign your drawing template file to the sheet set making it easy for you to create new sheets directly from the sheet set manager.

Moving on to the most powerful sheet set functionality, using Fields, enables you to automate the sheet data that is stored in your drawings. You can create your own fields in the form of custom sheet set properties and then reference those, and other fields, in your plot stamps and title blocks.

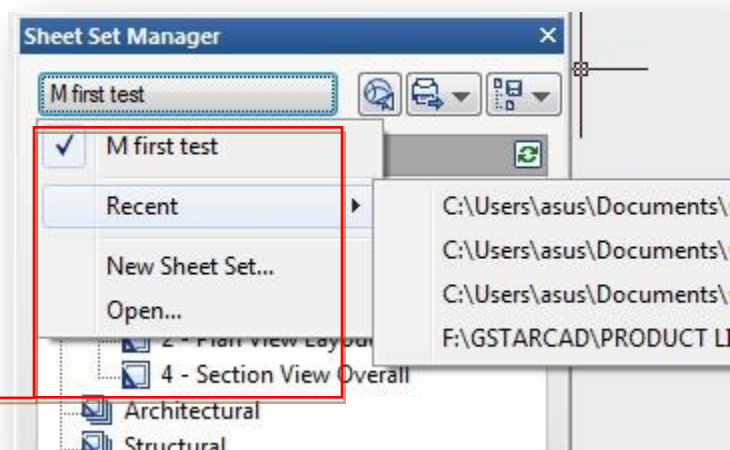
Understanding GstarCAD Sheet Set Manager Interface

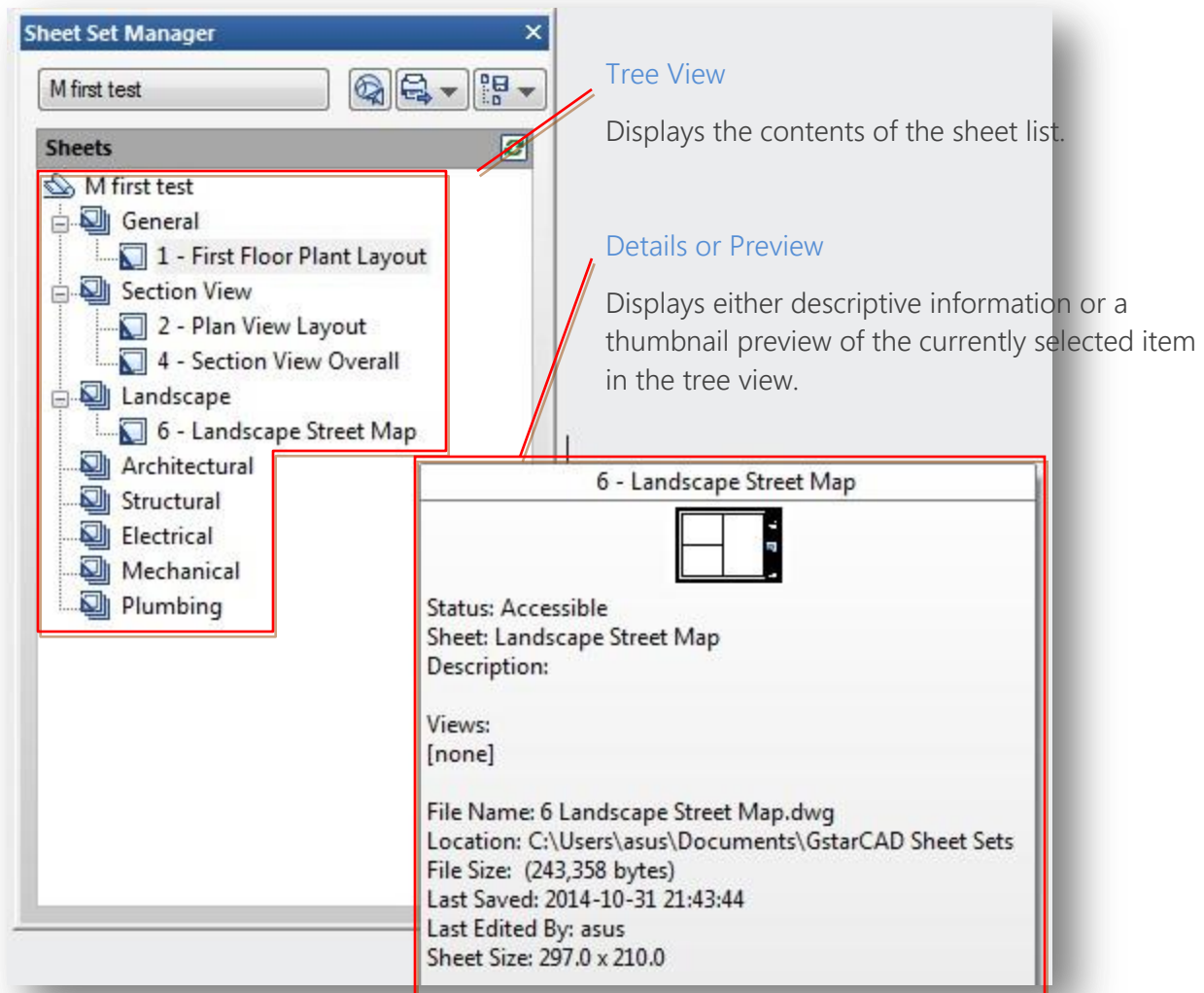
Using the controls in the Sheet Set Manager, you can create, organize, and manage sheets in a sheet set.



Sheet Set Control

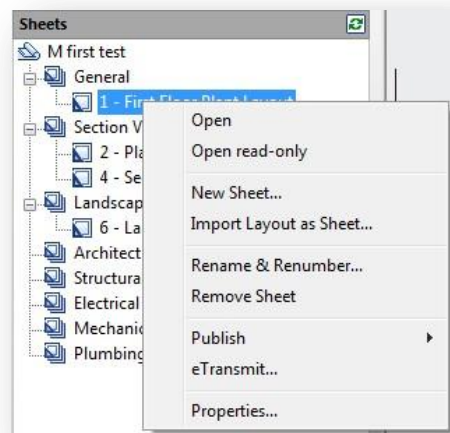
Lists menu options to create a new sheet set, open an existing sheet set, or switch between open sheet sets



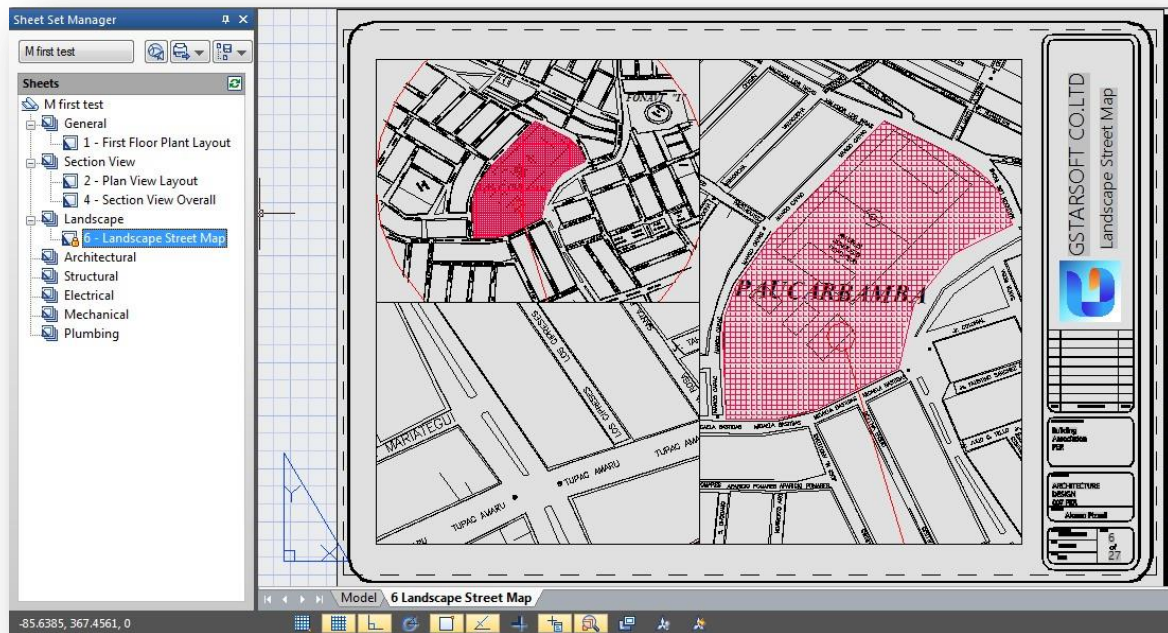


You can use the following actions in the tree view:

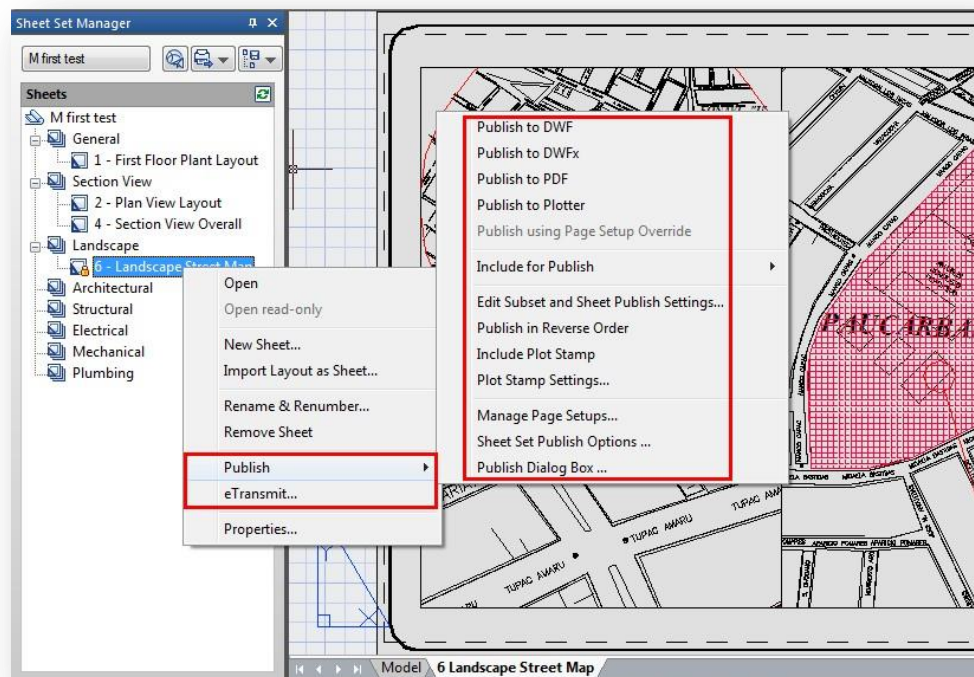
- Right-click to access shortcut menus of the operations that are relevant to the currently selected item.



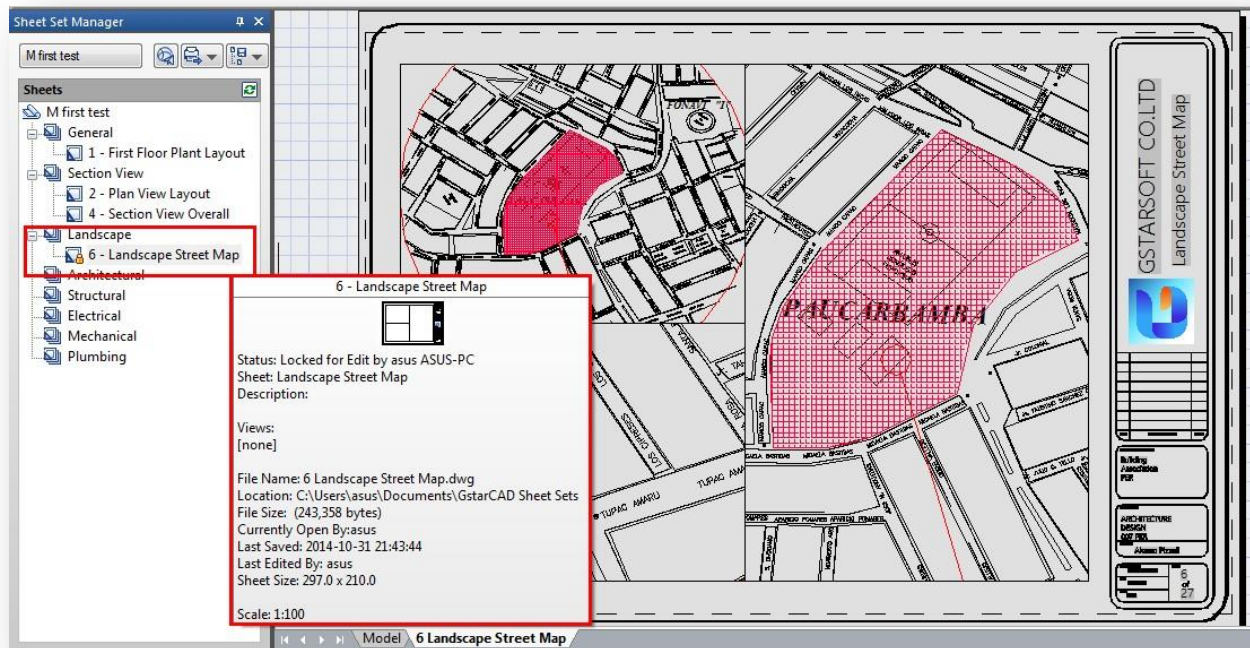
- Double-click items to open them. This is a convenient method for opening drawing files from the Sheet List. You can also double-click items in the tree view to expand or collapse them.



- Click one or more items to select them for operations such as opening, publishing, or transmitting.



- Move the cursor over a single item to display descriptive information or a thumbnail preview of a selected sheet, view, or drawing file.

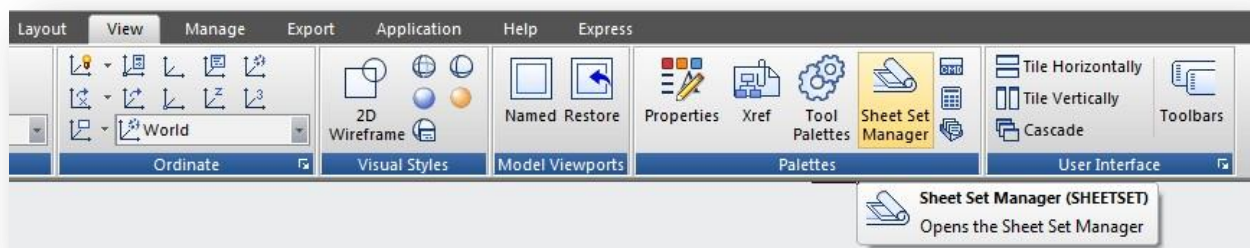


- Drag items within the tree view to reorder them.

Sheet Set Manager Basic Information

Opening Sheet Set Manager

Ribbon: View tab > Palettes > Sheet Set Manager or Type: sheetset



Creating a Sheet Set

Once the Sheet Set Manager is open, select the pull down box at the top and then click on *New Sheet Set*.

A new dialog box will pop up displaying the 4 steps in creating a Sheet Set.



Begin

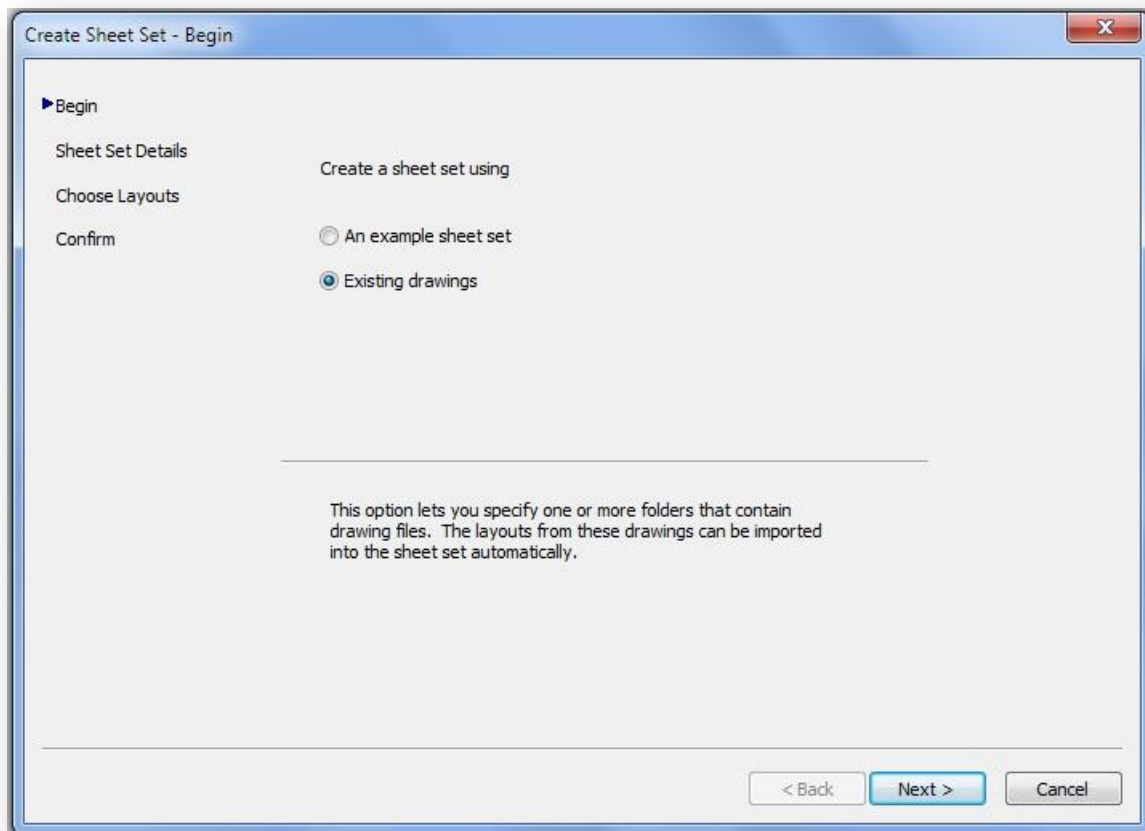
Under Begin there are two options for creating a sheet set.

Option one

Is using "An example sheet set" that allows the use of a standard template to create the sheet set.

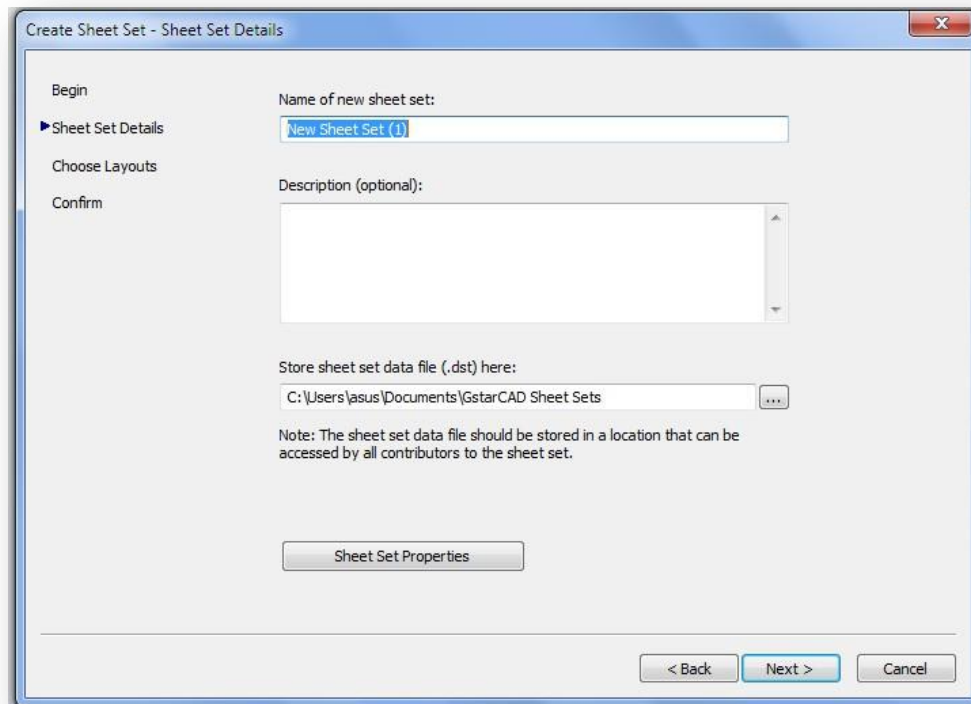
Option two

Is using Existing drawings to start a new sheet set. We are going to select the *Existing Drawings* option.



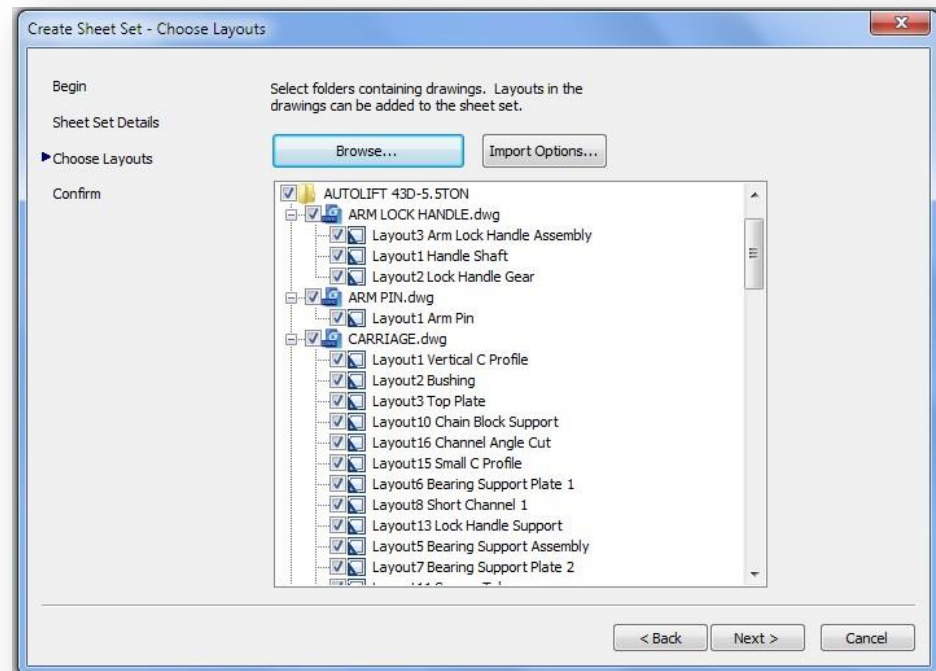
Sheet Set Details

This is where basic information like sheet set name, description, and file location can be added.



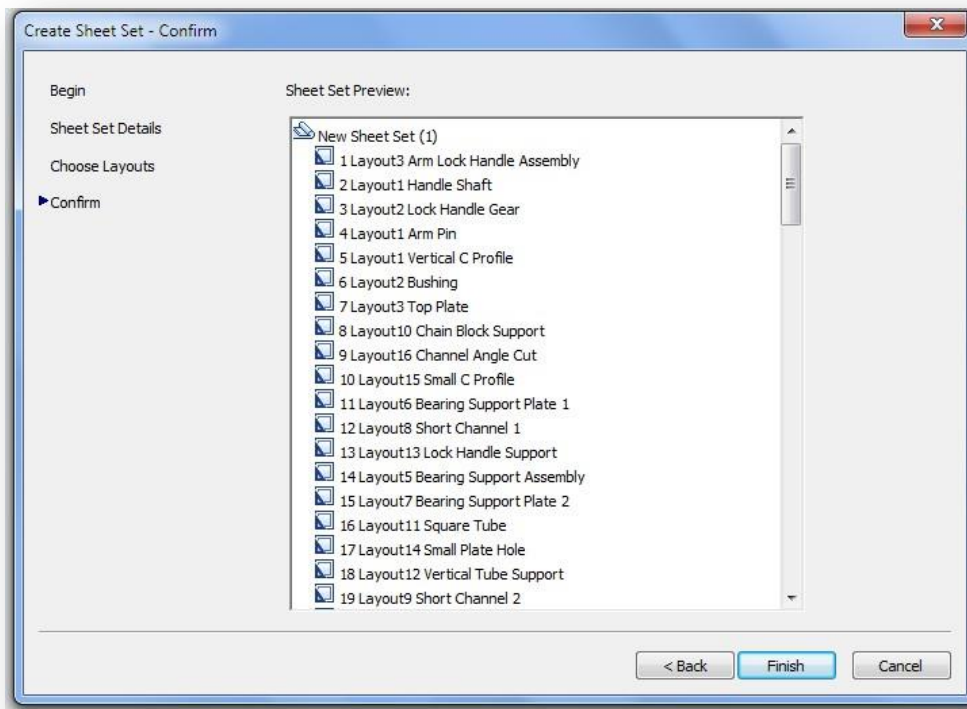
Choose Layouts

Existing layouts can be added to the sheet set by browsing for the proper file needed in the drawing set. Once the layouts are selected, click *Next* to confirm.



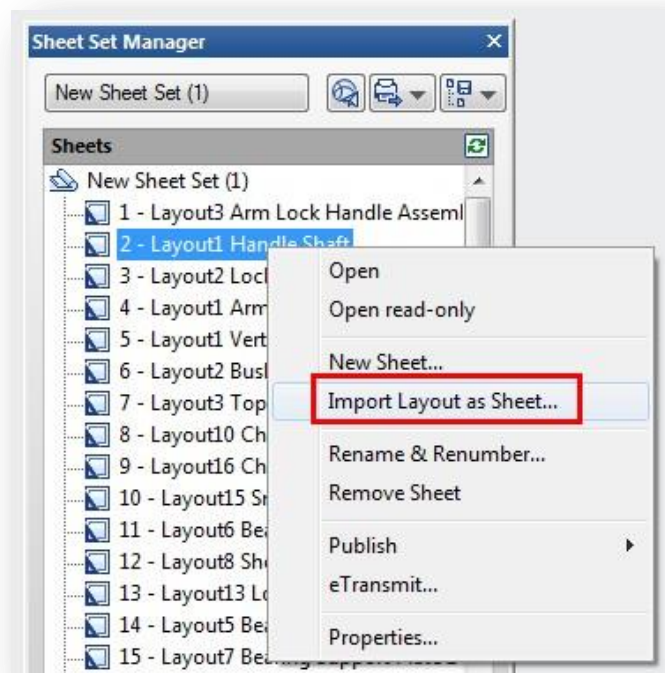
Confirm

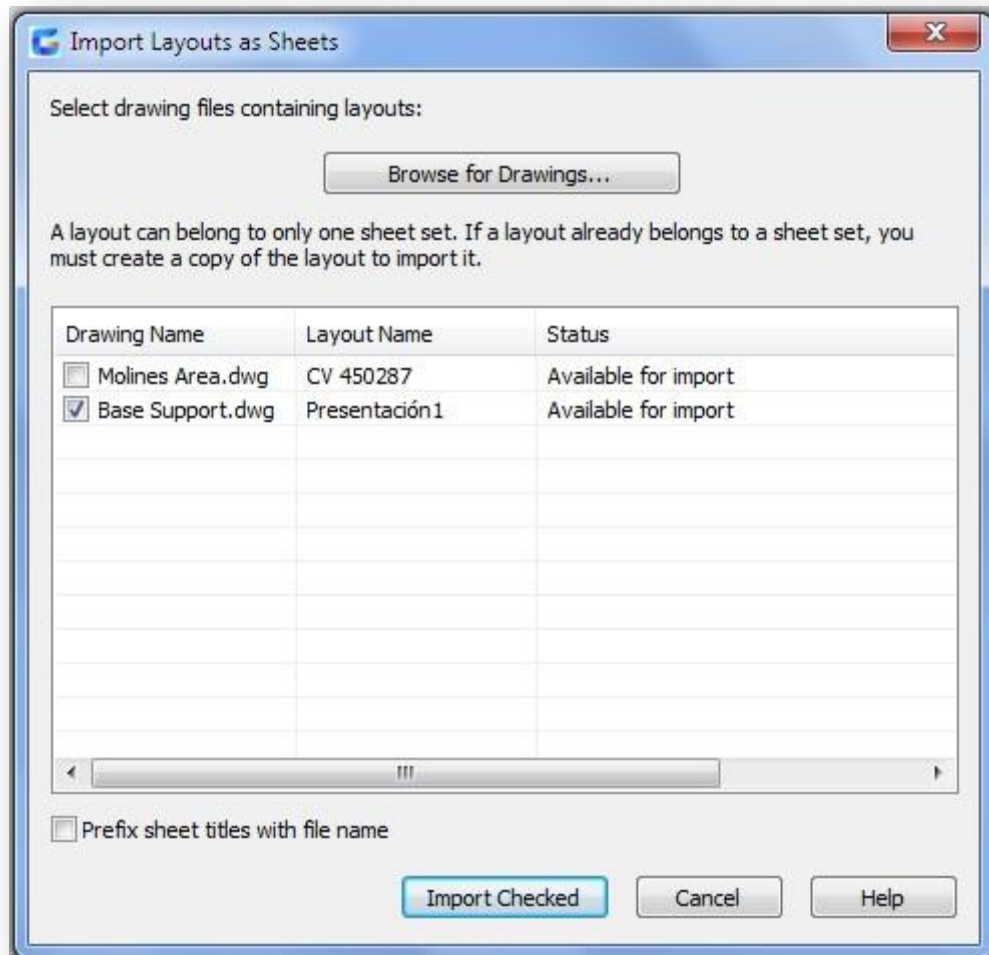
The confirm tab will give a summary of the layouts to be added to the set. After selecting the *Next* button the new layout will be added to the sheet set.



Import layouts to the Sheet Set Manager

To add a new sheet from an existing drawing layout, right click the title of the sheet set and select *Import Layout as Sheet*. A new pop up box will appear which allows you to browse for an existing drawing to add a layout.





Tip: If the import box is not checked, the layout is already in the sheet set or the layout is unable to be imported into the set.

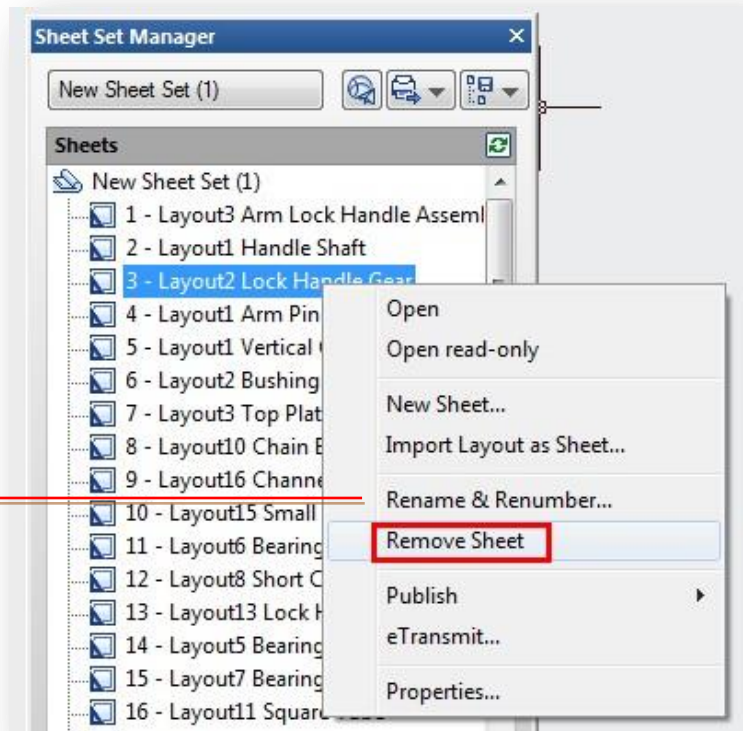
Managing Sheet Set

Moving and Removing Sheets from a set

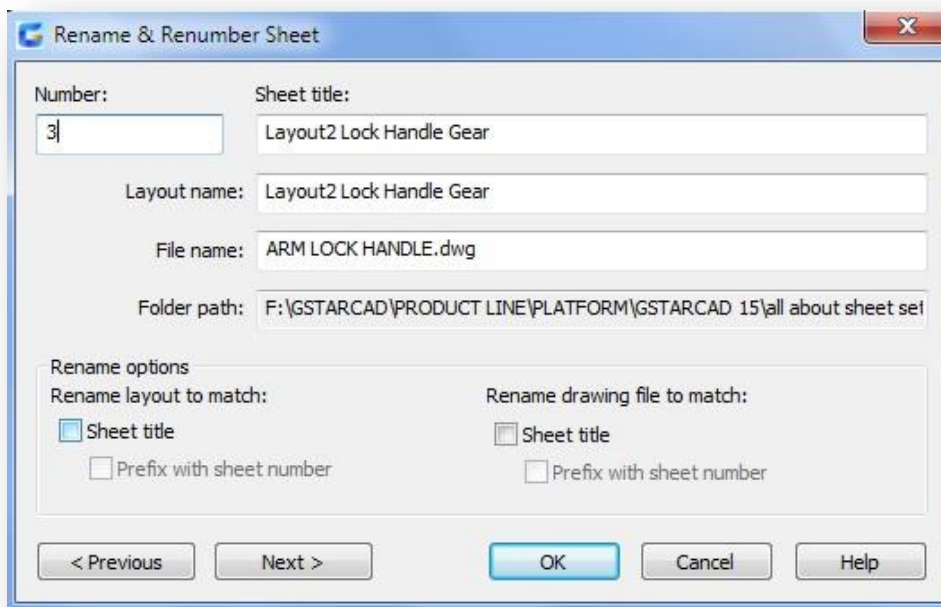
Once the sheets have been added to the Sheet Set Manager, they can be dragged and dropped to the order needed. To remove a sheet from the set, right click and select *Remove Sheet*.

Rename and Renumbering Sheets

To rename and renumber a sheet or a subset, right click on the sheet needed to be changed and select *Rename & Renumber*.



A pop up box will show up that will allow the number, sheet title and layout name to be changed.

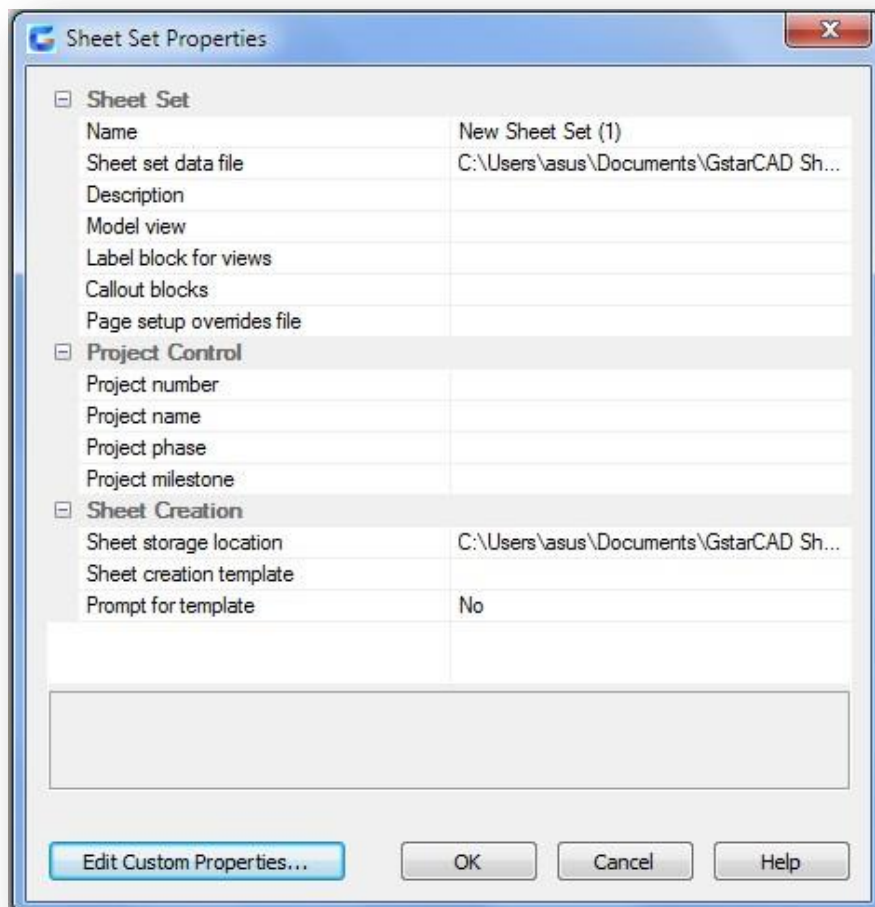
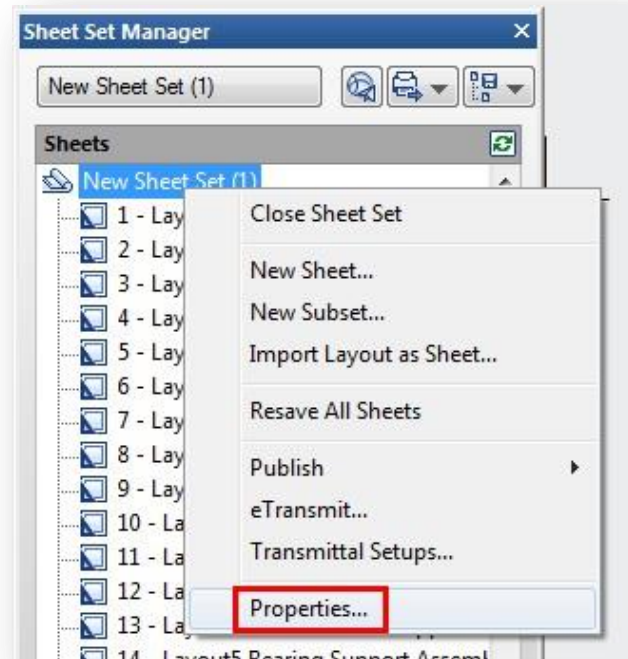


Adding project information to a sheet set

To add project information to the sheet set, like project name, project number, and project description, right click on the sheet set title and scroll down to the sheet set *Properties*.

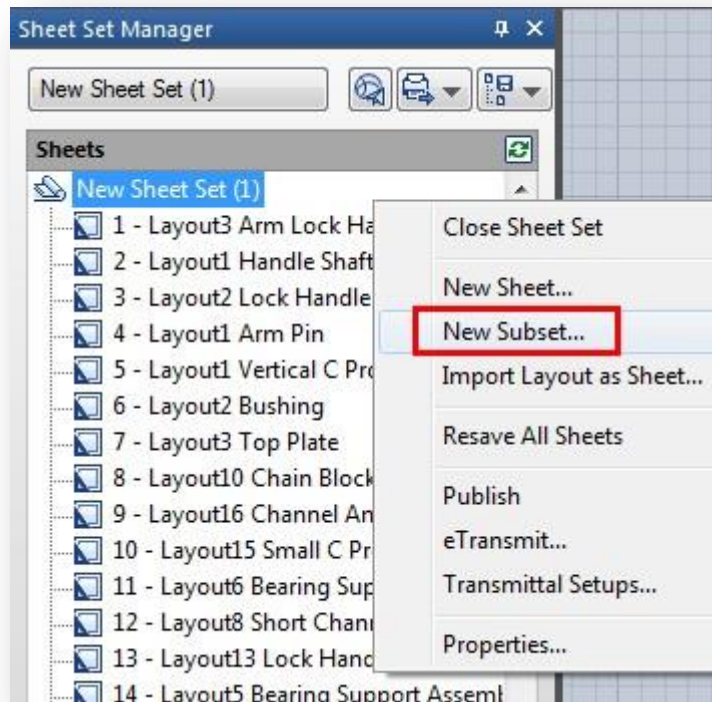
A new pop up box will display that allows the update of project information.

Tips: Project information in the sheet set can be used in object such as fields.



Creating Subsets in Sheet Set Manager

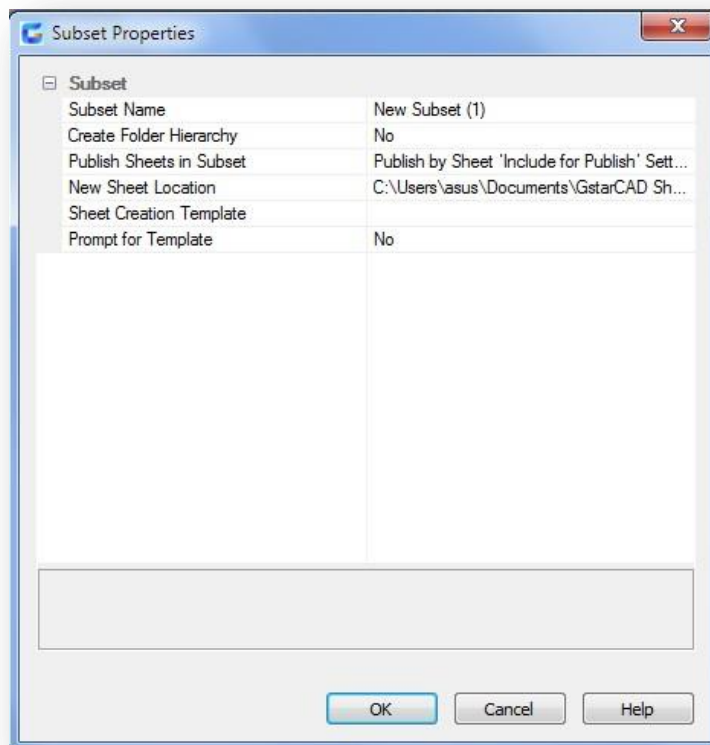
Creating subsets in Sheet Set Manager is a fast way to organize and find what is needed in a big drawing set. To create a subset, right click on the sheet set and then to *New Subset*.



The Subset Properties box will pop up. Most of the properties are basic. Select *OK*.

A new subset is added to the sheet set manager.

Tip: To move a sheet to the new subset, simply click and drag to the desired subset.

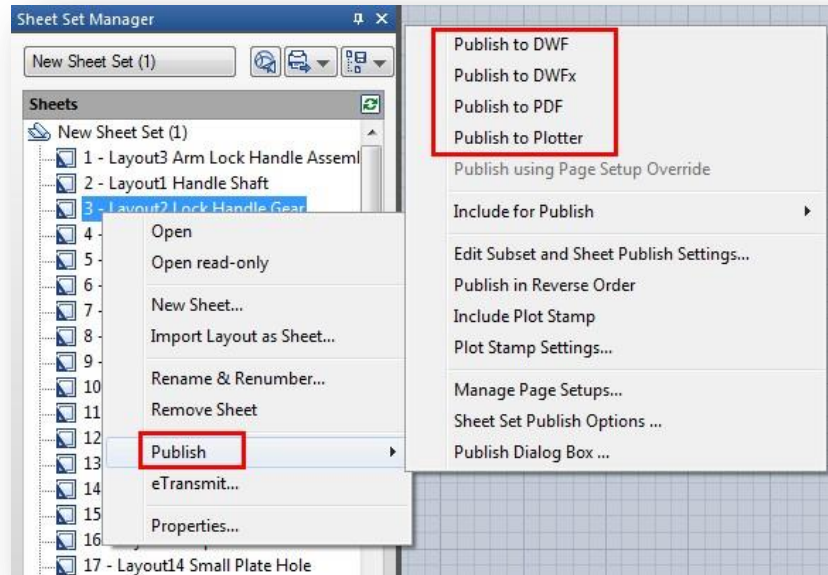


Publishing Sheet Sets

Sheet Set Manager makes it simple to publish a full set or only select sheets of the construction documents. There are two ways to plot: Publish directly to the plotter/file or use the Publish dialog box.

Publish and Plot directly to the plotter/file

Right click on the sheet set, scroll to *Publish*, and then *Publish to Plotter*.



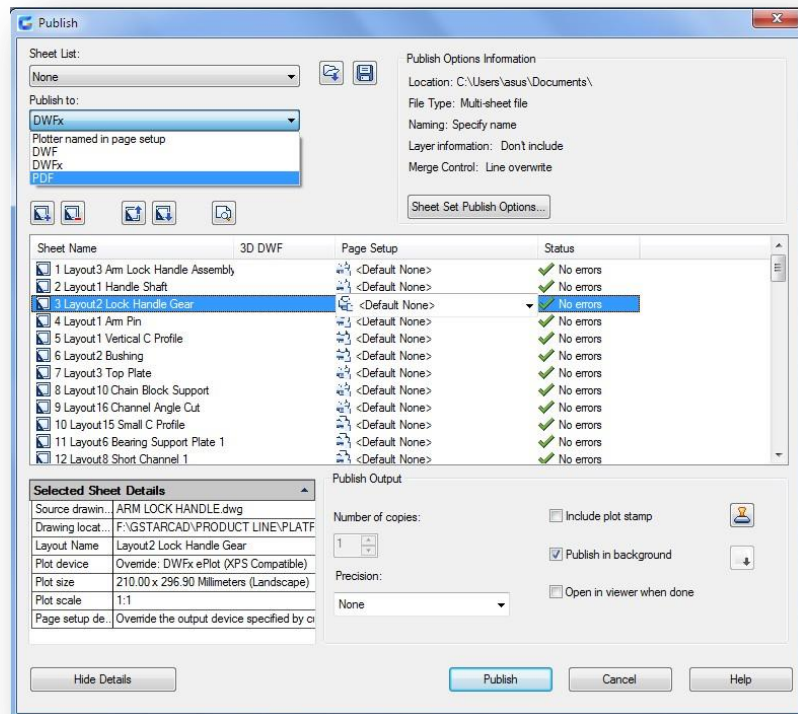
This method is used to plot and publish when the page setup is set per layout. The drawback to using this option is if someone plots one of the sheets using the plot command and saved the setup to the layout, the layout will not publish properly. Sheet set can also be packaged and shared through e-transmit.

Publishing using Publish dialog box may not be as fast as Publishing directly to the plotter/file, but there is less of a chance the document will come out wrong.

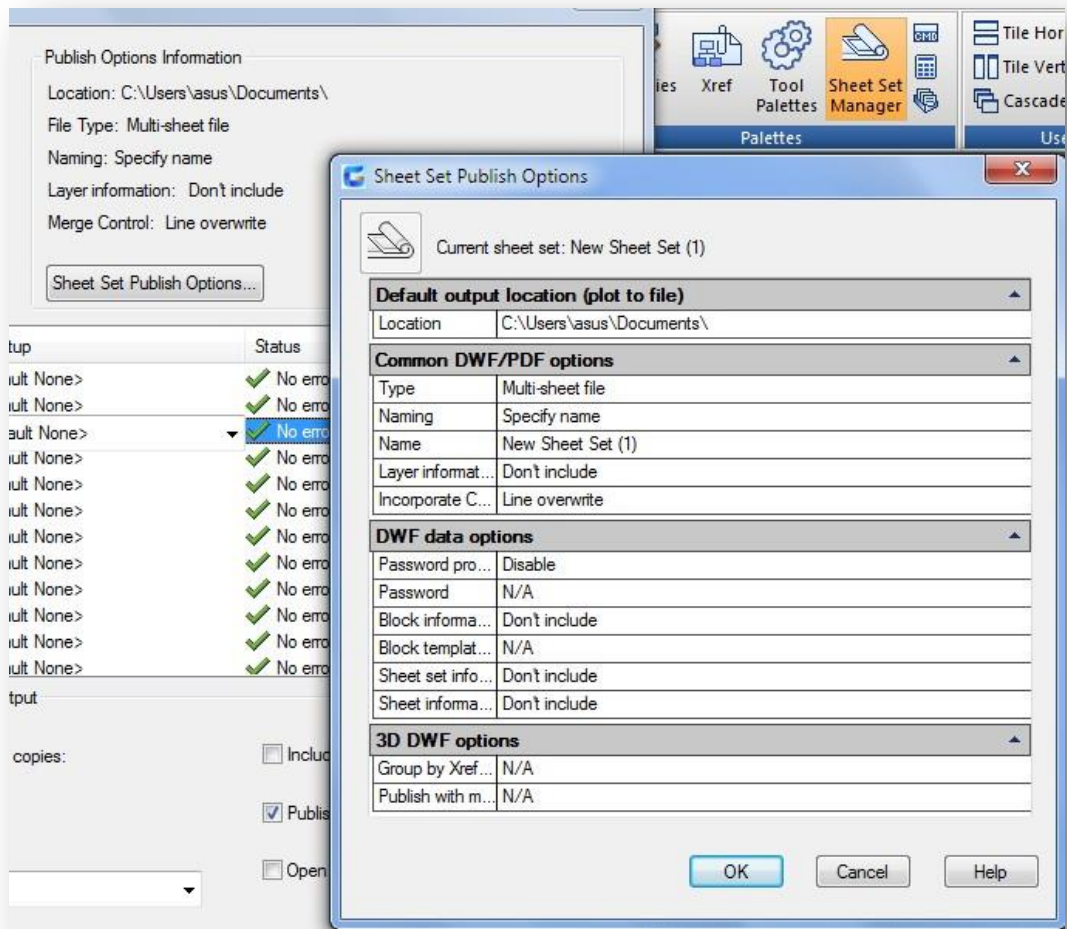
You are also able to use Page Setups saved in the drawing to particular sheets or the full set.

To pull up the dialog box, right click the Sheet Set title, scroll to *Publish*, and then to *Publish Dialog Box*. The Publish Dialog Box will display.

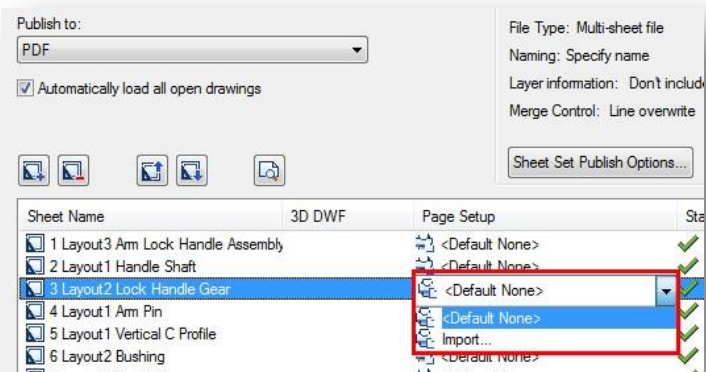
Now with page setups, Publish Dialog Box can change the way the document is published. Now we have the options to publish to Plotter named in Page Setup, DWF, DWFx, and PDF.



Selecting the *Sheet Set Publish Options* allows the options to change information like default output location and naming.



Tip: One of the major options I change the most is type. Multi-sheet file will place the full set in one file and the Single-sheet file will place each sheet per file.

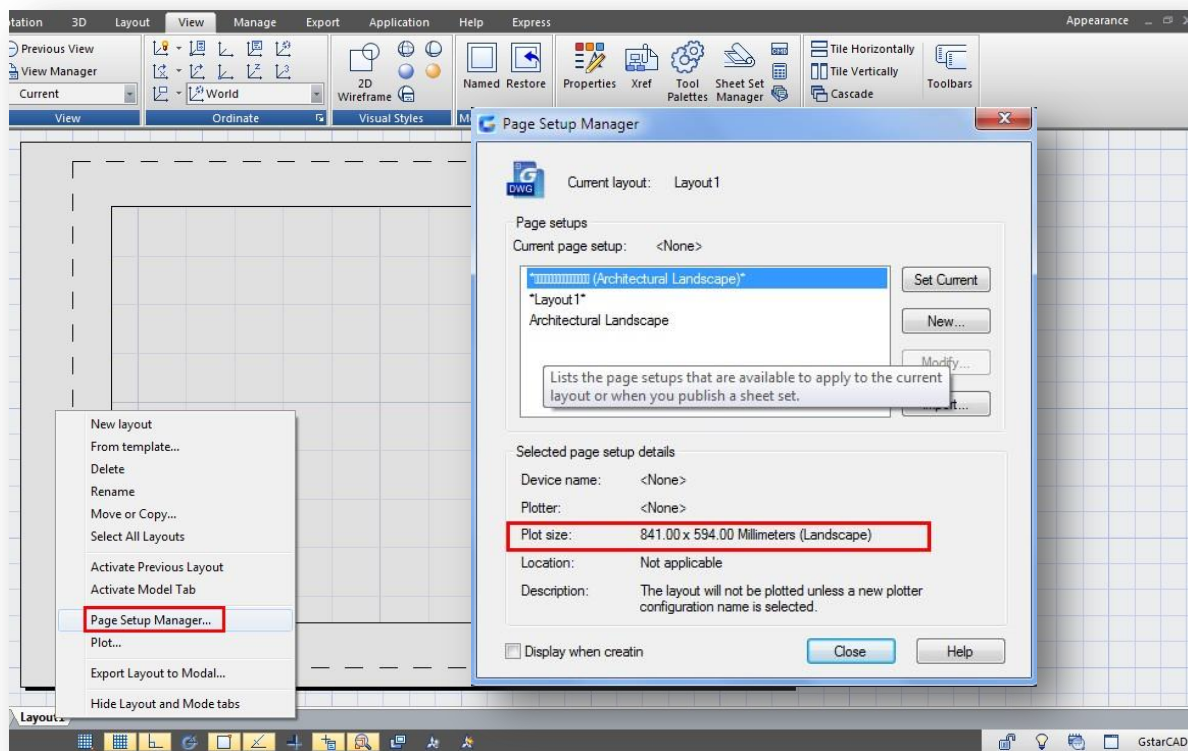


Custom Sheet Set Template Workflow

In this guide you will know how to create from scratch a custom title block as a base for your project and link it to Sheet Set Manager. The most important factor is .dwt (drawing template) and .dst (sheet set template) files are linked together. That means there will be fields in the template file (.dwt) that must be linked with the sheet set template (.dst) before creating a new sheet set.

Create your company custom template

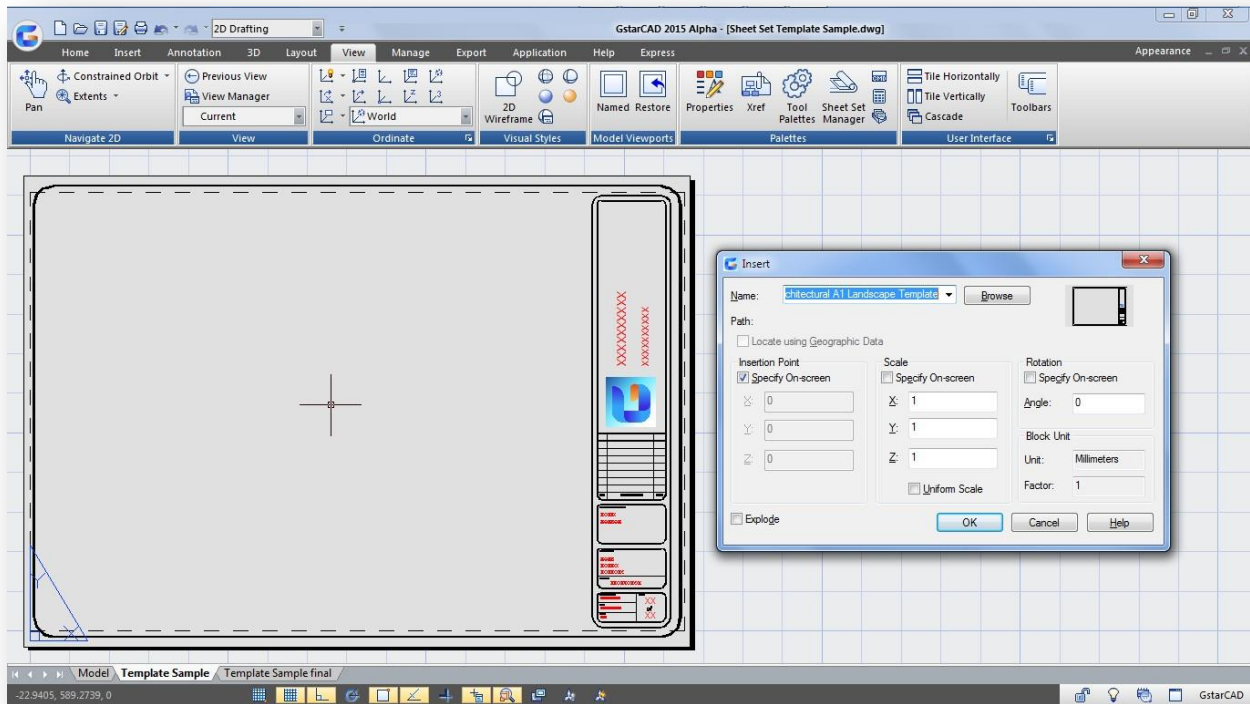
Before inserting and placing your custom title block in layout space, you have to page setup the printing area to get the required page format and other print properties.



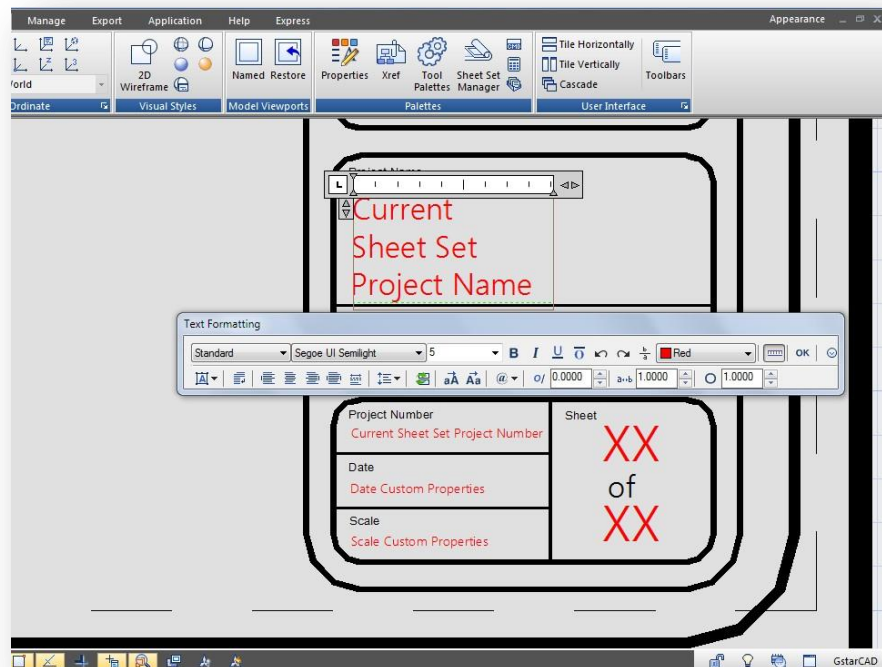
Remember, you are still working under default .dwg format (Drawing name like Sheet Set Template Sample), later you will have to save it as template file (.dwt) with an identifiable name.

Insert, place and fill up your title block

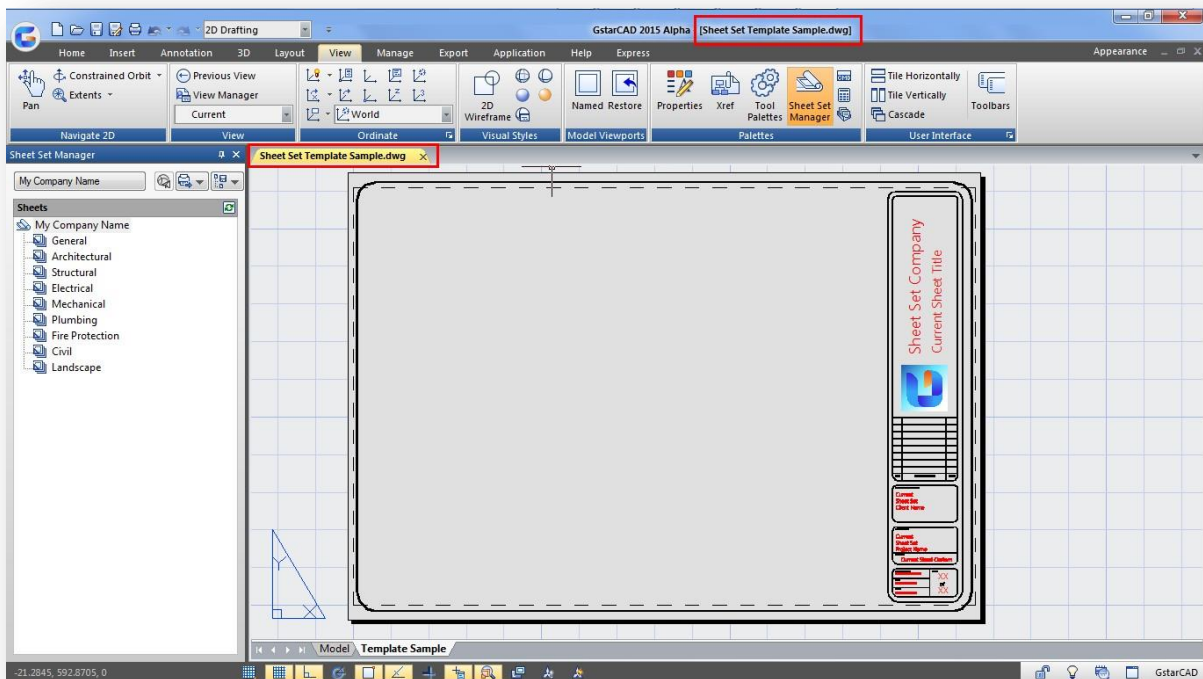
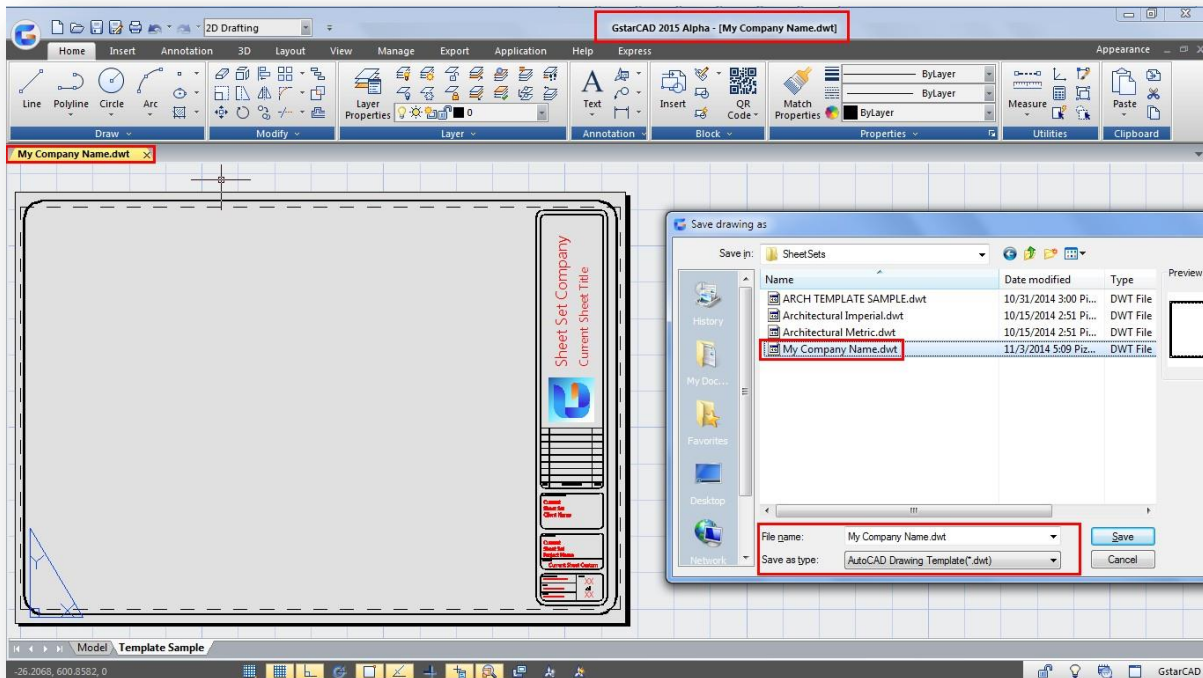
Now you are ready to insert and place the title block into layout space at printing area.



It doesn't matter if your title block has not attribute attached within. You can fill the title block relevant information like project name, project number, sheet number, company name, sheet title, etc... with Mtext. Then this information (Mtext) will be linked with a specific sheet set field properties.



When you finish fill up your custom title block contents, save it as .dwt format with the name (My Company Name) at default location to get reference it later. Then close the current saved .dwt and open again the same .dwg drawing file name (Sheet Set Template Sample).

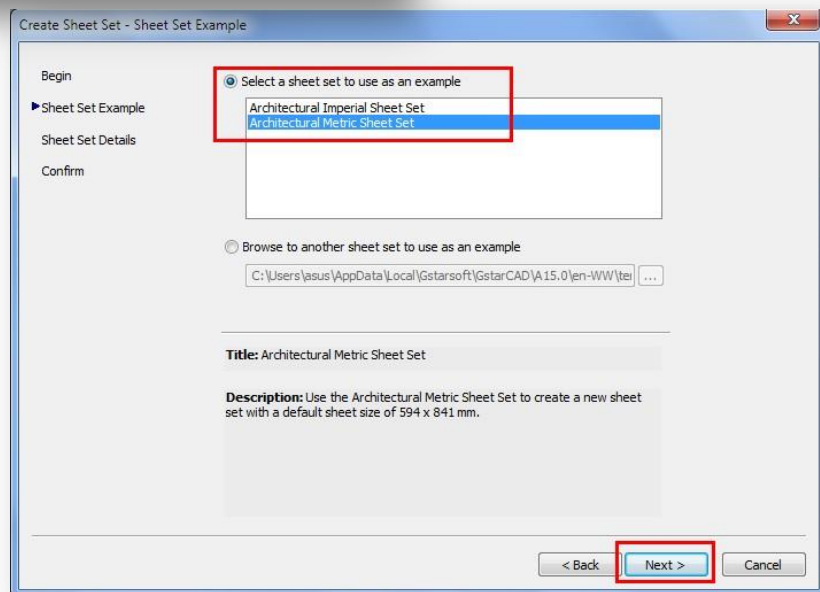
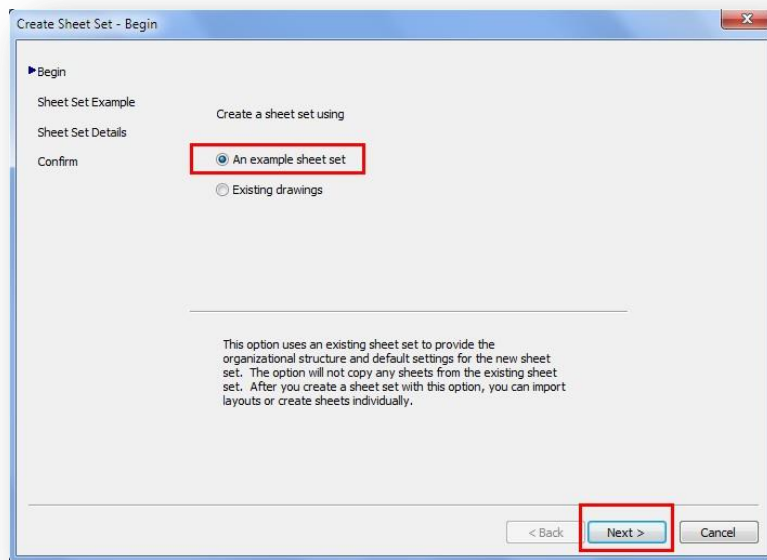
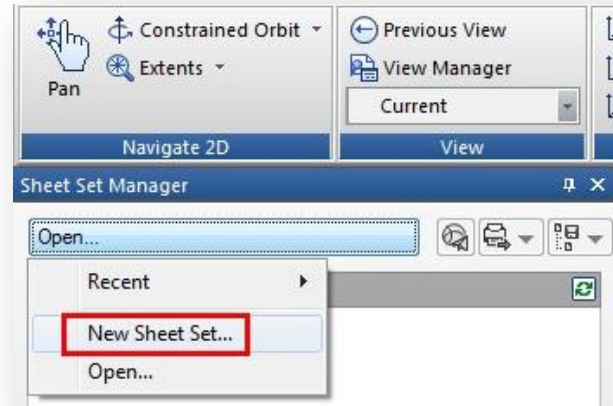


Create a New Sheet Set

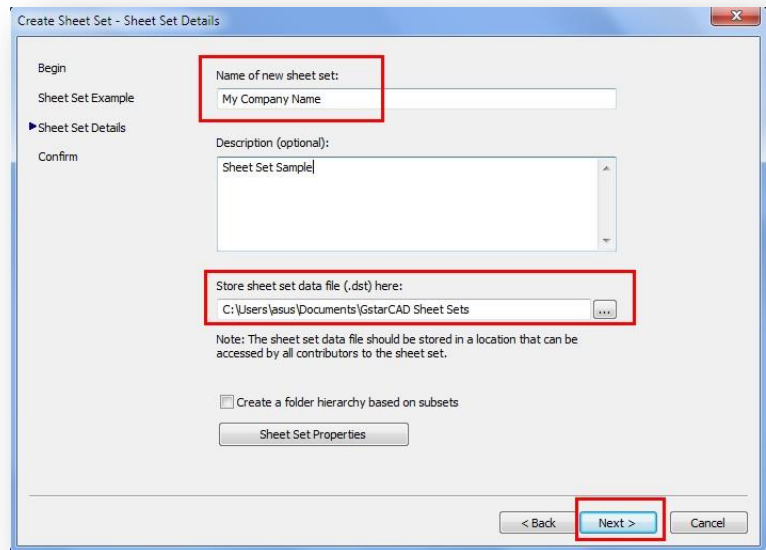
By now on is better to create a new sheet set sample and keep open the Sheet Set Manager palette to assign specific field properties form sheet list option.

Create *An sample sheet set* and click *Next*. Then check the option: *Select a sheet set to use as an example*.

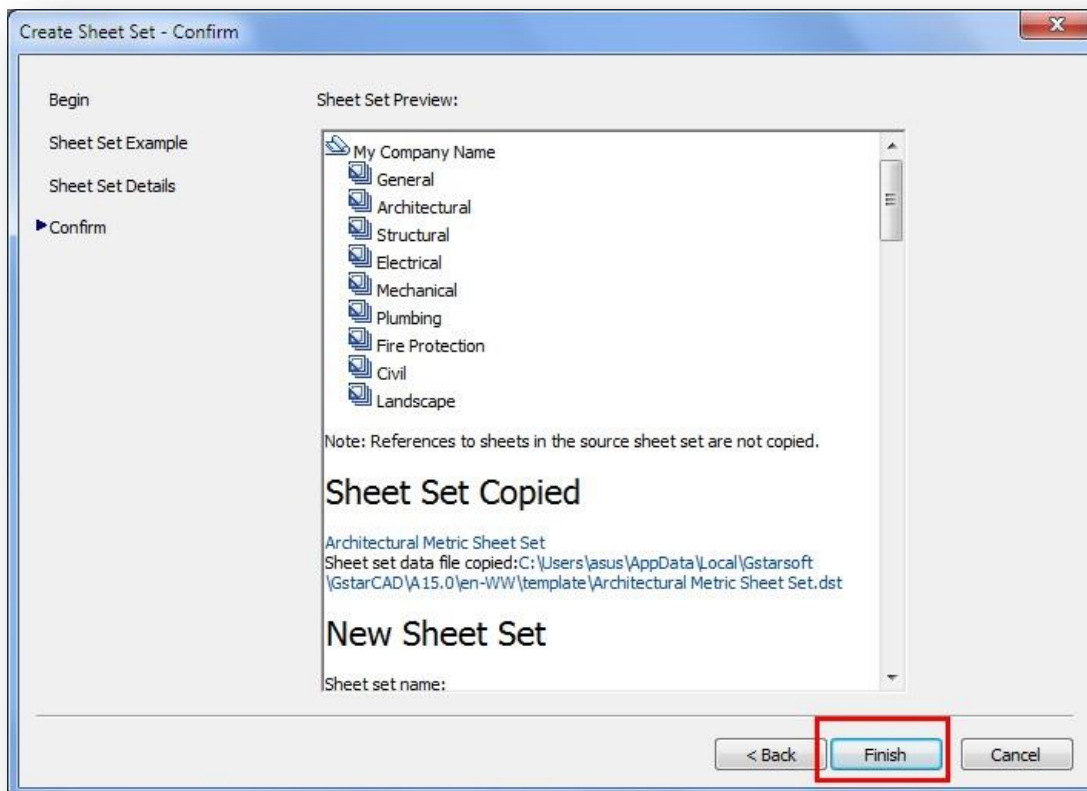
Select *Architectural Metric Sheet Set* as an example and click *Next*.



You can start entering the new name of the sheet set, your company name as sample. You can also enter a brief description of the sheet set and keep or change the store sheet data file location. This location is where your project team will access to contribute to build up the sheet set you created. We suggest keep default location where any new sheet set template is stored by default.

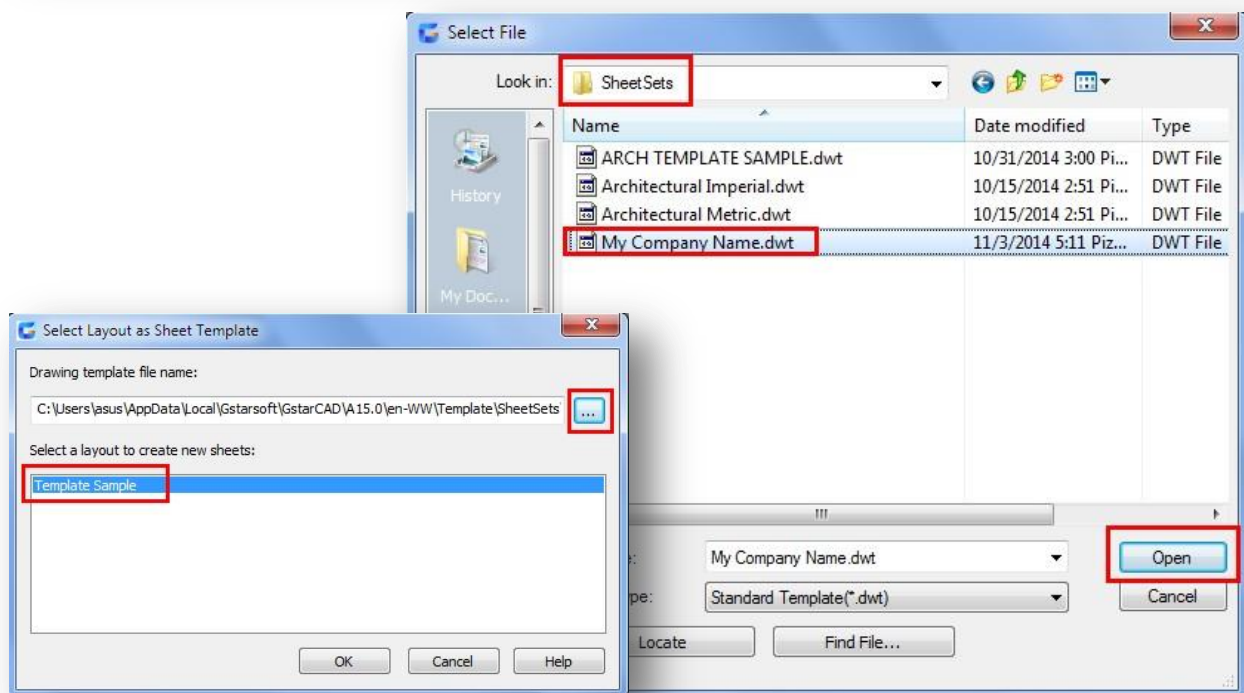
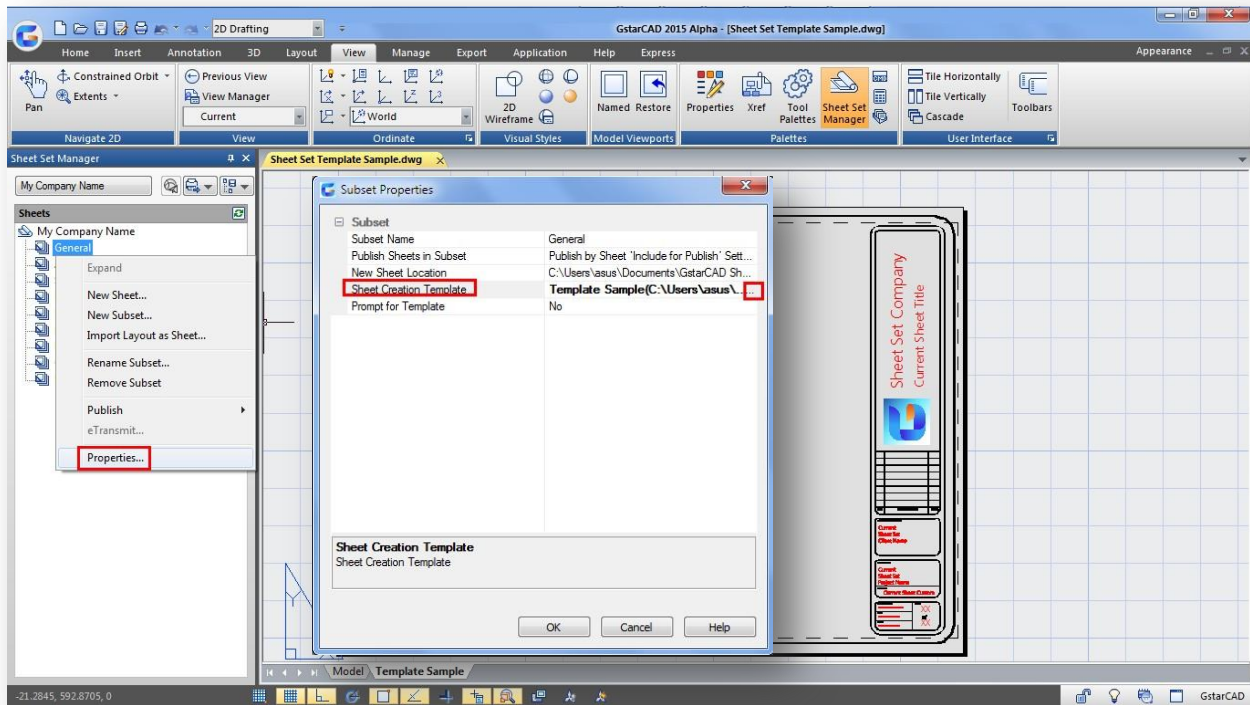


Click *Next* to confirm the sheet set creation. You will see the sheet set preview tree as shown below. Click *Finish* to close the dialog box and you will see the new sheet set create in the sheet set manager palette.

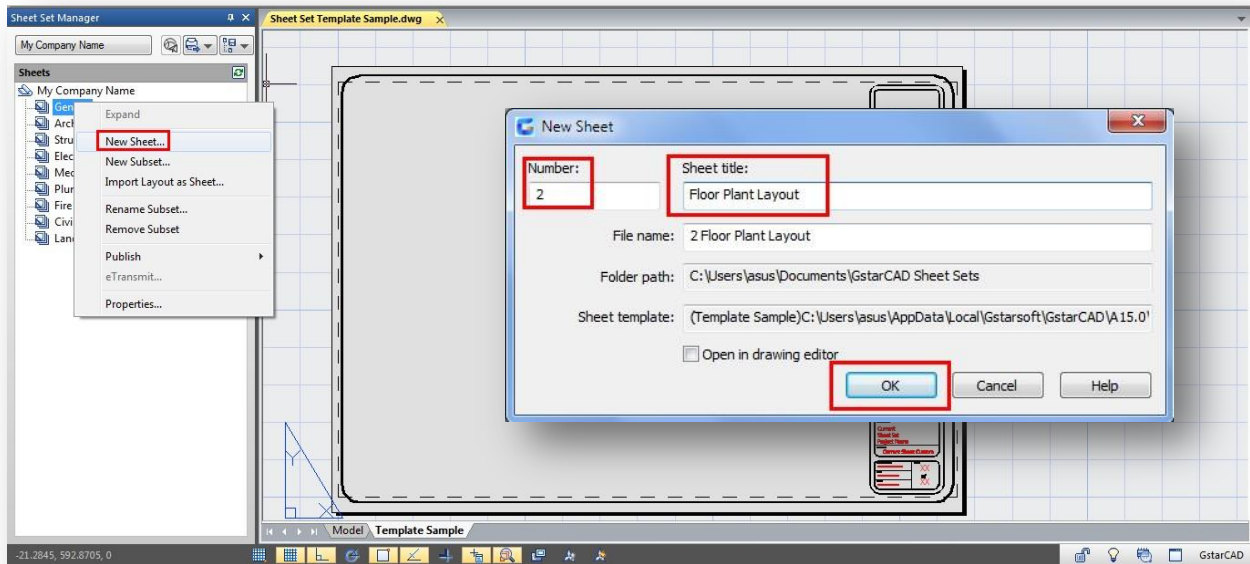


Adding a New Sheet and Assign a Sheet Creation Template

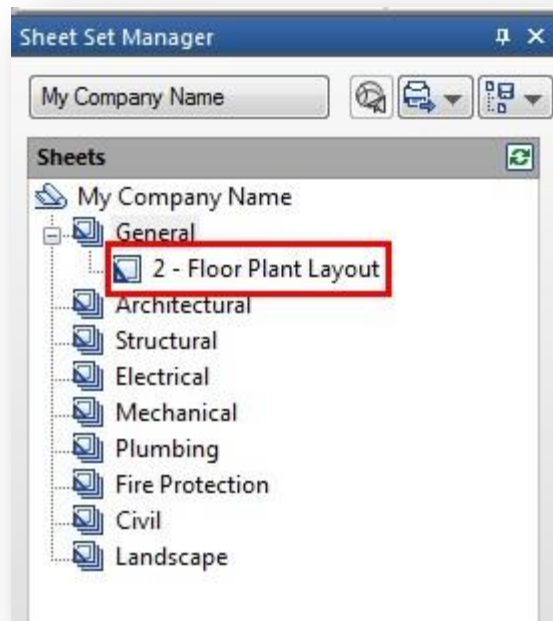
In the sheet set list do right click on General subset and select *Properties* option. The subset properties dialog box will pop up, click the *Sheet Creation Template* button, then search and open the template you saved as step above (My Company Name). Then click *OK* on every dialog box displayed.



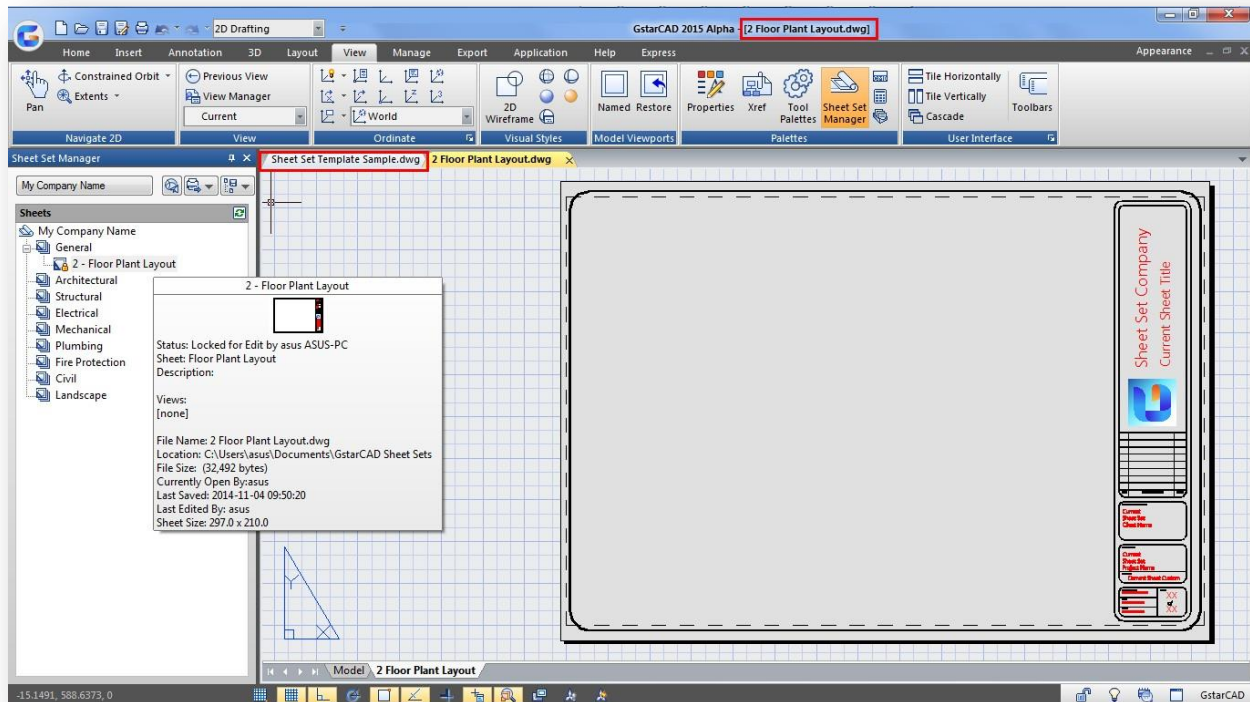
To add a new sheet, right click on *General*/subset and select *New Sheet*. It will pop up the new sheet dialog box. In it you can enter the sheet number and sheet title. For example, enter *value 2* as sheet number and *Floor Plant Layout* as *sheet title*, click *Ok*.



You will notice at sheet list a new sheet has been created successfully under General subset. The name of this new sheet is *2 Floor Plant Layout*.



To open the new sheet created, do double click on it. A brand new dwg drawing will be open. Notice there are two drawings open up. To continue the procedure you must close the Sheet Set Template Sample dwg drawing.

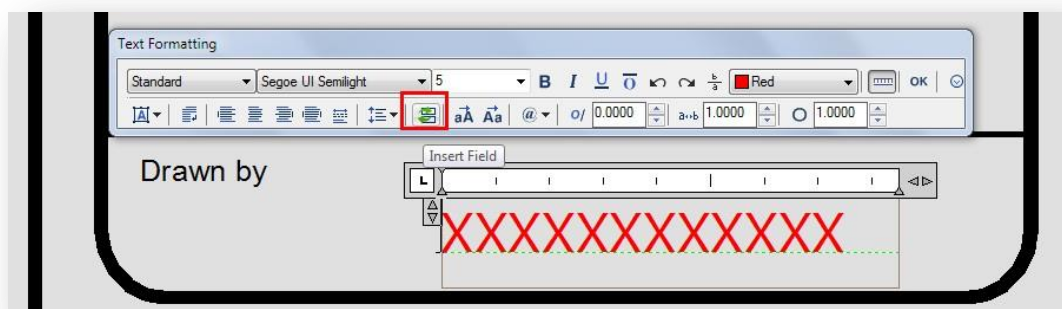


Title block contents that display Sheet Set data

Fields are the real building block behind Sheet Set Manager. The Field command creates dynamic Text, MText or Attribute entities.

To insert a Field into your drawing: Insert menu>Field Command: field

Shortcut menu: right-click while Text or MText command is active and select *Insert Field* from the shortcut menu or Select the Insert Field icon from the MTEXT Text Formatting toolbar or the Attribute Definition dialog box.



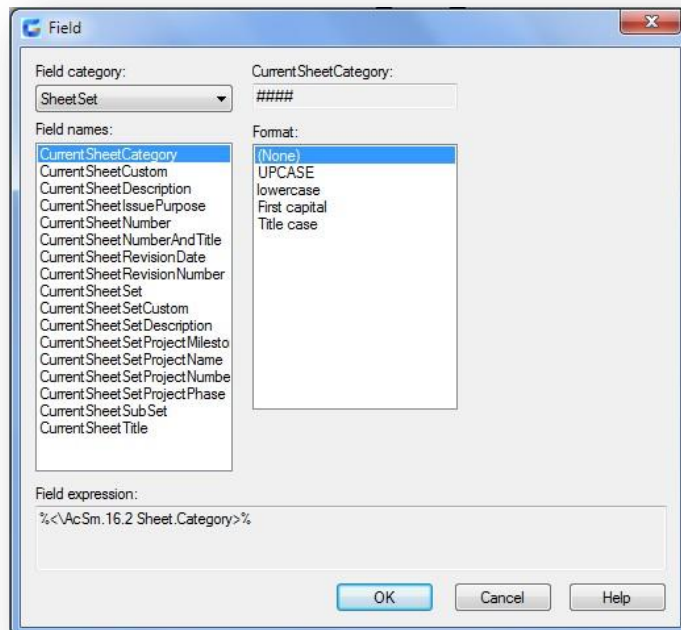
Inserting a Field is an excellent way to automatically display and update basic drawing information in your drawings. You could combine the *SaveDate*, *LastSavedBy* and *FileName* fields into one MText entity to create a plotstamp that updates whenever the drawing is saved.

For pre-defined Sheet Set Fields, select Sheet Set in the drop-down box for "Field category" to see a list of the different Fields that can be used with Sheet Set Manager. The list is shown in the dialog at the right. Note that the Fields for Sheet Sets are generally separated into two groups:

CurrentSheet... properties are for project-related data such as scale, plan date and revisions that are specific to each sheet.

CurrentSheetSet... properties are for project-related data such as project name and project number that will reflect on all sheets in the sheet set.

While the list of pre-defined Fields is fairly thorough with regard to Sheet Sets, it will not satisfy the needs of every office or project. Many times we will have to create our own custom Sheet or Sheet Set properties in order to display the information.



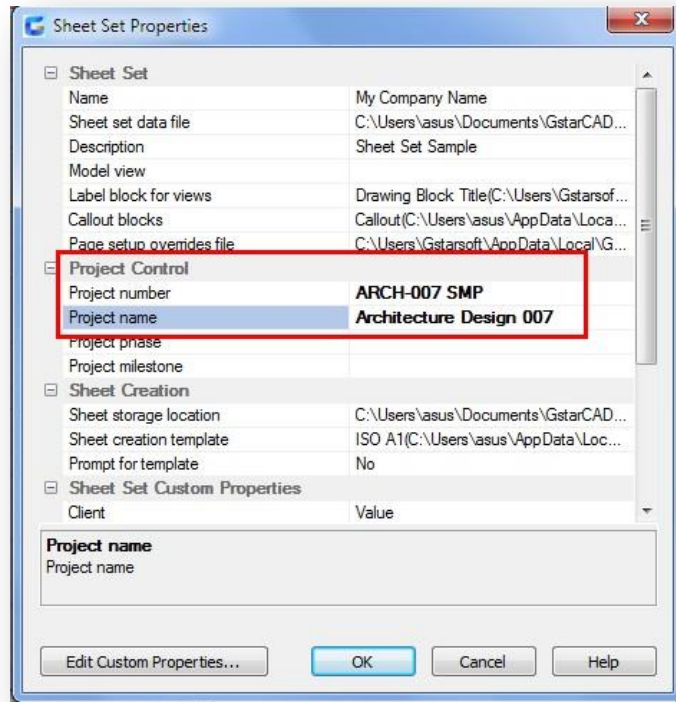
First, you will need to determine how and where the Field will be used...

Before applying Sheet Set fields, you can apply Current Sheet Set Custom and Current Sheet properties directly from the sheet list.

If it applies to all sheets in the Current Sheet Set, you can right click the sheet set header (My Company Name) and select *Properties*.



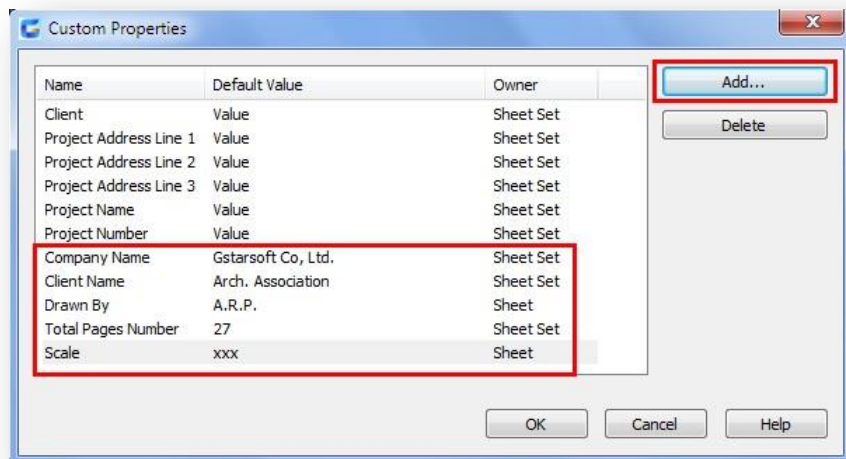
You can fill in some properties under Project Control title like *Project Number*, *Project Name*.
For example: *Project Number*> ARCH-007 SMP *Project Name*> Architecture Design 007



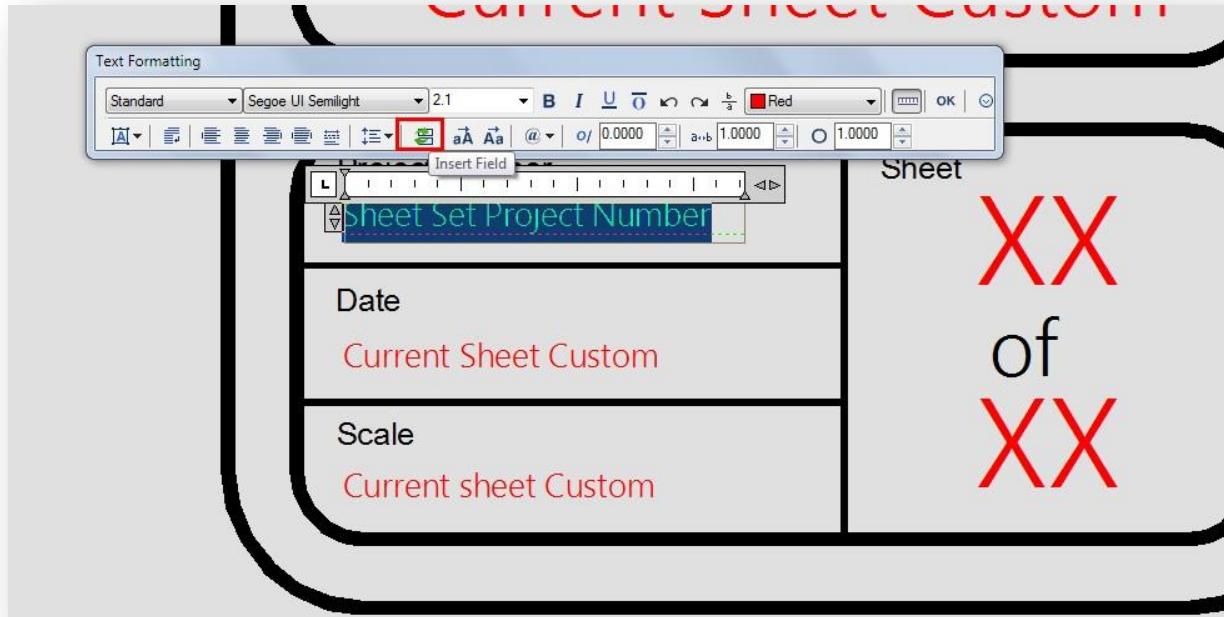
You can also add Sheet Set Custom properties by doing click to *Edit Custom Properties...* button. Click *Add* button to add the following custom properties:

Name: Company Name Default Value: Gstarsoft Co, Ltd. Owner: Sheet Set
Name: Client Name Default Value: Arch. Association Owner: Sheet Set
Name: Drawn by Default Value: A.R.P. Owner: Sheet
Name: Total number pages Default Value: 27 Owner: Sheet Set
Name: Scale Default Value: xx:xx Owner: Sheet

Notice that some custom properties will be applied to whole sheet set and some others to current sheet. After adding the custom properties, press button *Ok*.



Now is time to embed fields to your title block contents by selecting the appropriate Mtext. For example, do double click to *Sheet Set Project Number* text and highlight it, then select the *Field* icon from the text formatting toolbar.

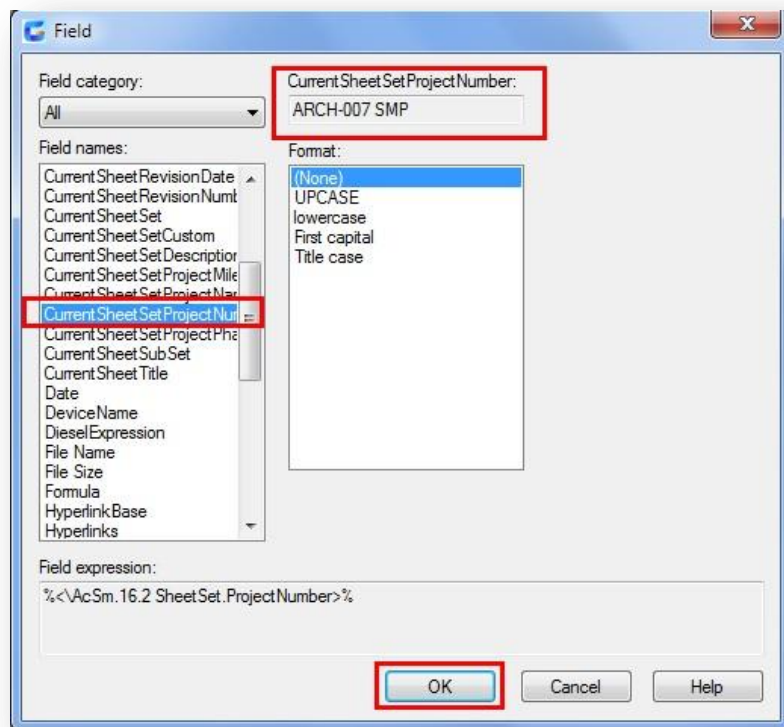


Right away you will see the Fields dialog box. Select the Sheet Set category from the top button.

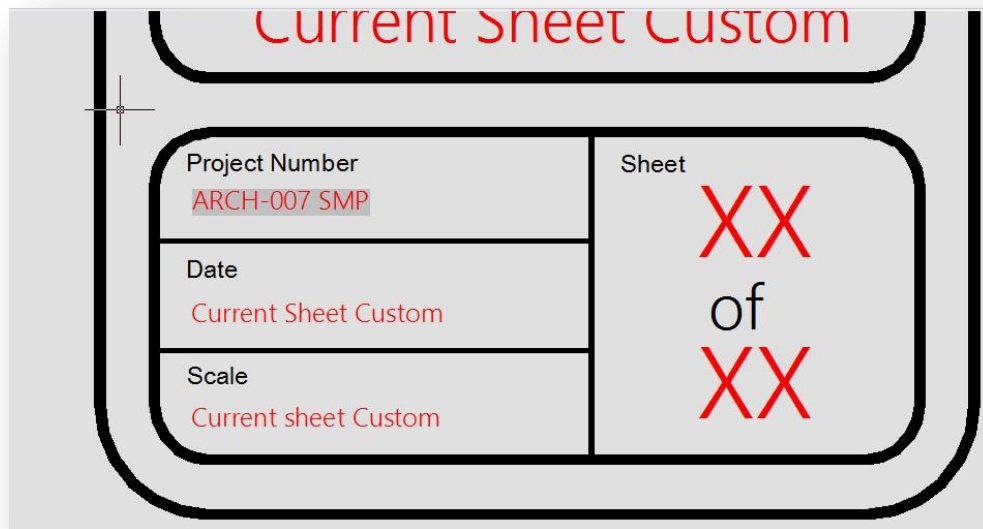
Then select the Current Sheet Set Project Number, you will see the information regarding to project number.

You can choose format options to be displayed in your title block.

After all press *Ok* button.



The content selected will be embedded with its correspondent field that appears shaded background.



After adding Fields to contents in title block, your project data Fields will look similar to the figure below. Fields appear in a drawing with a shaded background. The shading does not plot; it's just an indicator to you that the text is dynamic. The notes and figure below should help you create your standard title block.

Revisions

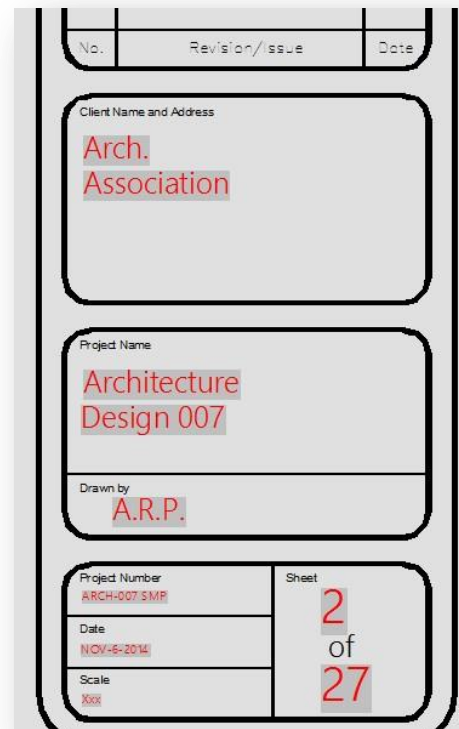
Create several custom properties using CurrentSheetSetCustom: RevNum01, Rev01, RevDate01, RevNum02, Rev02, RevDate02, etc.

Firm Name and Address

Break this into several custom properties using CurrentSheetSetCustom: Firm Name, Firm Address, Firm City/State/ZIP

Project Name and Address

Use CurrentSheetSetProjectName for the Project Name and create several custom properties using CurrentSheetSetCustom for the address: Project Address, Project City/State/ZIP.



Project Number

Use CurrentSheetSetProjectNumber

Date

There are several options under the Date & Time category such as SaveDate, CreateDate, PlotDate, etc. or you can create a custom property that is manually entered for a "Plan Date" using CurrentSheetCustom or CurrentSheetSetCustom.

Scale

This can be associated with the Viewport scale by using Field Name "Object" with the "Standard Scale" property or can be created with a CurrentSheetCustom property.

Sheet Number

Use CurrentSheetNumber

TIP: If you need a Field to be part of a Block, that Field must be embedded into an Attribute entity. A Field that is part of a Text or MText entity and then becomes part of a Block will not update.

So, if you use your title block as an actual Block, all of the Fields listed previously must be embedded into Attributes to work properly.

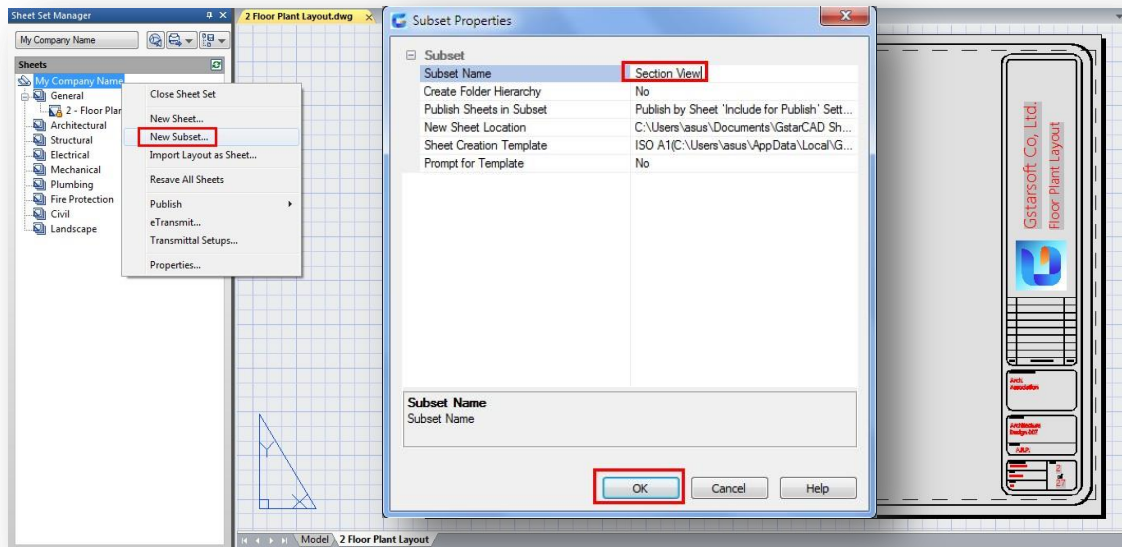


Clean up Sheet Set and Save DWG as DWT

After assigned fields to block title contents properly, is necessary to do sort of clean up regarding to Sheet Set created (*My Company Name*) to avoid drawing template duplication later.

You can still doing some customization to your sheet set like creating a new subset (*Section View*), changing sheet set and sheet custom properties before deleting your sheet (*2 Floor Plant Layout*).

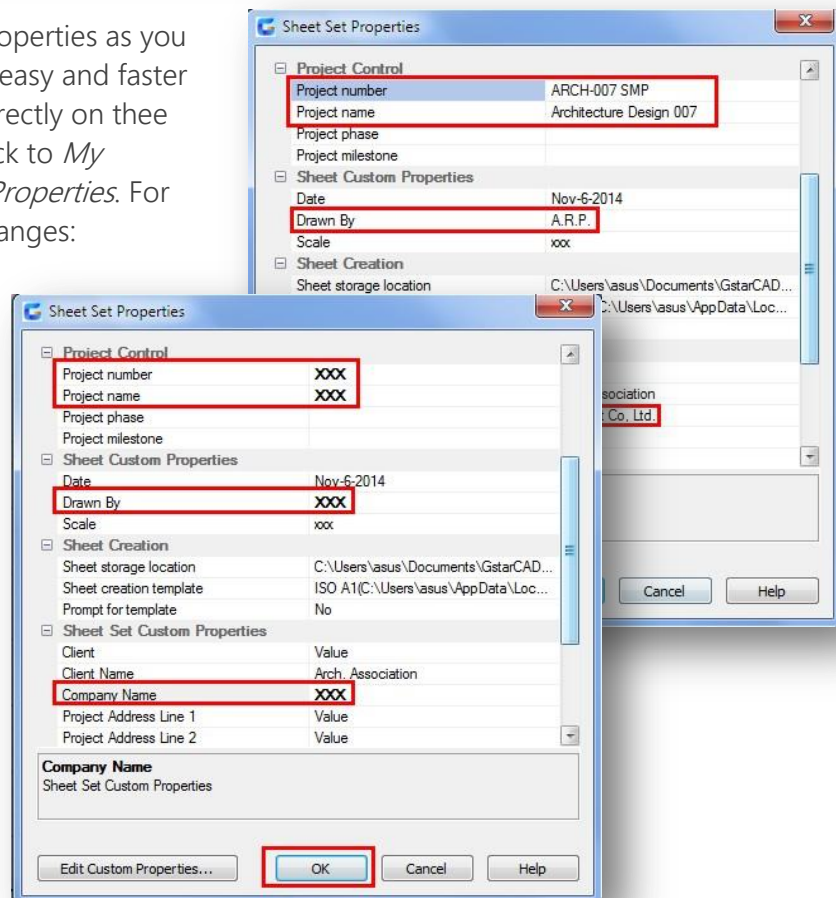
To create a new subset, right click to top of the sheet list and select option *New Subset*. In the subset properties dialog box, enter the follow name as sample: *Section View* and click *Ok*.



You can change sheet set properties as you want. Later you will see how easy and faster is modify these properties directly on the Sheet Set Manager. Right click to *My Company Name* and select *Properties*. For example do the following changes:

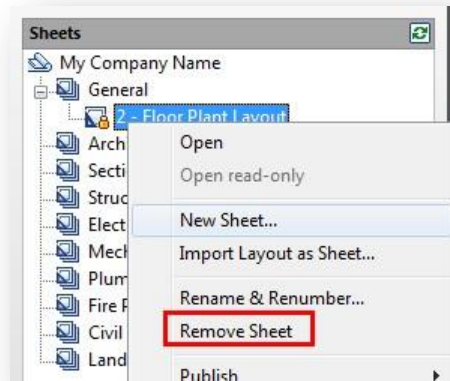
Project Number: XXX
 Project Name: XXX
 Drawn by: XXX
 Company Name: XXX

And click *Ok*.

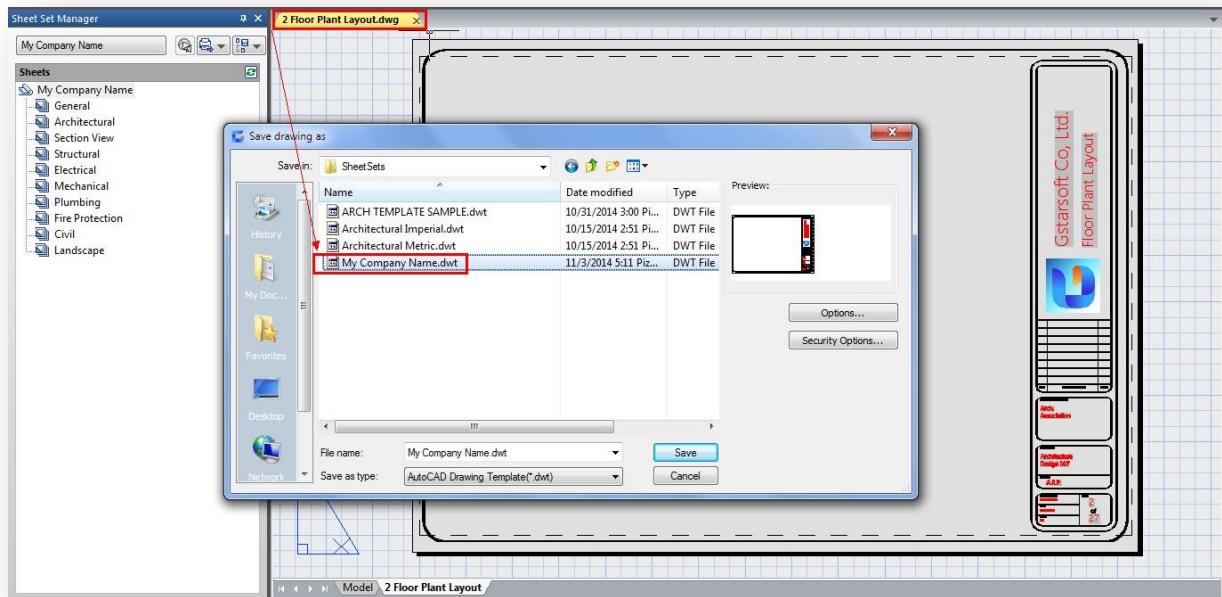


Now you can delete your sheet (*2 Floor Plant Layout*) by doing right click on it and select *Remove Sheet*.

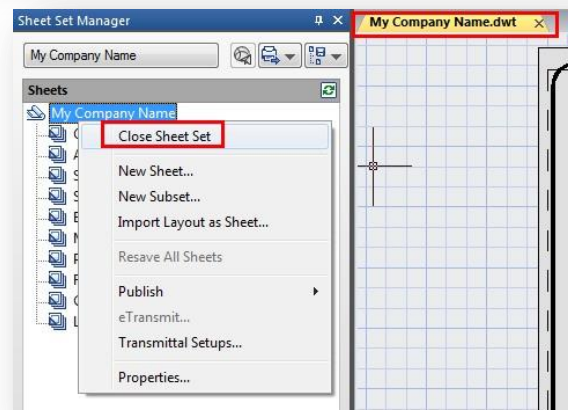
A window will warning you to delete or not the sheet. Select *Yes*.



Then save your current dwg drawing (*2 Floor Plant Layout*) as template file (.dwt) overwriting an existing template with the same name (*My Company Name*) you have made since beginning.



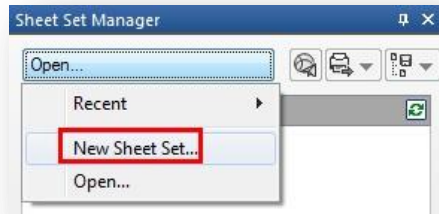
Now you can close the sheet set and the current open drawing to get ready to create a new sheet set with all properties defined in the previous custom template sample.



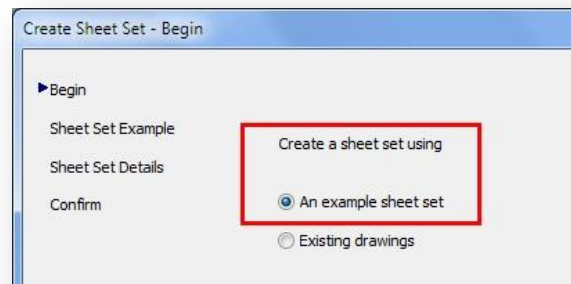
Create a New Sheet Set Base on Your Customized Template

After closing the sheet set and the dwg file, you can start to create a new sheet set that you can use as starting point for your project sheet basis. Follow the Steps bellow:

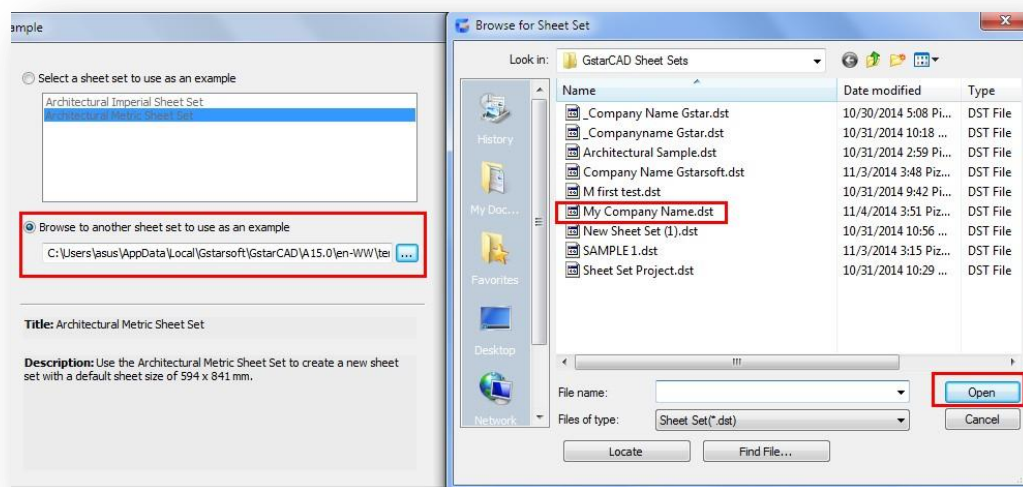
-Create a *New Sheet Set*.



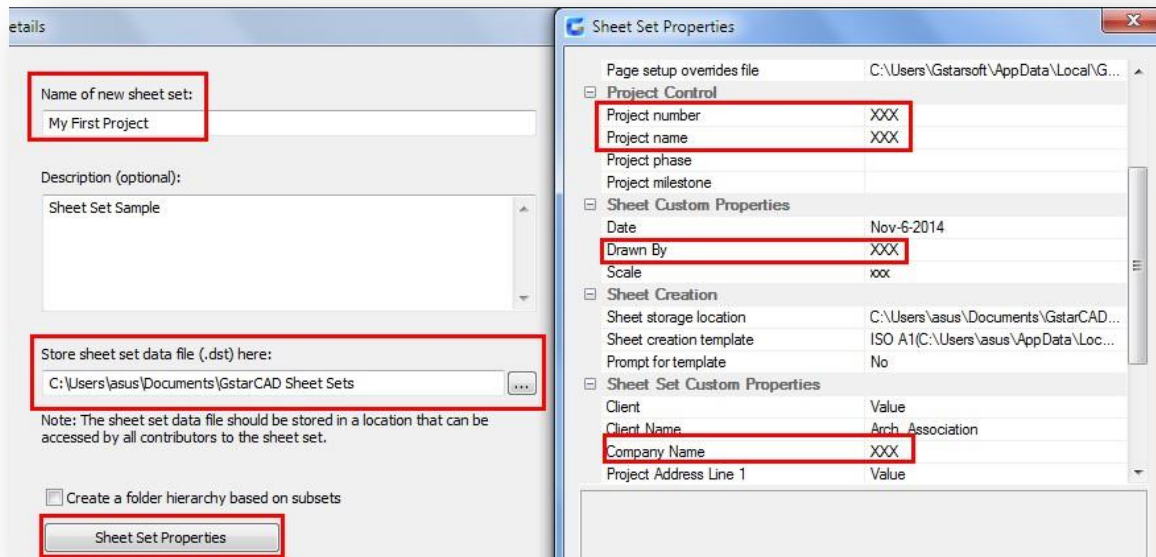
-Create Sheet Set using *An example sheet set*. Then click *Next*.



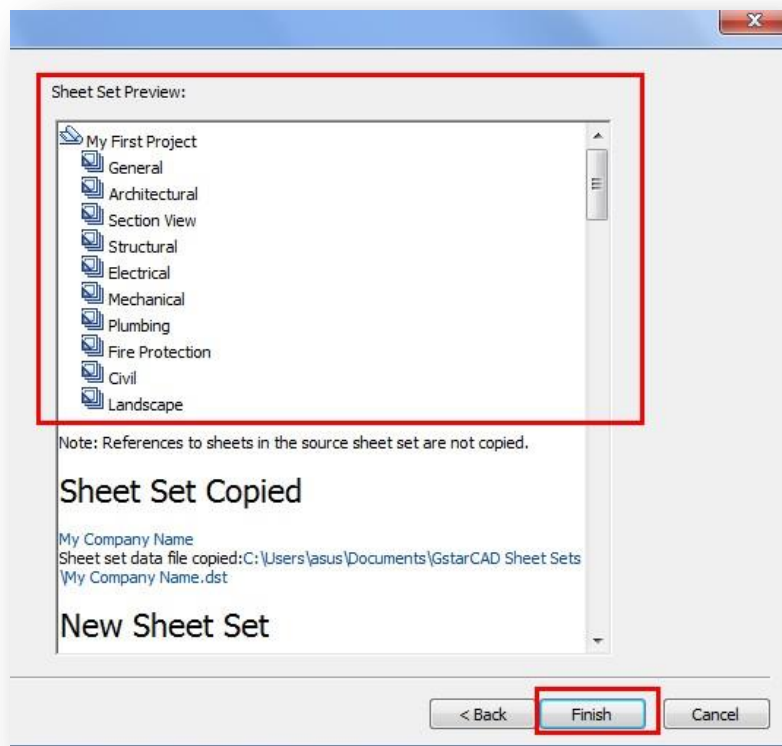
-Then check *Browse to another sheet set to use as an example*. Open *My Company Name.dst*, and click *Next*.



-Enter sheet set details like name of new sheet set. You can enter like; *My First Project*. Then verify the *Store sheet data file location* and check if the sheet set properties as same as custom template you created.

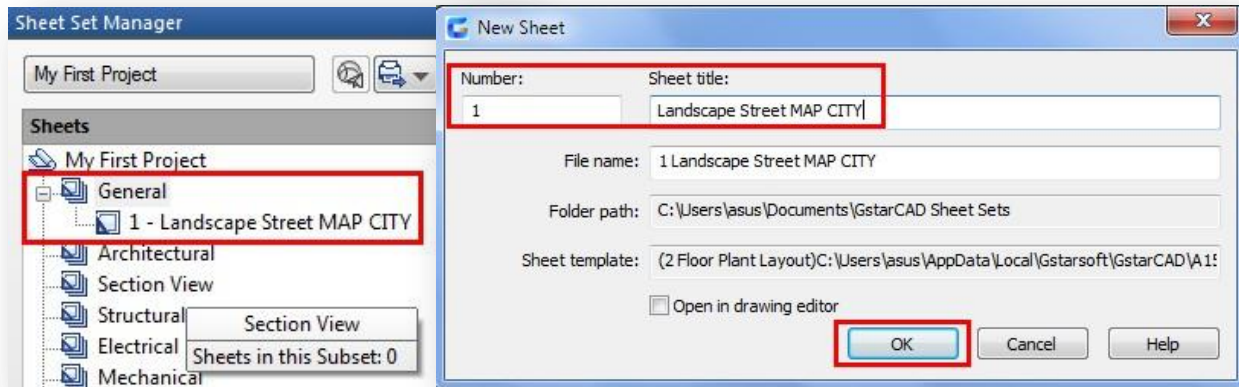


-Then click *Next* and you will see the *Sheet Set Preview* where all the sheet list including subsets are displayed according to the sheet set template you select. Click *Finish*.

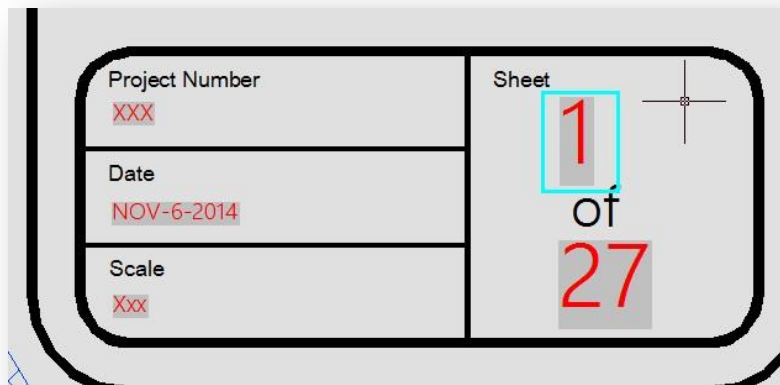


Create Sheets under Subsets for Your Project

-Create a new sheet, right click *General*/subset and select *New Sheet*. You can enter as an example> *Number: 1 Sheet title: Landscape Street MAP CITY*. Then click *Ok*.



-Double click to open the created sheet and you will see the sheet title name and the sheet number fields updated.

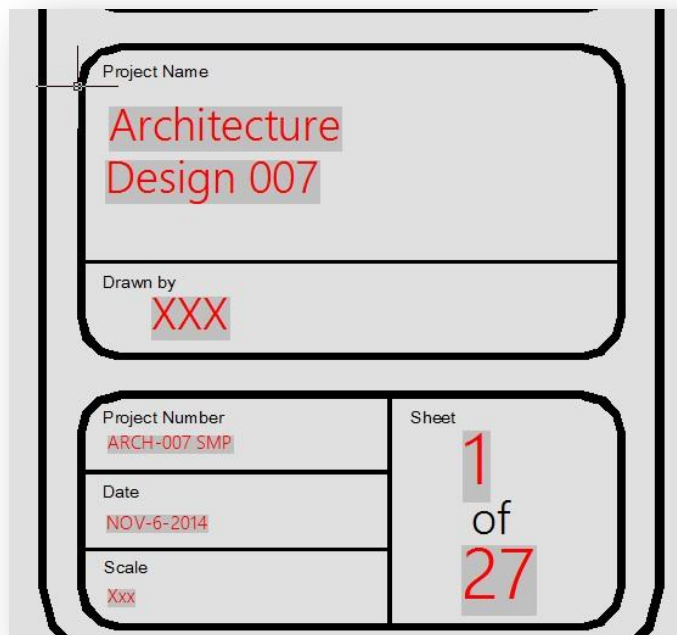
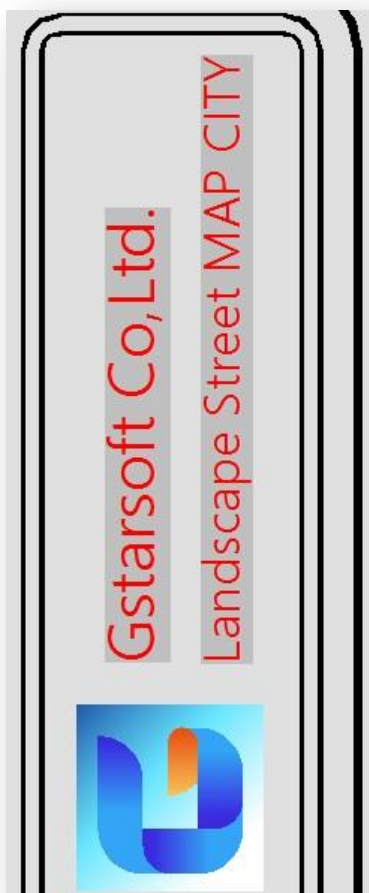
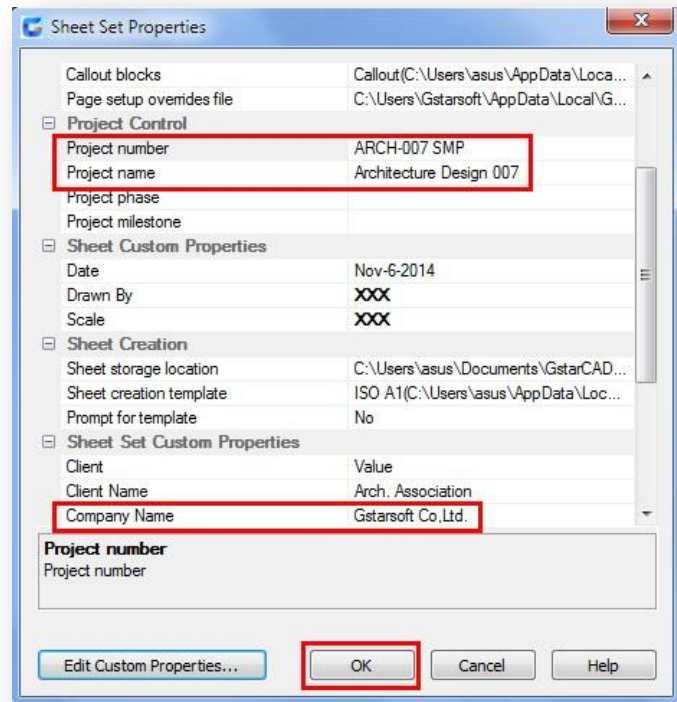


-Modify some sheet set properties by doing right click on (*My First Project*) and select *Properties*. In the Sheet Set Properties dialog box you can modify the sheet set properties as follow:

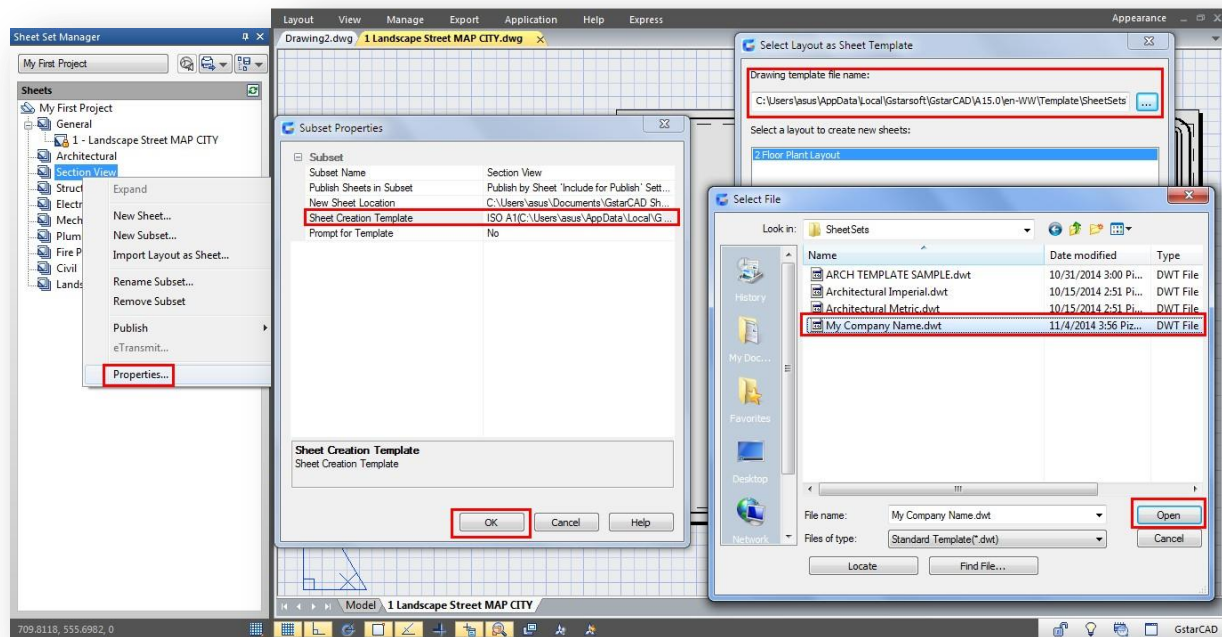
Project Number> *ARCH-007 SMP*
 Project Name> *Architecture Design 007*
 Company Name> *Gstarsoft Co,Ltd.*

After all modification press *Ok*. You have two ways to update the properties by doing right click on (*My First Project*) and select *Resave All Sheets*, or by executing *Regen* command.

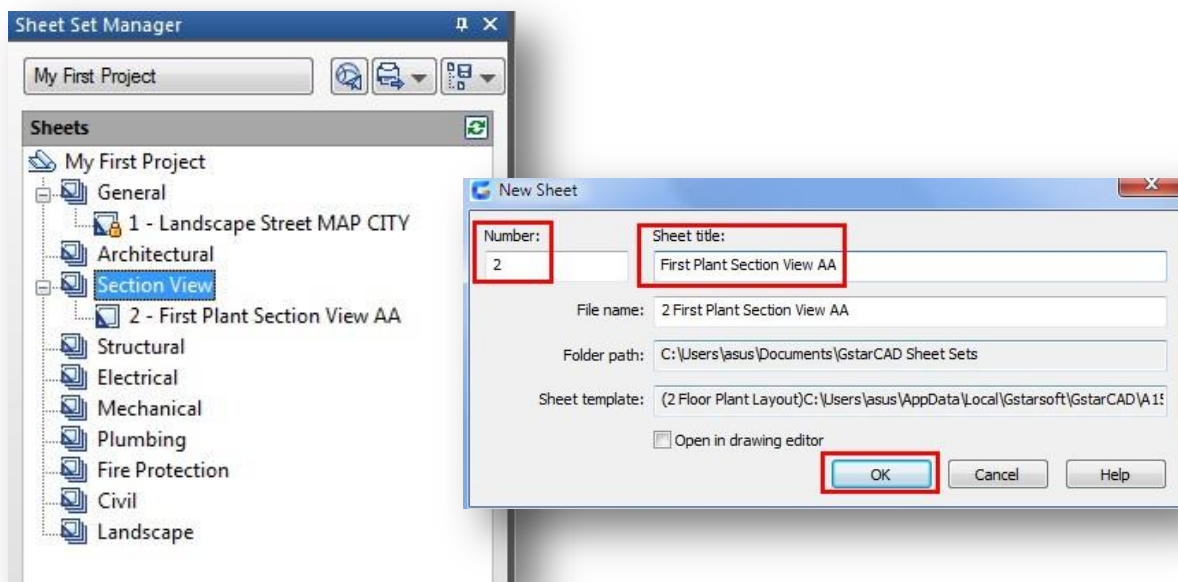
See the picture below.



-Before creating a new sheet under any subset (*Section View*) is suggested assign the same template you used before (*My Company Name.dwt*). To do that just right click on *Section View* subset and select *Properties*. The Subset Properties dialog box will pop up, you have to browse your dwt template file on *Sheet Creation Template*. The file is stored at same path as before, just click *Open*. Then click *Ok* on every dialog box displayed.



-Create a new sheet under *Section View* subset by doing right click on and select *New Sheet*. In the New Sheet dialog box you can fill the *Number* and *Sheet Title* as you need for your project. You can keep creating many new sheets under any subset or even new subsets as you want.

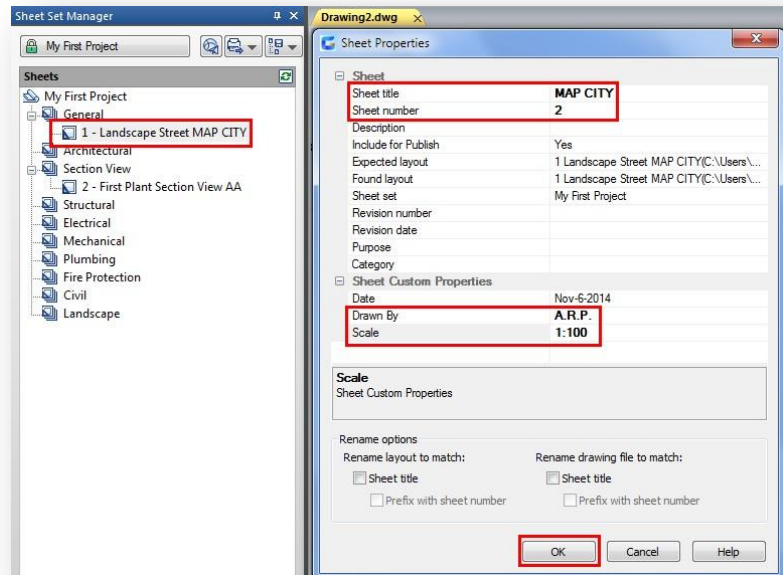


Modify Sheet Set and Sheet properties Without Open Sheets

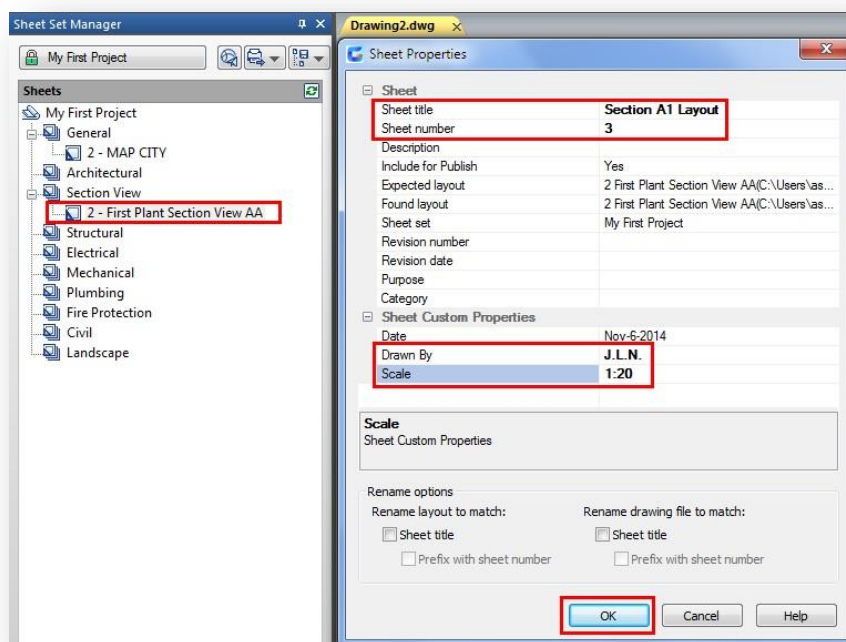
The most time-consuming process when dealing with many drawings project is updating the title block contents whether individual sheet or set properties from the whole project. With the Sheet Set Manager you can directly modify Sheet Set and individual Sheet properties without open any sheet.

You can take as example the sheet set you created (*My First Project*). Notice there are two sheets created under their own subset. What about if you modify their properties directly in the Sheet Set Manager without open them.

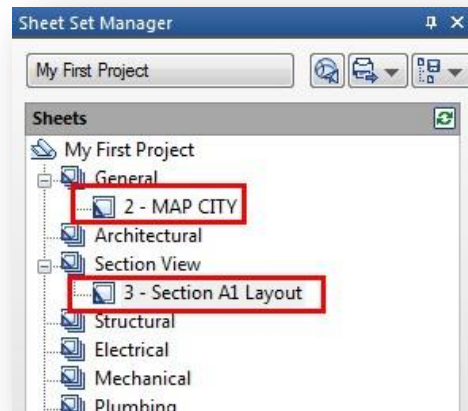
-Modify properties from the sheet under *General* subset like *Sheet Title*, *Sheet Number*, *Drawn By* and *Scale*, click *Ok*.



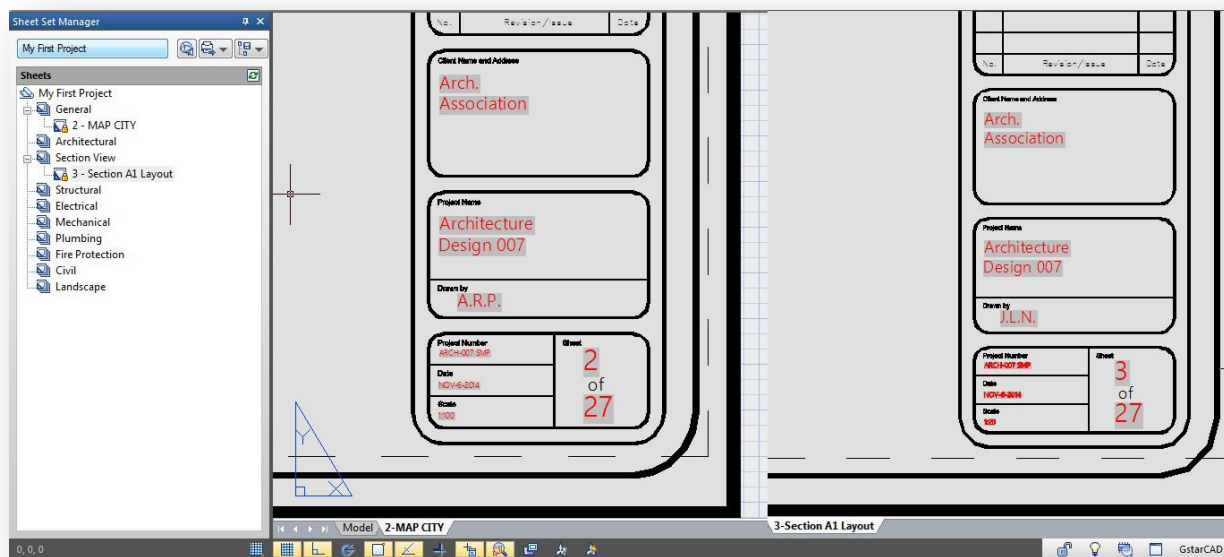
-Modify properties from the sheet under *Section View* subset like *Sheet Title*, *Sheet Number*, *Drawn By* and *Scale* as shown below:



-Notice the modifications done are only visible at Sheet Set Manager palette.



-If you want to see the modifications, just double click on each sheet to open up.



Initial setup of a twenty drawing project can take full day of your CAD staff's time. Each subsequent drawing you add can take an additional hour or more. Do the math on the cost to set up a 100+ drawing set and you can see how quickly budgets can be chewed up, and you haven't even begun the design yet.

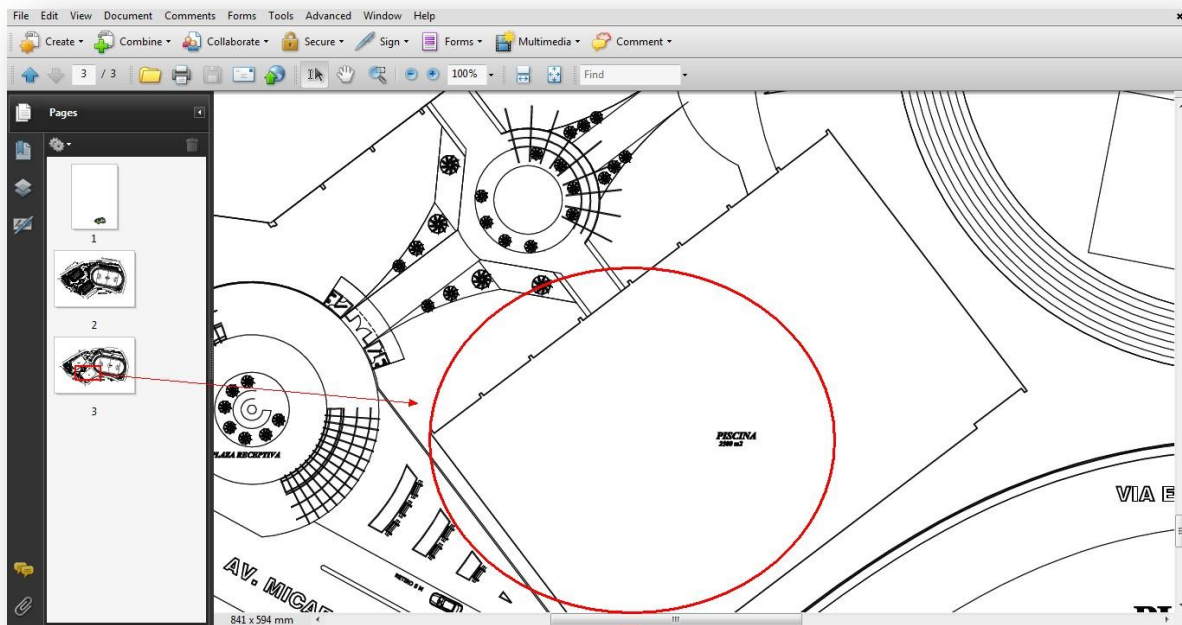
SSM (Sheet Set Manager) has been around for a long time but not a lot of firms make use of it and those that do aren't making full use of its functionality. SSM could save you tens of thousands of dollars on every one of your projects.

Connectivity

PDF Underlay

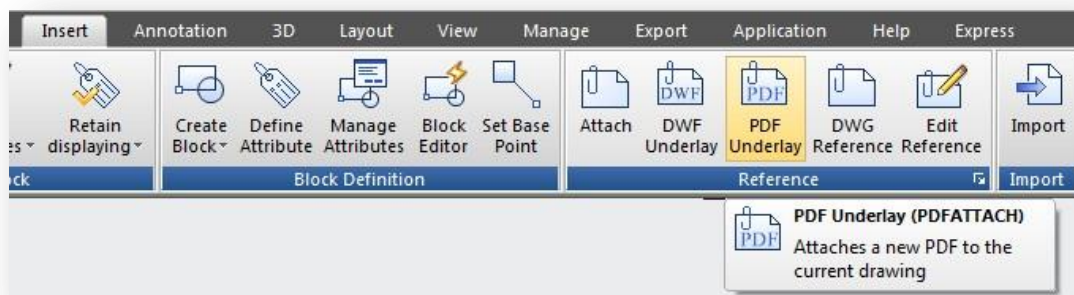
Another new feature in GstarCAD 2015 regarding to file connectivity is PDF as underlay.

If you receive project drawings in the form of a PDF file, you can reuse that PDF data in your own GstarCAD drawing files. For example, imagine that you are a landscape designer and you receive a PDF file for this building project. This particular sheet includes a floor plan that you want to use as starting point for your landscape design.

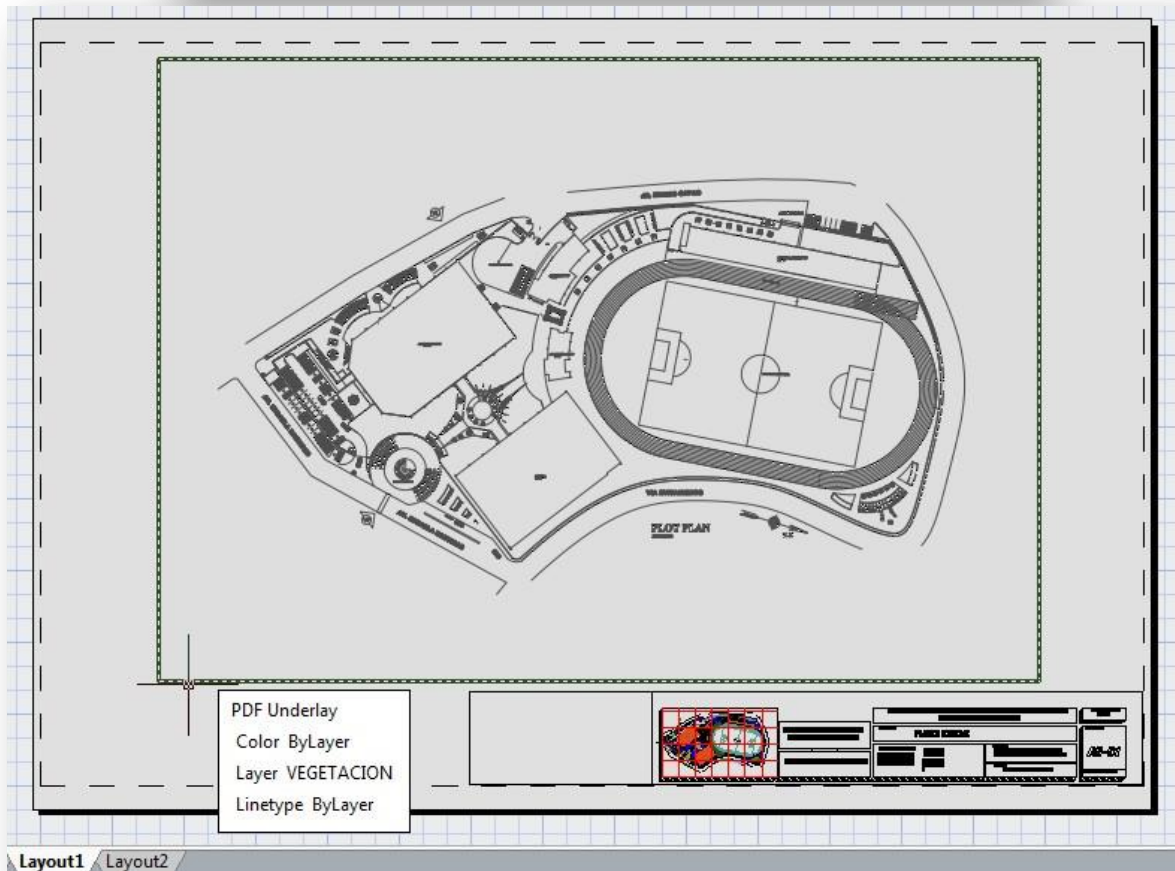
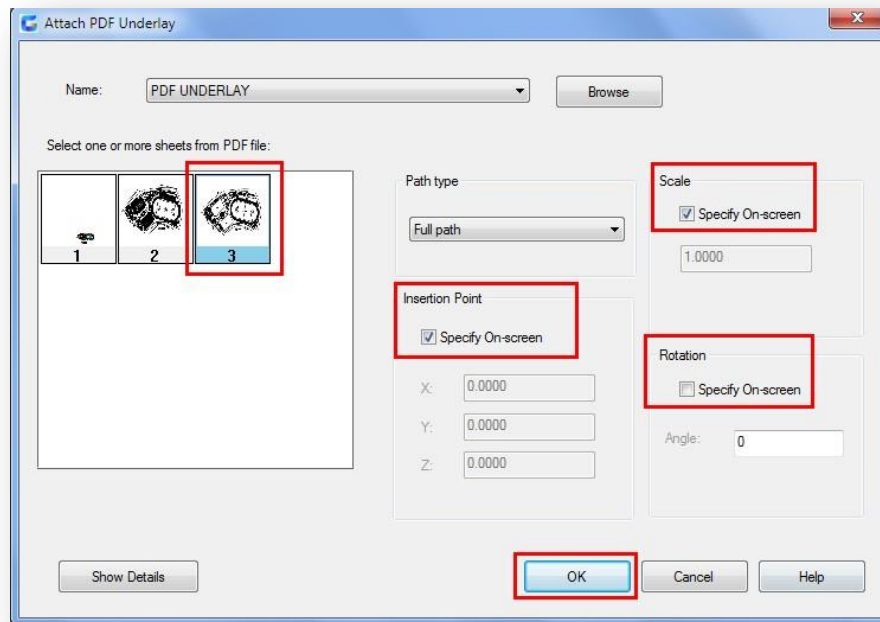


Attaching a PDF as underlay

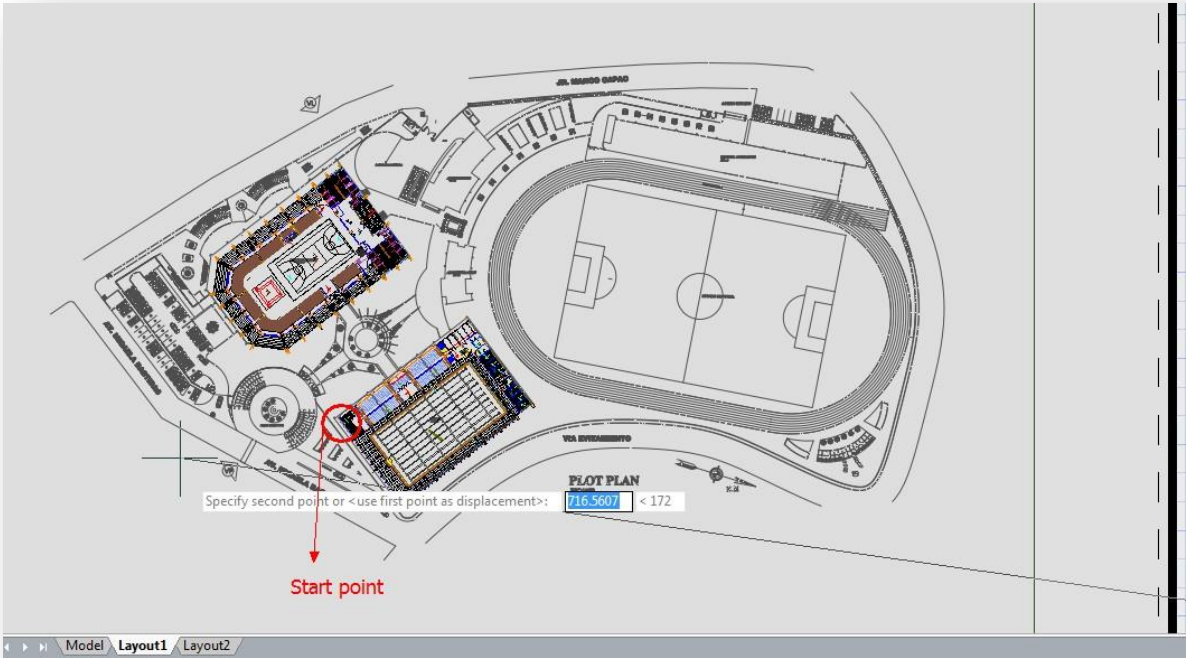
In GstarCAD you can attach a PDF file as an underlay to your drawing. Access to PDF Underlay at Insert tab on the ribbon or type> PDFATTACH command.



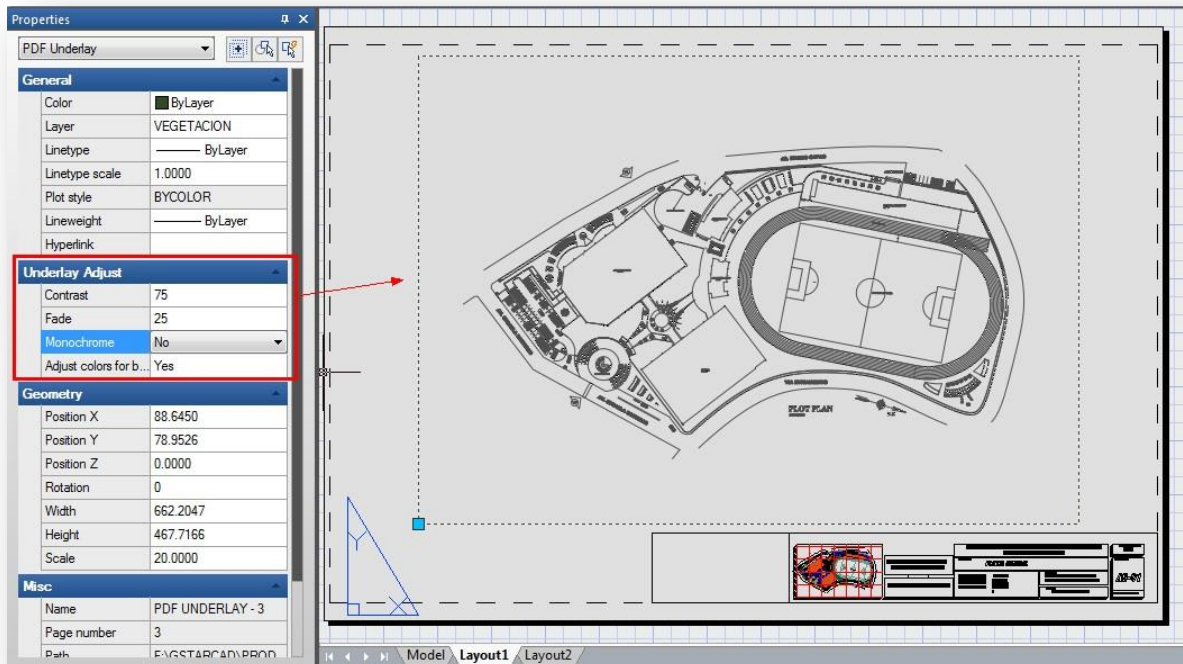
If the PDF includes multiple sheets, you simply choose the appropriate one during the attach operation. You can define some parameters like insertion, rotation and scale point before attaching the PDF. You can use the underlay as a reference background after it is attached.



Then you can start drawing or placing geometry at specific point of the underlay.



What's more, you can adjust the underlay display like contrast, fade, monochrome, and colors for background through the properties palette.



Cloud Storage

Collaborative capability between different fields like design, engineering, and project team work together efficiently thanks to cloud storage supported in this version. With cloud storage, you can synchronize your drawing files and custom settings.



Drawing files synchronous

After register a cloud account, view and share data in the cloud is available. Users can upload or download drawings from cloud or even create a category to implement drawing synchronous just using desktop and mobile devices or tablet PC to operate.

Custom settings synchronous

There are several settings you can customize according to your need such as interface settings, usage habits, object definitions (font, linetype, hatches and so on). The settings can be saved to local disk or cloud server, which is ease to recover drawing settings when reinstall the software that can be shared to other members of your project team.

Cloud Settings

Within *Options* dialog box, under *Cloud Storage Sync Settings* tab you will see the follow options before connecting to a cloud driver:

Select Cloud: By now on you can select two cloud drivers which one of them is well known Dropbox.

Under Information Title

Name: It displays the user name according to cloud driver you selected.

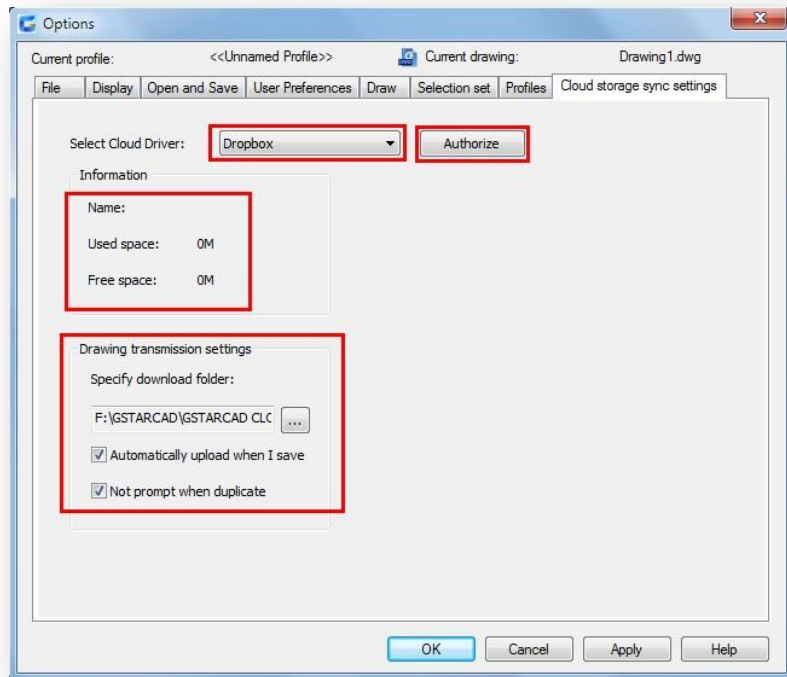
Used Space: It displays the drawing size that will be uploaded to cloud.

Free Space: It displays the free space available from the cloud driver.

Under Drawing Transmission Settings Title

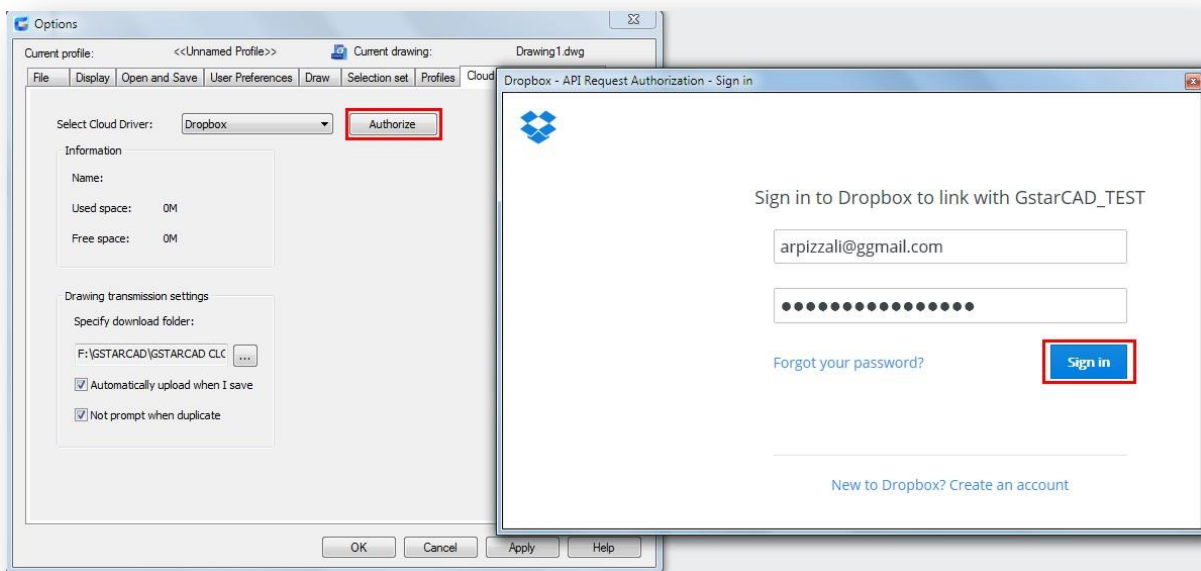
Specify Download: You can specify the path where the downloaded drawing will be stored.

Additionally there are two options which allows you to *Automatically upload a drawing when you save* it and *Not prompt when duplicate* a drawing. You can check or not these options. These options play an important role when displaying prompts related to cloud actions at the windows taskbar.



Authorize: This button will browse to the cloud driver selected, thus you can sign in to then start upload or download drawings.

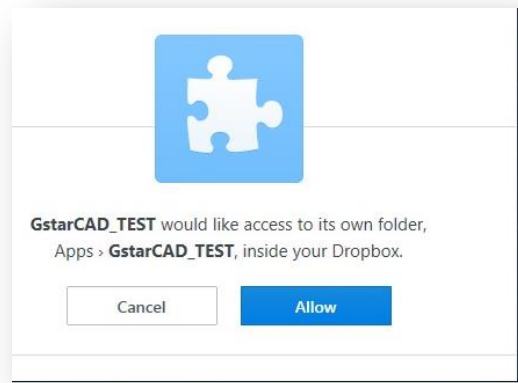
If you already have a dropbox account, by clicking the *Authorize* button, you can sign in and access to dropbox.



Then click *Allow* button to keep signed up to your dropbox account.

After that, you have to go back to the *Options* dialog box and click *Apply* and *Ok* buttons to finish the authorization.

From now on you are able to download, upload or even upload your current drawing with modifications to be updated in the cloud.

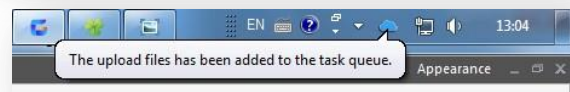
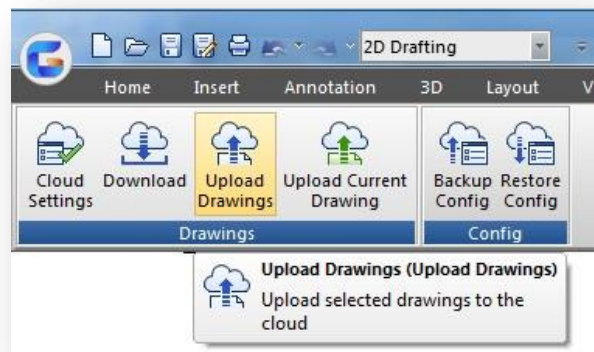


Upload Drawings

To upload your drawing(s), just click the *Upload Drawing* button in the ribbon.

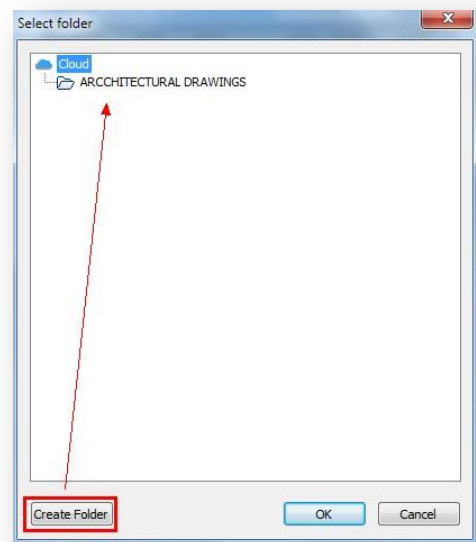
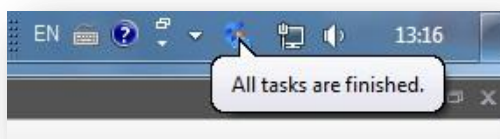
And select the file(s) you want to upload.

Then a message will pop up at the windows taskbar telling you that *the upload files has been added to the task queue*.



Right away, the Select Folder dialog box will pop. You can *Create Folder* to storage you drawing. This reference folder will be created in the cloud directly. Then press *Ok* button.

At the windows taskbar will pop up a message telling you *All tasks are finished*, that means your drawing(s) was successfully uploaded to dropbox.



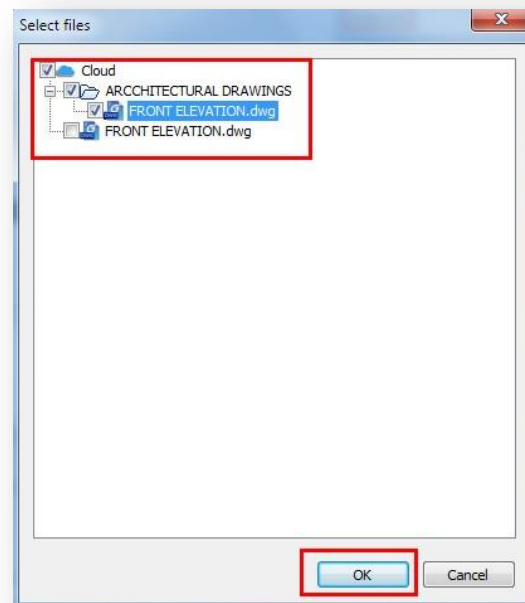
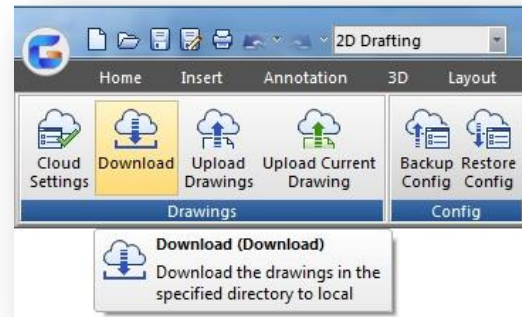
Download Drawings

To download your drawing(s), just click the *Download* button in the ribbon.

The windows taskbar will prompt a message: *The downloaded files has been added to the task queue.*

Within the *Select Files* dialog box you can check or uncheck the drawings you want to download. Then press *Ok* button to download the file(s).

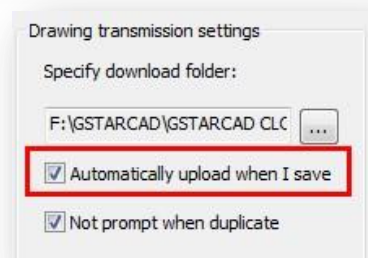
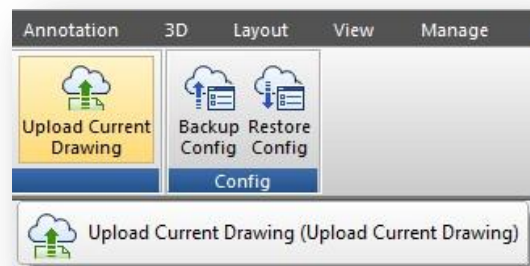
Again the windows taskbar will prompt a message: *All task are finished.* That means the file(s) has been downloaded successfully at the download path you previously setup.



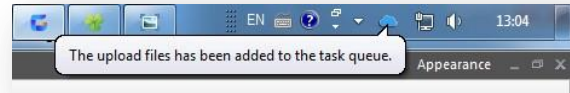
Upload Current Drawing

If you are doing current modifications to a drawing that you have previously uploaded to cloud, it doesn't matter... You can keep up to date drawing modifications and override if you upload it to the cloud.

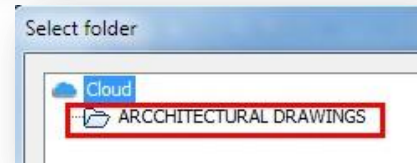
After finish drawing modifications, if you check the option *Automatically upload a drawing when you save* on *Drawing transmission settings*, and then *Save* or either press the *Upload Current Drawing* button in the ribbon to upload your modified drawing to the cloud.



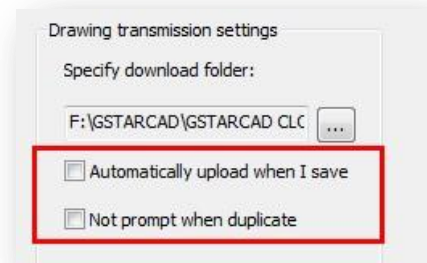
You will see the follow message at the task bar:
The upload files has been added to the task queue.



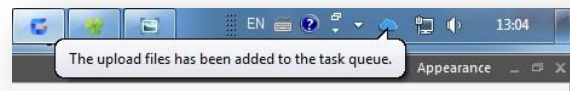
And the *Select Folder* dialog box will pop up.
 You can select the same folder you uploaded your drawing, and finally press *Ok* button. Your drawing will be successfully uploaded to keep it up to date.



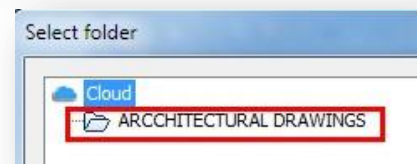
After finish drawing modifications, if you uncheck the option *Automatically upload a drawing when you save* or *Not prompt when duplicate* and then press the *Upload Current Drawing* button in the ribbon to upload your modified drawing to the cloud.



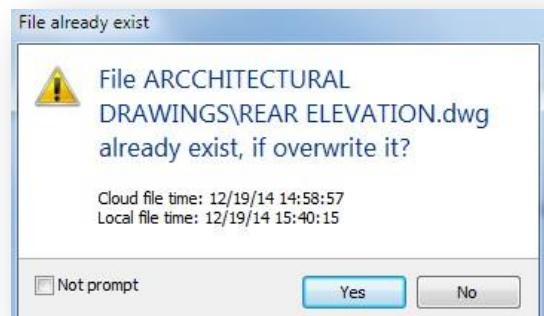
You will see the follow message at the task bar:
The upload files has been added to the task queue.



And the *Select Folder* dialog box will pop up.
 You can select the same folder you uploaded your drawing, and finally press *Ok* button.

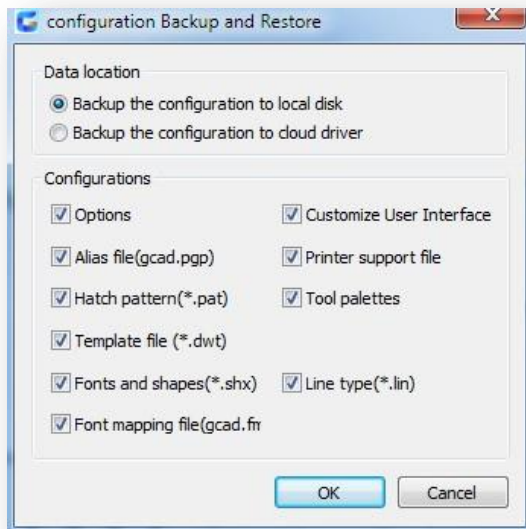


Then you will get a message telling the drawing you want upload already exist in the cloud, and asking if you want to overwrite it. You can click on *Yes* or *No* button according your choice.



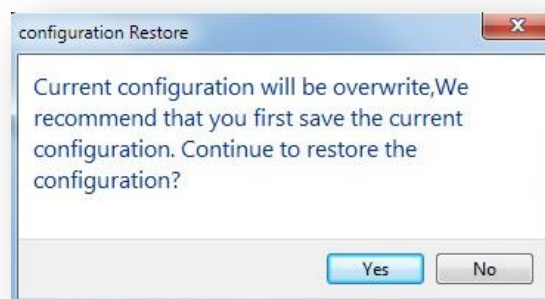
Backup or Restore Configurations

You can backup drawing and program configuration by selecting the *Backup Config* button on the ribbon.



There are several settings you can customize according to your need such as interface settings, usage habits, object definitions (font, linetype, hatches and so on). The settings can be saved to local disk or cloud server, which is ease to recover when reinstall the software that can be shared to other members of your project team.

You can also restore settings by clicking the *Restore Config* button on the ribbon. Select *Yes* button to check and save the current configuration before restore it.



Barcode & QR Code

GstarCAD 2015 introduces two innovative features Barcode & QR Code, which will impact the way of storage, trace and share relevant drawing data in the CAD industry. Barcode & QR Code can be inserted to the drawings, accomplishing identification and correspondence between paper and electronic drawings.

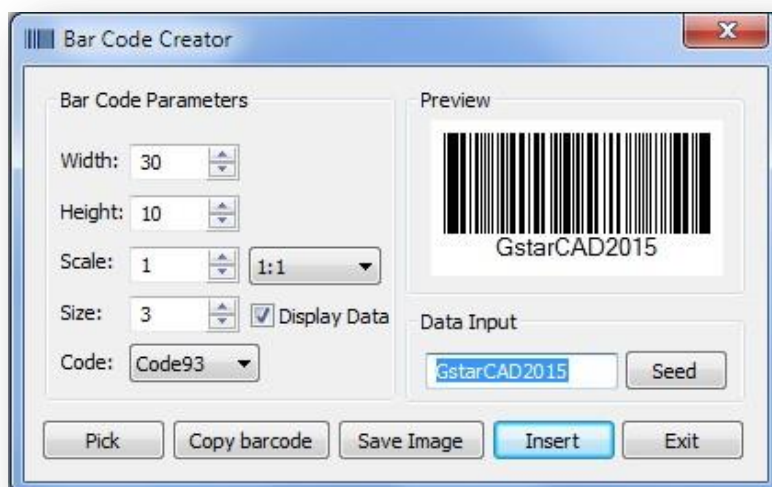
Barcode

Barcode is a printed series of parallel bars or lines of varying width that is used for entering data into a computer system. The bars are typically black on a white background, and their width and quantity vary according to application. The bars are used to represent the binary digits 0 and 1, sequences of which in turn can represent numbers from 0 to 9 and be processed by a digital computer.

Bar coding was introduced in the 1970s and is now a ubiquitous part of routine commercial transactions. Grocery stores use the codes to obtain price and other data about goods at the point of purchase by the consumer. At a typical supermarket checkout counter, a scanner is used to identify a product through its bar code, and a computer then looks up the item's price and feeds that number into the cash register, where it becomes part of the bill for the customer's purchases.

The chief advantage of bar code systems is that they allow users to process detailed information at the moment the barcode is scanned, rather than simply storing information for later processing.

Barcode technology has been widely used in a variety of industries. In some design companies, barcode has also been used in drawing management system, mainly used to corresponding paper documents and electronic drawing file, just by scanning the bar code in the paper drawing to identify quickly the corresponding part in electronic drawing file.



Parameters of Bar Code Creator as below:

Width: Set the bar code printing width.

Height: Set the bar code printing height.

Scale: Set the barcode printing scale, behind the scale option is the scale list, you can choose the scale needed, meanwhile, the scale list can remind user the bar code generating is relate to the printing scale. Finally, barcode will generate as a block, the scale you set can be the block scale to ensure barcode can be printed correctly in different printing scales.

Display Data: Control whether display the data under the bar code.

Size: If "Display data" option is checked means option is activated, you can set the data height.

Code: Bar code system. Currently we support Code93.

Preview: Displays the bar code image and the data input.

Data input box: You can directly input bar code data, also can click seed to generate barcode.

Seed: Generate barcode data by random algorithm. Click the "seed" button, the barcode data will generate randomly and display directly to the data input box above.

Length: Set the length of the bar code data. There are two ways: one is control the data length which manually input and random generated. The other is control the data length that random generated, check the "seed" before activate this setting.

Pick: Pick up text or bar code. If you pick the data, it will only obtain the data displayed, but if you pick the barcode, you will get the information of barcode width, height and proportion and data

Save Image: Save the barcode to BMP format picture, you can either use the picture to print or insert to other document or to CAD drawing.

Insert: Define the barcode generated as a block and take left bottom of the barcode as base point. You can insert the barcode to the drawing file through the insertion point with the scale set before.

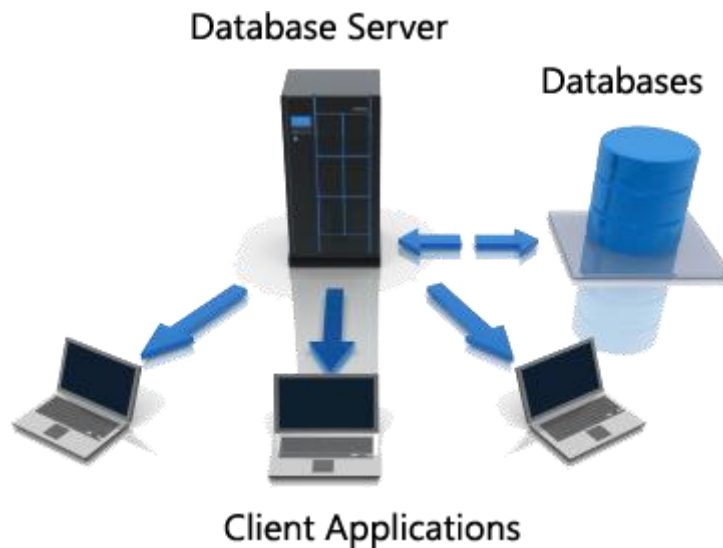
Cancel: Cancel the dialog box and save the current settings, when you open the dialog box next time, the setting you saved last time will display.

Bar Code usage sample in CAD industry

For example, If you are working in a manufacturing project, trace and verify every part of it is essential to avoid duplication problems.



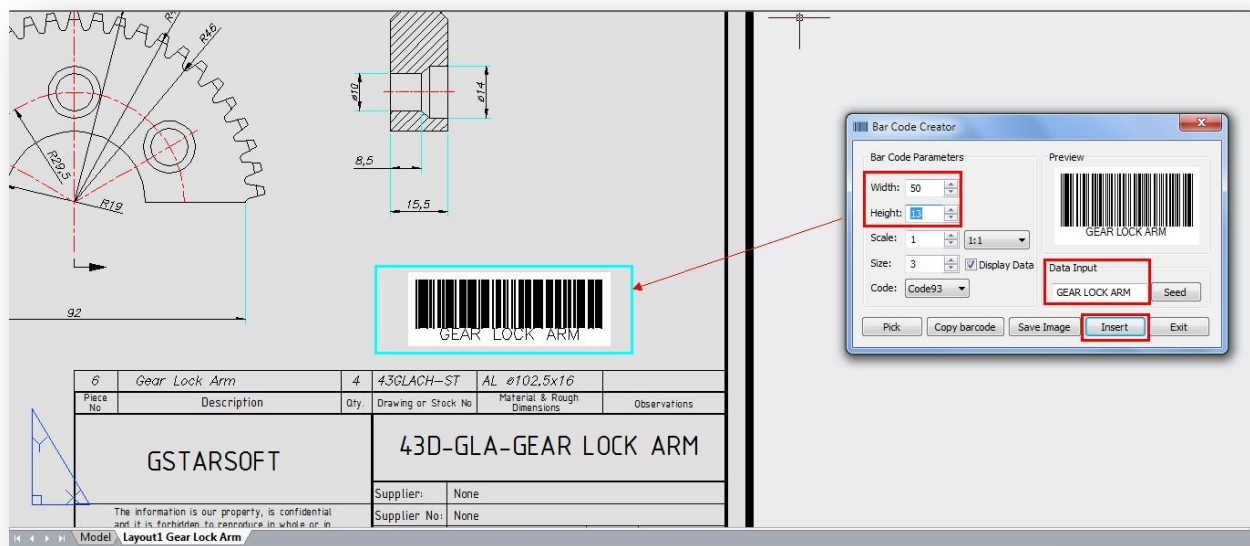
If your company has a database server with a barcode database management program, you can take advantage of GstarCAD Barcode.



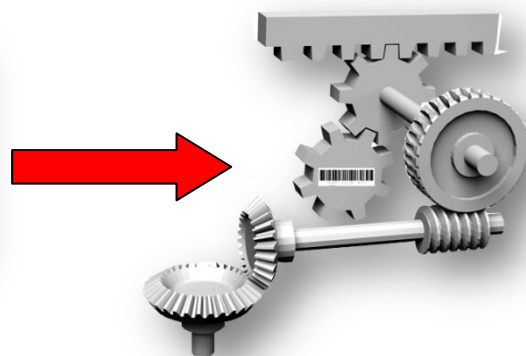
To access to Barcode; Home tab> Insert panel> Barcode or type> BARCODE



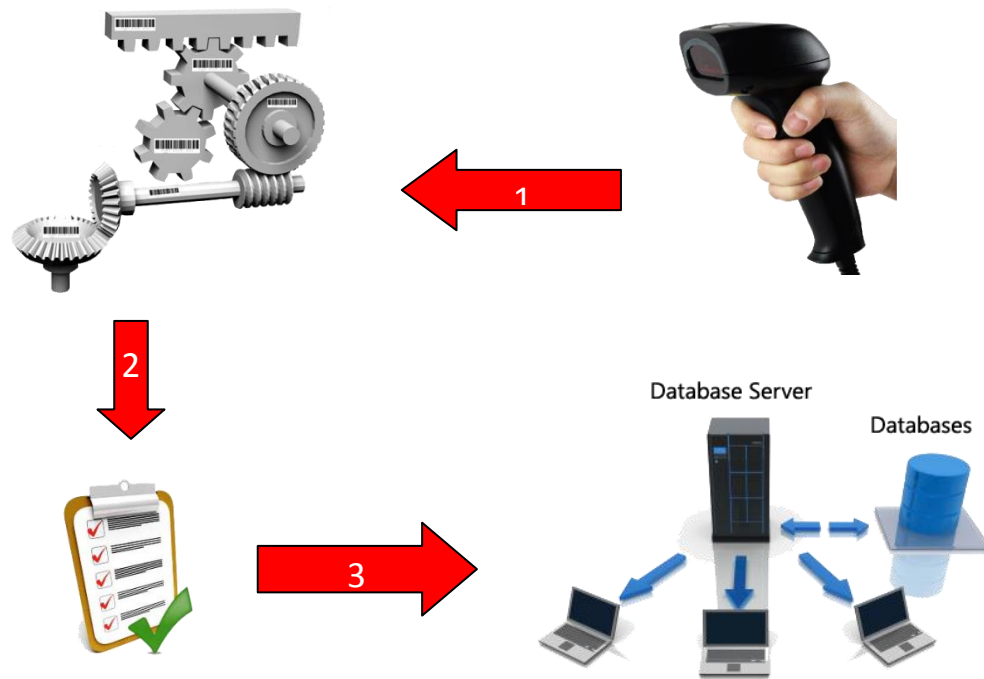
You can set the barcode parameters like width and height and attach it into each sheet of your project drawing. You can also save the barcode as image to later use.



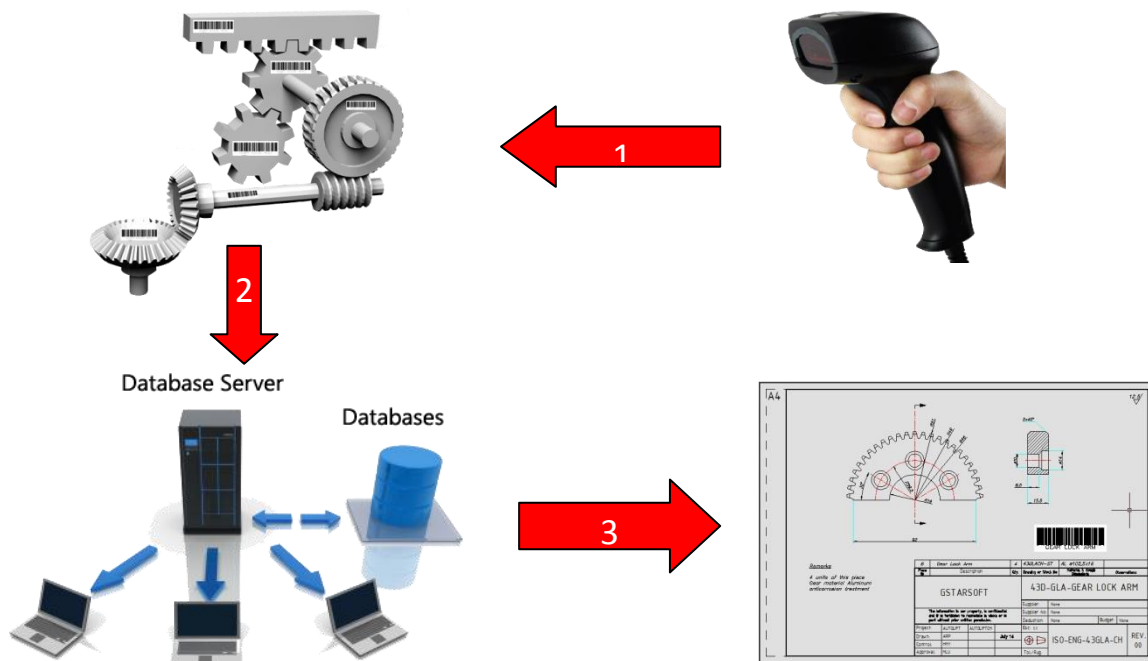
The same barcode can be printed and pasted into specific piece of the project.



When the project is finish, you can use a barcode scanner¹ to do a parts inventory² that will be recorded in the server database³.



You can get specific info from a piece of the project, just scan¹ the piece² and the server³ will directly access to its dwg file. GstarCAD Barcode can provide endless solutions for project teams of any industry.



QR Code

A QR code (quick response code) is a type of bar code that is used to provide easy access to information through a mobile device like smartphone or tablet.

Comparing with barcode, QR Code can storage more information and is widely applied in many fields, for example; product anti-fake, advertising push, web links, data download, commodity transaction, Positioning/navigation, electronic documents, business card exchange, etc.

Take advantage of QR Code in GstarCAD 2015 to make text and block attributes from your drawing scannable using any mobile phone or tablet with a camera. All you need is one of many available QR code reader applications for your device.

Parameters of QR Code Creator as below:

Input : In input text area, you can input the text directly or you can pick text data from the drawing, also you can select the preset data which can display automatically in the input text box.

Already entered:0/500: Displays the entered text number and the maximum Input text number.

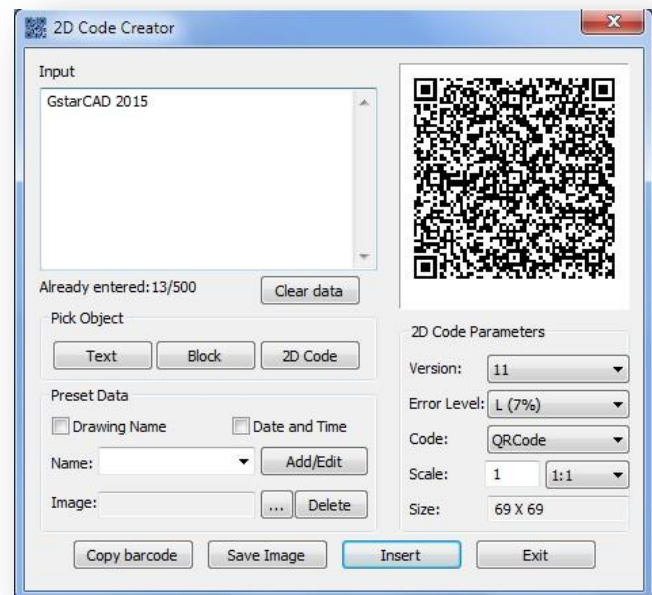
Clear: Cleans all data displayed at input text area.

Pick Object: You can select three options to picking objects from your drawing.

Text: Picks text from drawing file, the text will display in input text box automatically after you picked up.

Block: Picks the attribute block from the drawing file, add the tag and value to the input text box. It is always used to pick the information of the tab.

2D Code: Picks the QR Code from the drawing file to get the information of QR Code.



Preset Data: You can preset data, when the data is needed just check the corresponding option. The information will automatically added to the input text area.

Drawing Name: When check Drawing Name option, the drawing name will display in the input text area.

Date and Time: When check Date and Time option, the current date and time will display in the input text area.

Name>Add/Edit: You can customize field that common used, when the field is needed, click the pull down list to find it out and display it in input text box.

No: Input the field number.

Name: Input the field name.

Value: Input the field value.

Add: Add new custom field.

Delete: Delete custom field.

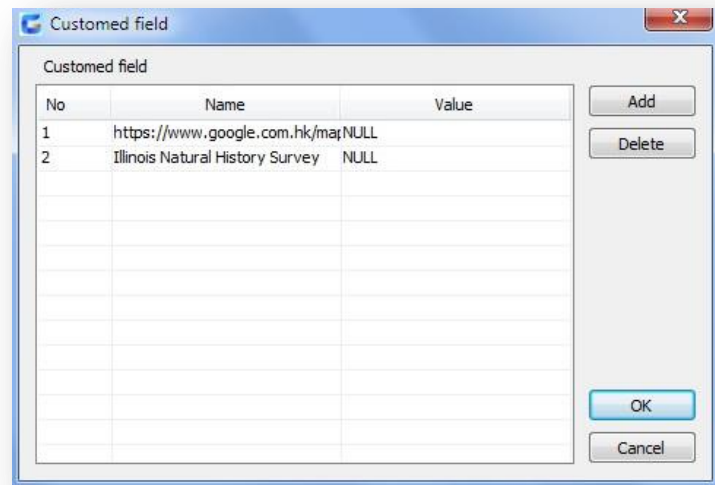


Image: Company logo or others marked pictures can be added to QR Code. You can also browse pictures from your computer, JPG\BMP\PNG\TIF\TGA,etc formats are supported.

Delete: Delete the picture selected.

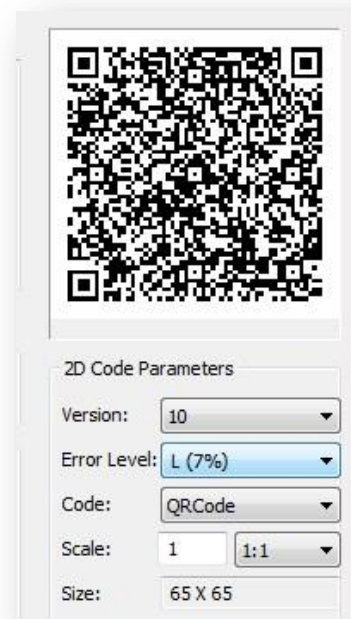
QR Code Parameters: You can set QR Code image parameters before being inserted.

Version: Creates QR Code according to the data you input. Sets the QR Code version, the version number will adaptively according to the increase of text.

Error Level: Error level for QR Code data generated.

Size: Set the width of QR Code. H (30%\Q(25%\M (15%\L (7%): the captibilityof correcting about 15% data error.

Code: QR Code system. Currently we support Code93.



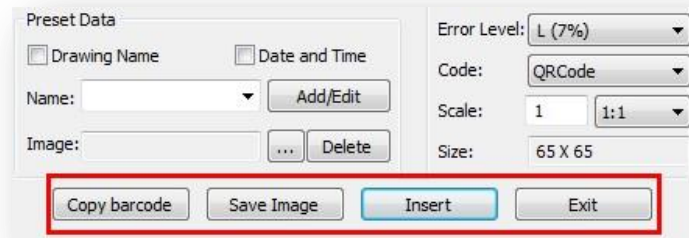
Scale: Set the QR Code printing scale, behind the scale option is the scale list. You can choose the scale needed, meanwhile, the scale list can remind user the QR Code generating is related to the printing scale. Finally, it will generate as a block, the scale you set can be the block scale to ensure the QR Code can be printed correctly in different printing scales.

Copy Barcode: Copies an existing QR Code from your current drawing.

Save Image: Saves the QR Code as a picture, you can either use the picture to print or insert to other document or to CAD drawing.

Insert: Inserts the generated QR Code to the drawing as a block

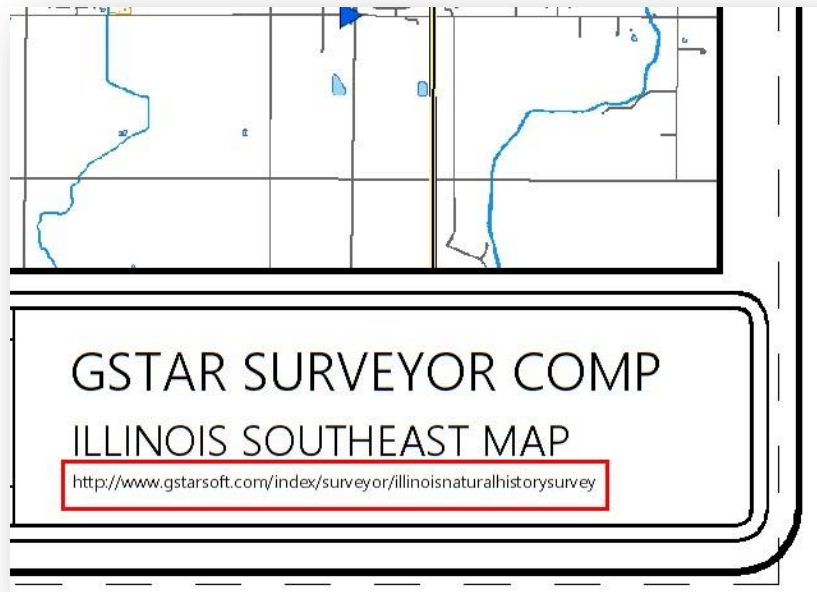
Cancel: Cancel the dialog box and save the current settings, when you open the dialog box next time, the setting you saved last time will be displayed.



QR Code usage sample in CAD industry

For example, QR Code image can be used to replace longer URLs attached into your drawing whatever purpose (website at the company who offered the project's drawing or a geolocation hot spot as samples).

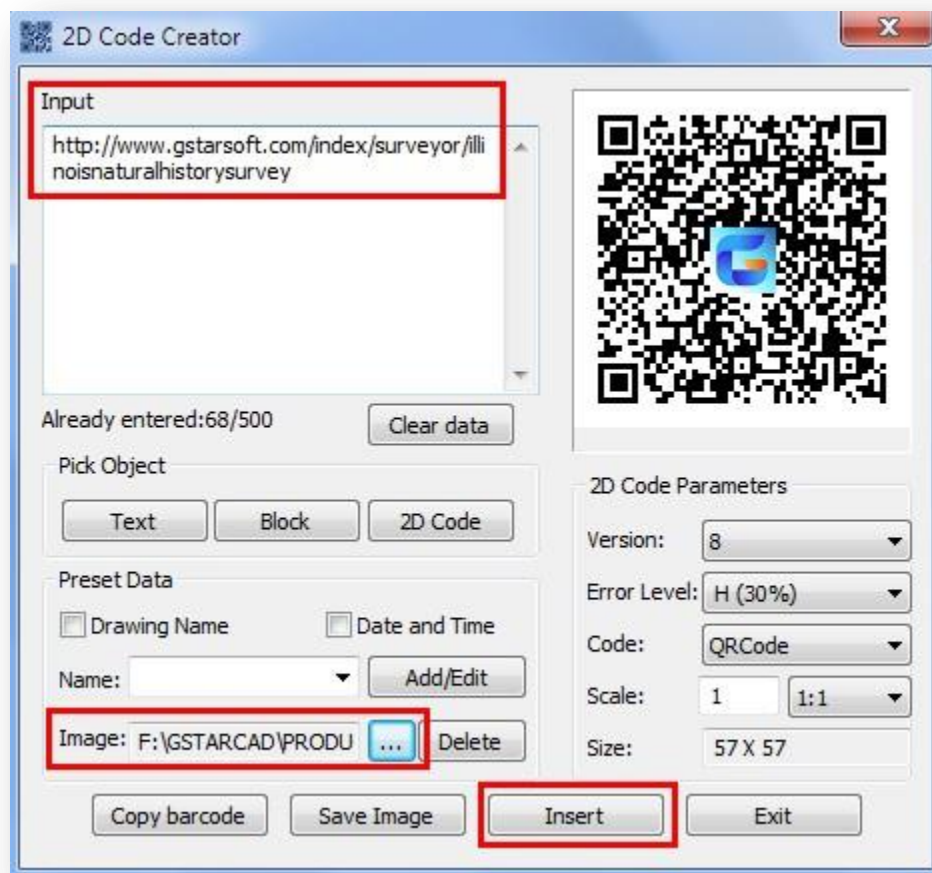
Traditionally you can attach your company URL as Mtext into the title block. The problem is that your company's URL is too long to be rewritten by your client in his/her mobile device. To avoid this problem, you can insert a QR code to client's drawings, so next time your client can faster access to your company website by reading the QR Code image through a QR Code reader app.



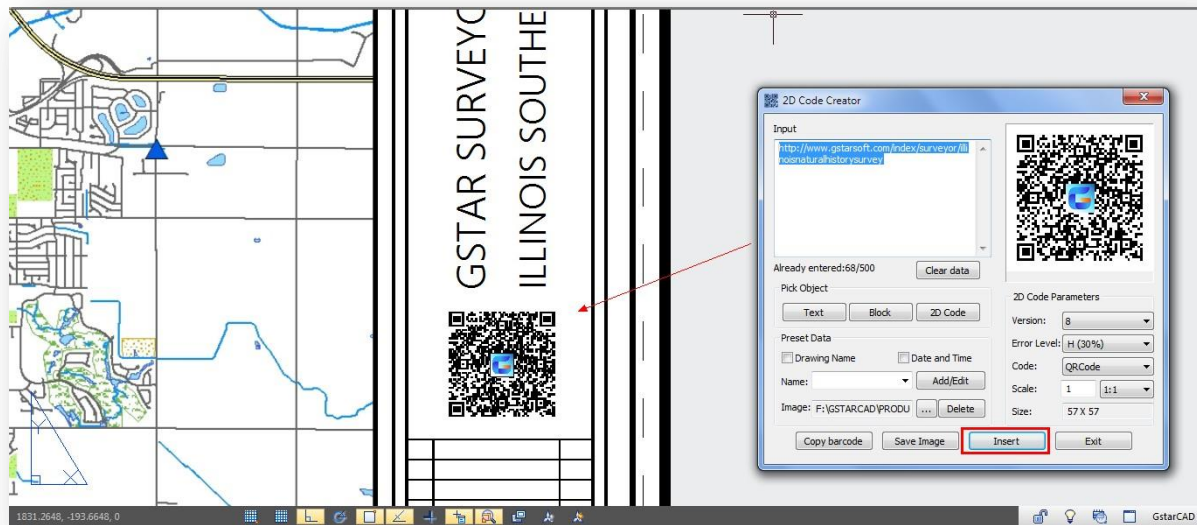
You can apply GstarCAD QR Code from Home tab> Block panel> QR Code or type> QRCODE



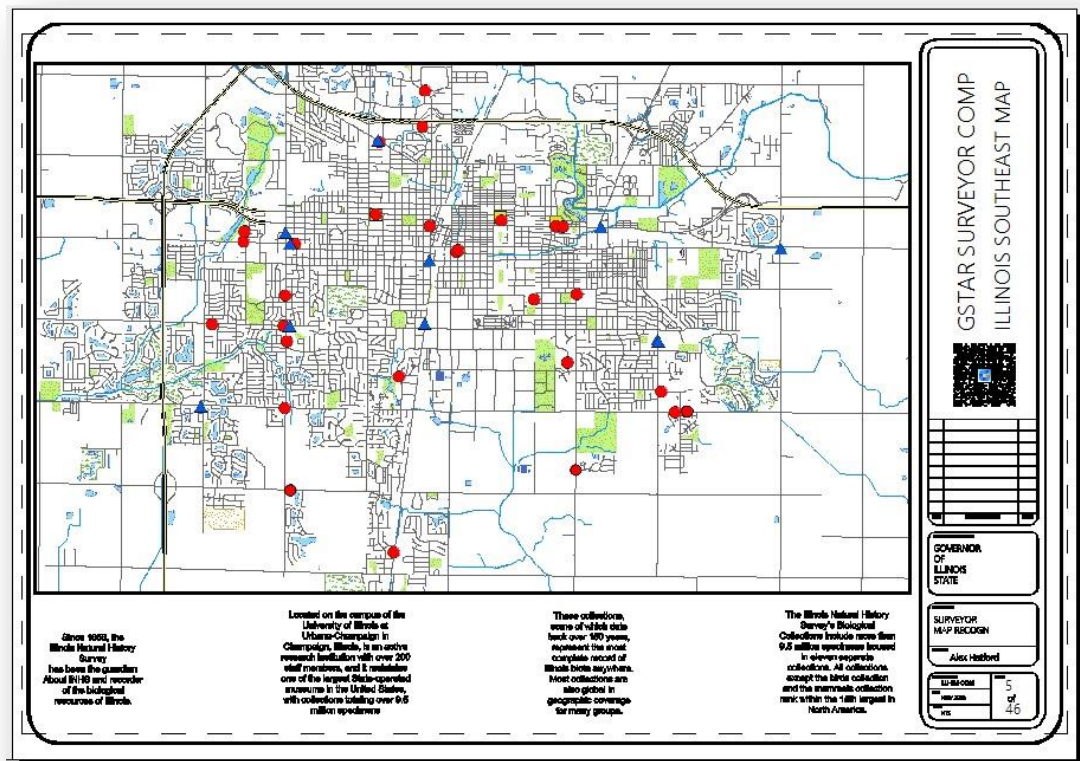
Click the QR Code icon and the 2D Code Creator dialog box will pop up, you can paste the long URL that belongs to your company website. What's more, you can attach your company logo to the QR Code image. See the picture below:



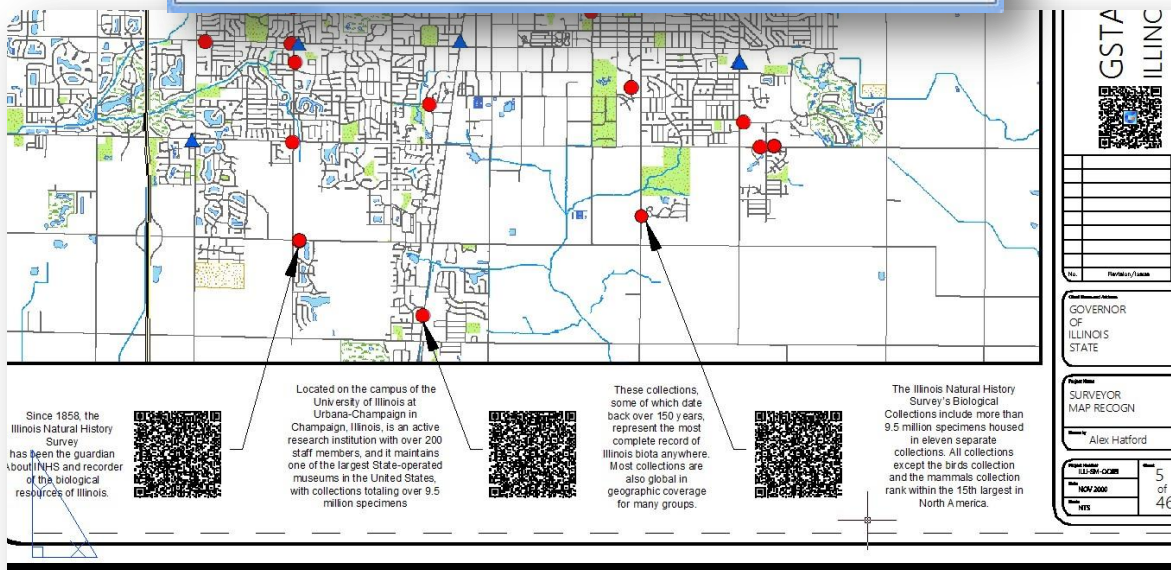
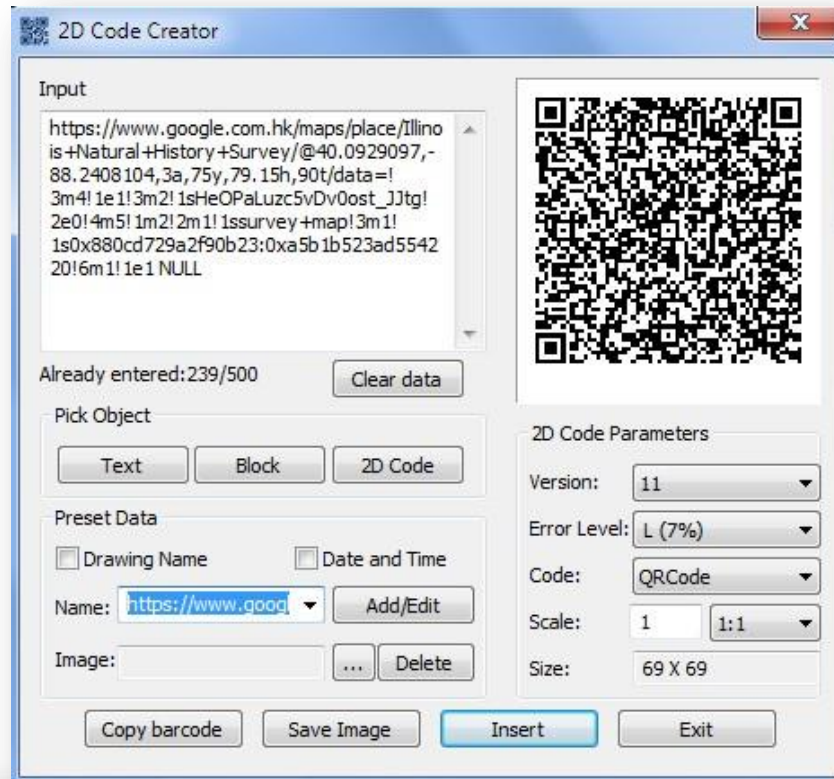
Then press *Insert* button to insert the QR Code near to your company information on the title block.



Another usage sample of QR Code is when you want to get real visualization of a specific geolocation from a surveyor map that is not visible in your drawing. That means your drawing is too tight to attach more information (images) from important hot spots of the surveyor map.



Instead of inserting images, first you can apply leaders or Mleaders to important hot spots of the surveyor drawing, then insert and place conveniently the QR Code image to each leader or Mleader. Each QR Code must contains the geolocation URL of the specific hot spot of the surveyor map.



Now any stakeholder who is involved in the surveyor map project can get real visualization of any important hot spot just using a smartphone or tablet with a camera. Of course the device must have a QR Code reader installed previously.



You can use GstarCAD QR Code in wide range of situations according your need.

Enhancements

Commands Enhancements

Commands like line, polyline, rectangle, circle, copy, and rotate have been enhanced through new options that help to cut-down repetitive task on basic operations.

Line Enhancement

ANGLE (A) option is added for line command, with this option you can get a fast way to draw a line without assistance of the polar or a xline. You can directly input the angle value refers to X axis as well as you can take other line as reference to input the angle value and even you can input the angle value directly refers to previous line.

Practice example:

To draw the red line in Figure 1-1, the steps as below:

1. Execute line command
2. Specify first point:
3. Specify next point or [Angle/Length/Undo]:a
4. Specify angle [Reference] <0>:35(Software will take the X axis as reference)
5. Length of line: 500

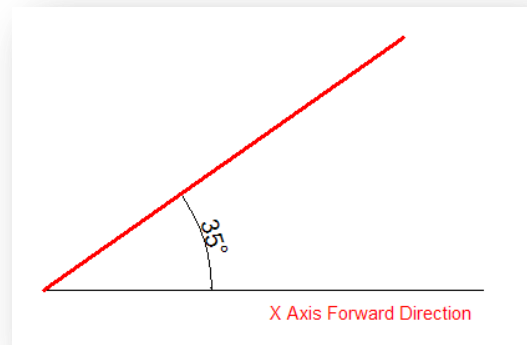


Figure 1-1

To draw the red line in Figure 1-2, the steps as below:

1. Execute line command
2. Specify first point:
3. Specify next point or [Angle/Length/Undo]:a
4. Specify angle [Reference] <0>:r
5. Select a line object: (Please select the reference line)
6. Specify an angle: 38
7. Length of line: 500

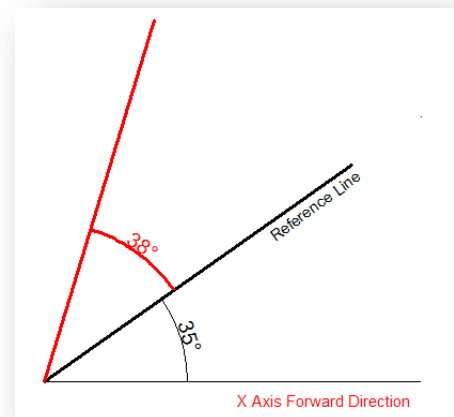


Figure 1-2

To draw the red line in Figure 1-3, the steps as below:

1. Execute line command (to draw the line 1).
2. Specify first point:
3. Specify next point or [Angle/Length/Undo]: l
4. Specify length: 300
5. Specify next point or [Angle/Length/Undo] (to draw the line 2): a
6. Specify angle [Reference/reference to Previous/Included angle] <0>: p (Here you can try reference to Previous option which will take the extension of the previous line as reference)
7. Specify an angle: 127
8. Length of line: 500
9. Specify next point or [Angle/Length/Closed/Undo]: a (to draw the line 3)
10. Specify angle [Reference/reference to Previous/Included angle] <0>: l (Try Included angle option)
11. Specify an angle: 37
12. Length of line: 400

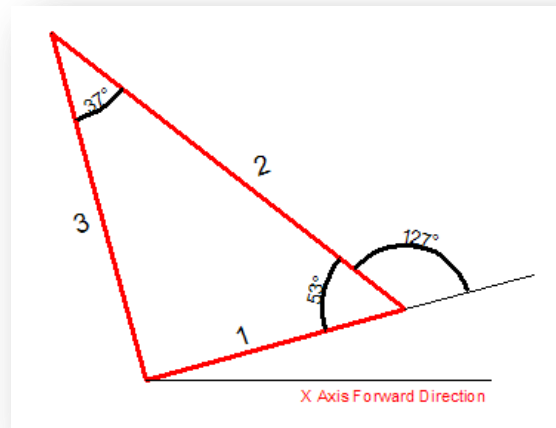


Figure 1-3

Polyline Enhancement

The ANGLE (A) option is added in polyline command which its behavior is similar as the one in line command is also added in Polyline. There are still three choices for angle option, you can either input angle value which takes X Axis as reference as well as you can input "reference to Previous" angle or "Included angle". In CAD software, many objects are consisting of Polyline, for example: rectangle, polygon and revision cloud, donut, so in 2015 version, these functions are classified under the Polyline drop down list where you can access them quickly.

Rectangle Enhancement

OBLIQUE(O) is a new added option to draw an rotate rectangle. The behavior of oblique option is similar as the behavior in line command. With oblique option, you can locate the angel of bottom line and the length to get a rotate rectangle, you can draw an oblique rectangle which has specific angle with X axis and horizontal or has random angle refer to any line.

Practice example:

To draw the rotate rectangle in Figure 1-4, the steps as below:

1. Execute RECTANG command and input oblique option or click the rotate rectangle icon in ribbon panel.
2. Specify first point:
3. Specify next point or [Angle]: a(Input Angle option)
4. Specify angle [Reference] <0>:20
5. Enter rectangle width: 800
6. Enter rectangle height: 350

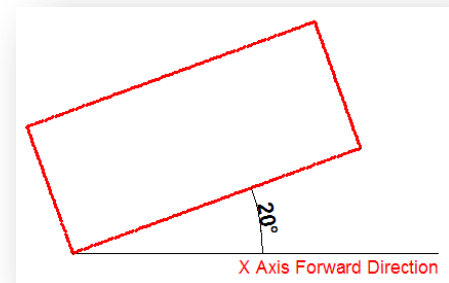


Figure 1-4

To draw the rotate rectangle when there is a reference line in Figure 1-5, the steps as below:

1. Execute RECTANFG command and input oblique option or click the rotate rectangle icon in ribbon panel.
2. Specify first point:
3. Specify next point or [Angle]a
4. Specify angle [Reference] <0>:r
5. Select a line object: (Select the reference line)
6. Specify an angle: 20
7. Enter rectangle width: 800
8. Enter rectangle height: 350

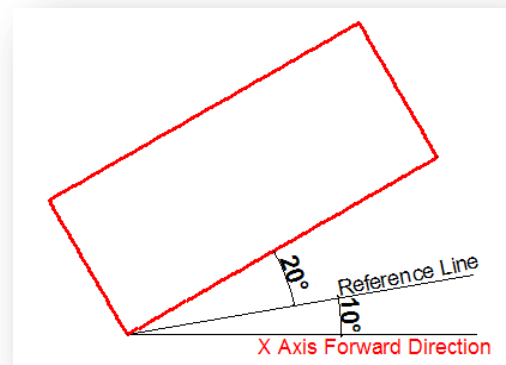


Figure 1-5

Circle Enhancement

CONCENTRIC(C) option is new added in circle command, you can input radius several times to create many concentric circle after specify the circle center, with this new option, you can get concentric circle in a simple way.

Practice example:

To draw the concentric circle Figure 1-6, the steps as below:

1. Execute circle command and input concentric option or click the concentric icon in ribbon panel.
2. Specify center point for circle:
3. Specify the radius of circle or [Diameter]
<400.0000>:100
4. Specify the radius of circle or [Diameter/Undo]
<100.0000>:200
5. Specify the radius of circle or [Diameter/Undo]
<200.0000>:300

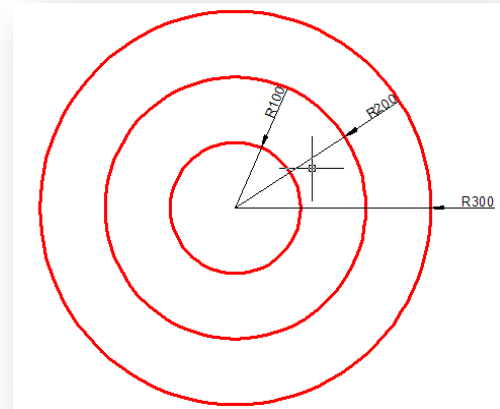
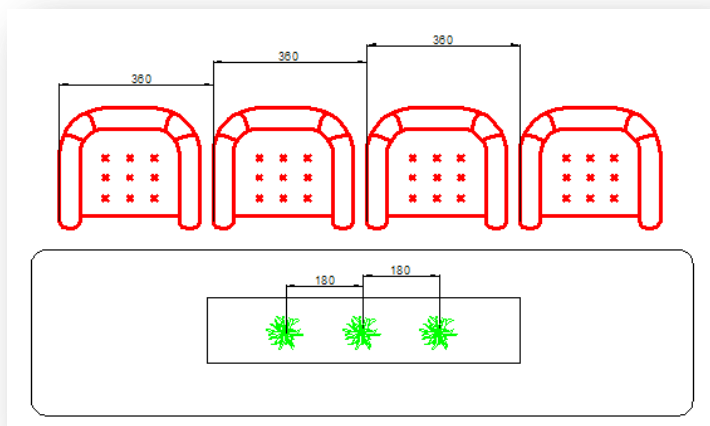


Figure 1-6

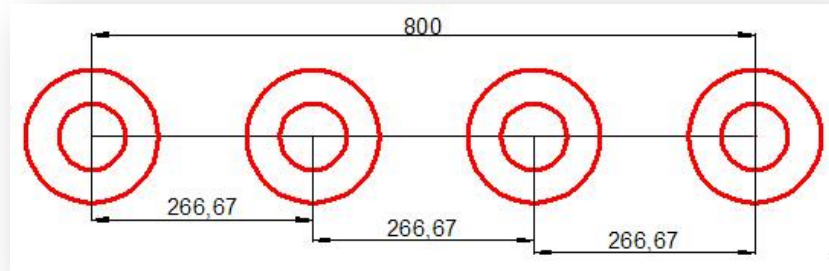
Copy Enhancement

There are three options: measure (E) , divide (I) , path (P) option are added in copy command, With these options in 2015, user can easily finish the drawing without the assistance of other operations such as divided by segment, by distance, array, or layout by path in previous version.

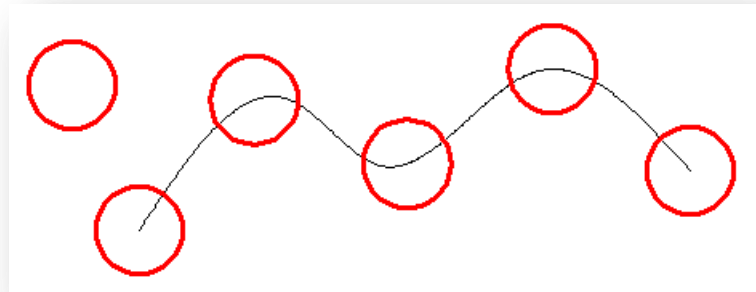
1. Measure (E) when users need to copy objects with same distance and same direction, this option will be very useful.



2. Divide (I) , you can copy many objects with same distance in a specified distance.



3. Path (P) After select the path option, you can select divide or measure option again to locate the count objects.



Rotate Enhancement

Multiple copy (M) option is added in rotate command, with this option, you can either copy many objects with different rotate angles, or you can draw circles array.

When rotate, you can select multiple copy option and input several angle values; the software will rotate and copy the object according to the value you input. You can try copy and rotate 45, 90, 135 degree refers to the original object at a time such as the following figure.

Practice example:

Rotate and copy objects in Figure1-7, the steps as below:

1. Execute the Command: ROTATE
2. Select object:
3. Specify the base point: (Select the center of the concentric)
4. Specify rotation angle or [Copy/Multiple/Reference] <135>: m
5. Specify rotation angle or [Between/Fill]: 45
6. Specify rotation angle or [Exit/Undo]: 90
- Specify rotation angle or [Exit/Undo]: 135

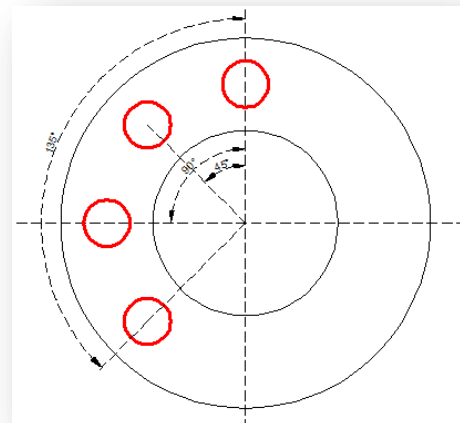


Figure 1-7

If the adjacent object angle is fixed, you can select "angle between object (B) or fill angle (F) option, then input the angle and the quantity, this option can replace circle array

Practice example:

Rotate and copy objects Figure1-8, the steps as below:

1. Execute the command: ROTATE
2. Select object: (Select the center of the concentric)
3. Specify the base point:
4. Specify rotation angle or [Copy/Multiple/Reference] <30>: m
5. Specify rotation angle or [Between/Fill]: b
6. Specify rotation angle: 60
7. Specify total number of items: 4

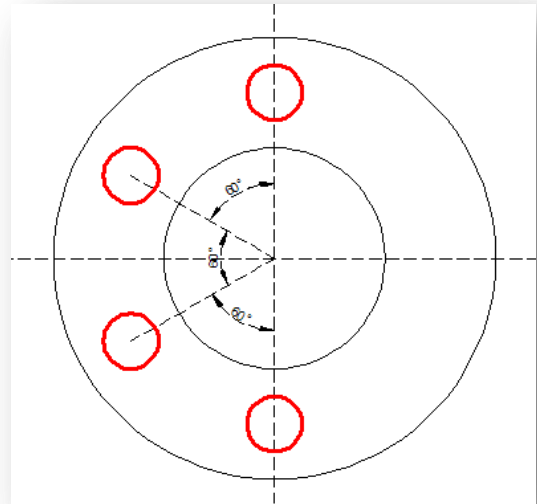


Figure 1-8

Rotate and copy objects Figure1-9, the steps as below:

1. Execute the command: ROTATE
2. Specify the base point: (Select the center of the concentric)
3. Specify rotation angle or [Copy/Multiple/Reference] <60>: m
4. Specify rotation angle or [Between/Fill]: f
5. Specify angle to fill <360>:
6. Specify total number of items: 12

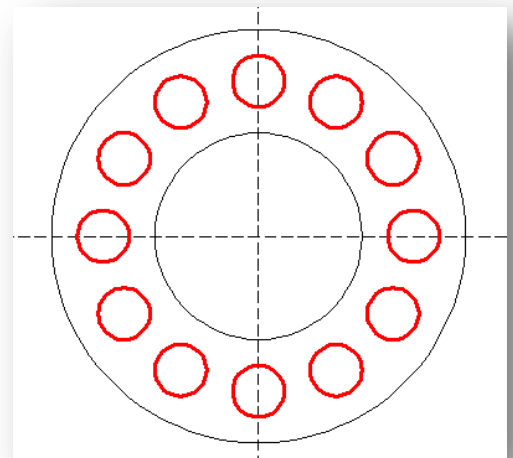
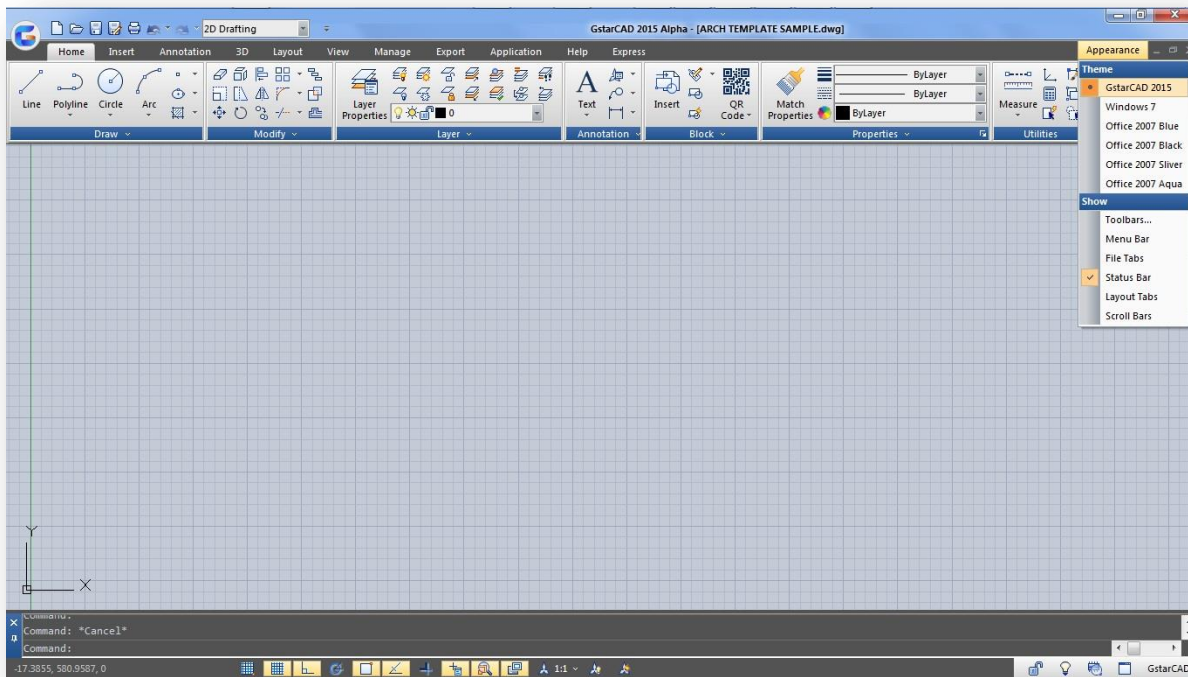


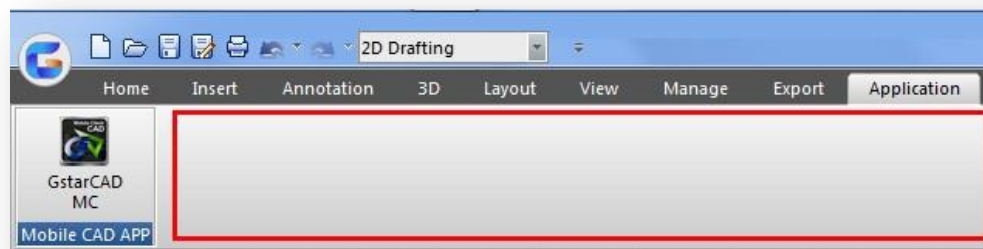
Figure 1-9

User Interface Enhancement

Regarding to user interface this version offers a new theme interface (GstarCAD 2015) supplied by a customized ribbon with lighter icons that provides clearest interface, improving drawing space visualization if compare with GstarCAD previous version.



Additionally a new ribbon tab has been added. The Application tab is meant to contains Gstarsoft own applications available in the market. More applications will be added through new patch versions.



Right now, we have available our mobile CAD application GstarCAD MC. Users can click the GstarCAD MC icon to link our official website to get more details about this app or even directly download it.

