

# GstarCAD MC

## User Guide

Platform : iOS

Version : GstarCAD MC (V2.0.0)

Latest or not : Yes

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## **1 Operation Guide**

### **1.1 GstarCAD MC Introduction**

GstarCAD MC (Mobile Client) is a mobile terminal platform developed by Suzhou Gstarsoft Co., Ltd, which is fully compatible with DWG drawings and helps users to view 3D drawings in multi-dimension perspectives and view, edit, annotate and share 2D CAD drawing files in the mobile terminal. GstarCAD MC supports reading DWG and OCF files directly; you can take drawings to meeting room, job site, your home, even somewhere without Internet connection. It will help to communicate with colleagues better, interpret design proposal for client and break away from office computer to achieve free design anytime anywhere.

### **1.2 GstarCAD MC ( iOS version ) Download**

#### **Method 1: download from PC**

**Step 1:** Connect your mobile device to PC; Open “iTunes” in PC and search

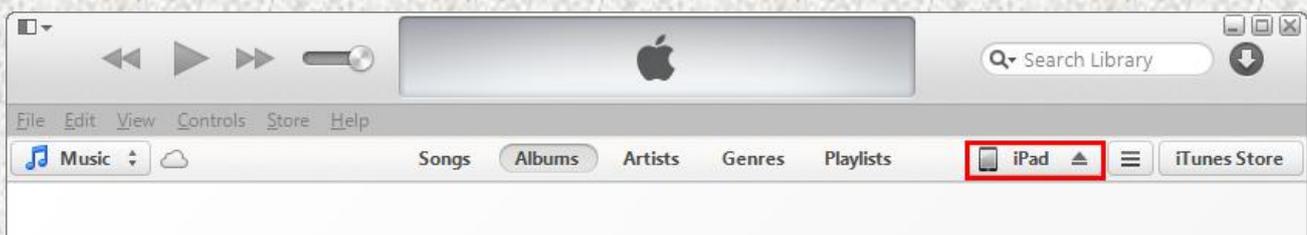
“gstarcad” keyword in App Store, you can see some products about GstarCAD MC, click the product you want to download and go to the download page.

**Step 2:** Access the official download address:

[http://www.gstarcad.com/cad\\_7\\_10.html](http://www.gstarcad.com/cad_7_10.html) ; click the “Download” button to go to the display page of GstarCAD MC in App Store; Click the “View In iTunes” button to get into the iTunes Store (shown as below):



**Step 3:** Restart “iTunes” ; click the “ipad” button on the top right corner as shown below:



Click the “App” button to enter the display page of downloaded software. The GstarCAD MC has downloaded in your mobile device, and then you can install it now.

### Method 2: download from mobile device

You have two options; you can choose any one to download.

**Option 1:** Access the App Store by your mobile device, input “gstarcad” keyword

to search the GstarCAD MC software and download it for free.

**Option 2:** Access the GstarCAD WAP site: [wap.gstarcad.com](http://wap.gstarcad.com); click “iOS download” and go to the display page of GstarCAD MC in App Store, click download and installation.

### **Method 3: download by scanning QR code**

Scan the QR code in the official website by mobile device to download. The official website: [http://www.gstarcad.com/cad\\_7\\_10.html](http://www.gstarcad.com/cad_7_10.html)

## **1.3 GstarCAD MC System Requirements**

The GstarCAD MC (iOS version) could be applied on iOS 4.3 version or higher. It is compatible with iPhones, iPads and iPod touches.

## **1.4 User Interface Overview**

### **1.4.1 Drawing**

#### **Local drawing**

You can browse, edit and manage local drawings off-line via your mobile device.

#### **Import drawings**

- iTunes synchronous import files

Demo version: iTunes 11.1.5.5

**Step 1:** connect your mobile device with PC. Open the iTunes.

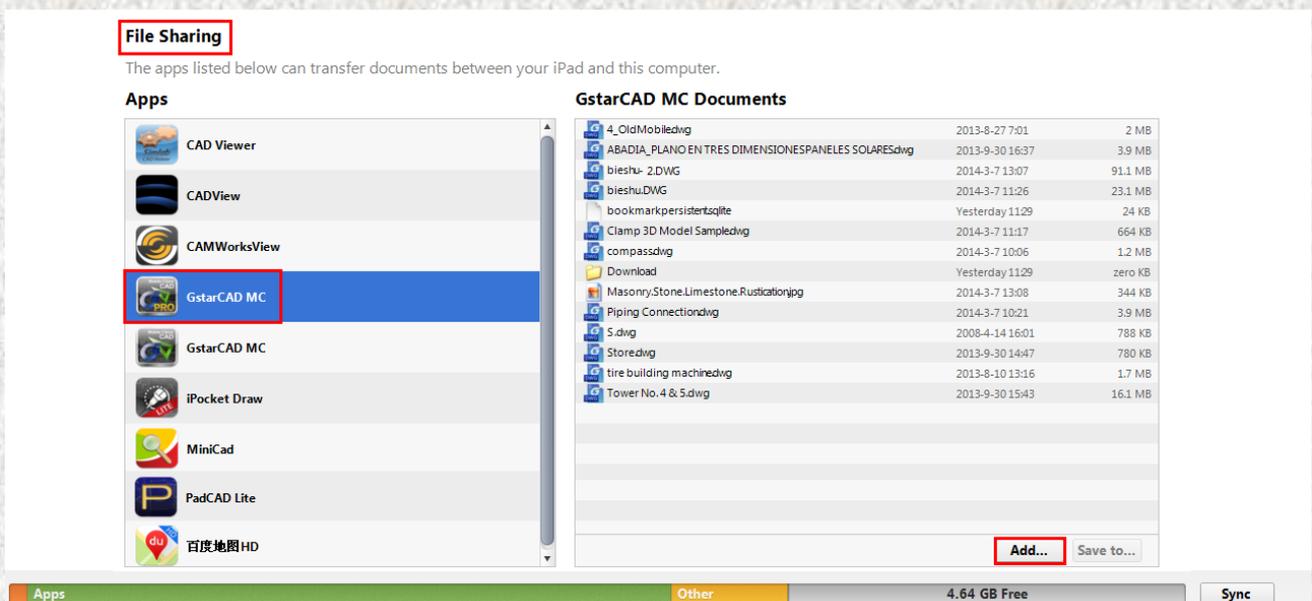
**Step 2:** take the iPad for example : On the iTunes interface, click the "ipad" button on the top right corner as shown below:



You can see the following panel; click the "App" button as shown below:



**Step 3:** in the "File Sharing" part, select GstarCAD MC in the Apps list, click the "Add" button to add files (drawings or font files) in the local computer to your



mobile device. You could also add a file by dragging it from the local computer to this document list.

### **Sort drawings**

You can sort drawings by date, type, size and name. You can also create new folders and move the similar type of drawings to the same folders for classification management.

### **Edit drawings**

**Open:** it supports DWG and DXF file formats.

You can pan a drawing by single finger panning mode or multi-finger panning mode. The single finger panning mode could be turned on or turned off by setting the “settings” option. You can also zoom drawings smoothly and view a full-figure drawing in full-screen.

**New:** create new local drawings or new folders.

**Delete:** delete drawings or folders from local or cloud folders.

**Move/copy:** move or copy one or more files from “local drawing” to other address.

Operations:

Ⓛ click the “Local drawing” option and click “Edit” button on

the top right corner;

Ⓛ Select the drawing to be moved or copied and click the “move” or “copy” button at the bottom;

Ⓛ Select the target directory or folder to place the moved or copied drawings;

Ⓛ Click the “save” button to finish.

**Upload:** you can directly upload the local drawing to the cloud folder without skipping.

Operations:

Ⓛ Click the “Local drawing” option and click the “Edit” button on the top right corner;

Ⓛ Select the drawing to upload and click the “upload” button at the bottom;

Ⓛ Select Dropbox or Baidu cloud folder;

Ⓛ Select a cloud folder account. If you have not bound an account, you can do it now.

Ⓛ Enter the cloud folder account list, select the target folder;

Ⓛ Click “Done” button to finish.

**Rename:** you can rename a drawing in local.

**E-mail:** you can send emails to share your files as attachments by built-in mailbox.

## Sample drawings

The GstarCAD MC provides some drawing samples. Once modified, the sample could not be covered with the original name. However, it could be saved as another file with a new name to the "Local drawing" directory.

## Download files

You can download Web pages and some drawings or fonts files in attachment to your mobile device through network, and then you can easily operate drawings through mobile device any time, such as browsing, revising and notating and so on.

Operations:

**Step 1:** Click the "Download" option to enter the download page.

**Step 2:** Enter the Web address or E-mail address, find out the specified file or attachment and click it to download. You can also add a bookmark to the Web page.

**Step 3:** The downloaded file is default saved to the "Download" folder under "Local drawing" option. The download records is saved as a list, you can clear it after downloading.

## Font' s folder

The GstarCAD MC has its own font' s folder; fonts that not included in font' s folder could not be displayed. If a drawing contains some fonts or symbols that not included in the font' s folder, they will not be displayed. To display them, you can import or download the drawing with its fonts and symbols to the font' s folder of GstarCAD MC.

Operations:

**Step 1:** download text file to your mobile device.

There are two options; you can choose any one to download:

**Option 1:** import from PC. The import way is the same as import a drawing. The default address is "Local drawing" ; please add it to the font' s folder.

**Option 2:** download from network. Download the font file from the "Download" option and default saved in "Local drawing" folder; please add it to the font' s folder.

**Step 2:** reopen the drawing, fonts and symbols could be displayed correctly.

**Step 3:** operations in font' s folder:

**Add:** click the "+" button, select font file from the "Document" window. For convenient finding, the font file is sorted by types: .shx, .ttf, .ttc, etc.

**Help:** There is a “Help” button in the “Document” window. You can see the operation instruction by clicking the “Help” button.

**Delete:** There is a “Trash Can” icon on the right of each added font file; you can delete it by clicking the “Trash Can” icon.

### **Add cloud folder**

Currently the GstarCAD MC could support the Dropbox and Baidu cloud folders. Log your cloud folder account, you can browse and download files to local, backup, rename and share files in cloud folder. The local drawing could also be uploaded to cloud folder. Through the cloud folder, you can enjoy the collaborative and resource sharing environment and freely designing anytime.

Operations:

**Step 1:** for the first time, you should bind your cloud account. Click the “Add cloud folder” button to enter the login page.

**Step 2:** correctly fill in information and login; it goes back to the Home page of drawing. Click the cloud directory and enter cloud folder. You can add several separate cloud accounts by clicking the “Add” button several times.

**Step 3:** you can download, upload, copy, delete and sort files in your cloud account.

#### Step 4: cloud folder file state description

For intelligent coordination office, the GstarCAD MC provides a set of solutions to handle common file conflicts in cloud storage. You can easily recognize the current file state through different symbols in cloud folder, so you can upload and copy and delete files according to your requirements. In this way, you can use the GstarCAD MC to handle conflicts by yourself. It ensures the safety of drawing and avoids data loss caused by auto synchronization, as well makes the office more efficient, intelligent and collaborative.

Figure of Cloud folder file state description:

Identifier	File Status Meaning
	Click the file name to download it from the cloud
	Downloaded file, consistent with the cloud file with the same name.
	The downloaded file has been modified. Suggest you upload to the cloud or copy to other local folders.
	Downloaded file, but the cloud file was modified just now.
	The downloaded file has been modified , and the cloud file with the same name has been modified too.
	The downloaded file has been modified , and the cloud file with the same name has been deleted.

## 1.4.2 Support

### Help

You can click the  icon on the top left corner of a drawing to enter the Help document. You can also go to the Help document by clicking “Help” button in some pages.

### Feedback

Please share your valuable comments and suggestions with us to help the GstarCAD MC continue improving.

### Check for updates

Click the “Check for updates” option, if there is a new version, you will be prompted to update in the App Store. Meanwhile the update prompt will pop up after starting the GstarCAD MC.

### Message Center

You can receive and view messages from the GstarCAD MC. After reading, you can delete them.

## Encourage Rating

We are looking forward your encourage rating of GstarCAD MC. Our progress depends on your support!

### 1.4.3 Settings

The GstarCAD MC could set common function parameters and meet individual system requirements.

- ✚ **Background color:** you can select the background according to your preference.
- ✚ **Max count of selected entities:** you can choose a proper count of entities according to your storage of mobile device. If the count of entities is too large, it may reduce software running speed.
- ✚ **Magnifier position:** you can set the magnifier position according to your operation preference.
- ✚ **Magnifier size:** you can set the magnifier size according to convenience of editing.
- ✚ **DWG Version:** the drawing can be saved into a variety of formats. The latest version has updated to 2013 version.
- ✚ **Single Finger Panning:** it is the default mode; you can turn on or turn off this

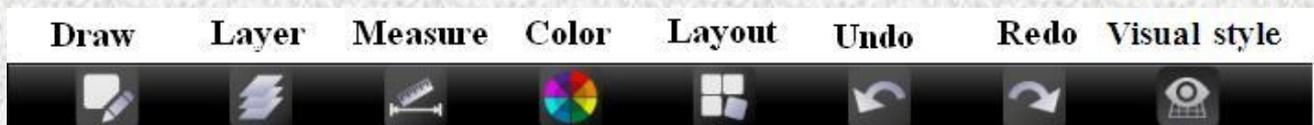
mode according to your preference.

- ✚ **Tip of missing font:** its default mode is off. Under the on mode, if the GstarCAD MC has not loaded the font you need, when you open the drawing, the tip window pops up, meanwhile, the missing font will be replaced automatically.

## 1.5 Drawing mode (2D drawing)

### Drawing tools

After opening a drawing, there are drawing tools under the drawing area as shown below:



- ✚ **Draw:** clicking the “Draw” button , it displays nine graphic objects: Line, Polyline, Circle, Arc, Rectangle, Revcloud, Sketch, Text and Notation.
- ✚ **Layer:** clicking the “Layer” button , it displays all layers of the current drawing. You can select one layer to edit.
- ✚ **Measure:** clicking the “Measure” button , it displays the “Length” button and the “Area” button.
- ✚ **Color:** clicking the “Color” button , it displays seven kinds of color. You can change the color of the brush or objects.

- ✚ **Layout:** clicking the “Layout” button , you can switch between model space and layout space freely.
- ✚ **Undo:** clicking the “Undo” button , you can cancel last operation.
- ✚ **Redo:** clicking the “Redo” button , you can restore the effect of previous canceled step of “Undo” command.
- ✚ **Visual Style:** clicking the “Visual Style” button , you can see four types of mode: 2D wireframe, 3D wireframe, realistic and 3Dhidden.

## Editing tools

If selected a 2D object in a drawing, it displays editing tools above the drawing tools as shown below:



- ✚ **Erase:** delete the selected object.
- ✚ **Copy:** copy the selected object.
- ✚ **Move:** move the selected object to change its position
- ✚ **Rotate:** rotate the selected object.
- ✚ **Scale:** enlarge or reduce the selected object.

## 1.6 View mode

### 2D mode

The 2D drawing is opened in 2D mode by default. You can switch to 3D mode.

In the 2D mode, you can do the following operations:

- ✚ **Single finger panning:** when one finger touching the drawing area, the drawing could be panned as the finger moving. This mode could be turned on or off by setting the “settings” option.
- ✚ **Double fingers panning:** when two fingers touching the drawing area, the drawing could be panned as fingers moving simultaneously. The space between two fingers should not change.
- ✚ **Two fingers adjusting:** When two fingers touching the drawing area, you can zoom in or zoom out a drawing by adjusting the space between two fingers.

### 3D mode

The 3D drawing is opened in 3D mode by default. You can browse it in 2D mode.

There are three types of 3D mode: 3D Wireframe, Realistic and 3D Hidden.

Editing functions in 3D mode:

- ✚ **Layer:** you can switch layers in current drawing and turn on or turn off the

selected layer.

- ✚ **Layout:** you can view the display of layouts in current drawing.
- ✚ **Viewpoints:** you can view a 3D mode comprehensively from ten different viewpoints.
- ✚ **Visual Style:** you can switch the current drawing to its 2D mode or other 3D modes.

3D browsing operation:

- ✚ **Double fingers panning:** when two fingers touching the drawing area, the drawing could be panned as fingers moving simultaneously. The space between two fingers should not change.
- ✚ **Single finger panning:** the single finger panning mode is not supported in 3D mode.
- ✚ **Two fingers adjusting:** When two fingers touching the drawing area, you can zoom in or zoom out a drawing by adjusting the space between two fingers.
- ✚ **3D Rotate:** when a finger touching the drawing area and moving, the 3D mode will continuously rotating along the moving direction. You can view the 3D mode comprehensively in 360 degrees. Click the screen to stop rotating and locate the 3D mode at the best perspective.

## 1.7 Function Description

### Magnifier

When editing a drawing, you can open a magnifier by touching the drawing area.

The magnifier can display the enlarged graph of touched area. It is a convenient way for users to view details and snap objects.

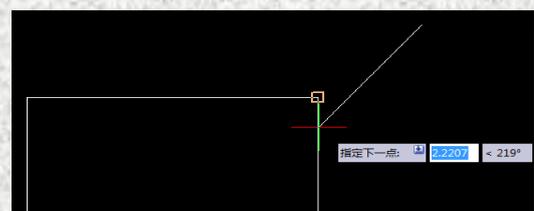


### Snap

In the new version, you can snap endpoint, intersection point, perpendicular point, circle center and so on.

In the drawing area, when dragging an entity, it will snap the endpoint or midpoint automatically along snapping direction. It is a convenient way for snapping precision point position.

You can see the picture on the right: it is



snapping the endpoint of the rectangle when drawing the second point of a straight line.

You can see the endpoint with a yellow box labeled.

## Selection

- ✚ **Window-select:** click or drag from left to right in the drawing area, you can select objects that completely located in the rectangle area.
- ✚ **Crossing:** click or drag from right to left in the drawing area, you can select objects partly located in the rectangular area.
- ✚ **Selection set:** a group of selected objects. Object can be selected by clicking or dragging to define a rectangle area. The "Max count of selected entities" is the limit number that the selection set could include. In GstarCAD MC, it is 100.

## Dynamic bar

When drawing or modifying, the dynamic bar appears on the top right corner. Click the “End” button to exit the command, the dynamic bar disappears. For example, when you draw a polyline, there may be two or three buttons on the dynamic bar as shown below:



<p>No active command or a command finished, there are “Full drawing” and “Full view” buttons on the top right corner.</p>	<p>Under the “Polyline” command, after drawing the first point, it displays the “End” button and the “Arc” button. By default, it creates a line as the first segment. Click the “End” button to end the command; click the “Arc” button to create an arc as the second segment of polyline.</p>	<p>When specifying the third point, it displays three buttons: “End”, “Close” and “Arc” or “Line”. The last created segment determines to display the “Arc” button or the “Line” button. Click the “Close” button to close the polyline; click the “Line” button to create a line as the next segment of polyline.</p>
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Other functions:

The following fixed buttons are on the top left corner of drawing.



**Exit button:** If the current drawing has been modified, you will be prompted

to save it when clicking the “Exit” button.



**Help button:** click the “Help” button to open the help document.



**Save button:** click the “Save” button to save the current drawing with its

original name or save as another drawing with a new name.



**Message button:** click the “Message” button to enter the message center.

Value input box



Operations:

**Step 1:** when activating the “Draw” or “Measure” tools, the value input box pops up.

**Step 2:** to use the value input box, you have two options:

**Option 1:** select one command (line, arc, etc), the value input box pops up on the bottom; you can input the X axis and Y axis coordinates to determine the

precision position, and then click  to confirm or click  to cancel inputting.

**Option 2:** select one command (line, arc, etc); the value input box pops up on the bottom and you are prompt to click or drag to specify a point, you can click on the drawing area to draw a point, it will automatically achieve the point coordinates and display them in the value input box, such as,



Also you can input the coordinates to locate the following points. Click the figures in value input box, the numeric keyboard pops up. After sing you can click  to confirm or click to cancel inputting.



## 2D coordinates

The 2D coordinates has three types: absolute coordinates, relative coordinates and polar coordinates.

### Absolute coordinates

**Definition:** it defines a point located with absolute coordinates in the drawing area.

**Format:** (x,y)

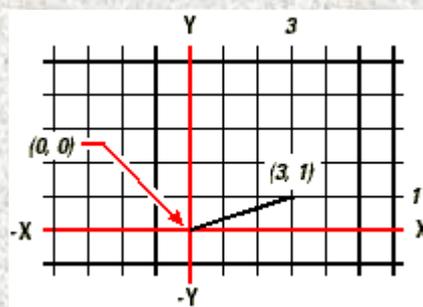
**For example :**

Draw a line from the origin (0, 0) to the endpoint (3, 1) by absolute coordinates.

Operations:

**Step 1:** Input the starting point coordinates: (0, 0). Click the  button on the Value Input Box to end inputting.

**Step 2:** Input the endpoint coordinates: (3, 1). Click the  button on the Value Input Box to end inputting. The line is located as below:



## 🚧 Relative coordinates

**Definition:** it defines a point with a relative position of last entered coordinates in drawing area.

**Format:** ( @x , y ) , in front of the x coordinate, there is a @ symbol. The relative coordinates mean the distance from the last entered point to specified point along the x axis and y axis.

### For example:

Create a square with a side length of 8.5 by relative coordinates and its bottom left corner is (4, 5).

Operations:

**Step 1:** Click the "Draw" button and select "Line" command;

**Step 2:** Input the coordinates of the first point: 4, 5;

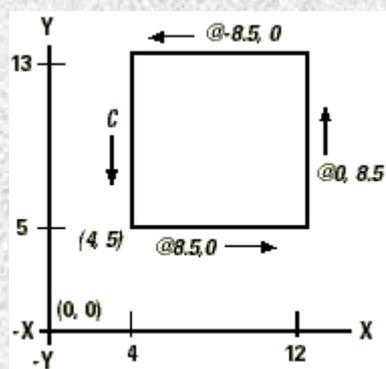
**Step 3:** Input the relative coordinates of the second point: @8.5, 0;

**Step 4:** Input the relative coordinates of the third point: @0, 8.5;

**Step 5:** Input the relative coordinates of the fourth point: @-8.5, 0;

**Step 6:** Click the "Close" button on the dynamic bar to close the square as shown

below:



## ✚ Polar coordinates:

**Definition:** it defines a polar coordinate position by a length and an angle value separated by an angle bracket (<).

**Format:** ( @x<y ), the x value is the length, the y value is the angle.

**For example:**

Create a square inclined 45 degrees by polar coordinates.

Operations:

**Step 1:** Click the “Draw” button and select “Polyline” command;

**Step 2:** Input the absolute coordinates of the first endpoint: 4, 5;

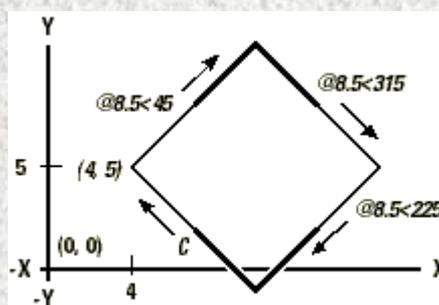
**Step 3:** The second endpoint is inclined 45 degrees with the x axis, input the relative coordinates of the second endpoint: @8.5<45;

**Step 4:** The third endpoint is on the vertical direction of the first line, input the relative coordinates of the third endpoint: @8.5<315;

**Step 5:** The fourth endpoint is on the vertical direction of the second line, input the relative coordinates of the fourth endpoint: @8.5<225;

**Step 6:** Click the “Close” button on the dynamic bar to close the square as shown

below:



## 3D coordinates

The operation of 3D coordinates is the similar to 2D. In 3D space, the coordinates display as  $(x, y, z)$ , such as  $(2, 3, 6)$ .

### ✚ Spherical coordinates

**Definition:** it defines a 3D point by spherical coordinates; the spherical coordinates contain an angle ( $\varphi$ ) with the z axis, an angle with x axis ( $\theta$ ), a length ( $r$ ) (it could be an absolute length from origin or a relative length from the last inputted point).

**Format:**  $(r<\varphi<\theta)$ , the three parameters are separated by angle brackets (<).

**For example:**

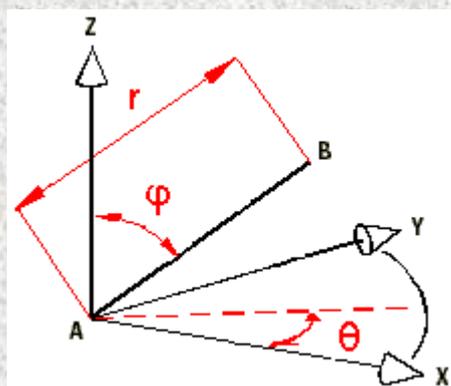
Create a line from the origin, with a length of 10.2500, the angle with x axis is 45 degrees and the angle with z axis is 55 degrees.

**Step 1:** Click the "Draw" button and select "Line" command;

**Step 2:** Input the coordinates of the starting point: 0,0,0;

**Step3:** Input the coordinates of the endpoint: 10.2500<45<35. Click the  button

on the dynamic bar to end inputting, the line is located as follows:



## ✚ Cylindrical coordinates

**Definition:** it defines a 3D point by cylindrical coordinates, the cylindrical coordinates contain a length ( $r$ ) (it could be an absolute length from origin or a relative length from the last inputted point), an angle ( $\theta$ ) with x axis in the xy plane and a z value.

**Format:** ( $r<\theta$  , z), the length and angle are separated by an angle bracket (<), the angle and the z value are separated by a comma (,).

**For example:** create a 3D point with a length of 7.4750 units from the origin, the angle with x axis is 27 degrees in the xy plane and the z value is 3 units.

Operations:

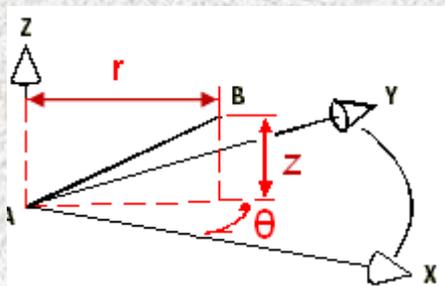
Step 1: Click the “Draw” button and select the “Line” command;

Step 2: Input the absolute coordinates of the starting point: A,A,A;

Step 3: Input the cylindrical coordinates of the endpoint: (@7.4750<27, 3), Click the



button on the dynamic bar to end inputting; the line is located as follows:



## 1.8 Multi-language switching

Currently the iOS version could support multiple languages: simplified Chinese, English, French, German, Japanese, Korean, Czech, Hungarian, Italian, Spanish, Portuguese and Polish. You can switch languages in your mobile device without installing other programs.

## 2 Command Reference

### 2.1 Drawing command

#### Line



Operations:

**Step 1:** click the “Draw” button and select “Line” command, the dynamic bar displays on the top right corner.

**Step 2:** specify the first point of line by dragging or clicking on the drawing area. When the finger lifts, the point achieved. You can touch on the drawing area by a finger to magnify the graphic object, moving the finger without lifting, you can snap. You can also turn off the magnifying and snapping function by lifting the finger.

**Step 3:** click on the drawing area to get the second endpoint of line. You can get the second point in the same way as the first one: drag the first point to another position or click another point on the drawing area.

**Step 4:** click the “End” button on the dynamic bar to end the line command.

## Polyline



Operations:

**Step 1:** click the “Draw” button and select the “Polyline” command, the Dynamic bar displays on the top right corner. After selecting the first point, the initial buttons are “End” and “Arc” .

**Step 2:** When the finger lifts, the point achieved. You can touch on the drawing area by a finger to magnify the graphic object, moving the finger without lifting, you can snap. You can also turn off the magnifying and snapping function by lifting the finger.

**Step 3:** specify the next point of polyline. Create a line segment: click to get the next point, the two points are connected by a line segment; create an arc segment: select the “Arc” button on the dynamic bar and click on the drawing area to get the next

point, the two points are connected by an arc segment.

**Step 4:** specify the third point by repeating the step 3. If there are two points or more than two on the polyline, the dynamic bar will automatically add a “Close” button. You can close the current polyline and end this command.

**Step 5:** click the “End” or the “Close” button to finish drawing a polyline and exit the command.

## Circle



Operations:

**Step 1:** click the “Draw” button and select the “Circle” command, there is only an “End” button on the dynamic bar.

**Step 2:** specify the circle center by dragging or clicking on the drawing area. You can touch on the drawing area by a finger to magnify the graphic object, moving the finger without lifting, you can snap. You can also turn off the magnifying and snapping function by lifting the finger.

**Step 3:** click another point to specify the circle radius in drawing area.

**Step 4:** click the “End” button on the dynamic bar to end the command. After

finishing drawing the circle, the dynamic bar disappears.

## Arc



Operations:

**Step 1:** click the “Draw” button and select the “Arc” command. There is only an “End” button on the dynamic bar;

**Step 2:** specify the circle center by dragging or clicking on the drawing area. You can touch on the drawing area by a finger to magnify the graphic object, moving the finger without lifting, you can snap. You can also turn off the magnifying and snapping function by lifting the finger;

**Step 3:** specify the start point of the arc by clicking the second point on the drawing area;

**Step 4:** specify the endpoint of the arc by clicking the third point;

**Step 5:** click the “End” button on the dynamic bar to end this command. After finish drawing the arc, the dynamic bar disappears.

## Text



Operations:

**Step 1:** click the “Draw” button and select the “Text” command. Specify a point to determine the text position by clicking or dragging in drawing area.

**Step 2:** input specified text in box and click “OK” ;

**Step 3:** select the specified text and select the “Scale” command to change its size by adjusting the green frame.

## Revcloud



Operations:

**Step 1:** click the “Draw” button and select the “Revcloud” command;

**Step 2:** specify the start point of Revcloud by touching on the drawing area, move the finger that touching on drawing area to specify other vertexes of Revcloud, as the finger moving, it will create all other vertexes automatically. All vertexes are connected by arcs forming a Revcloud shape. You can touch on the drawing area by a finger to magnify the graphic object, turn off the magnifying function by lifting the

finger.

**Step 3:** end this command by lifting the finger.

## Rectangle



Operations:

**Step 1:** click the “Draw” button and select the “Rectangle” command. There is only an “End” button on the dynamic bar.

**Step 2:** specify the first corner point of the rectangle by clicking or dragging. You can touch on the drawing area by a finger to magnify the graphic object, moving the finger without lifting, you can snap. You can also turn off the magnifying and snapping function by lifting the finger.

**Step 3:** specify the opposite corner point by clicking or dragging. Touching on the drawing area could turn on the magnifier and snap mode.

**Step 4:** click the “End” button on the dynamic bar to end creating the rectangle.

## Notation



Operations:

**Step 1:** specify the selection area by creating a Revcloud;

**Step 2:** specify the start point of leader;

**Step 3:** specify the end point of leader;

**Step 4:** input the notation in the popping box.

## Sketch



Operations:

**Step 1:** click the "Draw" button and select the "Sketch" command. There is only an "End" button on the dynamic bar.

**Step 2:** creating sketches by dragging.

**Step 3:** click the "End" button on the dynamic bar to end creating sketches.

## Layer



Operations:

**Step 1:** click the "Layer" button;

**Step 2:** view information of layers in current drawing.

## 2.2 Editing

### Move



Operations:

**Step 1:** select objects to move;

**Step 2:** click the “Move” button. There is only the “End” button on the dynamic bar.

**Step 3:** specify the base point of movement by clicking a point.

**Step 4:** specify the destination point of movement by clicking another point or dragging.

### Copy



Operations:

**Step 1:** select objects to copy;

**Step 2:** click the “Copy” button;

**Step 3:** specify the base point for copying. There is only an “End” button on the dynamic bar.

**Step 4:** specify the second point by click another point or dragging.

## Rotate



Operations:

**Step 1:** select objects to rotate;

**Step 2:** click the “Rotate” button;

**Step 3:** specify the base point of rotation. There is only an “End” button on the dynamic bar.

**Step 4:** specify the rotation angle by clicking or dragging.

## Scale



Operations

**Step 1:** select objects to scale;

**Step 2:** click the “Scale” button. There is only an “End” button on the dynamic bar.

**Step 3:** there is a green scaling frame on the screen; you can select one corner point and drag. The selected object will be scaled based on its opposite corner point. You

can also specify the scale base point by clicking one point on the drawing area.

## Color



### Operations

You can change colors of existing objects.

**Step 1:** select objects to change their color;

**Step 2:** click the “color” command, the color palette pops up.

**Step 3:** specify a color in the color palette, the color of selected objects becomes the specified one automatically.

Specify color of new objects:

**Step 1:** click the “color” tool, the color palette pops up, specify one color;

**Step 2:** select one command to create an object, the color of the new object is the same as the specified one.

## Measure

### Option 1: Measure Length



Operations:

**Step 1:** click the “Measure” button and select the “Length” tool. There is only an “End” button on the dynamic bar.

**Step 2:** specify the start point of measuring by clicking a point or dragging. The starting point will be got by lifting the finger. You can touch on the drawing area by a finger to magnify the graphic object, moving the finger without lifting, you can snap. You can also turn off the magnifying and snapping function by lifting the finger.

**Step 3:** specify the end point of measuring by clicking a point or dragging. The distance between the start point and end point displays in command line automatically.

**Step 4:** you can finish the “Measure” tool by clicking the “End” button on the dynamic bar.

## Option 2: Measure Area



Operations:

**Step 1:** click the “Measure” button and select the “Area” tool. There is only an “End” button on the dynamic bar.

**Step 2:** specify the start point of measuring by clicking a point or dragging. The

“End” and “Arc” buttons display on the dynamic bar. You can touch on the drawing area by a finger to magnify the graphic object, moving the finger without lifting, you can snap. You can also turn off the magnifying and snapping function by lifting the finger.

**Step 3:** specify the next point by clicking a point or dragging. You have two options: create an arc or a line. It is default to create a line according to options on dynamic bar.

**Step 4:** specify other points by clicking points or dragging. When the number of points exceeding two, the area and Perimeter of close region that defined by specified points displays in the command line.

**Step 5:** finish measuring by clicking the “End” button on the dynamic bar.

## Undo



Operations:

**Step 1:** cancel the last step by clicking the “Undo” button.

## Redo



### Operations

**Step 1:** restore the effect of previous canceled step of “Undo” command.

## Visual Style



### 2D/3D switch

#### Operations:

**Step 1:** Click this button to pop up four styles: 2D wireframe, 3D wireframe, Realistic, Hide. Click to switch the styles.

**Step 2:** You can edit the drawings under 2D wireframe model.

**Step 3 :** Choose the other three 3D styles, you can have ten different viewpoints to view the model.

## Erase



### Operations:

**Step 1:** select objects to erase;

**Step 2:** click the “Erase” button to delete selected objects.

## Layout



## Operations

**Step 1:** click the “Layout” button to display different layouts;

**Step 2:** select one layout to display.