Deed Calls - Area - Perimeter
Help Document

Overview

The **Deed Calls - Area - Perimeter** universal application software will let you input calls from a legal metes and bounds description, title deed or other text description of a parcel of land to map out the boundary and create a deed drawing in your map and view the perimeter and enclosed area.

You will be able to specify the location of the first node then enter angles and distances to draw each segment of the property boundary, which could be displayed over a Google Map when the latter is available.

When you start this application, you will see a number of tool icons displayed across the top of the screen.

 Main Menu (pull-down list)

Tap this icon to display the list of functions on the Main Menu:

Google Map provides the Google Map display options as well as the function to close the Google Map.

Email Files provides the function to email the Deed Calls file.

Save As will let you save the deed calls to a different file than the currently open file. Specify the name of the new file to which to save the deed calls. The file extension will be ***.DCF (Deed call file)**.

Help displays this help file.

About Deed Calls shows the application software name and version.

Open File

Save File

Zoom-Fit

Export to PDF File

Turn on GPS

Edit

On-screen keyboard

An on-screen keyboard will automatically pop up when the focus is on a data entry screen. After entering data, tap the **Return** button on the pop-up keyboard. If a **Next** button is displayed in the data entry dialog, then tap that button to go to the next step. To hide the keyboard, tap the **Hide Keyboard Key** on the pop-up keyboard.

When entering numeric data, you will notice that there is a **Special Key** showing several symbols on it. This key will facilitate data entry in several ways.

To enter a distance value with a fractional part, tap this key to put in the decimal point.

To enter angles in **DMS** (Degrees- Minutes-Seconds), if your data value will not fill in all the places, then tap the special key after entering the desired value. For example, to enter the longitude of 91º09'26.082"W, you could type in 0910926.082W. Or, you could type 91, tap the special key, type 9, tap the special key, then enter 26.082W.

Similarly, to enter angles in **Decimal Degrees**, instead of filling in the leading zeros, you could tap the special key after entering the desired number of digits in the integer part of the value. For example, if you wish to enter the slope angle of, say 10, for a Traverse or Side-shot Point, remember to tap the special key after entering the 10. Otherwise, you will have entered a slope angle of 100. Alternatively, you could enter "010" to fill all the integer places.

Restarting the App

If you modify the name of a data file, you will need to restart the application so that it will be able to make use of the new information.

To do so, first press the Home button on the iPhone® or iPod touch®, to go to the Home screen. Then double-tap the Home button, and the application icons will be displayed at the bottom of the screen.

Hold down the **Deed Calls - Area - Perimeter** icon briefly until a "-" symbol shows up by the application icon.

Tap on the "-" symbol by the **Deed Calls - Area - Perimeter** icon to turn it off.

Press the Home button to complete the action. Run **Deed Calls - Area - Perimeter** by tapping on its icon.

1. Load a Deed Calls File

Tap the **Open File** icon to select an existing Deed Calls File to open.

To create a new Deed Calls File, enter a new file name then tap the green

check mark . (Yes, it's okay to type over the displayed file name.)

To cancel the action of opening a file, tap the red cross mark .
If you are working with a Deed Calls file and want to open another file instead, tap the **Open File** icon then select the desired file name. If there is data in the original file that has not been saved, the app will ask you whether you wish to abandon the changes or not. If you do not want to keep the last changes, tap on "Yes". If you wish to keep the last changes, tap on "No" then tap the **Save File** icon. Then tap the **Open File** icon to select the file you wish to open.

2. Display Google Map

Whenever you are connected to the Internet and your location can be determined, Google Map can be displayed as the background map for your deed drawing. This may help in locating the first node for your deed drawing.

You may select one of the following view modes after tapping the **Menu** button then choosing **Google Map**:

Show Classic - Show a map of streets, landmarks, and bus stops.

Show Satellite - Show satellite photos.

Show Hybrid   - Show street names on satellite photos.

Show Terrain - Show a topographic map with contours and elevations. (The tiny elevation labels are rather difficult to read.)

To turn off the Google Map display, tap **Close Map** on the Google Map menu.

3. Set First Node and Symbolism

Tap the **First Node** tab to specify the starting point in one of the following ways:
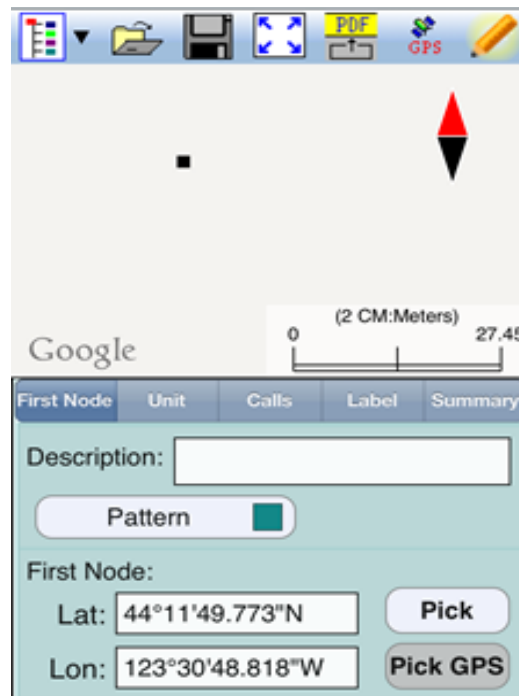
a) Tap the **Pick** button then tap a location on the screen to use it as the first node. If you just want to see what the deed plot will look like, you may select any spot on the screen as your initial node. However, if you wish to place the deed plot on a geographic location then turn on Google Map then pan and pull to display the map area showing your location. Then tap the spot that best represents the point of beginning for your deed plot.

b) If you know the coordinates (**Latitude and Longitude**) of the first node, then enter these into the corresponding fields to pinpoint the first node.

If you don't know the location of the point of beginning at the time you are entering the deed calls, you may just tap a location on the screen and use it as the first node for the drawing. Later, when you have the exact coordinates of the first node, you may tap the First Node tab and enter that information. In

that case, the entire Deed Calls drawing will be automatically moved to the new location.

c) If you are using an iPhone® and doing the angle and distance measurements on the spot, you could tap the **GPS** icon to turn on the GPS to help you position yourself at the point of beginning. Tap the **Pick GPS** button to use the GPS position as the First Node. Enter the measurements as they are made, and you will have a completed drawing on the spot.

You may optionally enter a description for the deed drawing you are about to create.

You may also specify the line style and area pattern for your deed drawing by tapping the **Pattern** button then selecting the desired symbols and colors. The area pattern will be used to represent closed areas only.

4. Set up Units

Tap the **Unit** tab to specify the appropriate length unit. If using U.S. units of measurement, be sure to check the box **US Survey Unit**. In the **Dec. Digits** field, select the desired number of decimal digits to show in the line segment labels.

Tap the **Angle** button then specify the desired **Angle System** for the calls. Available choices are: **Azimuth** or **Bearing**. If Azimuth is chosen, also specify the **Azimuth System**: North or South. Also specify the **Angle Unit** with choices of: DMS, Decimal Degrees (Degree), Mils or Grads.

Tap the **Length** button if you need to change the length unit.

5. Specify Label Positions

The app will label the line segments and arcs of your deed drawing. It will let you specify the position, font and decoration of the labels relative to the lines and arcs.

Tap the **Position** tab to elect to have the Segment Length label placed above or below the Line Segment. Select **None** if you wish to hide the label. You may have the label for the arc length or the radius placed outside or inside the arc.

Tap the **Font** tab to specify the font style, size and color for the various labels.

Tap the **Decoration** tab to specify the text to display before (Prefix) or after (Suffix) the Line Segment Length or the Arc Segment Length labels. Select **None** if you wish to hide the prefixes and/or the suffixes. A sample screen is shown below:


6. Enter Deed Calls

The following example illustrates the procedure for entering bearing and distance calls for each segment of a boundary to create the deed drawing.

Assume that we have created a new file named test1.dcf, and that we have picked a location on the screen as the First Node for our deed drawing.

We have set METERS as the length unit, and we will be entering each angle as a BEARING in DMS format.

Now tap the **Calls** tab to go to the page that lists the existing deed calls records. Initially there are no records shown.
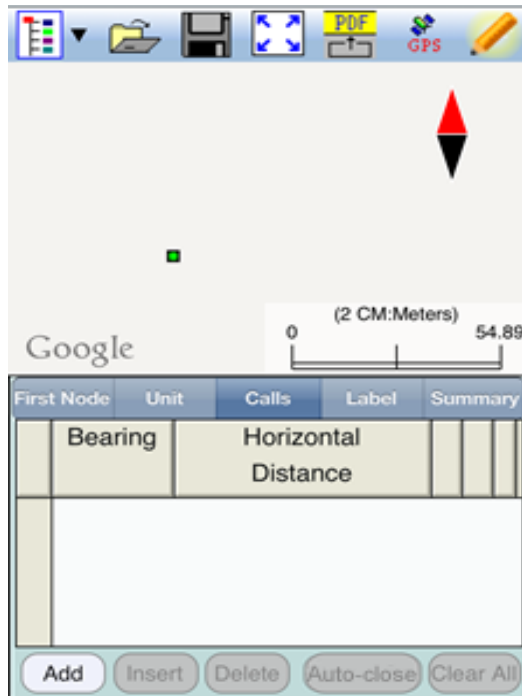
Tap the **Add** button to add a new call record and display the data entry screen.
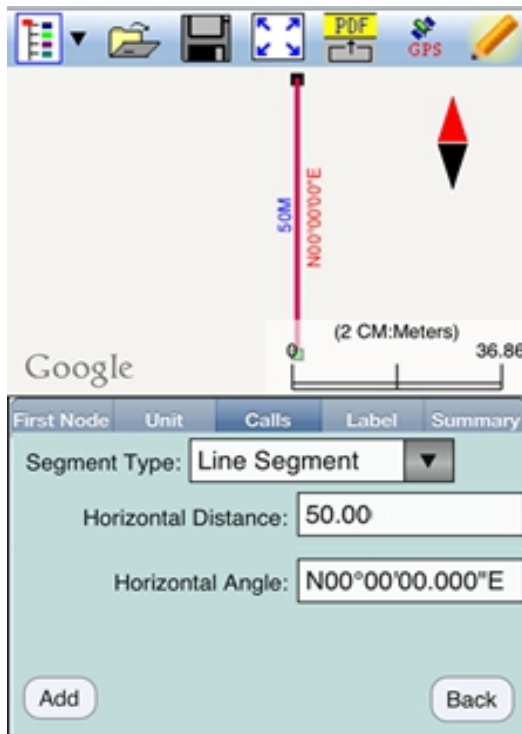
First, specify the type of segment you will be adding. Choose between **Line Segment** for straight lines or **Arc Segment** to define an arc.

Our first call is a straight **Line Segment**. We enter the horizontal distance of 50 meters from the **green** starting point and also specify the bearing of N 0 E.

Tap the **Back** button to return to the listing of the Deed Calls records.
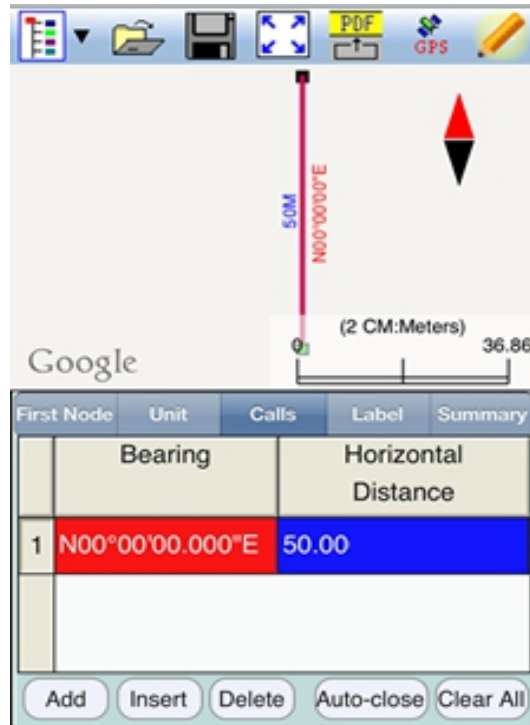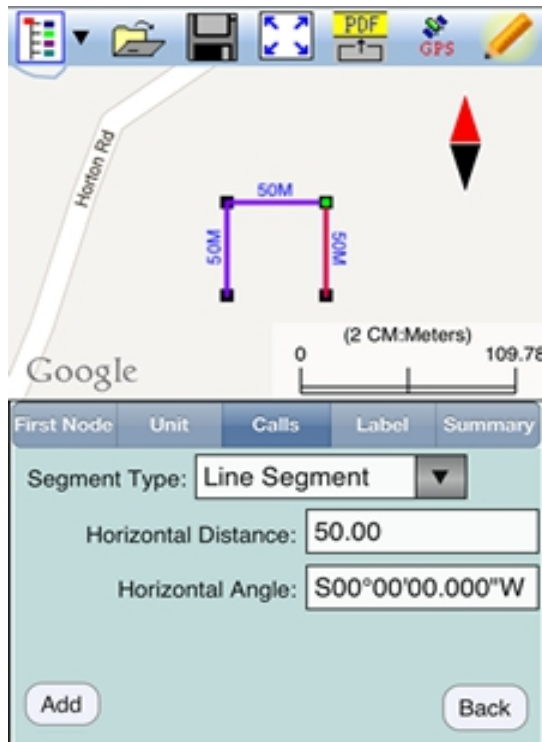

If you need to change the data entered for any record, simply **double-tap** on the record to call up the data entry screen then enter the correct data.

Tap **Add** and enter the second Line Segment as shown below.
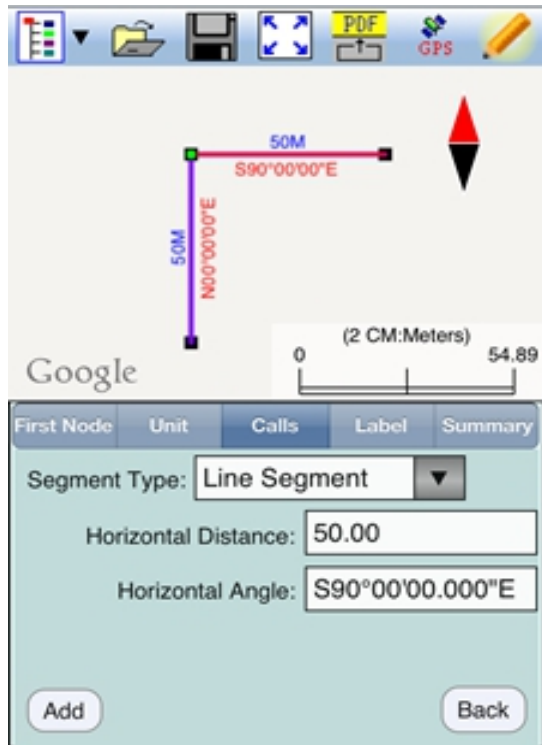
Tap the **Back** button then tap the **Add** button to add the third Line Segment as shown below:

If you wish to add a new segment, you could as well tap the **Add** button on this screen. This button will permit you to quickly add one segment after another without having to go back to the previous screen.

The last entered segment is highlighted in red in the graphical view.

You may zoom into or zoom out of portions of the graphical view by using your fingers to pull or pinch on the display, respectively. To fit the drawing to the screen, simply tap the **Zoom-Fit** icon. When **Google Map** is turned on, you may not be able to zoom to a really small scale. In that case, turn off the Google Map then pull to zoom into the map.

Now that you've gotten the hang of it, we will throw in a curve. For an Arc Segment, specify the size and length of the arc by entering a combination of the **Radius** and one of the following: **Arc Length**, **Chord Length**, **Central Angle**. Also specify the orientation of the curve by entering the **Chord Direction**, the **Tangent Direction** or the **Radial Direction** (from the first node of arc to the center of the circle, of which the arc is a part). Select the **Continuous** option if the curve is to continue in the direction of the last defined curve or line segment. Finally, specify the **Curve Direction** to indicate whether the arc turns left or right.

Below is the arc we will enter next. Tap the pull-down arrow for each field to select the appropriate option.
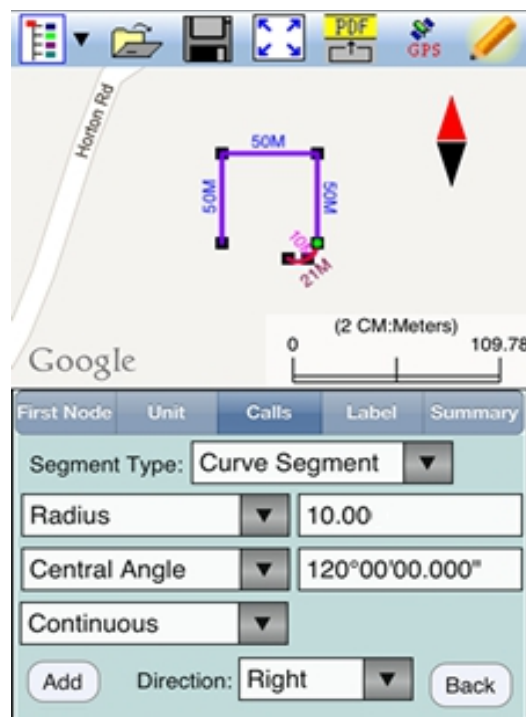
Tap the **Back** button to see the Deed Calls records. You may tap the **Insert** button to insert a record before the highlighted record, tap the **Delete** button to delete the highlighted record, or tap the **Clear All** button to clear all existing deed calls from the list and start a new deed call drawing.

Caution: Make sure you really want to delete a record or clear all records before confirming to do so. Deleted records cannot be recovered.
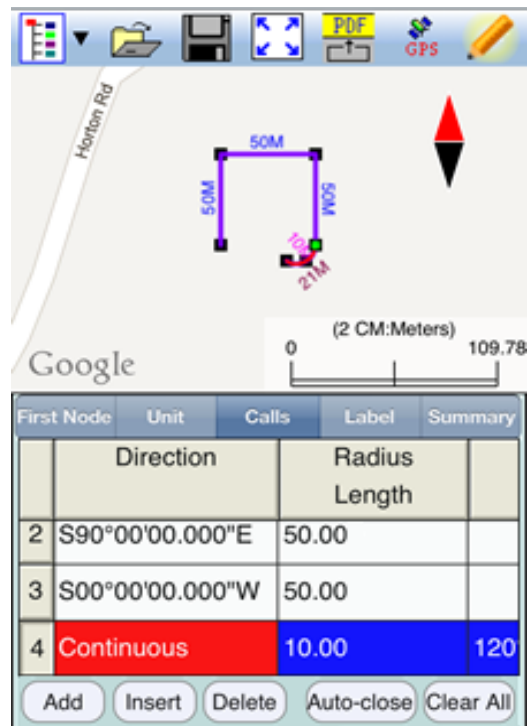
As there could be line segments as well as arc segments in your deed drawing, please note that the column titles for the list of deed calls records correspond to the highlighted record in the list.

When you tap the lit **Edit** icon (pencil) to turn it off, any drawing you have made so far will be displayed in **full screen**.

Complete the drawing by entering the following data:

Line Segment
    Horizontal Distance: 15
    Horizontal Angle: S00°00'00.000"W

Arc Segment
    Arc Length: 25
    Central Angle: 120°00'00.000"

Chord Direction: N90º00'00.000"W
Curve Direction: Right

Line Segment
    Horizontal Distance: 15
    Horizontal Angle: N00º00'00.000"E

Arc Segment
    Chord Length: 10
    Arc Length: 15
   Radial Direction: N90º00'00.000"W
     Curve Direction: Right

Line Segment
    Horizontal Distance: 9
    Horizontal Angle: N00º00'00.000"E

Line Segment
    Horizontal Distance: 4
    Horizontal Angle: N90º00'00.000"W

If you are unsure about the last call and want the app to automatically close the loop for you, simply tap the **Auto-close** button. A Line Segment will be generated to snap to the First Node, and the deed plot will be represented as an area. This is illustrated in the following two screens:
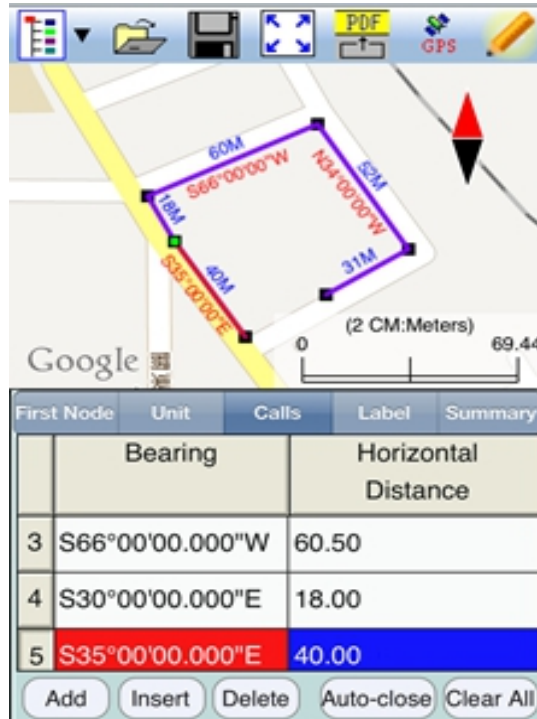
7. View/Edit Deed Calls

To view or make changes to a deed call that you have already entered, first tap the **Calls** tab then double-tap the deed call of interest from the list of deed calls to bring up the data entry screen. You may change the data as appropriate or simply tap the **Back** button to return to the list of deed calls records.

If the data viewed is not the last deed calls record, you will see the **Next** button in place of the Add button. You may tap the Next button to view or change the following data record, if you wish.

If you are at the last deed calls record, you may tap the **Add** button to add a new call.

To return to the list of deed calls records, tap the **Back** button.

8. View the Summary

After entering all the deed calls, tap on the **Summary** tab to view the closure error, the perimeter and the enclosed area.
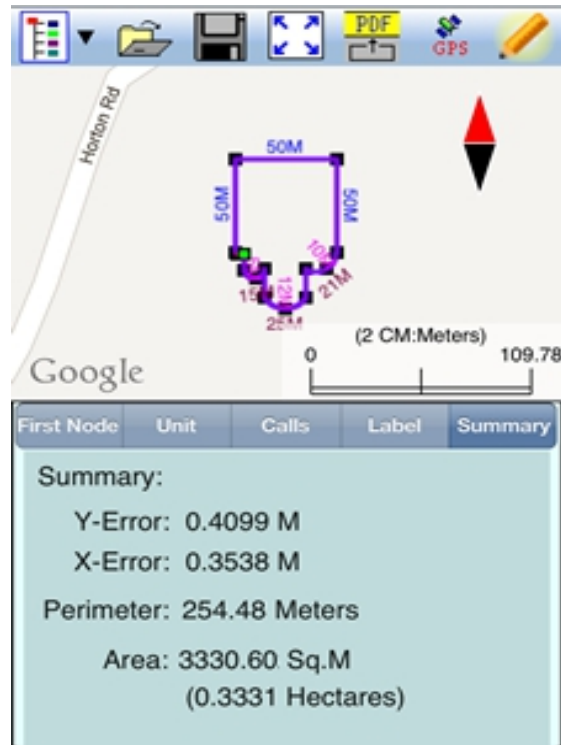
9. Save the Deed Calls File

Please note: The data you have entered is not saved until you use the **Save File** or **Save As** function to save it to a .DCF file.

The **Save File** icon will be active and appear to be darker whenever the app detects unsaved data in the job. This serves as a reminder for you to tap it to save the data before opening another job.

To save the deed calls that you have entered into the currently open file, tap the **Save File** icon. The file extension will be ***.DCF (Deed call file)**. This is an ASCII text file which may be opened and viewed with any text editor.

The *.DCF files will reside in the Documents folder for the application. To access your *.DCF files outside of the application, first connect to the iTunes® program then look in the Documents folder for the **Deed Calls - Area - Perimeter** app.

The *.DCF files created by the **Deed Calls - Area - Perimeter** app are compatible with the current releases of the PC-GPS, PC-MAPPER and CMT-SURVEY mapping software produced by Corvallis Microtechnology, Inc.

Please note: Before updating to a new version of iOS, first back up all you apps and data files. Also, should you decide to remove an

application software for some reason, beware that all the associated data files will be deleted. If you wish to save the data files, please save a copy to your desk-top computer before removing the app.

10. Email the Deed Calls File

You may email the Deed Calls file by tapping the Main Menu icon then selecting **Email Files**.

11. Export to a PDF File

To save the Deed Calls drawing and data records as a PDF file, tap on the **Export to PDF File** icon.

The first page shows the deed drawing. The following page(s) show the deed calls, the perimeter and the enclosed area.

The exported PDF files will reside in the Documents folder for the application. To access the PDF files exported from the application, first connect to the iTunes® program then look in the Documents folder for the **Deed Calls - Area - Perimeter** app.

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