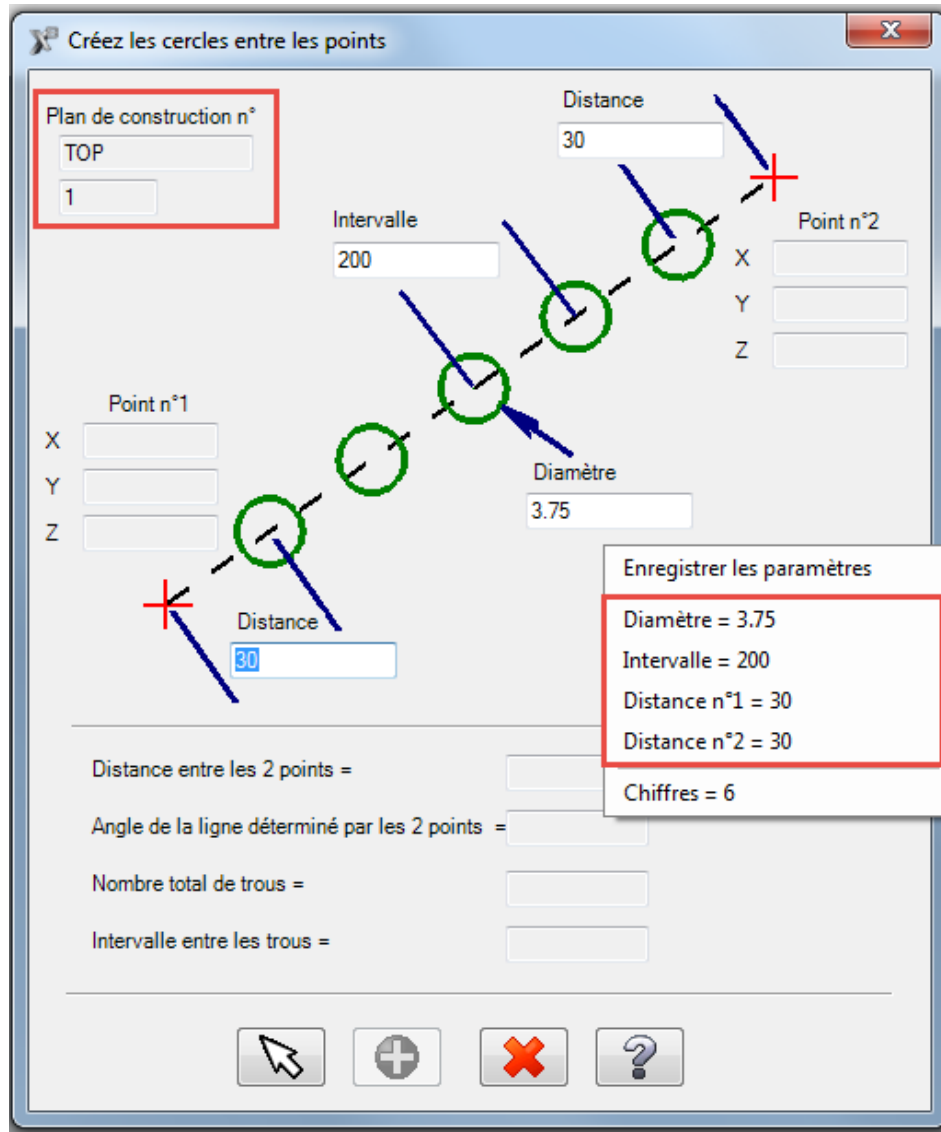When the add-on is run, this dialog is displayed (see start mode note) →

You click the Select Points (arrow) button. Once Point #1 and Point #2 have been selected the Apply button will be enabled.

(See notes below about the highlighted areas)



The user enters the desired information →

- ➢ Distance from Point #1
- ➢ Distance from Point #2
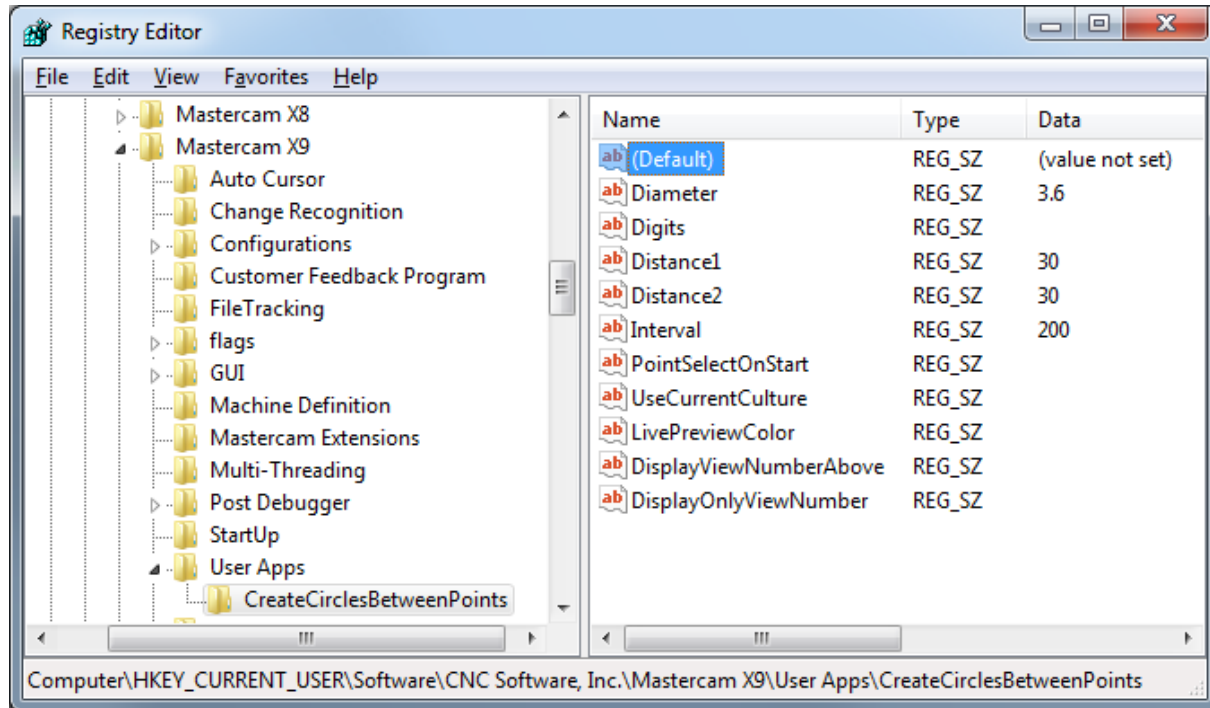- ➢ (Max) Interval between circles
- ➢ Circle Diameter

The Point Coordinates displayed are in View coordinates and if the 2D/3D setting in Mastercam is set to 2D, the 'Z' values are set to the current construction 'Z' setting.

*Notes:*

*As you change any of the "live" values, the data in the lower part of the form is auto updated. Once you accept these settings by clicking the OK (green arrow) button, the circles are created and the dialog is dismissed.

*Note that the geometry creation is placed in Mastercam's UnDo buffer, allowing you to UnDo all of the circles using the standard Mastercam UnDo function.

*The Distance, Interval and Diameter input fields are currently just "plain" TextBoxes, meaning; They will allow non-valid (alpha) characters to be input. If you attempt to leave a field with invalid (non-numeric) characters you will be notified and focus is returned to that field.

* The values in all "decimal" value fields are formatted for display based on the "Digits" (to the right) setting. By default this is "6". It is assumed that the user will probably set this once, so the only way to alter this setting is by changing the Digits value in the Registry.

* Regarding the highlighted areas on the dialog:
  1> In the upper-left you'll see that the current Construction Plane (CPlane) "Name" and "Number" is displayed.  You can customize what and how this information is displayed via Registry settings.
  2> In the lower-right you see the form's context menu (activated via a right-click on the form) which allows for storing the current settings to the Registry to be used as the default values for these fields.

**Registry settings:**

*This utility stores information in the HKEY_CURRENT_USER hive of the Registry, under this key →

Software\CNC Software, Inc.\Mastercam **X8**\User Apps\CreateCirclesBetweenPoints

-or-

Software\CNC Software, Inc.\Mastercam **X9**\User Apps\CreateCirclesBetweenPoints



These values are used as the default values when the utilty is started:

| | | |
|---|---|---|
| **Diameter** | = | Circle Diameter |
| **Distance1** | = | Distance from Point #1 |
| **Distance2** | = | Distance from Point #2 |
| **Interval** | = | (Max) Interval between circles |

You can update these defaults to the active values on the dialog via the the right-click context menu.

**Digits** is defaulted to "6" and to modify this setting must be done directly editing the Registry.

These (2) optional settings allow for customizing the display of the CPlane information:

**DisplayOnlyViewNumber**

**DisplayViewNumberAbove**

These values will *not* appear under the utility's Registry key, you must create them.

*Note that all of these Registry values are "String" values.*

If neither value is defined or if its value is not = 1, the display will be as you see on the dialog above.

If **DisplayOnlyViewNumber** exists and its value = 1

Only the CPlane "Number" information will be displayed.

If **DisplayOnlyViewNumber does not** exists or if it does and its value is not = 1

*And* if **DisplayViewNumberAbove** exists and its value = 1

The CPlane "Number" and "Number" information display positions will be swapped.

You can also set the color to be used for the "live" preview. Just add a string value with the name of **LivePreviewColor** to the Registry and set its value to a Mastercam color # of: 0-255

There is also a "culture" option that you can set in the Registry. By *default* this utility will use the "." (point) for the all decimal type values. If you wish to use the current culture set on your system, (e.g. use "," comma separator for French, German, etc.), you can override this default setting. To do that, add a **UseCurrentCulture** string value and set its value to "1".
*Note that you will need to either delete or "fix" the decimal separators in the Registry values
 (Diameter, Distance1, Distance2 and, Interval) to match the change in the **UseCurrentCulture** option!

**Startup mode** -
The *default* startup is to display the dialog and the user then must click the (arrow) Select Points button.
You can make a Registry setting so that upon *initial* startup, you are immediately in the "select points mode". Add a string value named **PointSelectOnStart** and set its data to "1".

**Installing this Add-On**

Copy these two files into the CHooks folder of your Mastercam installation →

**CreateCirclesBetweenPoints.dll**
**CreateCirclesBetweenPoints.ft**

After you start (or restart) Mastercam there should be a new icon in the Category of 'Geometry'
 under Settings – Customize →



You can add this to a toolbar and/or map the **CreateCirclesBetweenPoints** to a keystroke.

CNC Software, Inc.
671 Old Post Rd.
Tolland, CT  06084
www.mastercam.com

**Mastercam.**