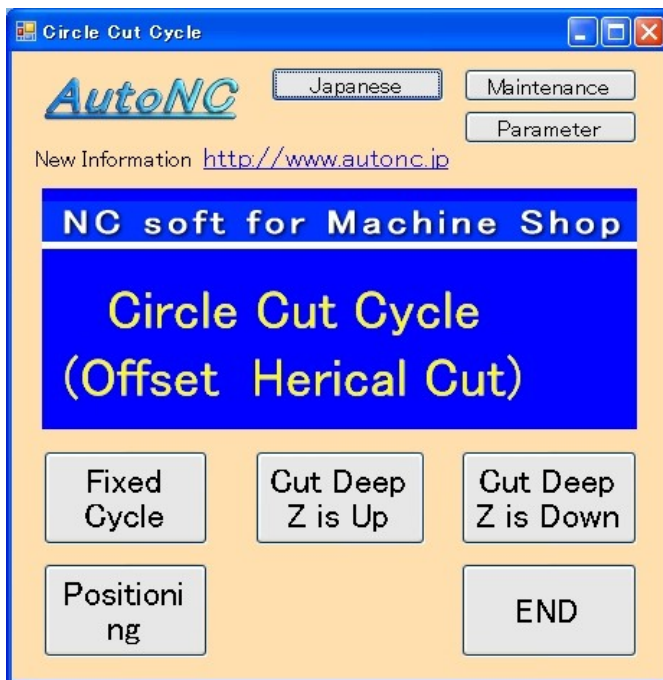




NC soft for Machine Shop

Home Page <http://www.autonc.jp>

Circle Cut Cycle Manual



**The feature of the NC controller has the Fixed-cycle of the hole end.
I made the same feature in circle profile milling.**

[Circle Fixed Cycle]

It turns around at the same height several times by offset mode.
The approach is only once, because it turns with the continuation.
Mainly, it uses for finish cut.

[Cut Deep Z is Up]

The movement is the same about "Cut Deep Z is Up" and "Cut Deep Z is Down".
It digs the hole with some depth.
The difference is that Z value of the hole data is up or down.

" Cut Deep Z is Up " is digging in the hole from the upper Z value.
The Method is helical milling.
(It is no need to use a drill for prepared hole.)

[Cut Deep Z is Down]

" Cut Deep Z is Down " is digging in the hole from the lower Z value + Depth.
The Method is helical milling.
(It is no need to use a drill for prepared hole.)

【Positioning】

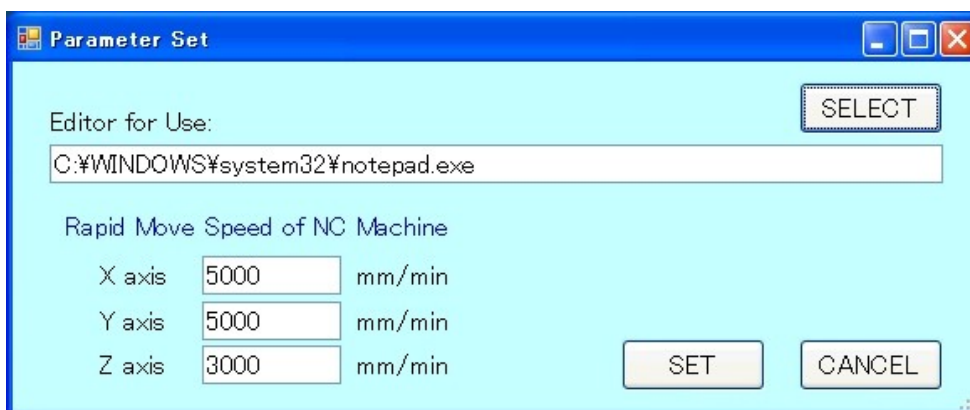
Reading the hole position table of the character data, CSV data (EXCEL)
The NC data of the positioning can be created.
However, of course, it is OK by manual Input.

【Japanese】

When pushing this button, it becomes Japanese display.

【Parameter】

It specifies an editor for the editing.
"Edit" button of the program starts up this editor.
At present, it isn't using the Rapid Move Speed of NC Machine.



[Circle Fixed Cycle]

Circle Fixed Cycle

When No D Point ☐ 1/1 ☒ 1/1000 ☐ 1/100

☒ NC Data ☐ Others

| X | Y | Z | D (+) |
|------|------|-----|-------|
| -145 | -5 | -50 | 60 |
| -675 | 35 | -50 | 60 |
| -665 | -195 | -50 | 60 |
| 640 | -125 | -50 | 60 |
| 660 | 95 | -50 | 60 |
| * | | | |

Clear Data

Insert Line

Holder for Write : C:¥

NC File Name : Ana

Confirm NC : AnaKakunin

Start

-----Graphic Display-----

Circle Fixed Cycle

Height of Rapid Move

Cutting Feed Height Above

Confirm Z Height Above

Deference Circle R and Approach r (R-r)

TOOL

Diameter : mm

Offset D No. :

Cut Times : Times

Feed Rate : mm/min

Spindle Speed rev/min

Z Down

☒ G00

☐ G01 F

Adjust Z

G92 ☐ Yes ☒ No

Circle Fixed Cycle

When No D Point ☐ 1/1 ☒ 1/1000 ☐ 1/100

☒ NC Data ☐ Others

| X | Y | Z | D (+) |
|------|------|-----|-------|
| -145 | -5 | -50 | 60 |
| -675 | 35 | -50 | 60 |
| -665 | -195 | -50 | 60 |
| 640 | -125 | -50 | 60 |
| 660 | 95 | -50 | 60 |
| * | | | |

Clear Data

Insert Line

Holder for Write : C:¥

NC File Name : Ana

Confirm NC : AnaKakunin

Start

-----Graphic Display-----

Circle Fixed Cycle

Height of Rapid Move

Cutting Feed Height Above

Confirm Z Height Above

Deference Circle R and Approach r (R-r)

TOOL

Diameter : mm

Offset D No. :

Cut Times : Times

Feed Rate : mm/min

Spindle Speed rev/min

Z Down

☒ G00

☐ G01 F

Adjust Z

G92 ☐ Yes ☒ No

Cutting Condition

Data Area

NC Output

The data area

| | X | Y | Z | D (+) |
|---|---|---|---|-------|
| * | | | | |

When pushing the "Clear Data" button, a data area is cleared.

Input the data by manual.

If there is no data below the decimal point, the decimal point can be omitted.

| | X | Y | Z | D (+) |
|---|-----|-----|----|-------|
| | 100 | 200 | 10 | |
| * | | | | |

When pushing "Tab" key, move to the right.
When pushing "Enter" key, move down.

The line which changed to the blue can be deleted when pushing the "Delete" button.

| | X | Y | Z | D (+) |
|---|------|------|-----|-------|
| | -145 | -5 | -50 | 60 |
| | -675 | 35 | -50 | 60 |
| | -665 | -195 | -50 | 60 |
| | 640 | -125 | -50 | 60 |
| | 660 | 95 | -50 | 60 |
| * | | | | |

When clicking, one line can be chosen.

| | X | Y | Z | D (+) |
|---|------|------|-----|-------|
| | -145 | -5 | -50 | 60 |
| | -675 | 35 | -50 | 60 |
| | -665 | -195 | -50 | 60 |
| | 640 | -125 | -50 | 60 |
| | 660 | 95 | -50 | 60 |
| * | | | | |

More than one line can be chosen when clicking and dragging.

"Add Read Data" can read the NC data, Text data, CSV data, and so on.

| | X | Y | Z | D (+) |
|---|------|------|---|-------|
| ▶ | -145 | -5 | 0 | 0 |
| | -675 | 35 | 0 | 0 |
| | -665 | -195 | 0 | 0 |
| | 640 | -125 | 0 | 0 |
| | 660 | 95 | 0 | 0 |
| * | | | | |

When there is not a decimal point in the data to read, it follows this unit.

When there is a decimal point, it follows that.

You choose NC data or the others.

As for the others, the data is independent every line.

Even if the NC data moves only a X axis, the previous Y and Z position is kept.

"Add Read Data" When pushing the button, the file selection screen is displayed and it is possible to be chosen by it.

NC data 1/1000 to read

```
%
(test)
(X100.0Y200.0Z300.0)
N0001G90
N0002G92X0Y0Z0
N0003M03
(test)
(X100.0Y200.0Z300.0)
N0004G00X-145000Y-5000
N0005X-675000Y35000
N0006X-665000Y-195000
N0007X640000Y-125000
N0008X660000Y95000
N0009G80
N0010G00X0Y0
N0011M02
%
```

In the reading of the NC data, it is skipped the following line.

1. Including the () data.
2. The line of X0Y0.
3. The line where there is not a movement.

It isn't possible to read from the NC data except the X, or Y, Z.

Make the data to read here positioning data in circle center.

You add a Z value to every line. Or, it is possible to add Z value at once by "Input Z value".

| | X | Y | Z | D (+) |
|---|------|------|-----|-------|
| ▶ | -145 | -5 | -50 | 0 |
| | -675 | 35 | -50 | 0 |
| | -665 | -195 | -50 | 0 |
| | 640 | -125 | -50 | 0 |
| | 660 | 95 | -50 | 0 |
| * | | | | |

Input Z value in the text box of the light blue on the button, and pushing the "Input Z value" button, the same Z value is stored in all lines of the table.

You add a diameter to every line. Or, it is possible to add a diameter at once by "Input Diameter".

| | X | Y | Z | D (+) |
|---|------|------|-----|-------|
| ▶ | -145 | -5 | -50 | 60 |
| | -675 | 35 | -50 | 60 |
| | -665 | -195 | -50 | 60 |
| | 640 | -125 | -50 | 60 |
| | 660 | 95 | -50 | 60 |
| * | | | | |

Input D value in the text box of the light blue on the button, and pushing the "Input Diameter" button, the same Diameter value is stored in all lines of the table.

The reading in of the other data

When No D Point ☒ 1/1 ☐ 1/1000 ☐ 1/100

☐ NC Data ☒ Others

| | X | Y | Z | D (+) |
|---|------|------|---|-------|
| ▶ | 100 | 200 | 0 | 0 |
| | 300 | 400 | 0 | 0 |
| | -110 | -300 | 0 | 0 |
| * | | | | |

The text file

```
100 200
300 400
-110 -300
```

When four columns of data aren't enough, it handles the remainder as 0.

When No D Point ☒ 1/1 ☐ 1/1000 ☐ 1/100

☐ NC Data ☒ Others

| | X | Y | Z | D (+) |
|---|------|------|-----|-------|
| ▶ | 100 | 200 | -50 | 0 |
| | 300 | 400 | -50 | 0 |
| | -110 | -300 | -60 | 0 |
| * | | | | |

The text file

```
X100 Y200 Z-50 60 40
X300 Y400 Z-50 70 40
X-110 Y-300 Z-60 80 50
```

When there are X, Y, Z value and no symbol value in a line except the NC data(for example: measurement data), symbol value has priority. In this case, it isn't possible to read except the X, Y, Z value.

When No D Point ☒ 1/1 ☐ 1/1000 ☐ 1/100

☐ NC Data ☒ Others

| | X | Y | Z | D (+) |
|---|------|------|-----|-------|
| ▶ | 100 | 200 | -50 | 60 |
| | 300 | 400 | -50 | 70 |
| | -110 | -300 | -60 | 80 |
| * | | | | |

The text file

```
100 200 -50 60 40
300 400 -50 70 40
-110 -300 -60 80 50
```

No symbol data are read by the order of the X,Y,Z,D.
When the data columns are over, remainder is skipped.
Also, skips the line that head character is (.

The CSV file

(This is the test data of the CSV file.)
100,200,-50,60,40
300,400,-50,70,40
-110,-300,-60,80,50

The addition reading in of the data

When No D Point ☐ 1/1 ☒ 1/1000 ☐ 1/100

☒ NC Data ☐ Others

Add Read Data

| X | Y | Z | D (+) |
|------|------|-----|-------|
| 100 | 200 | -50 | 60 |
| 300 | 400 | -50 | 70 |
| -110 | -300 | -60 | 80 |
| -145 | -5 | 0 | 0 |
| -675 | 35 | 0 | 0 |
| -665 | -195 | 0 | 0 |
| 640 | -125 | 0 | 0 |
| 660 | 95 | 0 | 0 |

*

"Add Read Data"
It is possible to read by adding data literally.

The text file

The NC file

You can add or subtract constant value to Z value.

| X | Y | Z | D (+) |
|------|------|-----|-------|
| -145 | -5 | -50 | 60 |
| -675 | 35 | -50 | 60 |
| -665 | -195 | -50 | 60 |
| 640 | -125 | -50 | 60 |
| 660 | 95 | -50 | 60 |

*

Adjust Z

+Z

Clear Data

Insert Line

Input Z Value

Input Diameter

It is added to all the lines of Z when filling out a light blue area of "Adjust Z" and pushing the "+Z" button. When wanting to do a subtraction, put a negative value. It uses when wanting to adjust Z value.

The insertion of the data line

| | X | Y | Z | D (+) |
|---|------|------|-----|-------|
| | -145 | -5 | -50 | 60 |
| | -675 | 35 | -50 | 60 |
| | 0 | | | |
| ▶ | -665 | -195 | -50 | 60 |
| | 640 | -125 | -50 | 60 |
| | 660 | 95 | -50 | 60 |
| * | | | | |

Clear Data

-50 60

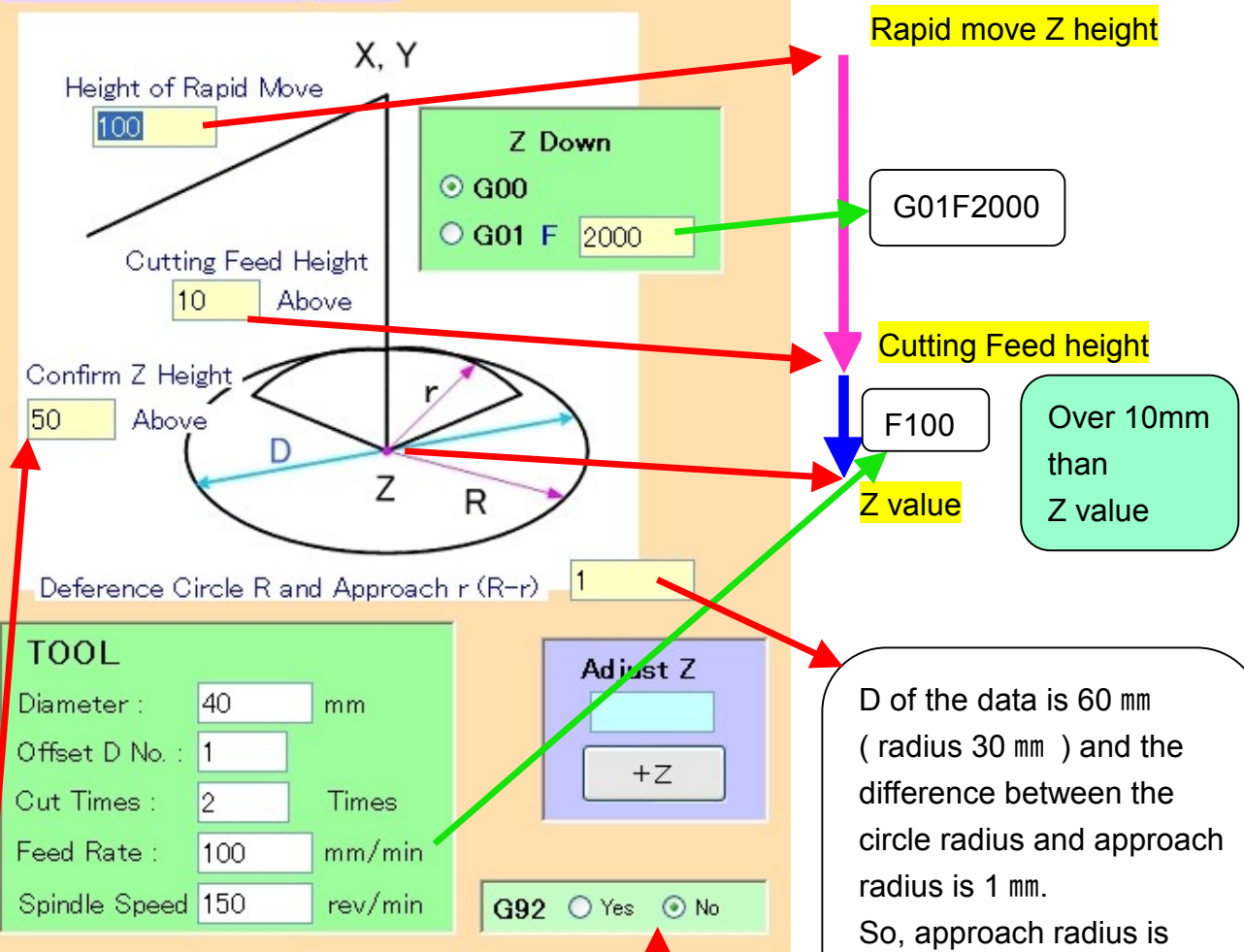
Input Z Value Input Diameter

Insert Line

A line is inserted onto it when choosing the head of the data line and pushing "Insert Line" button.

Cutting Condition

Circle Fixed Cycle



At the NC data for the confirmation, at " the Z + this height ", it turns around circle once.

You choose Yes or No at the <G92>.

When you choose Yes, G90G92X0Y0Z(the rapid move z height) is stored.

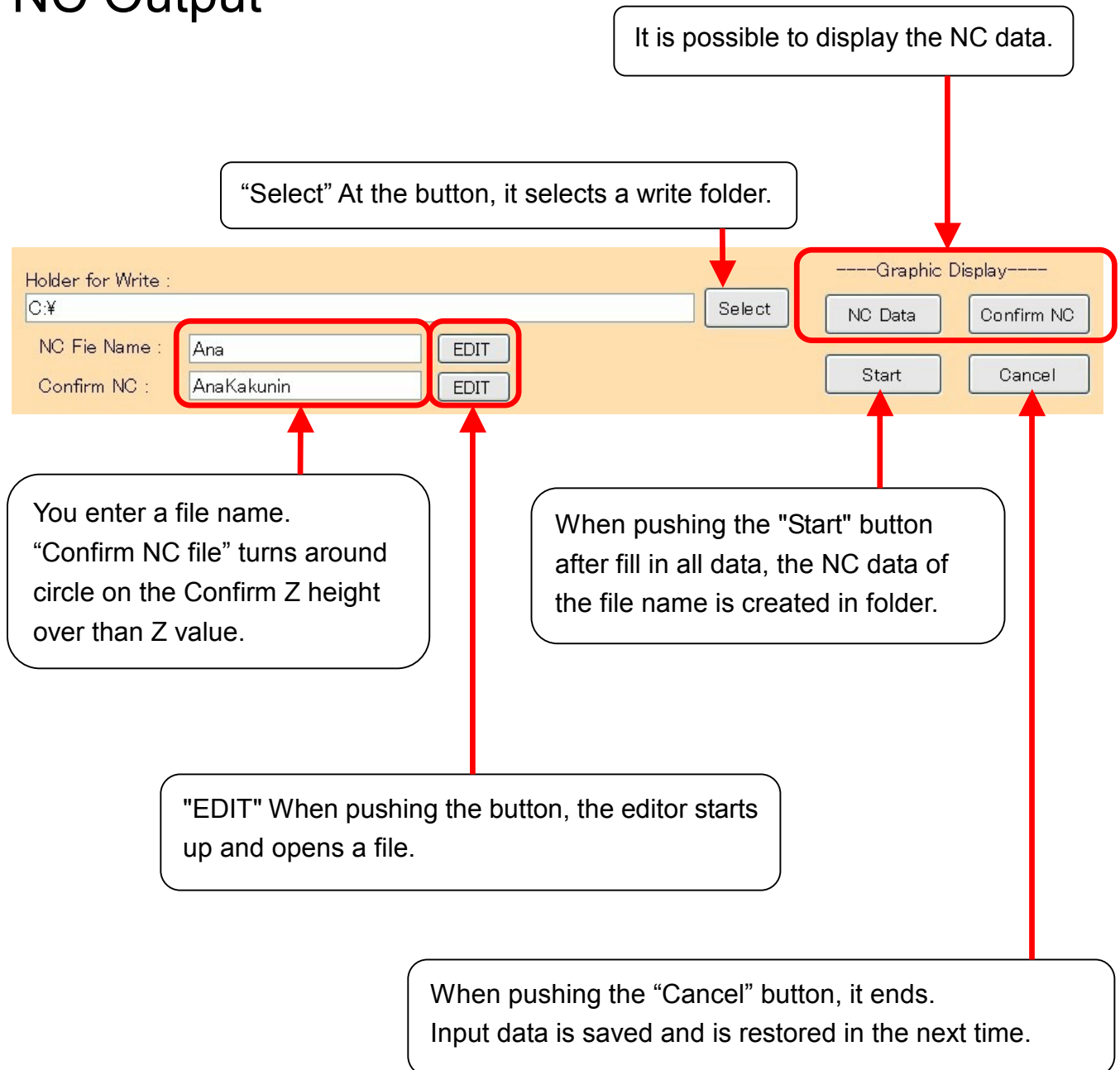
When it is No, G90X0Y0; G01Z(the rapid move z height) is stored.

(For the details, you refer to the NC data).

```
-----
G01G41X120.506Y71.506D2
G03X100.000Y80.000I-20.506J-20.506
G03X100.000Y80.000I0J-30.000
G03X100.000Y80.000I0J-30.000
G03X79.494Y71.506I0J-29.000
G01G40X100.000Y50.000
-----
```

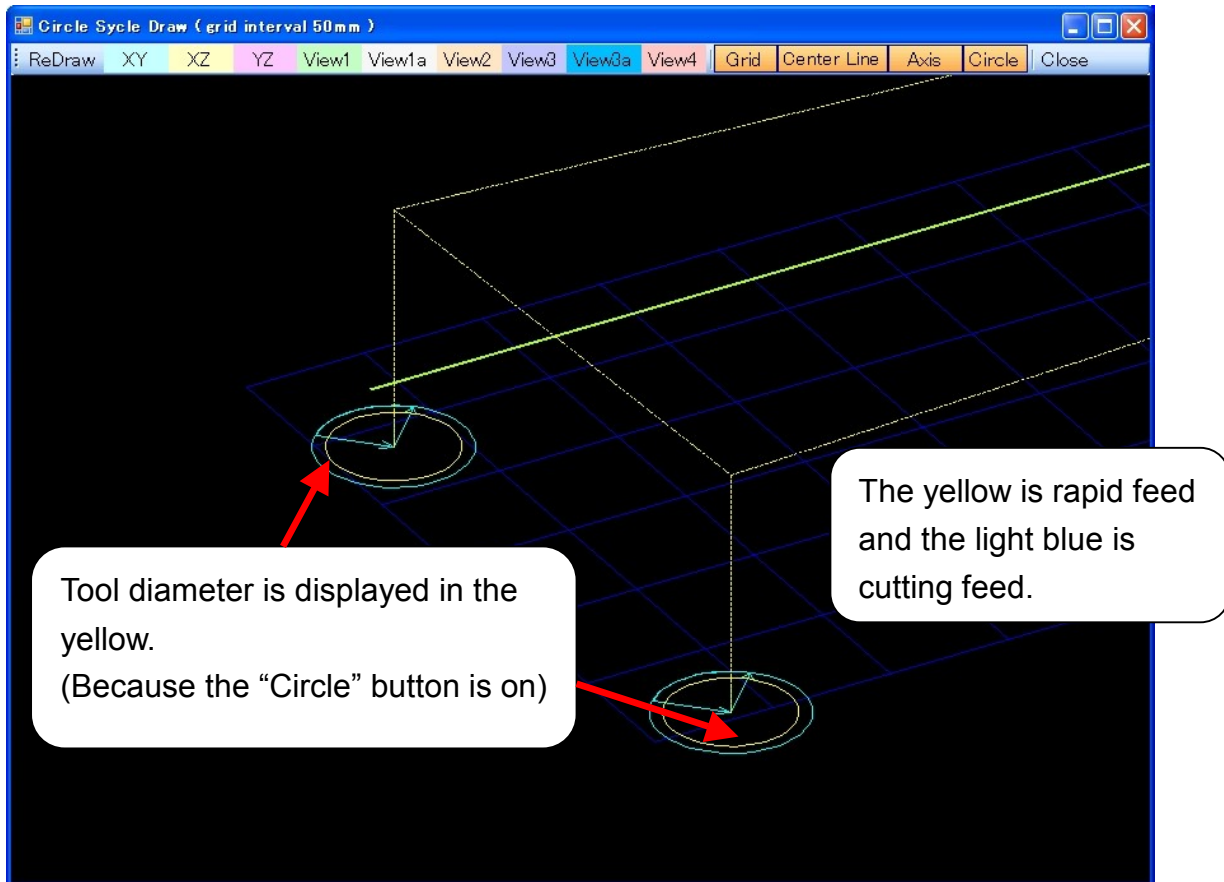
Because cut times are 2, it turns twice as approached.

NC Output

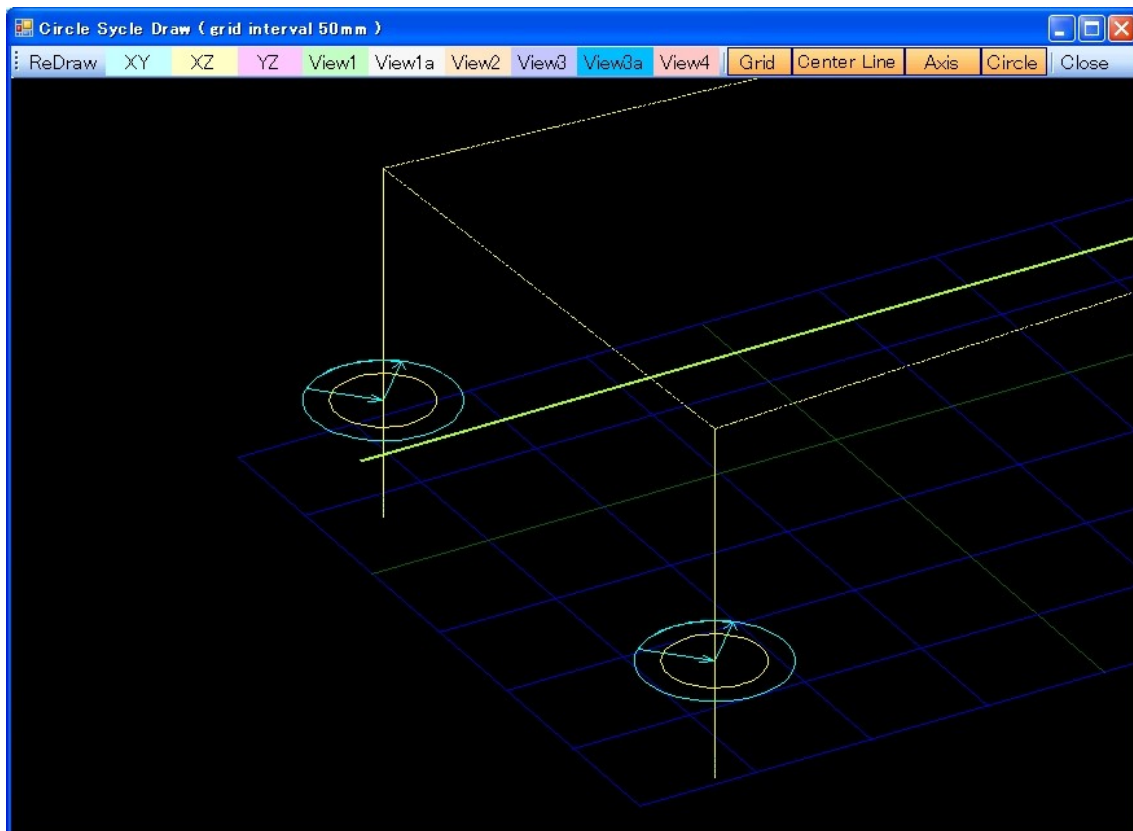


The Display of the NC data

The following figure shows by "Graphic Display". This figure is shown in "VIEW1".



The following shows "Confirm NC data". Once it goes down to the cutting Z height. And it goes up to the Confirm Z height over than Z value, and turns around circle.



The Display menu



You can select the display direction.

XY plane, XZ plane, YZ plane, View1, View1a, View2, View3, View3a, View4.

View* is the show which was seen from the diagonal top.

View1, View2, View3, View4 are the show which was seen from 30 degrees above from just beside.

View1a, View3a are the show which was seen from 60 degrees above from just beside.

The show button of Grid, the centerline, the Axis, Circle becomes on.

When making "Grid" off, the grid of blue 50 mm disappears.

When making "Centerline" off, the olive-green X axis, the Y axis, the Z axis disappear.

When making "Axis" off, the coordinate system of the X, the Y, Z disappears.

When making "Circle" off, the tool diameter display disappears.

The part can be displayed in the expansion when clicking with the mouse and dragging.

It returns to the ex-screen by "Close".

【Cut Deep Z is Up】

Cut Deep Z is Up

When No D Point ☐ 1/1 ☒ 1/1000 ☐ 1/100

☒ NC Data ☐ Others Add Read Data

| X | Y | Z | D (+) | H (+) |
|------|----|-----|-------|-------|
| -145 | -5 | -50 | 60 | 25 |
| * | | | | |

Height of Rapid Move: 50

X, Y

Z Down

☒ G00 ☐ G01 F 2000

Cutting Feed Height: 10 Above

Adjust Z

+Z

Deference Circle R and Approach r (R-r): 1

TOOL

Diameter: 40 mm

Offset D No.: 1

Cut Deep Rate: 1 mm/rev

Feed Rate: 1000 mm/min

Spindle Speed: 1000 rev/min

Cutting Method

☐ Const Interval ☒ Herical

Code Type

☒ Absolute ☐ Incremental

G92 ☐ Yes ☒ No

NC File Name: DownKirikomi EDIT

Holder for Write: Confirm NC: KakuninDownKirikomi EDIT

C:\

Select Start Cancel

Clear Data Input Z Value Input Diameter Input Height

Insert Line

NC Data Confirm NC

Graphic Display

Cut Deep Z is Up

When No D Point ☐ 1/1 ☒ 1/1000 ☐ 1/100

☒ NC Data ☐ Others Add Read Data

| X | Y | Z | D (+) | H (+) |
|------|----|-----|-------|-------|
| -145 | -5 | -50 | 60 | 25 |
| * | | | | |

Height of Rapid Move: 50

X, Y

Z Down

☒ G00 ☐ G01 F 2000

Cutting Feed Height: 10 Above

Adjust Z

+Z

Deference Circle R and Approach r (R-r): 1

TOOL

Diameter: 40 mm

Offset D No.: 1

Cut Deep Rate: 1 mm/rev

Feed Rate: 1000 mm/min

Spindle Speed: 1000 rev/min

Cutting Method

☐ Const Interval ☒ Herical

Code Type

☒ Absolute ☐ Incremental

G92 ☐ Yes ☒ No

NC File Name: DownKirikomi EDIT

Holder for Write: Confirm NC: KakuninDownKirikomi EDIT

C:\

Select Start Cancel

Clear Data Input Z Value Input Diameter Input Height

Insert Line

NC Data Confirm NC

Graphic Display

Cutting Condition

Data Area

NC Output

The data area

| | X | Y | Z | D (+) | H (+) |
|---|---|---|---|-------|-------|
| * | | | | | |

データクリア

データ挿入

Z一定値代入

一定直径代入

H一定値代入

When pushing the "Clear Data" button, a data area is cleared.

Input the data by manual.

If there is no data below the decimal point, the decimal point can be omitted.

| | X | Y | Z | D (+) | H (+) |
|---|-----|-----|---|-------|-------|
| | 100 | 300 | 0 | 60 | 25 |
| * | | | | | |

When pushing "Tab" key, move to the right.
When pushing "Enter" key, move down.

The line which changed to the blue can be deleted when pushing the "Delete" button.

When No D Point ☐ 1/1 ☒ 1/1000 ☐ 1/100

☒ NC Data ☐ Others

Add Read Data

| | X | Y | Z | D (+) | H (+) |
|---|------|------|---|-------|-------|
| | -145 | -5 | 0 | 60 | 20 |
| | -675 | 35 | 0 | 60 | 20 |
| | -665 | -195 | 0 | 60 | 20 |
| | 640 | -125 | 0 | 60 | 20 |
| | 660 | 95 | 0 | 60 | 20 |
| * | | | | | |

When clicking, one line can be chosen.

When No D Point ☐ 1/1 ☒ 1/1000 ☐ 1/100

☒ NC Data ☐ Others

Add Read Data

| | X | Y | Z | D (+) | H (+) |
|---|------|------|---|-------|-------|
| | -145 | -5 | 0 | 60 | 20 |
| | -675 | 35 | 0 | 60 | 20 |
| | -665 | -195 | 0 | 60 | 20 |
| | 640 | -125 | 0 | 60 | 20 |
| | 660 | 95 | 0 | 60 | 20 |
| * | | | | | |

More than one line can be chosen when clicking and dragging.

"Add Read Data" can read the NC data, Text data, CSV data, and so on.

The interface shows settings for reading data. A red box highlights the 'When No D Point' section with radio buttons for units: 1/1, 1/1000 (selected), and 1/100. Another red box highlights the 'NC Data' (selected) and 'Others' radio buttons. A blue arrow points from the 'Add Read Data' button to a text box explaining its function. Another blue arrow points from the '1/1000' unit selection to a text box explaining its use when no decimal point is present in the data. A third blue arrow points from the 'NC Data' selection to a text box explaining that data is independent per line and that previous positions are kept. A fourth blue arrow points from the 'Add Read Data' button to a text box explaining that it opens a file selection screen.

When there is not a decimal point in the data to read, it follows this unit.
When there is a decimal point, it follows that.

You choose NC data or the others.
As for the others, the data is independent every line.
Even if the NC data moves only a X axis, the previous Y and Z position is kept.

"Add Read Data" When pushing the button, the file selection screen is displayed and it is possible to be chosen by it.

The NC data 1/1000 to read

```

%
(test)
(X100.0Y200.0Z300.0)
N0001G90
N0002G92X0Y0Z0
N0003M03
(test)
(X100.0Y200.0Z300.0)
N0004G00X-145000Y-5000
N0005X-675000Y35000
N0006X-665000Y-195000
N0007X640000Y-125000
N0008X660000Y95000
N0009G80
N0010G00X0Y0
N0011M02
%
  
```

In the reading of the NC data, it is skipped the following line.

1. Including the () data.
2. The line of X0Y0.
3. The line where there is not a movement.

It isn't possible to read from the NC data except the X, or Y, Z.

Make the data to read here positioning data in circle center.

You add a Z value to every line. Or, it is possible to add Z value at once by "Input Z value".

The screenshot shows a software interface with a table and input fields. The table has columns X, Y, Z, D (+), and H (+). The Z column is highlighted with a red box, and the 'Input Z Value' button is also highlighted with a red box. A red arrow points from the button to the Z column, indicating that the value entered in the button is applied to all rows in the Z column.

When No D Point ☐ 1/1 ☒ 1/1000 ☐ 1/100

☒ NC Data ☐ Others

| | X | Y | Z | D (+) | H (+) |
|---|------|------|-----|-------|-------|
| ▶ | -145 | -5 | -50 | 60 | 0 |
| | -675 | 35 | -50 | 60 | 0 |
| | -665 | -195 | -50 | 60 | 0 |
| | 640 | -125 | -50 | 60 | 0 |
| | 660 | 95 | -50 | 60 | 0 |
| * | | | | | |

Clear Data

Input Z value in the text box of the light blue on the button, and pushing the "Input Z value" button, the same Z value is stored in all lines of the table.

You add a diameter to every line. Or, it is possible to add a diameter at once by "Input Diameter".

The screenshot shows the same software interface as the previous one, but with the 'Input Diameter' button highlighted with a red box. A red arrow points from the button to the D (+) column, indicating that the value entered in the button is applied to all rows in the D (+) column.

When No D Point ☐ 1/1 ☒ 1/1000 ☐ 1/100

☒ NC Data ☐ Others

| | X | Y | Z | D (+) | H (+) |
|---|------|------|-----|-------|-------|
| ▶ | -145 | -5 | -50 | 60 | 0 |
| | -675 | 35 | -50 | 60 | 0 |
| | -665 | -195 | -50 | 60 | 0 |
| | 640 | -125 | -50 | 60 | 0 |
| | 660 | 95 | -50 | 60 | 0 |
| * | | | | | |

Clear Data

Input D value in the text box of the light blue on the button, and pushing the "Input Diameter" button, the same Diameter value is stored in all lines of the table.

You add a height to every line. Or, it is possible to add a height at once by "Input Height".

When No D Point ☐ 1/1 ☒ 1/1000 ☐ 1/100

☒ NC Data ☐ Others Add Read Data

| | X | Y | Z | D (+) | H (+) |
|---|------|------|-----|-------|-------|
| ▶ | -145 | -5 | -50 | 60 | 20 |
| | -675 | 35 | -50 | 60 | 20 |
| | -665 | -195 | -50 | 60 | 20 |
| | 640 | -125 | -50 | 60 | 20 |
| | 660 | 95 | -50 | 60 | 20 |
| * | | | | | |

Clear Data
Input Z Value
Input Diameter
Input Height

Input H value in the text box of the light blue on the button, and pushing the "Input Height" button, the same Height value is stored in all lines of the table.

The reading in of the other data

When No D Point ☒ 1/1 ☐ 1/1000 ☐ 1/100

☐ NC Data ☒ Others Add Read Data

| | X | Y | Z | D (+) | H (+) |
|---|------|------|---|-------|-------|
| ▶ | 100 | 200 | 0 | 0 | 0 |
| | 300 | 400 | 0 | 0 | 0 |
| | -110 | -300 | 0 | 0 | 0 |
| * | | | | | |

The text file

```
100 200
300 400
-110 -300
```

When five columns of data aren't enough, it handles the remainder as 0.

When No D Point ☒ 1/1 ☐ 1/1000 ☐ 1/100

☐ NC Data ☒ Others Add Read Data

| | X | Y | Z | D (+) | H (+) |
|---|------|------|-----|-------|-------|
| ▶ | 100 | 200 | -50 | 0 | 0 |
| | 300 | 400 | -50 | 0 | 0 |
| | -110 | -300 | -60 | 0 | 0 |
| * | | | | | |

The text file

```
X100 Y200 Z-50 60 40
X300 Y400 Z-50 70 40
X-110 Y-300 Z-60 80 50
```

When there are X, Y, Z value and no symbol value in a line except the NC data (for example: measurement data), symbol value has priority. In this case, it isn't possible to read except the X, Y, Z value.

When No D Point ☒ 1/1 ☐ 1/1000 ☐ 1/100

☐ NC Data ☒ Others

Add Read Data

| | X | Y | Z | D (+) | H (+) |
|---|------|------|-----|-------|-------|
| ▶ | 100 | 200 | -50 | 60 | 40 |
| | 300 | 400 | -50 | 70 | 40 |
| | -110 | -300 | -60 | 80 | 50 |
| * | | | | | |

The text file

```
100 200 -50 60 40
300 400 -50 70 40
-110 -300 -60 80 50
```

The CSV file

(This is the test data of the CSV file.)

```
100,200,-50,60,40
300,400,-50,70,40
-110,-300,-60,80,50
```

No symbol data are read by the order of the X,Y,Z,D,H.
When the data columns are over, remainder is skipped.
Also, skips the line that head character is (.

The addition reading in of the data

When No D Point ☐ 1/1 ☒ 1/1000 ☐ 1/100

☒ NC Data ☐ Others

Add Read Data

| | X | Y | Z | D (+) | H (+) |
|---|------|------|-----|-------|-------|
| ▶ | 100 | 200 | -50 | 60 | 40 |
| | 300 | 400 | -50 | 70 | 40 |
| | -110 | -300 | -60 | 80 | 50 |
| | -145 | -5 | 0 | 0 | 0 |
| | -675 | 35 | 0 | 0 | 0 |
| | -665 | -195 | 0 | 0 | 0 |
| | 640 | -125 | 0 | 0 | 0 |
| | 660 | 95 | 0 | 0 | 0 |
| * | | | | | |

"Add Read Data"

It is possible to read by adding data literally.

The text file

The NC file

You can add or subtract constant value to Z value.

Adjust Z

+Z

It is added to all the lines of Z when filling out a light blue area of "Adjust Z" and pushing the "+Z" button.
When wanting to do a subtraction, put a negative value.
It uses when wanting to adjust Z value.

The insertion of the data line

When No D Point ☐ 1/1 ☒ 1/1000 ☐ 1/100

☒ NC Data ☐ Others Add Read Data

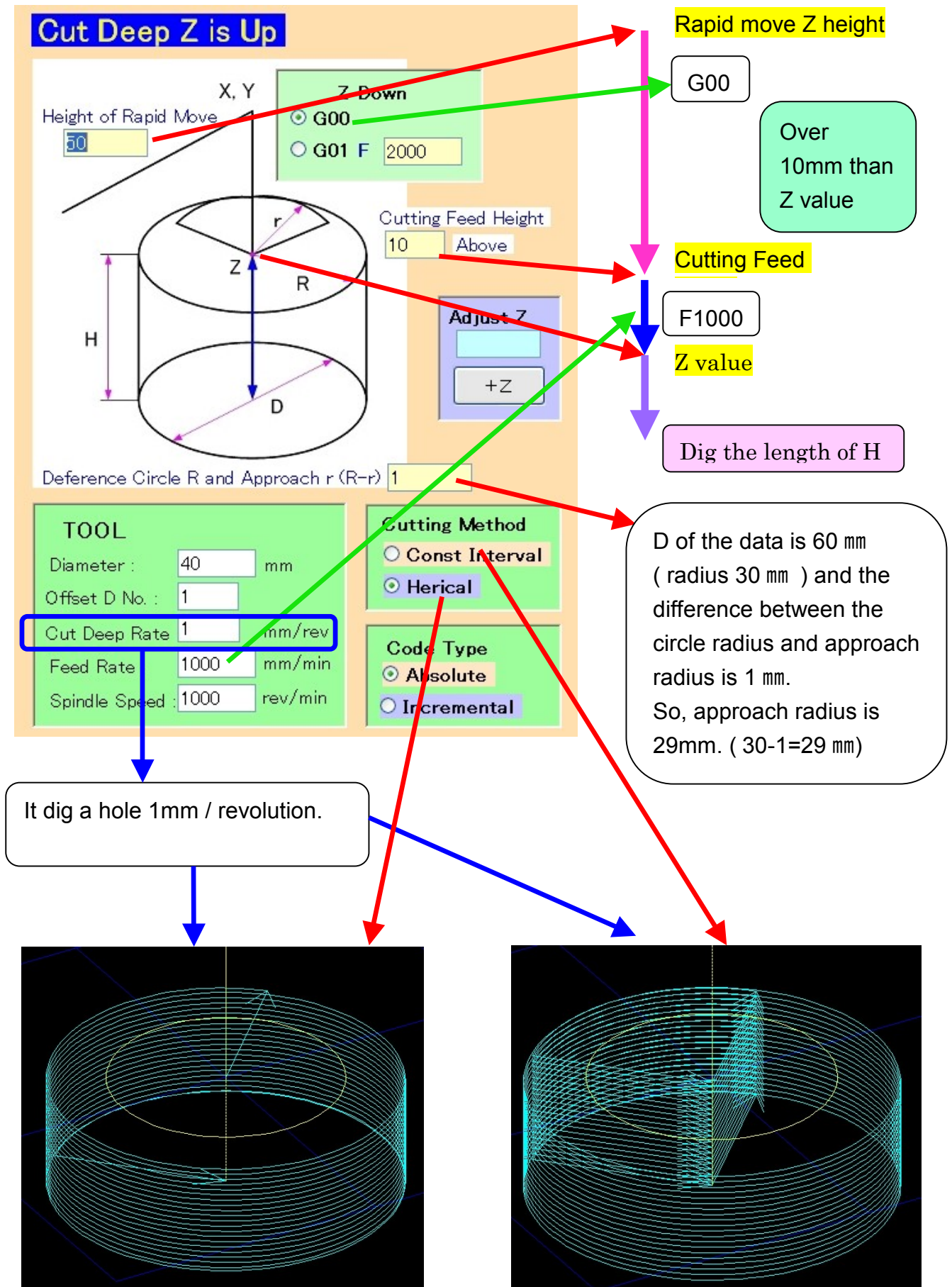
| | X | Y | Z | D (+) | H (+) |
|---|------|------|---|-------|-------|
| | -145 | -5 | 0 | 0 | 0 |
| | -675 | 35 | 0 | 0 | 0 |
| | 0 | | | | |
| ▶ | -665 | -195 | 0 | 0 | 0 |
| | 640 | -125 | 0 | 0 | 0 |
| | 660 | 95 | 0 | 0 | 0 |
| * | | | | | |

Clear Data Input Z Value Input Diameter Input Height

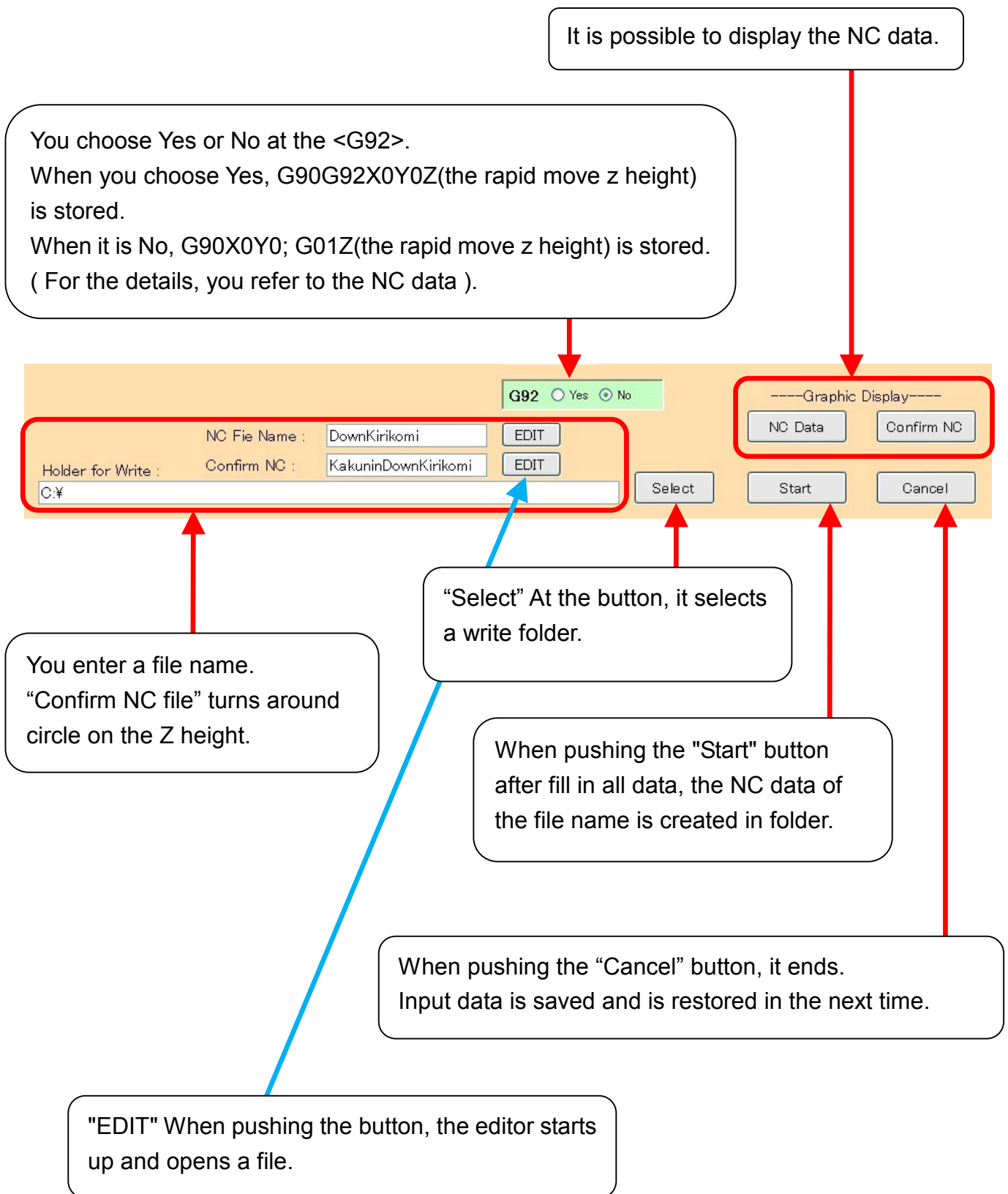
Insert Line

A line is inserted onto it when choosing the head of the data line and pushing "Insert Line" button.

Cutting Condition

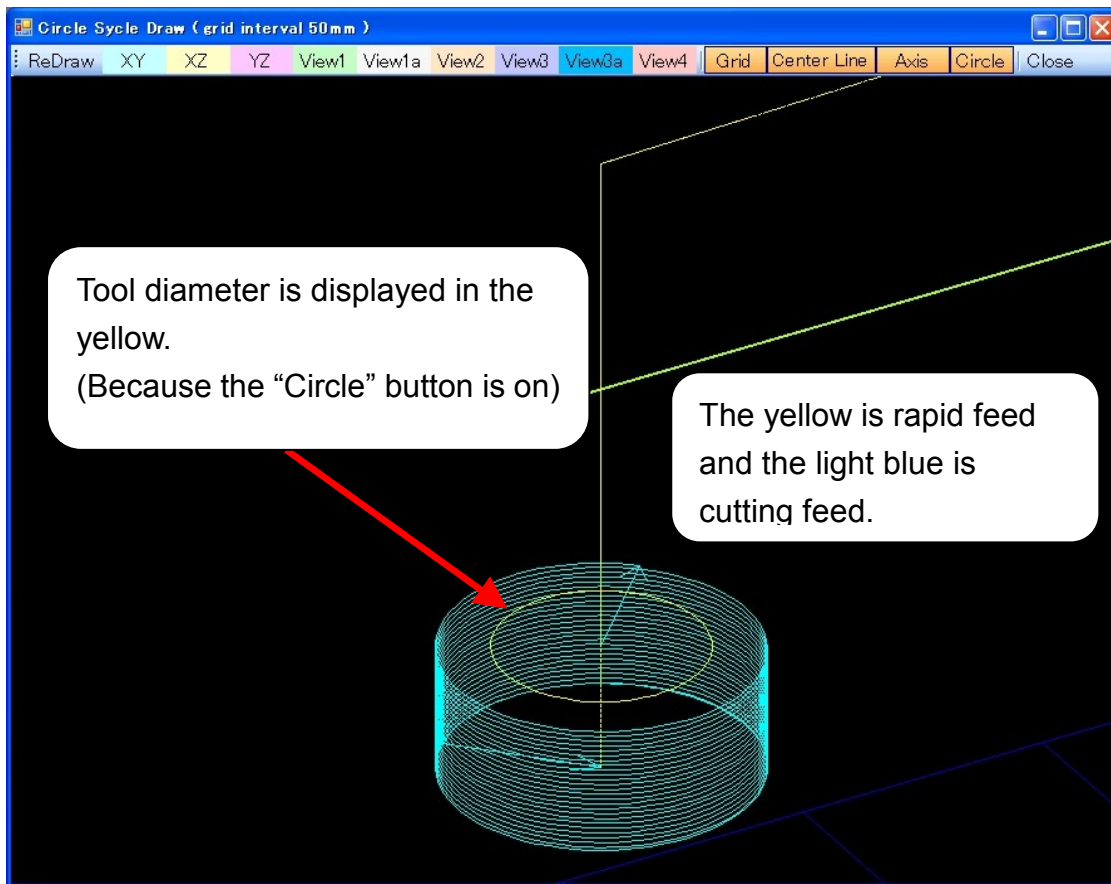


The NC output

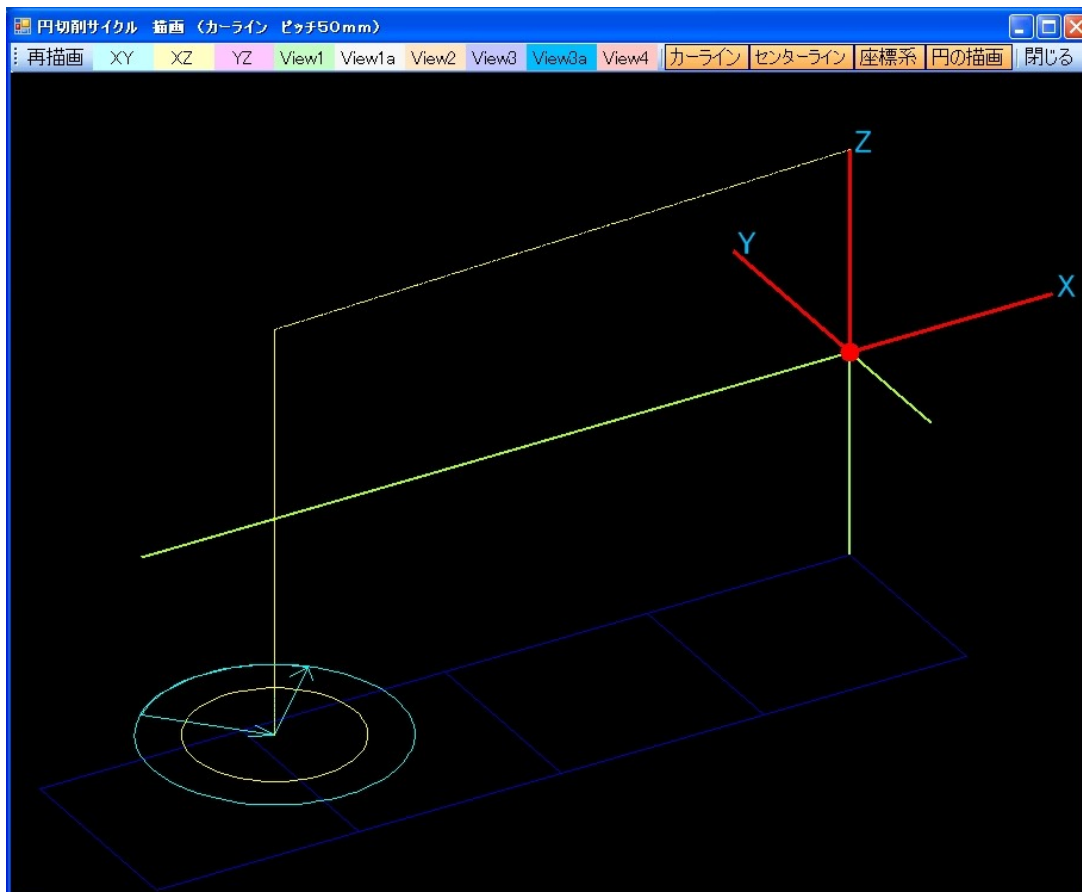


The Display of the NC data

The following figure shows by "Graphic Display". This figure is shown in "VIEW1".



The following shows "Confirm NC data". It turns once at the Z height.



The Display menu



You can select the display direction.

XY plane , XZ plane ,YZ plane, View1, View1a, View2, View3, View3a, View4.

View* is the show which was seen from the diagonal top.

View1, View2, View3, View4 are the show which was seen from 30 degrees above from just beside.

View1a, View3a are the show which was seen from 60 degrees above from just beside.

The show button of Grid, the centerline, the Axis, Circle becomes on.

When making "Grid" off, the grid of blue 50 mm disappears.

When making "Centerline" off, the olive-green X axis, the Y axis, the Z axis disappear.

When making "Axis" off, the coordinate system of the X, the Y, Z disappears.

When making "Circle" off, the tool diameter display disappears.

The part can be displayed in the expansion when clicking with the mouse and dragging.

It returns to the ex-screen by "Close".

[Cut Deep Z is Down]

Cut Deep Z is Down

When No D Point ☐ 1/1 ☒ 1/1000 ☐ 1/100

☒ NC Data ☐ Others Add Read Data

| | X | Y | Z | D (+) | H (+) |
|---|------|----|-----|-------|-------|
| ▶ | -145 | -5 | -50 | 60 | 25 |
| * | | | | | |

Height of Rapid Move X, Y

Z Down

☐ G00 ☒ G01 F

Cutting Feed Height Above

Adjust Z

Deference Circle R and Approach r (R-r)

TOOL

Diameter : mm

Offset D No. :

Cut Deep Rate mm/rev

Feed Rate : mm/min

Spindle Speed : rev/min

Cutting Method

☐ Const Interval ☒ Herical

Code Type

☒ Absolute ☐ Incremental

G92 ☐ Yes ☒ No

NC File Name :

Holder for Write :

Confirm NC :

-----Graphic Display-----

Cut Deep Z is Down

When No D Point ☐ 1/1 ☒ 1/1000 ☐ 1/100

☒ NC Data ☐ Others Add Read Data

| | X | Y | Z | D (+) | H (+) |
|---|------|----|-----|-------|-------|
| ▶ | -145 | -5 | -50 | 60 | 25 |
| * | | | | | |

Height of Rapid Move X, Y

Z Down

☐ G00 ☒ G01 F

Cutting Feed Height Above

Adjust Z

Deference Circle R and Approach r (R-r)

TOOL

Diameter : mm

Offset D No. :

Cut Deep Rate mm/rev

Feed Rate : mm/min

Spindle Speed : rev/min

Cutting Method

☐ Const Interval ☒ Herical

Code Type

☒ Absolute ☐ Incremental

G92 ☐ Yes ☒ No

NC File Name :

Holder for Write :

Confirm NC :

-----Graphic Display-----

Data Area

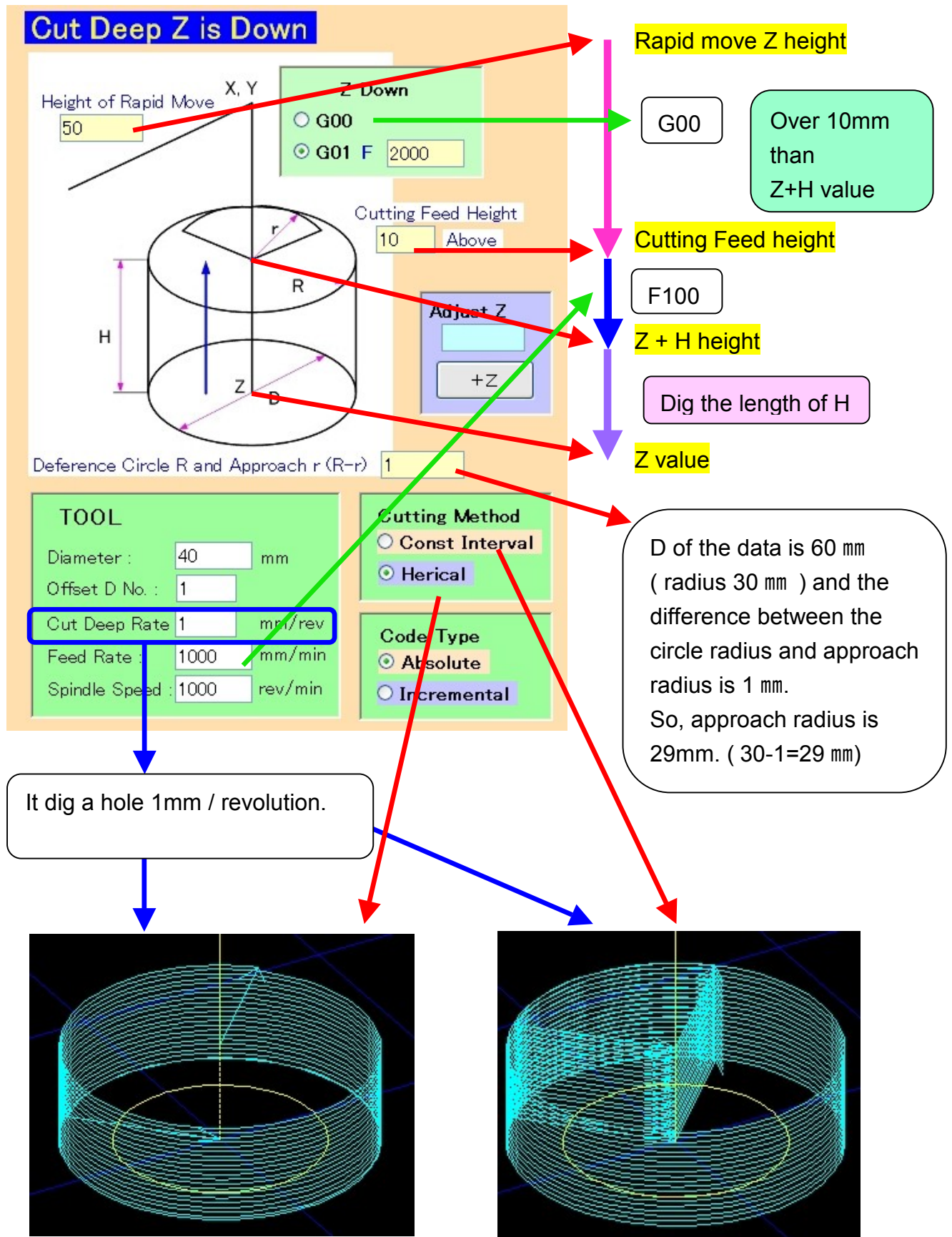
Same as [Cut Deep Z is UP]

Cutting Condition

NC Output

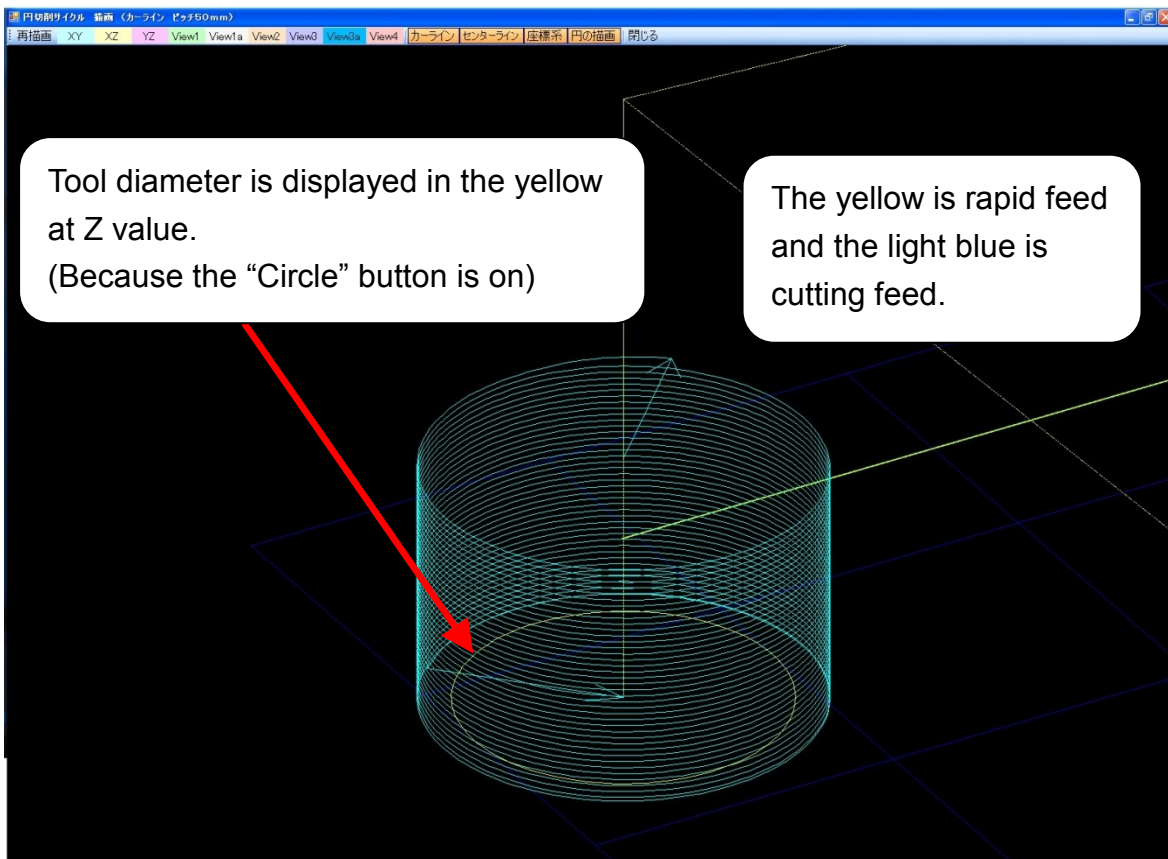
Same as [Cut Deep Z is UP]

Cutting Condition

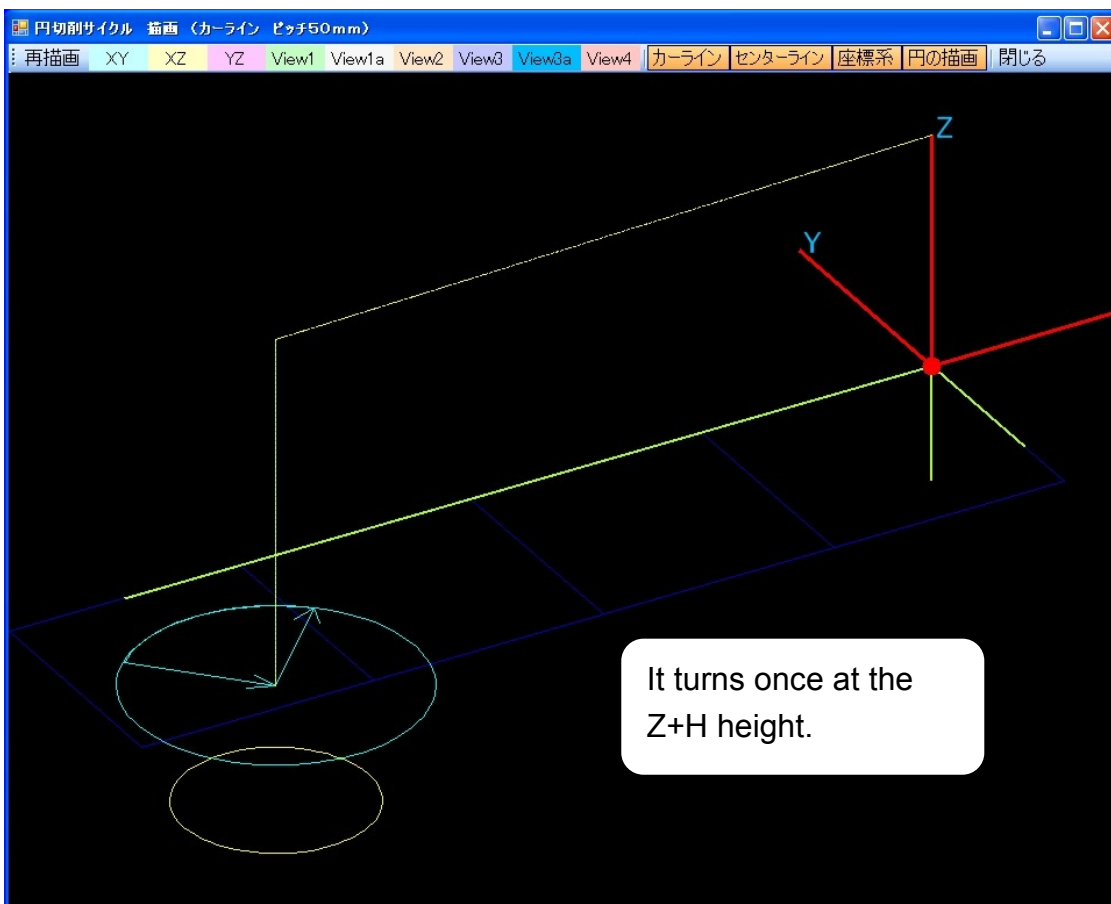


The Display of the NC data

The following figure shows by "Graphic Display". This figure is shown in "VIEW1".



The following shows "Confirm NC data". It turns once at the Z+H height.



[Positioning]

You enter the character string to add in the head of the NC data and of it last. These are saved and it is possible to use in the next time.

You enter positioning data respectively. The way of the entry is the same as "Circle Fixed Cycle".

LOCATION NC DATA

When No D Point ☐ 1/1 ☒ 1/1000 ☐ 1/100

First Add Data

%
(NC ICHI GIME DATA)
(TEST TEST TEST)
G90
G92X0Y0Z0
M03
S100
F100
G00

Last Add Data

G80
G00X0Y0
M02
%

| | X | Y | Z |
|---|------|------|---|
| ▶ | -145 | -5 | 0 |
| | -675 | 35 | 0 |
| | -665 | -195 | 0 |
| | 640 | -125 | 0 |
| | 660 | 95 | 0 |
| * | | | |

Output ☒ XY ☐ XYZ

Holder for Write : C:¥

NC File Name : ICHIGIME

Clear Data Insert Line Input Z Value Add Read Data Select Start Cancel NC Data

The output of the NC data includes Z or not. You choose XY or XYZ.

The above