

Speed Priority

This article is designed to introduce the reader to speed priorities in myCNC. All values are written in order of priority within its mode (from highest to lowest). The three main modes that you will encounter that change the speed priorities are the following:

- **Cutting**
 - The general cutting mode that you will most often work with
- **Simulation**
 - More info on the simulation mode is available [here](#)
- **Marking**
 - Marking can be enabled within the general Cutting and Simulation modes. More information on marking is available [here](#).

Priorities in cutting mode

1. Arc cutting speed, if arc radius is smaller than the one specified in settings and Arc Speed Control is enabled

2. Marking speed, if the marking mode (M45-M46) is enabled

If the two speeds above are not applicable, check global variable **#7696 (GVAR_CUTCHART_FEEDRATE_PRIORITY)**. The toggle for this global variable is available in *Settings > Config > G-codes Settings > Ignore Feedrate (use Cutcharts for cutting speed)*.

Priorities if #7696 is equal to 0:

- 3. F-code** for the speed, if an F-code is present in the program
- 4. Cutcharts speed (#7605)**, if not zero
- 5. Default feed rate**, if no F-codes or cutcharts speed

Priorities if #7696 is equal to 1:

- 3. Cutcharts speed (#7605)**, if not zero
- 4. F-code** for the speed, if an F-code is present in the program
- 5. Default feed rate**, if no F-codes or cutcharts speed

Priorities in simulation mode

1. Simulation speed, if simulation mode speed (global variable **#7061**) is set to value is greater than 0

2. Arc cutting speed, if arc radius is smaller than the one specified in settings and Arc Speed

Control is enabled

When the two speeds above are not applicable, check the mode (**marking** or **cutting**).

3. If marking mode (M45-M46) is enabled, use **marking speed**

OR

3. If cutting mode is enabled, then use **rapid speed** if the flag in global variable **#7530** (GVAR_DRAWING_FAST, rapid speed simulation) is not set to 0

In cases where you are in **cutting mode** and there is **no flag in #7530** (#7530==0), check global variable **#7696** (GVAR_CUTCHART_FEEDRATE_PRIORITY). The toggle for this global variable is available in *Settings > Config > G-codes Settings > Ignore Feedrate (use Cutcharts for cutting speed)*.

Priorities if #7696 is equal to 0:

3. F-code for the speed, if an F-code is present in the program

4. Cutcharts speed (#7605), if not zero

5. Default feed rate, if no F-codes or cutcharts speed

Priorities if #7696 is equal to 1:

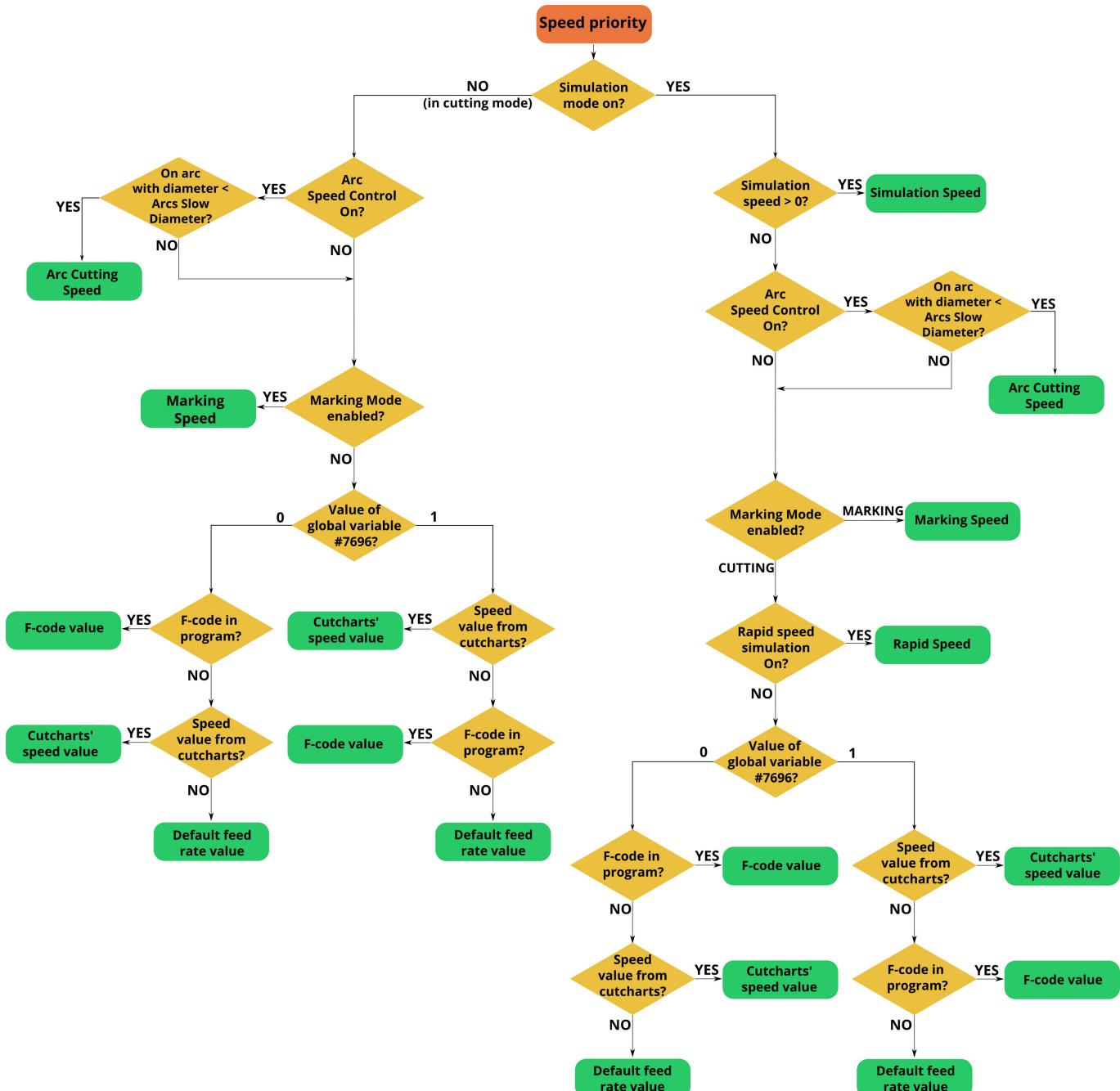
3. Cutcharts speed (#7605), if not zero

4. F-code for the speed, if an F-code is present in the program

5. Default feed rate, if no F-codes or cutcharts speed

Flow chart

The following flow chart describes the information listed above in a visual manner:



For more information on the global variables listed in this article, please consult the [Global Variables List](#).

From:

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Last update: **2024/03/26 08:57**

