CNC12 Software Levels and optional software Plug-ins for "servo controls": Oak, Allin1dc, MPU11. CNC12 v.4.16 rev7 (10-7-20)

Feature set and Functionality:

See the CNC12 "Free" , "Pro" ($549) and "Ultimate" ($995) definition table below for definition of what CNC features are included with each level. Note: The cost of the main board cnc hardware (oak, allin1dc, mpu11) has been reduced.

Pro and Ultimate License files require a Hardware Key Code or Trial Code to run. So for the v4.16 release there are four license files: Mill Pro, Mill Ultimate and Lathe Pro and Lathe Ultimate.   Each license file can contain a Trial code, Hardware Key Code and the ATC plug in, CNC12-C Plug-in, (from user experience stand point there is only one thing to install the license file itself using the CNC12 utility menu). This eliminates the previous method of hand typing in of codes. The licenese file has all the information that CNC12 needs.

Codes and Plug-ins

1.) "Hardware Key Code": Hardware Key Codes are issued when the Hardware (Oak, Allin1dc, MPU11) is paid for. Hardware Key Code allows CNC12 Pro and Ultimate to run without a trial code.
CNC12 "Free" does not require a Hardware Key Code to run.
The Hardware Key Codes main purpose is to ensure that Net 30 orders get paid. For instance, to ensure a Net 30 order of an Oak is paid the Oak system will not run Pro or Ultimate license without the Hardware Key Code. (in this case a Trail code is issued)

2.) Trail Codes: "10 day Trial" code "21 day Trial" code, "45 day Trial" codes

The 10, 21 and 45 Day Trial code activates the ATC and the "Ultimate" level. (For cases where customer/integrators want to try full feature set before buying or simply integrate the control to a machine tool before paying for the hardware).

3.) In addition to the three levels, (Free, Pro and Ultimate) there are these separate optional software Plug-ins.

      a.) "ATC capability Plug-in" #10660 $280 (formerly known as BCD tool change output),
          same code works on either mill or lathe.

      b.) 5 axis + simultaneous motion. "CNC12-C Plug-in"

Upgrade path to CNC12 v4.16 software from older versions of CNC10,CNC11,CNC12

1.) Everyone can buy CNC12 Pro License who is upgrading from cnc7,10,11, or cnc12 for $299 (this will be called "Legacy Software Upgrade" part #tbd) (obviously some will need a hardware upgrade as well at additional cost to support CNC12 at the going rate for such hardware).

2.) Anyone who has an existing paid cnc7,10,11 or 12 software option unlock that is in the Ultimate Level (see list below), will get the Ultimate Level License with the $299 Legacy Software upgrade cost.

3.) Anyone who bought an Oak/Allin1DC/Mpu11 within 18 months of this release can purchase the Legacy Software Upgrade for $99, older than 18 months $299

4.) If someone purchases Pro then at a later date wants to upgrade to Ultimate they can purchase Ultimate for: $450

Centroid CNC12 Servo CNC Mill and Lathe Software Levels

Features	CNC12 Free v4.16	CNC12 Pro v4.16	CNC12 Ultimate v4.16
Cost	Free	Mill Pro $549, Lathe Pro $549, (future Router Pro $549)	Mill Ultimate $995, Lathe Ultimate $995, (future Router Ultimate $995)
Mill and Lathe Intercon Conversational programming	Limited to 20 blocks of conversational	Unlimited	Unlimited
Wireless MPG Support ***	Not available	Yes	Yes
Xkey, USB keyboard emulator support	Included	Included	Included
G-code program size	Limited to 50Kb Mill/Router G-code file size, 5Kb Lathe	Unlimited G-code file size	Unlimited G-code file size
Work Coordinates Systems (WCS)	One (G54)	Eighteen (G54-G59 plus extended WCS)	Eighteen (G54-G59 plus extended WCS)
Menu driven Probing cycles	Center of bore	Complete Set of menu driven probing cycles. Bore, Boss, Slot, Web, Inside Corner, Outside corner, Single edge find, find angle, auto probe for CSR	Complete Set of menu driven probing cycles. Bore, Boss, Slot, Web, Inside Corner, Outside corner, Single edge find, find angle, auto probe for CSR
Menu driven Digitizing cycles	Grid, Radial, Contour, Wall following, limited to 2500 points	Grid, Radial, Contour, Wall following, limited to 2500 points	Unlimited point Grid, Radial, Contour, Wall following
Auto Tool Height Measurement	Unlimited auto measure on: Reference Too l & Tools 1,2,3	Unlimited auto measure on all tools.	Unlimited auto measure on all tools.
Coordinate System Rotation	Manual	Automatic and Manual	Automatic and Manual
Tool Library	10 Tools	200 Tools, (99 Tools Lathe)	200 Tools Mill, (99 Tools Lathe)
Sub Programs and Macros (M98 & G65) Write your own custom macros, many uses	Not Included	Included	Included
Cutter Compensation	Included	Included	Included
Backlash Compensation	Included	Included	Included
Screw compensation (laser or manual!)	Included	Included	Included
3 axis simultaneous	Included	Included	Included
4 axis simultaneous	Not included	Included	Included
4 th Axis linear or rotary conversational programming.	limited to 20 blocks of Intercon	Unlimited	Unlimited
Operate as a 2 axis CNC with Manual Quill	Included	Included	Included
Operate as a 2 or 1 axis CNC control	Included	Included	Included
Any axis can be Linear or Rotary	Included	Included	Included
Spindle Encoder feedback,w/ RPM display	Included	Included	Included
Mill Rigid Tapping	Not Included	Included	Included
Lathe Threading	Not included	Included	Included
Lathe Automatic CSS	Not Included	Included	Included
Lathe Rigid Tapping	Not included	Included	Included
Lathe C axis	Not included	Not included	Included
Lathe Automatic Tool Measurement	Unlimited auto measure on: Tools 1,2,3	Unlimited auto measure on all tools.	Unlimited auto measure on all tools.
G81 drilling cycles	Included	Included	Included

Compression Tapping G-code Cycles	Included	Included	Included
Mill G-code scaling and mirroring	Included	Included	Included
True G-code backplot graphics	Included	Included	Included
Run Time Program Graphics	Included	Included	Included
Smart Search (stop and restart at any point)	Included	Included	Included
Touch Screen Virtual User Control Panel	Included	Included	Included
Menu driven Part and Tool setup menus	Included	Included	Included
Operate in Millimeter or Inches	Yes	Yes	Yes
4th axis Jogging	Yes	Yes	Yes
Software Axis pairing. Pair an axes with the 4th or 5th axis. Allows Two axis to be paired axes.	No	Yes	Yes
Auto Squaring of Paired Axes	No	Yes	Yes
4th axis G-code moves: 4&1,4&2,4&3,4&1&2,4&2&3,4&1&3,4&1&2&3,4	No	Yes	Yes
G code Smoothing	Yes	Yes	Yes
PLC Detective Software	Included	Included	Included
CNC12 Scale Input for DRO position display	Included	Included	Included
Scale Input for axis positioning feedback	Not Included	Not Included	Included
M0 Jogging	No	Included	Included
ATC support plugin	Requires ATC Software Plug-in $280	Requires ATC Software Plug-in $280	Requires ATC Software Plug-in $280
5 axis + simultaneous motion	Requires CNC12-C Plug-in	Requires CNC12-C Plug-in	Requires CNC12-C Plug-in

*** Wireless MPG support for machines NOT using a stock v4.16 PLC program require their custom PLC program to be edited and tested which requires PLC programming, minimum custom PLC engineering/programming rate is $90/hr.

** VCP support for machines NOT using a stock v4.16 PLC program require their custom PLC program to be edited and tested which requires PLC programming, minimum custom PLC engineering/programming rate is $90/hr.