SALES BULLETIN

HEIDENHAIN CORPORATION

FROM: **John Parker - Product Manager**

SUBJECT: **iTNC 530 HSCI – New NC Software, ID 60642x-04**

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iTNC 530 HSCI – New NC Software, ID 60642x-04

The new NC software version 60642x-04 was released for the iTNC 530 HSCI in May 2014. It will offer interesting new features both for the end users of the control and for machine manufacturers. Furthermore, this NC software version supports the new HSCI main computers with more powerful Intel Celeron and Core i7-3 processors.

> *Please note:*
>
> *Installation of NC software 60642x-04 is mandatory for operation of the new, more powerful main computers! Please ensure that any orders for the new main computers also include the current versions of the memory media with NC software 60642x-04 (see "Overview of memory media").*

2.   Brief overview: New functions for the iTNC 530

New features for the end user:
(More detailed information about the new end user functions of the iTNC 530 HSCI is provided in the User's Manuals for Conversational Programming and Cycle Programming.)

- **New: NC syntax for AFC (Adaptive Feed Control, option 45)**
  Up to now, AFC could only be controlled by using FN17 commands. Now, new conversational commands are available for controlling AFC through the NC program:

- **New: Handwheel superimposition in the tilted coordinate system**
  Handwheel superimposition is now also possible in the tilted coordinate system via the global program settings.

- **Expansion of Cycles 25, 276: Identification of residual material**
  There are now additional input parameters for contour train cycles 25 and 276, by which you can define residual material machining. The method of function is the same as with the SL cycles. The function can be used to rework inside corners that were previously machined with a bigger tool. The approach and departure behavior for residual material machining is to be defined via Cycle 270, Contour Train Data.

- **Expansion: Calling tool data**
  Tool names in the **TOOL CALL** block can be called via QS string parameters in the new NC software version.

New features for the machine tool builder
(For details on the respective function, please refer to the iTNC 530 HSCI Technical Manual.)

- **New: Software option 146: Active Vibration Damping AVD – Dynamic Precision**
  With option 146 you can activate a new active damping process (AVD), which simplifies the damping adjustment with only a few parameters (frequency, damping, type of damping).
  AVD provides an effective way to reduce machine vibration. The vibration types "machine setup vibrations" and "resonances in the drive train" are damped.

- **Support of two holding brakes on a drive**
  The configuration of the control now makes it possible to configure two holding brakes for one drive. On machines with one motor holding brake and an additional brake on the ball screw, for example, both brakes can thus be tested independently of each other to ensure their proper functioning.

- **Firewall**
  The machine tool builder can now set up a firewall for the network interfaces of the control. It can be configured so that incoming network traffic is blocked and/or a message is displayed. This increases the data security of the control additionally.

- **Changed: Software option 41: Additional Language**
  Some additional conversational languages have become a standard function in the new NC software 60642x-04 for the iTNC 530. The following conversational languages are now available without enabling option 41:
  - Slovenian
  - Slovak
  - Norwegian
  - Korean
  - Turkish
  - Romanian

  The following conversational languages are no longer available because of a lack of demand:
  - Latvian
  - Estonian
  - Lithuanian

  Please also note Sales Bulletin SB-0844, which informs you comprehensively about the changes concerning the conversational languages of various control models.

- **Enhancement of integrated functional safety (FS):**
  NC software 60642x-04 increases the performance range of integrated functional safety (FS)
  (if activated):
    - o Switching of safe machine parameters (SMPs) via parameter sets without entering the manufacturer password. The following functions are then supported:
        - Switching safe limit switches (SLP, safely limited position)
        - Activating and deactivating indexing heads
    - o Support of certified and non-certified purely serial EnDat 22 encoders
    - o Support of two holding brakes on one drive
    - o Support of a second, alternating safe spindle

Prices of the new software options:

■ **Option 146: AVD – Active Vibration Damping (ID 800548-01)**

Price:	List Price
	2362.00

Please consider the TNC 640 for any new projects:

The new NC software version 34059x-04 has made the TNC 640 highly compatible with the iTNC 530 by now. The TNC 640 additionally provides numerous new functions and innovative technologies that are not available with the iTNC 530.

The TNC 640 now sets new standards in the field of milling-turning, as well as in many other aspects, such as in high-end milling applications that could be covered only by the iTNC 530 so far. With NC software version 34059x-04, the TNC 640's motion control provides new technologies that are the basis for further enhancing our leading position in the market of 3-axis and 5-axis simultaneous milling.

Its high compatibility with the iTNC 530 makes it possible to use the TNC 640 with software version ID 34059x-04 in most applications. This enables the machine tool builders to pass on the advantages of the new technologies regarding motion control and milling-turning to the end users. Since R&D efforts and support will primarily focus on the new TNC 640, new projects should generally be planned only with the TNC 640. M-NC will gladly provide advice.
Overview of memory media

Overview of HDR hard disks:

The new NC software will be shipped with new variants of the hard disks (HDR).

HDR hard disk	ID
HDR for iTNC 530 HSCI with NC software 606420-04 (export license required)	682272-04
HDR for iTNC 530 HSCI with NC software 606421-04 (no export license required)	682272-54

Overview of SSDR solid state disks:

The new NC software will be shipped with new variants of the solid state disks (SSDR).

SSDR solid state disks	ID
SSDR for iTNC 530 HSCI with NC software 606420-04 (export license required)	736591-04
SSDR for iTNC 530 HSCI with NC software 606421-04 (no export license required)	736591-54

Please inform your customers of the software release and the expanded performance range of the iTNC 530!

Schedule:

Documentation:

OEM brochure de/en	Available
End User brochure de/en	Available
iTNC 530 HSCI Technical Manual (de)	Available upon software release
iTNC 530 HSCI Technical Manual (en)	Planned for June 2014
German user documentation	Available upon software release
English user documentation	Planned for May 2014
Further languages	Available after translation

iTNC 530 HSCI – Discontinuation of memory media with NC Software ID 60642x-03

The new NC software, ID 60642x-04, for the iTNC 530 HSCI is scheduled to be released in May 2014. Upon release of the software there will also be new memory media, on which this software is delivered. The current memory media with the old NC software, ID 60642x-03, will be discontinued as of December 31, 2014.

The following current variants of the hard disks (HDR) will be discontinued as of December 31, 2014:

HDR hard disk	ID
HDR for iTNC 530 HSCI with NC software 606420-03 (export license required)	682272-03
HDR for iTNC 530 HSCI with NC software 606421-03 (no export license required)	682272-53

The following current variants of the solid state disks (SSDR) will be discontinued as of December 31, 2014:

SSDR solid state disks	ID
SSDR for iTNC 530 HSCI with NC software 606420-03 (export license required)	736591-03
SSDR for iTNC 530 HSCI with NC software 606421-03 (no export license required)	736591-53

Please inform your customers about the discontinuation.

SSDR solid state disks	ID
SSDR for iTNC 530 HSCI with NC software 606420-03	736591-03