

SUD-DT-03-0208-1-E (1/6)
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Koji Nishibayashi, Senior System Integrator Microcomputer Group 2nd Solutions Division Solutions Operations Unit NEC Electronics Corporation

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How to Upgrade IE-78K0-NS

May 2003, 3rd edition

1. OVERVIEW

This document describes how to upgrade IE-78K0-NS control code M to control code N.

Target product: IE-78K0-NS control code M

The procedure described in this document only applies to control code M, so products with control codes A to L cannot be upgraded using this method.

[Details of upgrade from control code M to N]

Specification change in the following target devices (high-speed specification: @ 12 MHz operation) is now supported.

Target devices:

μPD780024A, 780024AY, 780034A, 780034AY Subseries

μPD780078, 780078Y Subseries

μPD780988 Subseries

Target emulation boards:

IE-780034-NS-EM1 control code J or later

IE-780078-NS-EM1 control code D or later

IE-78K0-NS-P01 control code D or later and IE-780988-NS-EM4 control code B or later

2. SOFTWARE ENVIRONMENT CONDITIONS

The following software tools are necessary.

Download the data "FwK0V27.bin" and download tool "IENSUTL.exe" from the Online Delivery Service (ODS) on the NEC Electronics Microprocessor homepage, which is registered under "Development Tool Download", with the name "K0NS_firmware".

(URL: <http://www.necel.com/micro>)

- Integrated debugger ID78K0-NS V2.31 or later (recommended)
- Download tool "IENSUTL.exe" (this tool is included in the integrated debugger)
- Data "FwK0V27.bin"

3. HARDWARE ENVIRONMENT CONDITIONS

The following hardware tools are necessary.

- IE-78K0-NS control code M
(products with control codes other than M cannot be upgraded using this method)
- Emulation board that is supported by the target device
 - IE-780034-NS-EM1 control code J or later
 - IE-780078-NS-EM1 control code D or later
- IE-78K0-NS-P01 control code D or later and IE-780988-NS-EM4 control code B or later
- AC adapter IE-70000-MC-PS-B
- Interface board (interface card) that is supported by the host machine

- IE-70000-PCI-IF-A
- IE-70000-CD-IF-A
- IE-70000-PC-IF-C
- IE-70000-98-IF-C

4. UPGRADE PROCEDURE

4.1 Confirmation of Current Version Before Upgrade

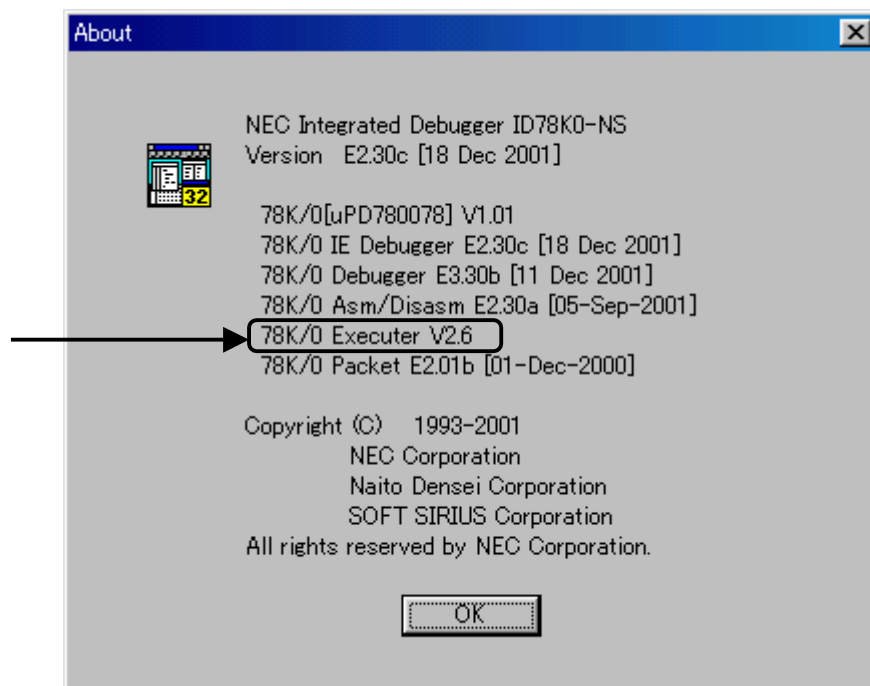
(1) Turn on the power to the IE-78K0-NS to activate the integrated debugger ID78K0-NS.

(2) Check the version of the 78K/0 Executer in the About dialog box.

At this time, upgrading is not necessary if the version of the 78K/0 Executer is already V2.7.

Display the About dialog box in any of the following ways.

- Select [About...] under [Help] from the menu bar on the main window.
- Press the [GRPH] + [H] and [A] keys at the same time.



Remark This is the screen of the ID78K0-NS development version, so it may be different from the actual screen.

(3) Turn off the power to the IE-78K0-NS and terminate the integrated debugger ID78K0-NS.

4.2 Downloading Data

(1) Set the JP2 jumper of the IE-78K0-NS to 1-2 shorted.

It is not required to change other jumper settings.

JP2: 1-2 shorted

(2) Download “FwK0V27.bin” and “IENSUTL.exe” from the NEC Electronics Microprocessor homepage, which is registered under “Development Tool Download”, with the name “KONS_firmware”. (URL: <http://www.necel.com/micro>)

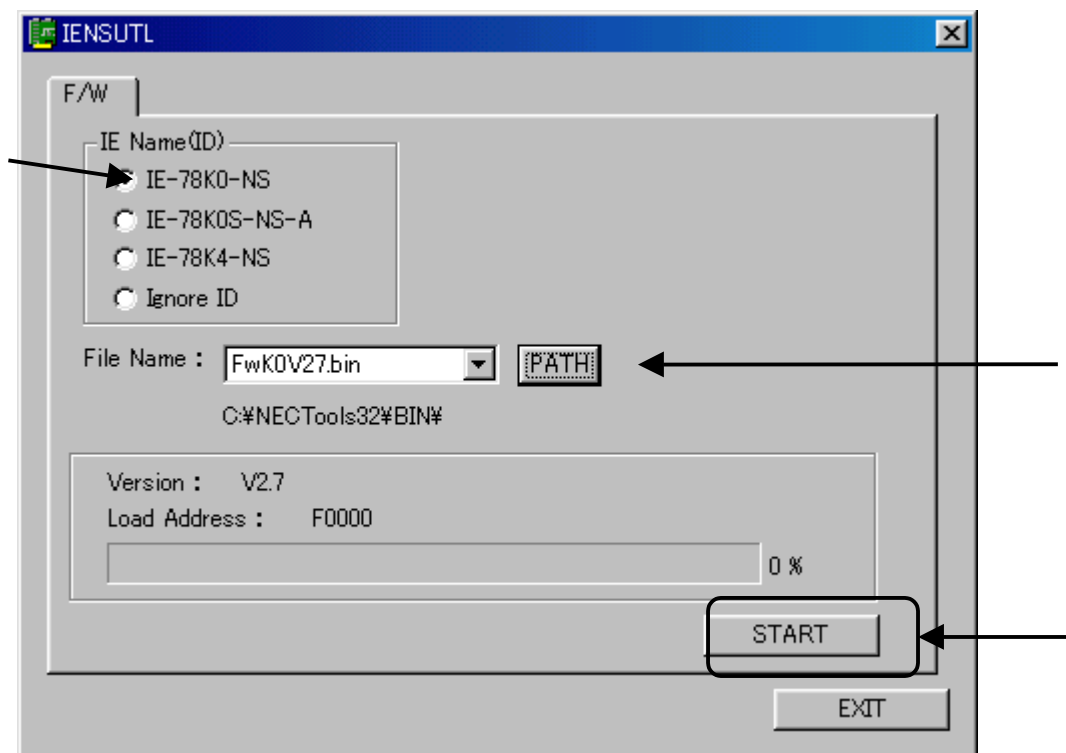
The file downloaded from the site is the self-extracting type file “k0ns_firmware_v27.exe”. Execute k0ns_firmware_v27.exe first to extract FwK0V27.bin and IENSUTL.exe.

(3) Turn on the power to the IE-78K0-NS.

(4) Activate IENSUTL.exe.

(5) Select the following settings and then click the START button.

- Select “IE-78K0-NS” in the IE Name(ID) field.
- Click the PATH button and select “FwK0V27.bin” in the File Name field.

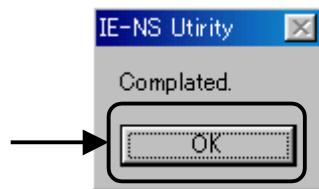


(6) The following message will be displayed. Click the OK button.

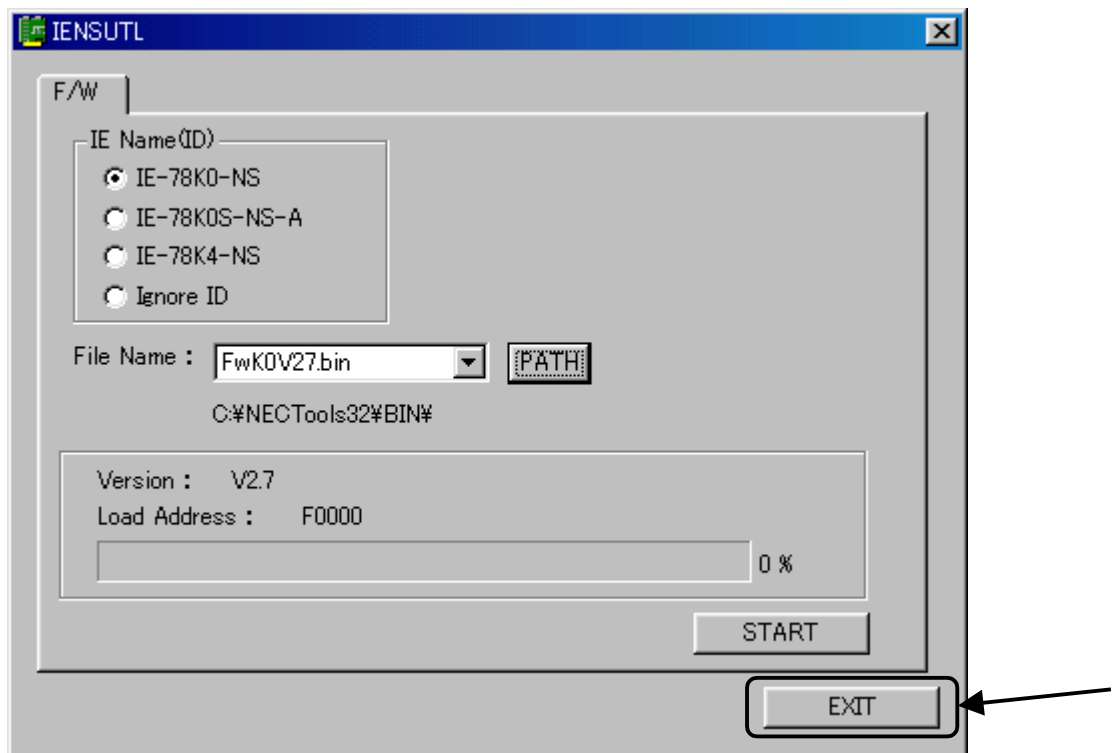
Do not turn off the power to the IE-78K0-NS during downloading; otherwise the IE-78K0-NS cannot be activated.



(7) The following message will be displayed when downloading is complete. Click the OK button.



(8) Click the EXIT button.



(9) Turn off the power to the IE-78K0-NS.

(10) Set the JP2 jumper of the IE-78K0-NS to 2-3 shorted.

It is not required to change other jumper settings.

JP2: 2-3 shorted

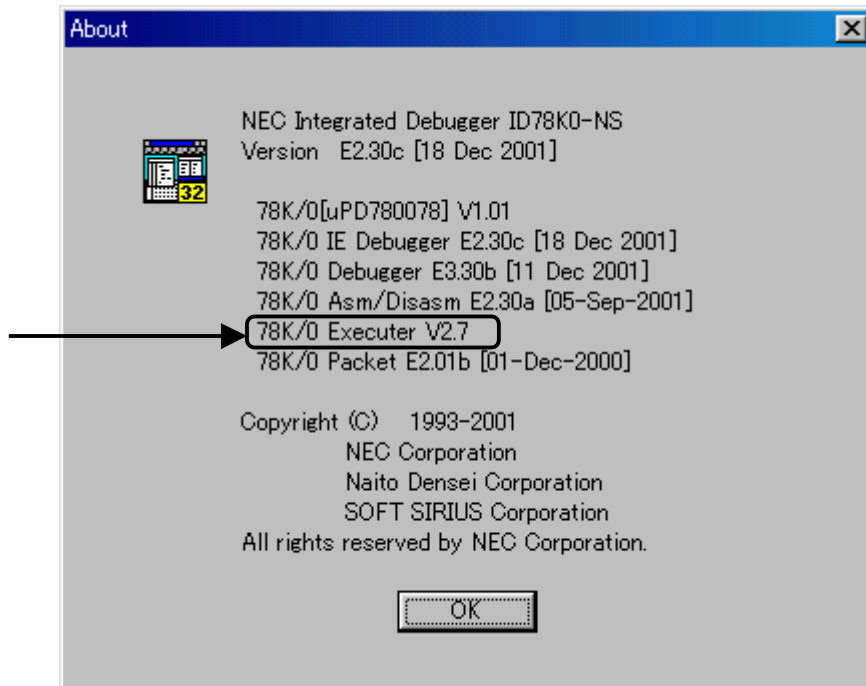
4.3 Confirmation of Version After Upgrade

(1) Turn on the power to the IE-78K0-NS to activate the integrated debugger ID78K0-NS.

(2) Confirm that the version of the 78K/0 Executer is V2.7 in the About dialog box.

Display the About dialog box in any of the following ways.

- Select [About...] under [Help] from the menu bar on the main window.
- Press the [GRPH] + [H] and [A] keys at the same time.



Remark This is the screen of the ID78K0-NS development version, so it may be different from the actual screen.

(3) Turn off the power to the IE-78K0-NS and terminate the integrated debugger ID78K0-NS.

5. REVISION HISTORY

Rev.	Page	Description
1st (SUD-TT-0226-1-E)	–	Newly created.
2nd (SUD-TT-0226-2-E)	4	Modification of k0ns_firmware.exe to k0ns_firmware_v27.exe
3rd (SUD-DT-03-0208-1-E)	2	Addition of details of upgrade in 1. OVERVIEW
	2, 4	Correction of erroneous description and modification of company name