

## How to write a Hello World for the Windows CE-based DNP/9200

The DNP/9200 within the DNP/SK23-WCE Starter Kit comes with a preinstalled Microsoft Windows CE (WCE) operating system. This document describes how to write the first "Hello World" with the help of *eMbedded Visual* C++ 4.0. This development tool is freely available over the Microsoft Download Center web site.

• **1. Step**: Download *eMbedded Visual C++ 4.0* from the Microsoft Download Center and install this C/C++ development environment on your PC.



**Please note:** There is a CD key (e.g. TRT7H-KD36T-FRH8D-6QH8P-VFJHQ) within the Microsoft Download Center web page. You need this key for the *eMbedded Visual* C++4.0 installer.

- 2. Step: Download the service pack 4 (*eMbedded Visual C++ 4.0 SP4*) and install this service pack on your PC. The service pack SP4 is necessary to write C/C++ applications for the DNP/9200 with Windows CE operating system.
- **3. Step**: Please install the DNP/9200 Windows CE SDK (Software Development Kit) form the DNP/9200-WCE Starter Kit CD-ROM on your PC. See directory \*sdk* on this CD-ROM.
- **4. Step**: Run *eMbedded Visual C++ 4* on your PC and create a new project. Use the project type *WCE Application*. Supply the dialog window with a project name (i.e. *hellodnp9200*).



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• **5. Step**: Select *A simple Windows CE application* within the WCE Application Wizard Step 1 of 1 window. Then click to the Finish button.

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• **6. Step**: Choose *DNP/9200\_NET* and *Win32 (WCE ARMV4I) Release* within the project settings. Then open the FileView for your project. Within this FileView you find the C/C++ source file (i.e. *hellodnp9200.cpp*). In the source file you find a line with the text // *TODO Place code here*.



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• **7. Step**: Replace the text line // *TODO: Place code here* with your own "Hello World" printf statement (i.e. *printf* (*"Hello DNP/9200...\n");*).

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• **8.** Step: Build the executable (see menu item *Build* => *Rebuild All*) for your DNP/9200 project.



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• **9. Step**: Download the executable (i.e. *hellodnp9200.exe*) with the help of the FTP client *FileZilla* to the DNP/9200 file system. Please see the *DNP/SK23-WCE Windows CE Starter Kit First Steps* manual for more details about the FTP link between your development PC and the DNP/9200.

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• 10. Step: Setup a Telnet session to the DNP/9200 Windows CE Telnet service and run the new



executable (i.e. *hellodnp9200.exe*) on the DNP/9200. Please see the *DNP/SK23-WCE Windows CE Starter Kit First Steps* manual for more details about the Telnet-based link between your development PC and the DNP/9200.



**Please note:** *eMbedded Visual* C++ 4.0 try to setup an Active Sync connection after each build in some development environments. This kind of connection is not supported by the DNP/9200 Windows CE configuration.

That is all.