

# Numbat – WiMax, DHCPv6 implementation in Omnet++

Andrzej Bojarski

Maciej Jureko

Tomasz Mrugalski

Omnet++ installation and configuration guide in Windows<sup>®</sup> environment.

Version control:

<i><b>Date</b></i>	<i><b>Version</b></i>	<i><b>Modifications</b></i>	<i><b>Author</b></i>
18-09-2007	1.0.0	Document creation	Andrzej Bojarski

*Table 1.:*

## 1. Introduction

This guide shows how to install and configure Omnet++ in Windows<sup>®</sup> environment. Guide is mainly based on official Omnet++ manual but also contains some knowledge based on author's own experiences. It does not cover all possible installation scenarios. Though it should be treated as helpful source rather than complete guide.

## 2. Installation

First thing to consider is that Windows version of Omnet++ is optimized for and should be used with Visual C++. As full version it is a commercial product. However there are free versions like Visual Studio 2005 Express Edition which are fully sufficient for Omnet++ uses. Also installing Platform SDK, which is available free too, is necessary.

Omnet++ comes as an ordinary .exe installation file so it is obvious for every windows user how to make use of it. Only thing that needs explanation is environment selection. You have to choose VC++ release you are using. If it's Visual C++ 2003 (7.1) you choose vc-71m, if it's Visual C++ 2005 (8.1) you choose vc-81. It is not recommended to use Visual Studio 6.0 because some of Omnet++ extensions have problem to compile with it.

Installation directory should not have blank spaces as it may cause compilation problems.

## 3. Configuration

Before making any operations using Omnet++ it is obligatory to set right system variables. They must be set for every new command line window used for compilation. In other words, first thing You have to do after opening the command line window is setting the system variables. It is done by executing vcvarsall.bat or vcvars32.bat files from VC++ installation directories. These files can usually found in C:\Program Files\Microsoft Visual Studio 8\VC\ or similar (depending on VC++ release) directory. It is a good practice to make a .bat file executing system variables setting to save time wasted for walking through directories.

On this stage Omnet++ should be fully functional, however sometimes there is a compilation and/or linker problem with libraries placement. That was my case. Moving all VC++

libraries to Omnet++ include and lib directories turned out to be helpful. However there are other problems with configuration based on library compatibility issues. If you get such errors, visit <http://www.omnetpp.org/pmwiki/index.php?n=Main.OmnetppInstallation> to get latest installation tips. Main advice for such incompatibility is to change version of VC++ as some versions tend to work incorrectly with Omnet++.

#### 4. Use

To create Makefile.vc which is VC++ file used for further compilation run following command:

```
\your_working_directory>opp_nmake -f
```

This will create new Makefile.vc overwriting previous existing.

Next, compile files into executable:

```
\your_working_directory>nmake -f Makefile.vc
```

Assuming you won't get any errors .exe file should be made.