NeuralWorks®
Designer Pack v5.5

Turn your neural network into a deployed application

If you are developing neural network solutions for mainframes, mini-computers, personal computers, or custom hardware, you need *NeuralWorks Designer Pack. NeuralWorks Designer Pack* provides all of the professional deployment capabilities you need. *NeuralWorks Designer Pack* converts neural networks created *with NeuralWorks Professional II/PLUS* into C source code. The combination of *NeuralWorks Designer Pack and NeuralWorks Professional II/PLUS* provides a seamless application environment from prototype, development through deployment. With these products you can create, test, debug, and deploy neural network applications. *NeuralWorks Designer Pack* produces C code which can be compiled by most of the major compilers, including most ANSI standard C compilers. Contact NeuralWare for licensing details.

Beyond FlashCode

NeuralWorks Designer Pack goes beyond the capabilities of FlashCode (a facility built into *NeuralWorks Professional II/PLUS)* and most other source code deployment systems. The *NeuralWorks Professional II/PLUS* FlashCode capability produces a recall-only ANSI standard C *program. Designer Pack* is designed to provide the flexibility necessary to build maintainable applications. With *NeuralWorks Designer Pack,* you can convert your neural network into an ANSI standard C program tailored to real world environments. These advanced capabilities allow you to:

Transform a neural network into ANSI standard C routines which support the ability to continue training as well as recall. You can deploy networks which continue to learn!

Modify selected architectural aspects of your neural network without regenerating C code or modifying the deployed system. Application maintainability is enhanced through the capability to create neural networks that can be installed in an application by a run-time loaded network file. No recompilation necessary. (Note: Certain limitations apply.)

Create *ROMable* code. Generate completely self-contained applications that can be deployed using ROM, EPROM, or EEPROM technologies.

Read and Write *NeuralWorks Professional II/PLUS* compatible network files. This capability makes it possible to design a network in *NeuralWorks Professional II/PLUS,* train it on another machine, save it, and examine it in *NeuralWorks Professional II/PLUS!*

Link *NeuralWorks Professional II/PLUS* User IO programs into the deployed application. This is a way to rapidly turn a prototype application into a deployed system.

Modes of Operation

To meet a broad range of application development requirements, *NeuralWorks Designer Pack* can create C code modules in three modes:

Loadable Connections, recall only - Creates all of the code required to load and execute the network. This includes routines to read data from a specially formatted ASCII files.

Loadable Connections, learn and recall - Creates code to load, train, and execute a network. This includes routines to read data from a specially formatted ASCII file.

ROMable - Creates code which can be embedded in ROM. ROMable routines provide a facility to copy the network structure to RAM where training can continue.

NeuralWorks Designer Pack supports most of the network architectures in *NeuralWorks Professional II/PLUS.* It can also translate many custom networks, including those created with *NeuralWorks User-Defined Neuro-Dynamics,* into C code (some limitations apply). A test routine is provided with the program to allow you to verify that your *Designer Pack* code is functionally identical to the original network.

Hardware and Software Requirements

NeuralWare supports a wide range of hardware for development. *NeuralWorks Designer Pack* generated source code runs on a much wider variety of systems.

Supported Development Platforms

Intel® x86 Architecture
Windows 95/98/ME/NT/2000/XP:
Pentium/Celeron class processor
64MB memory, 10MB disk, CD Reader

Linux
Pentium/Celeron class processor
64MB memory, 10MB disk, CD Reader

Sun Microsystems - Sparc/UltraSparc Architecture
Sun Solaris 8.0 or greater, 128MB Memory, 10 MB disk, CD Reader

SiliconGraphics - 128 MB Memory, 10 MB Disk, CD Reader

Additional platforms are available. Contact NeuralWare for details.

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