

# Joone - Java Object Oriented Neural Engine

## 1. News

- Jan 19, 2007 - **Joone 2.0 RC1 is out!** Try this major version release and discover the big enhancements we've made to the core engine. [read more...](#)
- May 08, 2006 - JoonePad 0.5.0 is out (thanks to H.Fiorletta). Try now the new GUI Editor that will substitute the old one. [read more...](#)
- Sep 08, 2005 - Joone 1.2.1 is out! This is mainly a bug fix release. [read more...](#)
- Feb 03, 2005 - Joone 1.2.0 is out. In this version: new components, plugins and a lot of bug fixes. [read more...](#)
- Jan 19, 2005 - The **Joone's Wiki** is open! You can find FAQs, Books Reviews, Discussion Forums, and more... Join the Joone Community!

## 2. About Joone

Joone is a FREE Neural Network framework to create, train and test artificial neural networks. The aim is to create a powerful environment both for enthusiastic and professional users, based on the newest Java technologies.

Joone is composed by a central engine that is the fulcrum of all applications that are developed with Joone. Joone's neural networks can be built on a local machine, be trained on a distributed environment and run on whatever device.

Everyone can write new modules to implement new algorithms or new architectures starting from the simple components distributed with the core engine. The main idea is to create the basis to promote a zillion of AI applications that revolve around the core framework.

[Download it](#), and enjoy!

## 3. Some features...

- Supervised learning:
  - Feed Forward neural networks (FFNN)
  - Recursive neural networks (Elman, Jordan, ...)
  - Time Delay neural networks (TDNN)
  - Standard Back-prop (Gradient Descent, on-line and batch)

- Resilient Back-prop (RPROP)
- Unsupervised learning:
  - Kohonen SOMs (with WTA or Gaussian output maps)
  - Principal Component Analysis (PCA)
- Modular Neural Networks (i.e. possibility to mix all the above architectures)
- Powerful built-in data pre-processing mechanism
- Scripting capability (JavaScript) in order to add custom behaviour to the NNs
- [more...](#)

#### 4. The Framework

Joone is a Java framework to build and run AI applications based on neural networks.

Joone consists of a modular architecture based on linkable components that can be extended to build new learning algorithms and neural networks architectures. All the components have specific features, like persistence, multithreading, serialization and parameterisation that guarantee scalability, reliability and expansibility, all mandatory features to make Joone suitable for commercial applications and to reach the final goal to represent the future standard of the AI world.

Joone applications are built out of components. Components are pluggable, reusable, and persistent code modules. Components are written by developers. AI experts and designers can build applications by gluing together components with a graphical editor, and controlling the logic with scripts.

All the modules and applications written with Joone will be based on the above reusable components. Joone can be used to build Custom Systems, adopted in an Embedded manner to enhance an existing application, or employed to build applications on Mobile Systems.

Joone has an own [GUI Editor](#) to visually create and test any neural network, and a [Distributed Training Environment](#) to train in parallel mode many neural networks to find the fittest one for a given problem.

If you want learn more on Joone, you can read the [available documentation](#)

#### 5. Resources

- [The Joone Complete Guide \(pdf\)](#)
- [The Core Engine](#)
- [The Java API cookbook](#)
- [The JOONE GUI Editor](#)
- [A sample GUI, that learns the XOR problem](#)
- **A selection of the best Neural Networks books**