



Swiss Informaticians Society  
Special Interest Group on Object-Oriented Systems  
and Environments

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## **CHOOSE Forum November 3, 2003** and CHOOSE General Assembly

### **New Features in the Java 2 Standard Edition 1.5**

Call for participation

Seminar  
of Swiss Group for  
Object-Oriented Systems and Environments

Monday, November 3, 2003. Whole day.  
Allegro Grand Casino Kursaal Bern  
Bern

<http://www.iam.unibe.ch/CHOOSE/Events/forum-nov2003.html>

# Speaker

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## Abstract

The upcoming release 1.5 of the Java 2 Standard Edition (J2SE) will add a number of major and minor new language features and library extensions. The most significant addition to the Java programming language are generic types and methods. The most substantial addition to the Java platform libraries are the new concurrency utilities.

### Java Generics

A common misconception regarding generics is its comparison to C++ templates. Many people believe that Java generics are similar to C++ templates, while in fact both features have barely anything in common: C++ templates is a Turing complete language – Java generics is syntactic sugar that elides some casting. Java generics are a pure compile-time feature that is translated to non-generic Java bytecode, for reasons of compatibility with previous versions of Java.

In this tutorial, we will take a look into the proposed language feature, how it will help us improve our programs, how it is supposed to be used and where its limitations are.

More specifically, we will discuss the additions made to the language itself (parameterised types and methods as well as covariant return types), changes to the platform libraries (generic collections and extended reflection) and various exciting details of generics such as the properties of type parameters (their bounds and their scope), generic methods and type parameters inference, and the translation of generics into bytecode.

### Concurrency Utilities

The Java platform provides basic, low-level primitives for writing concurrent programs, but they are difficult to use properly. Many programs become clearer, shorter, faster, easier to write, and more reliable if higher-level synchronisation constructs are used.

A comprehensive library of concurrency utilities has been developed for inclusion in the 1.5 release of J2SE. This library, known as the `util.concurrent` package, contains thread pools, queues, concurrent collections, special-purpose locks, barriers, and related utilities. The addition to the Java platform is substantial and will change the way we will implement concurrent Java applications. This tutorial gives an overview of the new library.

### Enums, Autoboxing, etc.

Some smaller additions to the programming language comprise syntax for enumeration types, an enhanced for-loop, static imports, autoboxing, and varargs.

The seminar will be held in English.

## Schedule

8.30 – 9.00	Registration (Café & Gipfeli)
9.00 – 10.30	<i>Introduction and Concurrency Utilities, Part 1</i>
10.30 – 10.45	Break
10.45 – 12.00	<i>Concurrency Utilities, Part 2</i>
12.00 – 13.00	Lunch
13.00 – 13.30	CHOOSE General Assembly
13.30 – 15.15	<i>Java Generics, Part 1</i>
15.15 – 15.30	Break
15.30 – 17.30	<i>Java Generics, Part 2 and Enums, Autoboxing, etc</i>

## About the Speaker

Angelika Langer is a freelance trainer/consultant working and teaching in the area of object-oriented and component-based software development in C++ and Java. She is a recognised speaker at conferences world-wide, co-author of the book "Standard C++ IOStreams and Locales" and author of numerous articles about C++ and Java, including the column "Effective Java" in the German magazine JavaSpektrum. A more comprehensive biography can be found at <http://www.langer.camelot.de/AboutMe/CV.html>.

## Agenda for the CHOOSE General Assembly

Please note that the General Assembly will be held during the CHOOSE Forum. All CHOOSE members are kindly invited to participate.

1. President's report. Activities since the last General Assembly.
2. Treasurer's report for 2002.
3. Miscellaneous.

## Important notice

The seating is limited for this event. Register early! Registrations will be handled on a first come first served basis. If you intend to register on site, check availability in advance.

Up to date information about CHOOSE, and the J2SE 1.5 seminar, can be found at the CHOOSE home page at <http://www.iam.unibe.ch/CHOOSE>. There you will also find the necessary links of the conference location.

## Location

The CHOOSE Forum 2003 will be held on November 3, 2003 in Allegro Grand Casino Kursaal Bern (<http://www.kursaal-bern.ch/index/anfahrt.htm>). Please note that parking space at Kursaal is somewhat scarce and expensive, so it is preferable to arrive using public transport!

