To receive periodic updates on Python 9, please visit the Python 9 Web site (http://www.python9.org) and subscribe to the Python 9 Announcement List.

About the Conference

The Ninth International Python Conference is currently the world’s most concentrated gathering of members of the Python language community. It is the event to learn more about Python and meet other users and developers from around the world for a lively exchange. This year, due to the growing interest in and attention to the language, the conference promises to break all records: more tutorials, more tracks, more papers, more posters and of course more attendees than ever! If you’re a Python user, you don’t want to miss this event!

The main conference will consist of two days of refereed paper and application tracks — including a Zope Track and a multi-technology Python Applications Track — as well as a poster display of new and useful applications and tools that utilize Python, and a vendor exhibit. The main conference will also feature keynote presentations by Guido van Rossum, the inventor of Python, and Bruce Eckel, president of MindView. The conference will be preceded by a day of tutorials for Python users at all levels and will be followed by a Developers’ Day — a forum that brings together Python application and language developers.
As always, the Python Conference features a day jam-packed with excellent tutorials, ranging from introductions to Python basics to in-depth treatment of advanced topics and features. This year, ten tutorials will be offered: five in the morning and five in the afternoon.

**Morning Tutorials**

**Session: T1**

**Title:** Web Client-Side Programming with Python
**Instructor:** Moshe Zadka, Lerner Communication Consulting

This tutorial will address how to use both Python’s client-side libraries (httplib, urllib) and Python’s HTML parsing library (htmllib) to build Web-agents (programs that automate interactions with various Web sites). Since a growing number of Web sites, particularly those for which the community would like to use Web-agents, use secure HTTP, the tutorial will also cover Python’s ability to connect to sites securely.

**Session: T2**

**Title:** The Process of Documentation
**Instructor:** Michel Pelletier, Digital Creations, Inc.

For the past few months, Amos Latteier and Michel Pelletier have been working together to develop several processes for generating Zope documentation. This tutorial will describe two documentation processes: (1) the process of synthesizing, authoring, editing, reviewing and delivering new documentation artifacts, and (2) the process of maintaining existing artifacts.

**Session: T3**

**Title:** Using Glade for UI Design
**Instructor:** Brian Kelley, Bioreason, Inc.

Glade is a GUI builder that supports both the Gtk+ widget library and the higher-level GNOME UI library. Glade lets developers interactively lay out the windows of an application, specify functions to be called when various widget events occur, and much more. This tutorial will address how to use Glade with Python to build GUI applications. The techniques presented in this session can yield new applications with less time and effort than the techniques used in the past.

**Session: T4**

**Title:** A Gentle Introduction to CORBA
**Instructor:** Duncan Grisby, AT&T Laboratories, Cambridge

This tutorial introduces CORBA and its approach to distributed system design, based around the CORBA-to-Python mapping. It also discusses real-world situations where the use of Python as an implementation language is appropriate and where it is not. Familiarity with Python is useful, but not essential.
Sessions:

- **Session: T5**
  Title: Introduction to Zope
  Instructor: Mike Homyack, Kaivo, Inc.
  Participants in this tutorial will gain an understanding of the Zope architecture and learn how Zope is used to effectively develop and manage a robust corporate Web site. After a brief examination of the features of Zope, the session will examine the integration of Python within Zope, and end with an overview of how Zope can be extended using Python.

- **Session: T6**
  Title: Python Advanced Topics: Focused Introductions
  Instructor: Wesley Chun, CyberWeb Consulting
  This tutorial will consist of three mini-lectures that introduce current Python programmers to three distinct areas of intermediate Python programming: Network Programming (with sockets), GUI Programming with Tkinter, and CGI Programming.

- **Session: T7**
  Title: So You Want to Write About Python…
  Instructors: Jon Erickson, Dr. Dobb's Journal; Frank Willison, O'Reilly & Associates; Greg Wilson, Baltimore Technologies, Inc.
  In this tutorial, the instructors will look at what’s involved in publishing books and magazine articles about Python. Topics that will be covered include: how to figure out what people want to read, the lifecycle of a magazine article, the editorial and production process at a major publisher and gaps in the market that need to be filled. Participants are encouraged to bring ideas and proposals for discussion and evaluation.

- **Session: T8**
  Title: Jython from All Angles
  Instructor: Bruce Eckel, MindView, Inc.
  This tutorial will explore Jython (formerly known as JPython) in depth, looking in particular at the issues of passing objects back and forth between Python and Java, calling Python objects from Java and Java objects from Python and creating Python objects that can be turned into native Java classes.

- **Session: T9**
  Title: Threaded Programming in Python
  Instructor: Aahz, Consultant
  This tutorial will be a fast-paced overview of threaded programming in Python, covering basic thread concepts, thread building blocks (locks, semaphores and queues) and threaded applications (a Web spider and a simple Tkinter application). The tutorial is suitable for anyone who is comfortable with Python classes.

- **Session: T10**
  Title: Python for Scientific Computing
  Instructor: Eric Jones, Enthought
  This tutorial consists of four sections: (1) Numeric and its companion modules, with hints that minimize code and maximize speed, (2) 2D plotting tools and 3D visualization tools using the Visualization Toolkit (VTK), (3) legacy Fortran/C code integration using SWIG and f2py, and (4) parallel programming, a simple, pure Python approach for trivially parallel tasks and pyMPI for jobs needing more sophisticated parallelism.
Python 9 Conference
Tuesday & Wednesday
March 6 & 7, 2001

Keynote Speakers

March 6, 2001
Guido van Rossum
Director, PythonLabs, Digital Creations
“State of the Python Union”

March 7, 2001
Bruce Eckel
President, MindView, Inc.
“Why I Love Python”

Refereed Paper Track
Tuesday & Wednesday, March 6 & 7, 2001

The Python Refereed Paper Track will comprise two days of technical presentations by developers and users of the Python programming language and related technologies. These talks will:

- Present new and useful Python applications and tools
- Describe the use of Python in large, mission-critical or unusual applications
- Address practical programming problems for Python programmers based on lessons learned from experience

Late-breaking results and work-in-progress will be presented in a poster display.

The Refereed Paper Track will offer six sessions with four papers each. Presentation topics in each session are outlined in the following pages.

The first paper in each session has been nominated for Best Paper Award… and you select the winner!! Be sure to cast your vote for the Best Paper.
**Session:** RP1  
**Title:** Developing with Python I  
**Session Chair:** Robin Friedrich, United Space Alliance, United States  
**Presentations:**  
*WAD: A Module for Converting Fatal Extension Errors into Python Exceptions*  
David Beazley, University of Chicago, United States  
*Fortran to Python Interface Generator with an Application to Aerospace Engineering*  
Pearu Peterson, Center of Nonlinear Studies, Institute of Cybernetics at Tallinn Technical University, Estonia; Joaquim R. R. A. Martins and Juan J. Alonso, Department of Aeronautics and Astronautics, Stanford University, United States  
*PYM — A Macro Preprocessor Based on Python*  
Robert F. Tobler, Research Center for Virtual Reality and Visualization, Austria  
*JPE, the Java-Python Extension — Seamless Integration of Java and C-Python*  
Frederic Giacometti, Arakne, France

**Session:** RP2  
**Title:** Python on the Net  
**Session Chair:** Ka-Ping Yee, Independent Developer, United States  
**Presentations:**  
*Python for Massively Multiplayer Virtual Worlds*  
Jason Asbahr, Origin Systems, Inc., United States  
*A Retargetable Thin-Client Architecture in Python*  
Bryn Keller, Jenkon, Inc., United States  
*Programming SNMP Applications with Python*  
Ilya Etingof, Independent Developer, Russia  
*AOLserver/PyWX: Embedding Python in a Threaded Web Server*  
C. Titus Brown, California Institute of Technology, United States

**Session:** RP3  
**Title:** Consider the Possibilities  
**Session Chair:** Frank Stajano, AT&T Laboratories and University of Cambridge, England  
**Presentations:**  
*Interpreting the Semantics of Music Notation Using an Extensible and Object-Oriented System*  
Michael Droettboom, The Peabody Conservatory of Music of the Johns Hopkins University, United States  
*Mobile Computing with Python*  
James “Wez” Weatherall and David Scott, Laboratory for Communications Engineering, England  
*OpenTechnology.org: A Discussion and Collaboration Engine Powered by Python and XML*  
Uche Ogbuji, Fourthought, Inc., United States  
*CyberChair: An Online Paper Submission and Reviewing System Written in Python*  
Richard van de Stadt, University of Twente, The Netherlands

*Nominated for Best Paper*
Session: RP4
Title: Developing with Python II
Session Chair: David Beazley, University of Chicago, United States

Presentations:
*A Component-Based Framework for Interactive Applications Using Messaging and Scripting* Brent Burley and Rajesh Sharma, Walt Disney Feature Animation, United States

*Introduction to Webware for Python* Chuck Esterbrook, Webware for Python, United States

*The CML2 Language: Python Implementation of a Constraint-Based Interactive Configurator* Eric S. Raymond, Open Source Initiative, United States

*Hybrid Programming with the Tix Widget Set* Mike Clarkson, Internet Discovery, United States; Ioi Lam, Sun Microsystems, United States

Session: RP5
Title: Python in Science
Session Chair: Lee Taylor, Lawrence Livermore National Laboratory, United States

Presentations:
*Re-Usable Components for Structural Bioinformatics* Sophie I. Coon, Michel F. Sann and Arthur J. Olson, The Scripps Research Institute, United States

*A Python Implementation for the High Level Control of an Autonomous Underwater Vehicle* Benoit F. DUPIRE, Andres Folleco and Samuel M. Smith, Florida Atlantic University, United States

*Martel: A Killer App for Python in Bioinformatics* Andrew Dalke, Dalke Scientific Software, LLC, United States

*ELLIPT2D: A Flexible Finite Element Code Written in Python* Alexander Pletzer and John C. Mollis, Princeton Plasma Physics Laboratory, United States

Session: RP6
Title: Something Completely Different
Session Chair: Jeremy Hylton, PythonLabs, Digital Creations, United States

Presentations:
*Implementation and Acceptance of NatLink, a Python-Based Macro System for Dragon NaturallySpeaking* Joel Gould, Dragon Systems, Lernout & Hauspie Speech Products, United States

*Using Python in a High School Computer Science Program - Year 2* Lex Berezhny, Jeffery Elkner and Jason Straw, Yorktown High School, United States

*Data Mining with Python* Ole Nielsen, Peter Christen, Markus Hegland and Tatiana Semenova, Australian National University, Australia

*The AUTO2000 Command Line User Interface* Randy Paffenroth, Applied and Computational Mathematics, California Institute of Technology, United States; Eusebius Doedel, Applied and Computational Mathematics, California Institute of Technology, United States and Computer Science, Concordia University, Canada

*Nominated for Best Paper*
Posters

P1 Toilet Paper  Harlan Hile and Drew Perttula, University of California-Berkeley, United States

P2 Mod Snake: Flexible Apache Modules in Python  Jon Travis, Covalent Technologies, United States

P3 Implementing a Python Interface for a Software Design Environment  Vespe Savikko, Tampere University of Technology, Finland

P4 A WWW SQL Programming Tool with Persistent Database Connections  Célio C. Guimarães, Institute of Computing, Unicamp, Brazil

P5 Using Python Server Pages  Xiaoyun WU, State University of New York-Buffalo, CSE Department, United States

P6 Unum, Numbers with Units in Python  Pierre X. Denis, Spacebel, Belgium

P7 PyClimate 1.0 - Python and the Analysis of Atmospheric and Oceanographic Data Sets  Jon Saenz, Departamento de Fisica Aplicada II, Universidad del País Vasco, Spain; Juan Zubillaga and Jesus Fernandez, Departamento de Fisica de la Materia Condensada, Universidad del País Vasco, Spain

P8 Monte Carlo Techniques: Adaptive Integration  Nikolas Kauer, University of Wisconsin-Madison, United States

Zope Track

Tuesday & Wednesday, March 6 & 7, 2001

Digital Creations’ Zope, written in Python, is the leading Open Source application server. Attendees of this track will learn Zope basics and advanced usage and hear about new developments in the Zope world.

Session: Z1
Title: Construction and Use of Interface Objects  Michel Pelletier, Digital Creations

Session: Z2
Title: ZCVSMixin/CVS Folder: Object Oriented Version Control in Zope  Steve Spicklemire, Silicon Prairie Ventures, Inc.

Additional sessions to be announced.
Python Applications Track  
Tuesday & Wednesday, March 6 & 7, 2001

Session: PA1

Title: Web Services  
Speaker: Paul Prescod, ActiveState

Part One: Web Services Components with Python
According to luminaries as diverse as Tim Berners-Lee and Bill Gates, the Web of the future will be dominated by computers communicating with computers through “Web Services” protocols. A Web Service is a software component that uses Web technologies (typically URLs, HTTP and XML) to expose an API to clients and other servers. This talk will describe a component service framework and demonstrate an internally deployed component written in Python. The example application uses SOAP over HTTP.

Part Two: Accessing SOAP Services from Python
SOAP is an XML-based protocol for sharing information between applications. It is typically used in building Web Services. This talk will discuss how these services may be accessed from Python code. In particular, it will address the issues involved in sending information from dynamically typed languages to strongly typed servers through a marshalling syntax (XML), which only natively supports structured strings. This talk will demonstrate a SOAP client compatible with the service implemented in “Web Service Components with Python.”

Session: PA2

Title: To be announced  
Speaker: To be announced
The PythonLabs development team at Digital Creations will host a Python Applications Track session featuring its current work on Python tools and applications. Some of its current projects are Mailman, the GNU mailing list manager, and ZODB, an object database for Python.
**Session:** PA3

**Title:** Mozilla Technologies  
**Speaker:** David Ascher, ActiveState

**Part One: Komodo — Making Mozilla Useful with Python**  
This talk will present an overview of the history and architecture of Komodo, ActiveState’s cross-platform IDE written mostly in Python, from the perspective of Python programmers. David will talk about what Mozilla had to offer, what Python had to offer, and where Mozilla-based solutions make sense for Python programmers. He will also discuss some of the lessons learned in the process.

**Part Two: XML-Based User Interfaces for Python Programs**  
XUL stands for the XML UI Language. It is an XML-based format for defining cross-platform user interfaces. Python has many cross-platform user interface toolkits, but the Mozilla framework is unique in separating “user interface code” and application code completely and cleanly. In Mozilla, user interface code goes into XUL files. The code that supports the interface may be written in Python, C++, or any other XPCOM compatible language. Combinations of XUL and code can be turned into reusable objects using the XML Bindings Language (XBL). This talk will describe the basics of XUL and show how Python code can be connected to XUL through XPCOM.

**Session:** PA4

**Title:** PythonWorks IDE and PythonWare Extensions  
Secret Labs AB — creators of PythonWorks — will host a Python Applications Track session focusing on what modern IDEs can do to simplify the life of the Python programmer. As examples, some unique features of PythonWorks will be described, and the philosophy and technology behind them will be discussed. Implementations of other Secret Labs technologies that extend the use of Python will also be covered.

**Part One: PythonWorks — Design Philosophy and Technology**  
**Speakers:** Fredrik Lundh, Matthew Ellis and Håkan Karlsson, Secret Labs AB  
In Part One of this session, the speakers will talk about the design decisions behind PythonWorks. Tools that help save both time and effort will be covered, such as: efficient navigation of source code, automated testing, efficient building of GUIs, integration of useful information and deployment of applications.

**Part Two: PythonWare — Other Extension Libraries**  
**Speaker:** Fredrik Lundh, Secret Labs AB  
Secret Labs has been very active in providing supplemental libraries that extend the basic functions of Python. Some of them have evolved into de facto standards, e.g., PythonWare Imaging Library (PIL) and XMLRPC/SOAP libraries. The uses of and future plans for these libraries will be discussed in this session.
Developers’ Day is an exciting opportunity to participate in the ongoing development of the Python language. The purpose of Developers’ Day is to bring together Python’s users and core maintainers in a no-holds-barred “town hall” style meeting. Developers meet with the language maintainers and each other to discuss the evolution of Python, hear overviews of current projects and discuss the acceptance or rejection of proposed changes to the language. Discussions are lively because participants have a stake in Python’s future. Developers’ Day is considered to be the high point of the conference for many attendees.
G Series I

Session: D1-1
Title: Stackless Python
Leader: Gordon McMillan, McMillan Enterprises; Christian Tismer, Mission Impossible Software Team
Removing Python’s dependency from the C stack has been a goal for developers serious about working with coroutines and generators. Stackless advocates argue that Python can be made stackless with no impact on Python’s syntax or semantics.

Session: D1-2
Title: Batteries Included
Leader: Moshe Zadka, Lerner Communications Consulting
During the 1998 Python Conference, Frank Stajano coined the phrase “batteries included” to describe the richness of Python’s standard library. His phrase became the unofficial motto of the conference and an inspiration to build and maintain a fat distribution — a rich and versatile standard library that is immediately available — without making the user download separate packages.

Session: D1-3
Title: Comprehensive Python Catalog
Leader: Andrew Kuchling, MEMS Exchange
One frequent complaint about Python is the lack of a comprehensive index for Python software. The Catalog-SIG has been started to redress this shortcoming. The aim of Catalog-SIG is to provide a single virtual repository (mirrored and searchable) of all downloadable Python material.

Series II

Session: D2-1
Title: Collaborative Development Issues
Leader: To Be Announced
The most important change in the current release of Python may not be in the code, but in how it is developed. Moving the Python source code to SourceForge has improved the scalability, but not without annoyances. One goal of this session will be to smooth out some of these aggravations.

Session: D2-2
Title: Python Software Foundation
Leader: Dick Hardt, ActiveState
Guido and his team of developers are now working for Digital Creations, but their commitment to Python remains as strong as ever. Python will remain Open Source and the work on it will be owned by a non-profit organization — the Python Software Foundation. This session will discuss the goals and structure of the Python Software Foundation.

Session: D2-3
Title: Kick-starting Python 3K
Leader: To Be Announced
Now is the time to start considering how to get Python 3K off the ground.
Registration Is Now Open!

Register online today at http://www.python9.org to take advantage of Early Bird rates! Early Bird registration closes on Friday, February 2, 2001 (Midnight, EST).

Fee Schedule*

<table>
<thead>
<tr>
<th>DATE</th>
<th>EVENT</th>
<th>EARLY BIRD RATE</th>
<th>REGULAR RATE</th>
<th>STUDENT RATE**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday March 5, 2001</td>
<td>Tutorial Day (w/wo Conference)</td>
<td>$325/350</td>
<td>$350/375</td>
<td>$175</td>
</tr>
<tr>
<td>Tuesday and Wednesday March 6 &amp; 7, 2001</td>
<td>Conference</td>
<td>$425</td>
<td>$475</td>
<td>$195</td>
</tr>
<tr>
<td>Thursday March 8, 2001</td>
<td>Developers’ Day (w/wo Conference)</td>
<td>$225/250</td>
<td>$250/275</td>
<td>$125</td>
</tr>
<tr>
<td>Monday through Thursday March 5–8, 2001</td>
<td>Total For All Events</td>
<td>$975</td>
<td>$1,075</td>
<td>$495</td>
</tr>
</tbody>
</table>

*A $50 service charge will be added for all on-site registrations and payments. **Full-time students only. An appropriate ID will be required upon check-in.

The registration fee includes admission to sessions and events on the specific day(s) for which you register. Continental breakfast, lunch and two refreshment breaks will be served on each day, and there will be a reception for conference attendees on Tuesday evening, March 6, 2001. Tutorial attendees will receive bound tutorial notes for all tutorials. Conference attendees will receive proceedings for the Refereed Paper Track in both bound book and CD-ROM versions.
Payment Options

Prior to the close of Early Bird registration (Friday, February 2, 2001): Payment may be made by check (personal or company), via fax with a credit card or online with a credit card.

After Early Bird registration closes, and prior to the close of online registration (Sunday, February 25, 2001): Payment will be accepted at the regular or student rate online with a credit card only.

On-site payment: Payment may be made on site by credit card, personal check or cash at the regular or student rate (plus a $50 service charge).

About the Venue

Python 9 will be held March 5–8, 2001 at the Hilton Long Beach in Long Beach, California.

The Hilton Long Beach, an AAA Four Diamond hotel, is located in downtown Long Beach at the west end of Ocean Boulevard at Golden Shore Avenue. Directly adjacent to the World Trade Center, the hotel is within walking distance of restaurants, shops and many local attractions. A block of rooms has been reserved for Python 9 attendees for the nights of Sunday, March 4, 2001 through Thursday, March 8, 2001. Identify yourself as an attendee of the Python Conference to take advantage of the special group rates!

Conference Committee

Conference Chair
Guido van Rossum, Digital Creations

Program Chair
Paul Dubois, Lawrence Livermore National Laboratory

Zope Track Chair
Paul Everitt, Digital Creations

Python Applications Track Co-Chairs
David Ascher, ActiveState
Jeremy Hylton, Digital Creations
Fredrik Lundh, Secret Labs AB (PythonWare)

Tutorials Chair
Garry Hodgson, AT&T Labs

Developers’ Day Chair
Jeff Bauer, Rubicon Research

Program Committee Members

David Ascher, ActiveState
John Aycock, University of Victoria
David Beazley, University of Chicago
Bruce Eckel, MindView, Inc.
Robin Friedrich, United Space Alliance
Jim Fulton, Digital Creations
Janko Hauser, Institute for Marine Science, Kiel
Konrad Hinsen, Centre National de la Recherche Scientifique
Jeremy Hylton, Digital Creations
Martin von Löwis, Humboldt-Universität zu Berlin
Fredrik Lundh, Secret Labs AB (PythonWare)
Gordon McMillan, McMillan Enterprises, Inc.
Tim Peters, Digital Creations
Eric Raymond, Open Source Initiative
Greg Stein, ActiveState
Frank Stajano, AT&T Laboratories Cambridge and University of Cambridge
Lee Taylor, Lawrence Livermore National Laboratory
Greg Ward, MEMS Exchange
Aaron Watters, Consultant
Ka-Ping Yee, Independent Developer