

The (Active) State of Tcl

21th Annual Tcl Conference (2014)

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ActiveState Software Inc.



ActiveState[®]

Code to Cloud: Smarter, Safer, Faster™

Agenda

- » Introduction
- » The Active State
- » History of Tcl What has happened...
- » Developments in the Tcl community



About ActiveState

- » ActiveState Software Inc.
 - 15 years focusing on open source dynamic languages
 - Experience across multiple dynamic languages
 - Tcl, Perl, PHP, Python, Ruby, JS
 - And platforms
 - AIX, HP-UX, Linux, Mac OS X, Solaris, Windows, ...
- » Assist in the development, management and distribution of dynamic languages
 - 97% of Fortune 1000 companies use ActiveState products
- » ActiveState Stackato - Enterprise Private PaaS
 - (yes, Tcl plays a part)



ActiveState Solutions

Develop.

Development tools for dynamic language programming:

- ActivePerl
- ActivePython
- ActiveTcl
- Komodo IDE
- Perl Dev Kit
- Tcl Dev Kit

Manage.

Enterprise solutions for dynamic language support, management & compliance:

- Enterprise & Business Editions for ActivePerl, ActivePython & ActiveTcl
- Consulting
- Training
- Commercial Support

Distribute.

OEM solutions to distribute applications with ActivePerl, ActivePython & ActiveTcl.



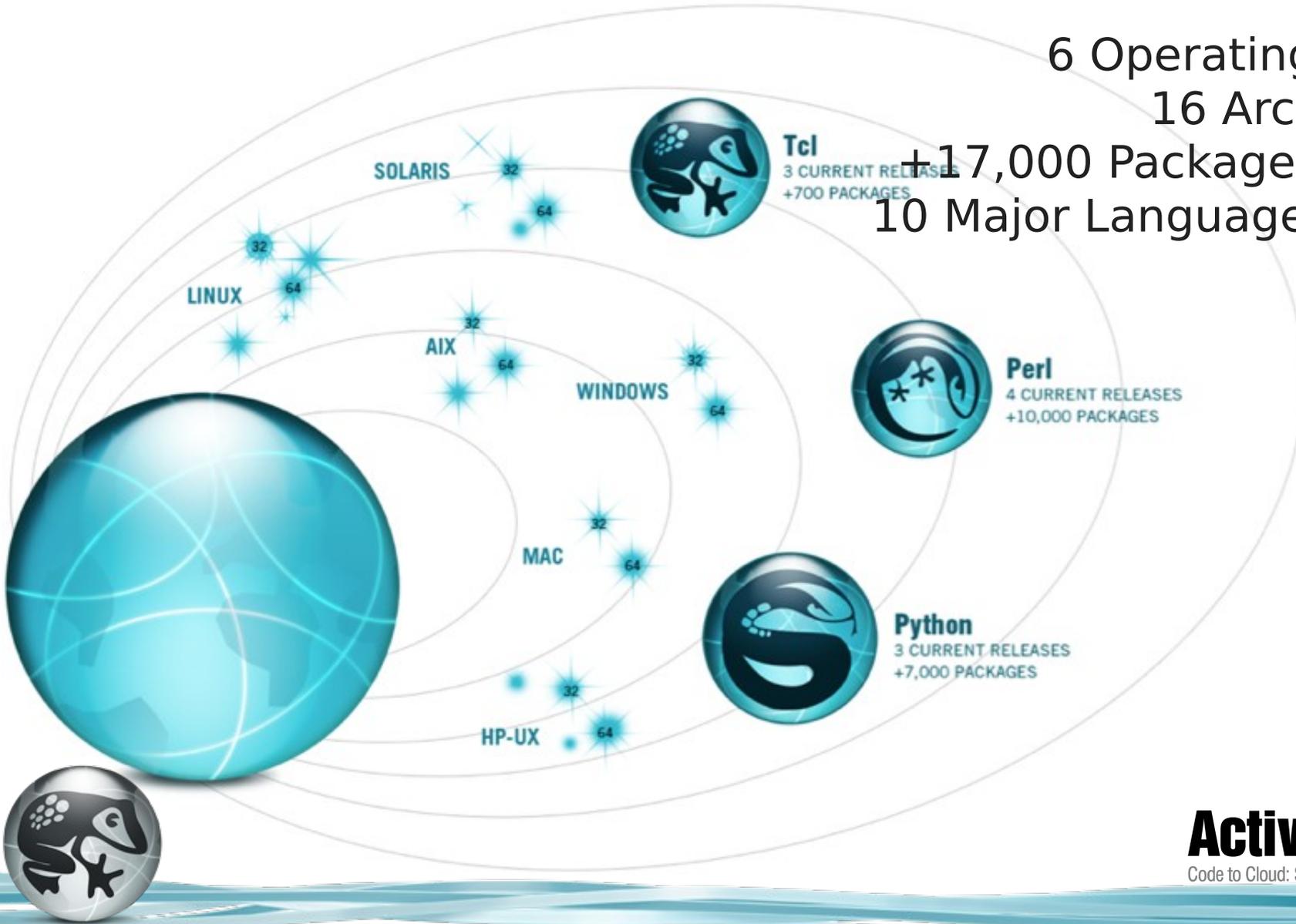
We've Got Your Universe Covered

6 Operating Systems

16 Architectures

+17,000 Packages/Modules

10 Major Language Releases



ActiveTcl online

[Stackato](#)[Developer Tools](#)[Languages](#)[Support](#)[Blog](#)jeffh@activestate.com[Store](#)[Contact Us](#)[Search](#)

ActiveTcl

The Industry-Standard Tcl Distribution

[Download Now](#)[Request More Information](#)[ActivePerl](#)[ActivePython](#)[ActiveTcl](#) >[Compare Editions](#)[Stackato by Language](#)

ActiveTcl Business and Enterprise Editions include our precompiled, supported, quality-assured Tcl distribution used by millions of developers around the world for easy Tcl installation and quality-assured code. When you're using Tcl on production servers or mission-critical applications, ActiveTcl Business Edition and Enterprise Editions offer significant time savings over open source Tcl for installing, removing, upgrading, and managing common Tcl modules.

Not sure which edition is right for you? Check out our [Compare Editions chart](#).

Tested, Timely and Compatible

Save time in your development cycles by starting with a precompiled Tcl distribution for out-of-the-box installation and standardization across the operating systems you rely on, including Windows, Linux, Mac OS X, Solaris, AIX, and HP-UX. Develop once and deploy successfully across your production environment.

ActiveTcl Business and Enterprise Editions includes:

- > Precompiled Tcl distribution for out-of-the-box installation, including ActiveTcl 8.4, 8.5, 8.6
- > Core Tcl binaries
- > Additional binaries for popular packages/modules through TeaPot*
- > Extended documentation

Business Edition licensing is for each production or external-facing server, including virtual servers. Enterprise Edition licensing is on a custom, site-wide basis.

Reduce Risk with Commercially Supported Tcl

- Comply with corporate policy requirements to have supported open source products



Business Edition \$999 US
Priced per OS Instance/year

Get a Quote
for support or redistribution rights

Download ActiveTcl
Free Community Edition

ActiveState
Code to Cloud: Smarter, Safer, Faster™



ActiveTcl 1-click download

Download Tcl: ActiveTcl Community Edition

- Forums
- Resources
- Training
- Professional Services
- Commercial Support
- FAQs
- Code Recipes

ActiveTcl is the leading commercial-grade distribution of the open source Tcl programming language. Download ActiveTcl Community Edition for your development projects and internal deployments.

By downloading ActiveTcl Community Edition, you comply with the terms of use of the [ActiveState Community License](#). Please refer to our [documentation](#) for install/uninstall instructions.



Production servers for external users? Looking for HP-UX, Solaris, or AIX builds? Looking for older versions?

[Learn more about ActiveTcl Business Edition](#)

Need priority support, how-to help, indemnification, or custom builds?

[Learn more about ActiveTcl Enterprise Edition](#)

Plan on redistributing ActiveTcl in your products?

[Learn more about ActiveTcl OEM Licensing](#)

Download Tcl: Other Platforms and Versions

Version	Windows (x86)	Windows (64-bit, x64)	Mac OS X (10.5+, x86_64/x86)	Linux (x86)	Linux (x86_64)	Mac OS X (Universal)
8.5.14.0	Windows Installer (EXE)	Windows Installer (EXE)	Mac Disk Image (DMG)	AS Package	AS Package	n/a
8.6.0.0	Windows Installer (EXE)	Windows Installer (EXE)	Mac Disk Image (DMG)	AS Package	AS Package	n/a
8.4.20.0	Windows Installer (EXE)	Windows Installer (EXE)	Mac Disk Image (DMG)	AS Package	AS Package	Mac Disk Image (DMG)



ActiveTcl 8.4.20.0

- » Based on the 8.4.20 Tcl core – **End Of Life**
 - Released June 2013 - on the USB key
- » Enhanced with many popular extensions
 - XOTcl, [incr Tcl], TclX, expect, tcllib, tklib, Bwidgets, iwidgets, tktable, tkcon, tile, SQLite, ...
 - 300+ packages in all
- » Standard batteries-included distribution for Tcl
 - Available for Linux, Mac OS X, Windows
 - HP-UX, AIX, Solaris and older versions in Business Edition
 - Windows and OS X builds are fully threaded
- » TEApot code repository via **teacup**
 - Provides new and updated extensions



ActiveTcl 8.5.17.0

- » The conservative line.
- » Based on the 8.5.17 Tcl core
 - Preview on the USB key
 - Includes VFS Explorer (`tc1vfse`) from Tcl Dev Kit
- » Distributed with fewer extensions
 - Can utilize the 8.4 extension set
 - Some extensions need different binaries for 8.5 (e.g. `itcl`)
 - 90+ packages - the rest available via `teacup`
- » Available for Linux, Mac OS X, Windows
 - HP-UX, AIX, Solaris and older versions in Business Edition
 - All builds are fully threaded
 - Most known pthread/fork issues solved since 8.5.15



ActiveTcl 8.6.3.0

- » The stable line, now the 1-click Download
- » Based on the 8.6.3 Tcl core
 - Preview on your USB key
 - Also has VFS Explorer (`tc1vfse`)
- » Similar to ActiveTcl 8.5 extension set
 - Adds new core modules for TDBC, trofs
- » Mac OS X architecture change
 - Was x86-ppc “universal” with Carbon
 - Now x86-x64 with Cocoa
 - teapot understands both architectures



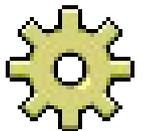
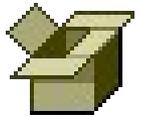
The TEApot

- » Binary code repository à la ActivePerl's PPM
- » Fully populated for ActiveTcl platforms
- » Makes use of Tcl module system
 - Allows zip archives with special teapot.txt
- » Repository is web visible, but rough
- » 902 packages available (886 in 2013)
- » Includes sources for many packages
- » Downloads index – local searches
- » Integrated with TclApp package searching (TDK 5)

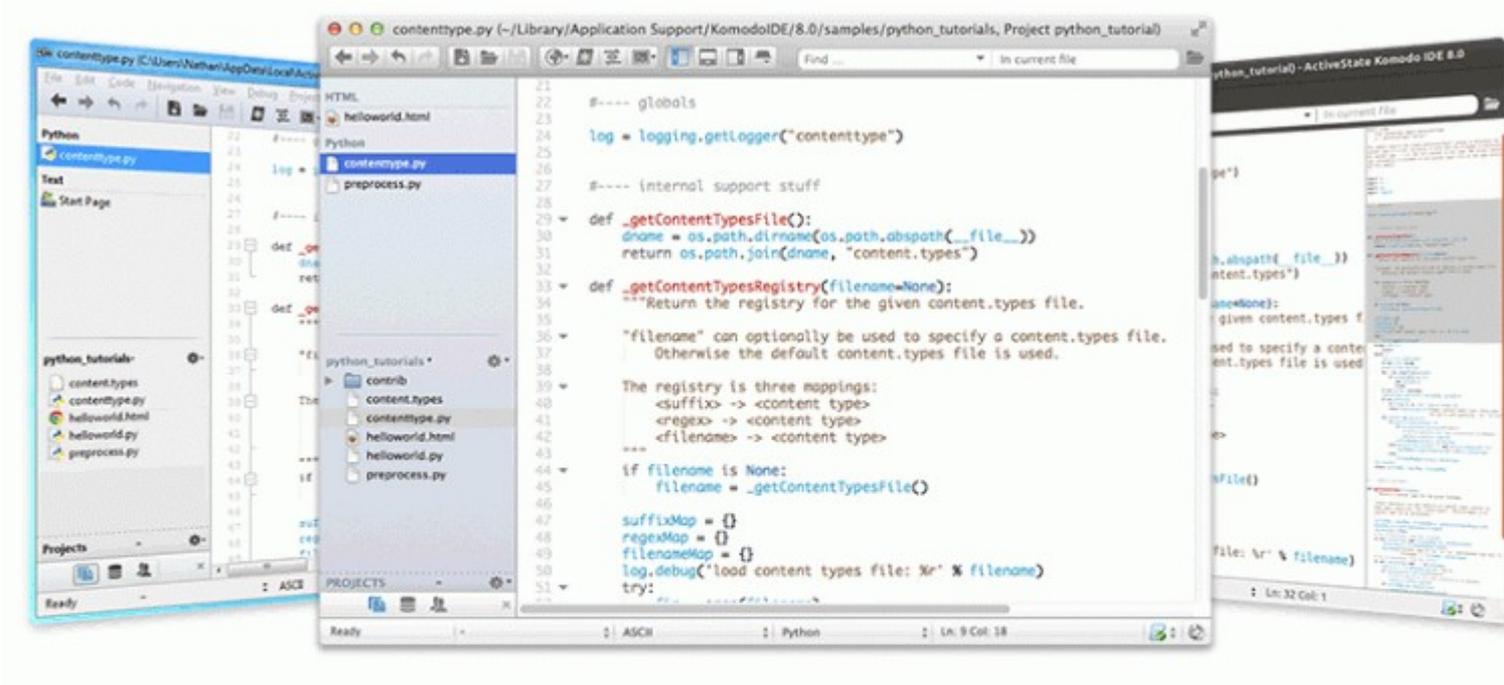


Tcl Dev Kit 5

- » All the essential Tcl tools for development
 - **Debugger**: source-level debugger with GUI
 - **Checker**: find errors without running application
 - Will even recommend better code
 - **TclApp**: create single-file executables of Tcl apps
 - Supports multi-architecture starkits, x-platform starpacks
 - **Compiler**: protect your source code
 - And more (code coverage, hotspots, inspector, ...)
 - Version independent from ActiveTcl
- » 5.4 latest version
 - 8.6 support
 - Preview on your USB key
 - Several bug fixes, improved OS X support



ActiveState 2014



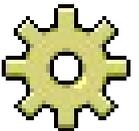
ActiveState
Komodo IDE 



ActiveState
Code to Cloud: Smarter, Safer, Faster™

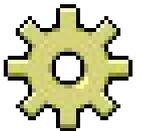
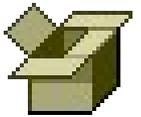
Komodo 8

- » Professional IDE for dynamic languages
 - Professional IDE features
 - Integration with Tcl Dev Kit
 - Unique Tcl editing features
 - Also supports Perl, Python, PHP, Ruby, JS and more
 - Cross-platform (Windows, Linux, & OS X)
 - Integration with Stackato private PaaS
- » Komodo 8.5 released Sept 2013



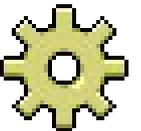
Komodo 8 Features

- » All the great features to expect in a great IDE
 - Code refactoring
 - Code collaboration (Google Docs for code)
 - Multi-system preferences synchronization
 - Stackato integration
 - Major UI updates
 - Code profiling
 - Though only PHP and Python right now
 - And much more ...
 - Messages panel, updated toolbars, find enhancements, faster core



ActiveTcl Pro Studio

- » Professional Tools for Tcl Developers
 - Tcl Dev Kit
 - Komodo IDE
 - Safari Bookshelf online books
 - Popular Tcl titles available
 - Includes major upgrades and support



ActiveState and Tcl

- » ActiveState provides the Tcl community with...
 - Improvements to open source Tcl core
 - 2 Tcl core team members on staff
 - Host of the Tcl Developer Xchange [www.tcl.tk]
 - Enterprise support infrastructure
 - ActiveTcl Business and Enterprise Editions
 - Professional services for Tcl
 - High quality development tools
 - **ActiveTcl**: batteries-Included free distribution
 - **Komodo IDE**: professional IDE with extensive Tcl support
 - **Tcl Dev Kit**: essential tools for Tcl programmers
 - **ActiveTcl Pro Studio**: Bundle with Tcl Dev Kit, Komodo IDE, Safari Online



Tcl Recipes on ActiveState Code

ActiveState Code » Recipes

[Add a Recipe](#)[Languages](#)[Tags](#)[Authors](#)[Sets](#)[My recipes](#)[My sets](#)

Inserts thousand separators into a number (Tcl recipe)



Created by andreas kupries on Thu, 22 Aug 2002 (MIT)

◀ Tcl recipes (155) ▶

◀ andreas kupries's recipes (20) ▶

Tags

graphics

math

▶ Show machine tags (4)

Required Modules

(none specified)

Other Information and Tasks

- Fork this recipe
- Licensed under the MIT License
- Viewed 5488 times
- Revision 1
- Admin this recipe

▲ This piece of code inserts a thousandth separator into a decimal number, i.e. every 3 digits the separator character is inserted. courtesy Jeff Hobbs's bag of utilities.

5

[Download](#) [Copy to clipboard](#)

Tcl, 13 lines

```
1 # commify --
2 # puts commas into a decimal number
3 # Arguments:
4 # num      number in acceptable decimal format
5 # sep      separator char (defaults to English format ",")
6 # Returns:
7 # number with commas in the appropriate place
8 #
9
10 proc commify {num {sep ,}} {
11     while {[regsub {^([-+]?[0-9]+)([0-9][0-9][0-9])} $num "\\1$sep\\2" num]} {}
12     return $num
13 }
```

[SHARE](#) [f](#) [t](#) [e](#) ... [FLAG](#)

Add a comment



History of Tcl

1. **Tcl created** as general-purpose command/scripting language by John Ousterhout

4. **Scriptics formed:**

- Evolve and extend Tcl platform
- Create development tools

7. **ActiveState** introduces Tcl support and services

6.0 Sept

7.0 Sept

7.4 July

7.6 Oct

8.0 Aug

8.1 Apr

8.3 Feb

8.4 Sept

1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 ...

8.2 Aug

5. **Tcl Core Team** formed (August)

8.3.5 EOL Oct

6. **Scriptics/Ajuba** Acquired by Interwoven (Nov)

8. **ActiveState** acquired by Sophos (Sept)

3. **Tcl enhanced at Sun Microsystems:**

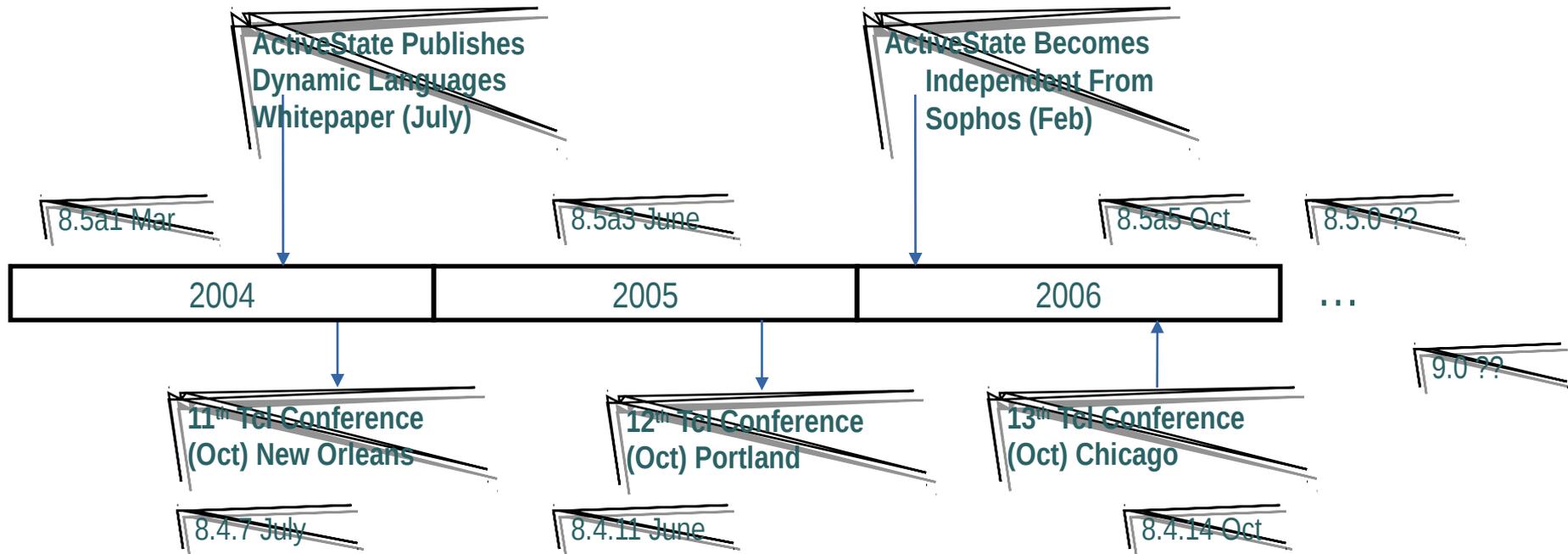
- Windows, Macintosh ports
- Web/Internet support
- Java support

2. **Open source distributions** from U.C. Berkeley:

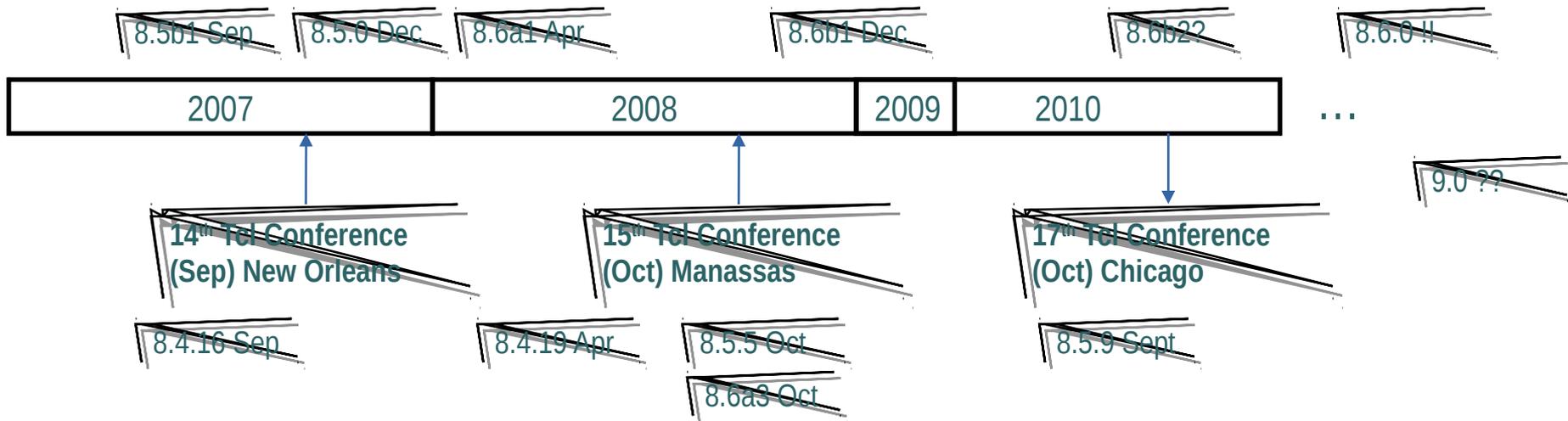
- Easy GUIs under Unix
- Extensible applications



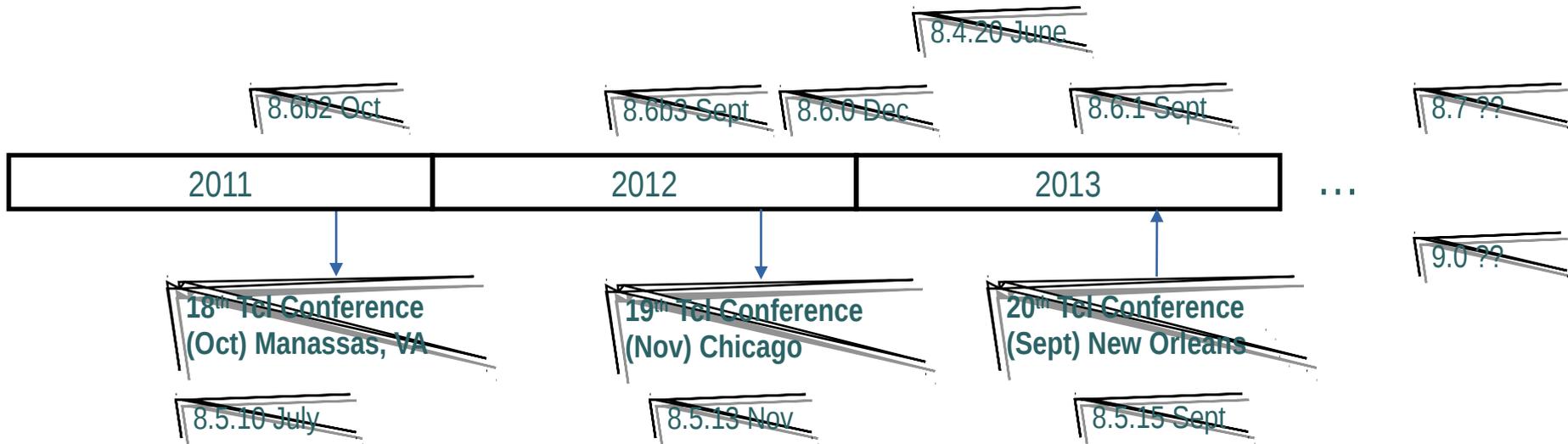
Recent History of Tcl



More Recent History of Tcl



Very Recent History of Tcl



Status as of Tcl'2013

- » September 23-27 in New Orleans
- » Tcl/Tk 8.5 was standard stable version
 - > 8.5.15 available at the conference
 - > 8.5.12 in OpenSuSE 12.3, 8.5.13 in Fedora 19; 8.5.9 in OS X 10.8
 - > 8.5 in SLE11 and RHEL6 (8.4 in RHEL5)
 - > 7 years since 8.5.0 release (Dec 2007)
 - > 8.4 still common in conservative environments
 - > Last core 8.4 release done June 2013 – **End Of Life**
- » 8.6 development long in the tooth
 - > 8.6.1 ready for the conference



Status as of Tcl'2014

- » November 10-14 in Portland, OR
- » Tcl/Tk 8.6 is standard stable version
 - 8.6.1 in OpenSuSE 13.1 (Dec 2013);
8.6.2 in OpenSuSE 13.2 (Nov 2014);
8.5.14 in Fedora 19;
8.5.9 in OS X 10.9
 - 8.5 in SLE11 and RHEL6 (8.4 in RHEL5)
 - Just shy 2 years since 8.6.0 release (Dec 2012)
 - 8.4 still common in very conservative environments
 - Last core 8.4 release done June 2013 – **End Of Life**
- » 8.6 development continuing
 - 8.6.2 ready for the conference, 8.6.3 in RC
- » Tcl 9 development has somewhat begun, slow in coming



Tcl Core Team

- » Formed in August 2000 with 14 charter members
 - Elected by community vote
 - Collectively manage development of the core
 - Now at 16 active members

<i>John Ousterhout</i>	<i>Jeff Hobbs</i>	<i>Brent Welch</i>
<i>Donal Fellows</i>	<i>Andreas Kupries</i>	<i>Karl Lehenbauer</i>
<i>D. Richard Hipp</i>	<i>Jan Nijtmans</i>	<i>George Howlett</i>
<i>Mark Harrison</i>	<i>Jim Ingham</i>	<i>Don Porter</i>
<i>Mo DeJong</i>	<i>Kevin Kenny (2001)</i>	<i>Miguel Sofer (2004)</i>
<i>Joe English (2005)</i>	<i>Daniel Steffen (2007)</i>	<i>Jos Decoster (2012)</i>
<i>Alex Ferrieux (2012)</i>	<i>Brian Griffin (2012)</i>	<i>Steve Landers (2012)</i>

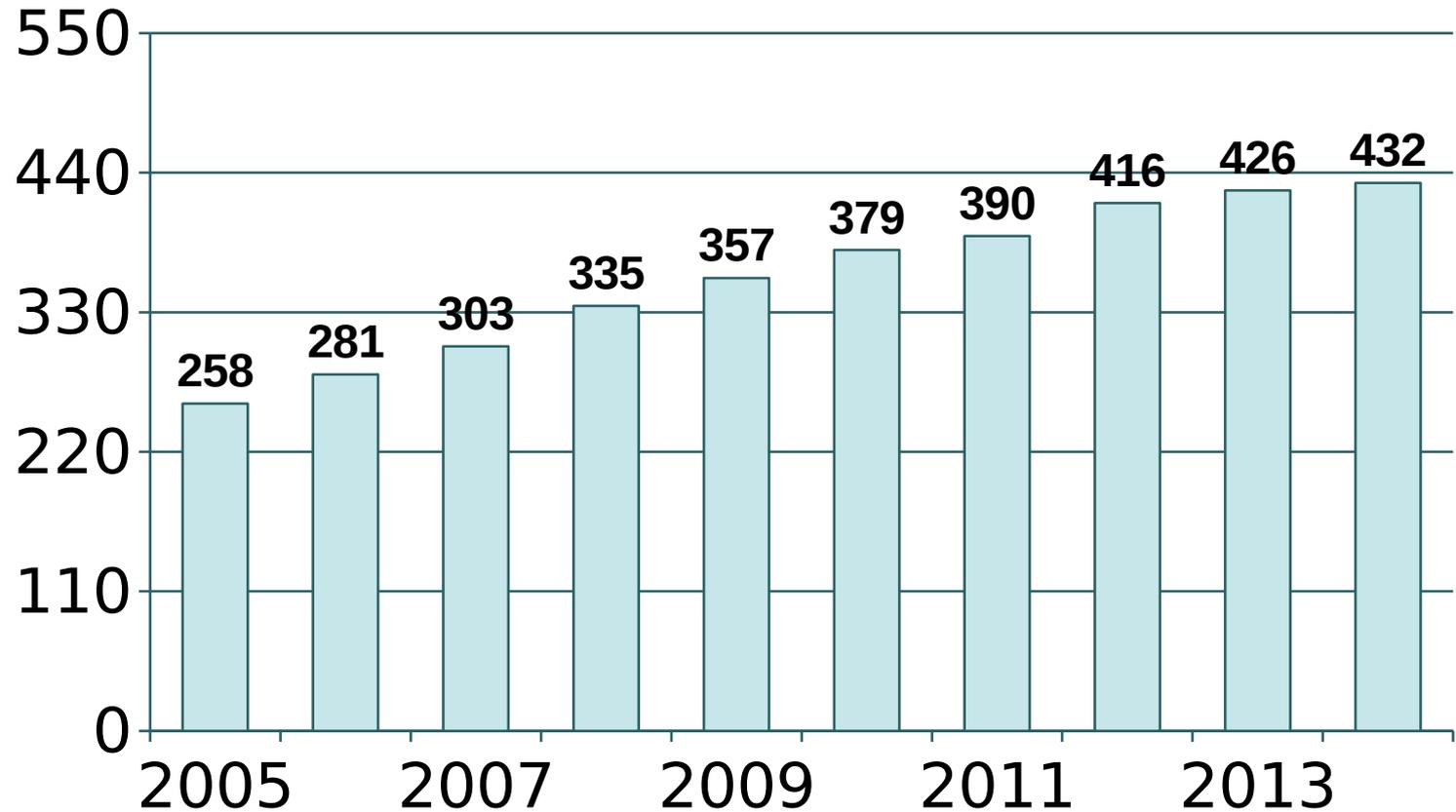


TCT: TIP Initiatives

- » TIP page for Tcl
<http://tip.tcl.tk/>
- » TIPs are intended to guide and document development on the core
 - They focus on new or changing features, not bugs
 - Voted on by the TCT following community discussion using the TYANNOTT process
- » Current TIP count: 432
 - Divided into process, informational & project TIPs
- » TCT discussion is open on the public mailing list:
tcl-core@lists.sourceforge.net



Tcl TIPS



Tcl/Tk Maintainers

- » **Tcl/Tk maintainers are separate from the TCT**
- » Maintainers oversee a specific area of the core, as defined in TIP #16 (Tcl) and TIP #23 (Tk)
- » They assist, but are not solely responsible for, fixing bugs and adding docs in their area
- » They are responsible for reviewing code and approving code changes to their area
- » Open to anyone willing to learn the core
- » New volunteers always welcome



The Maintainers...

Tcl (TIP #24):

<i>Daniel Steffen</i>	<i>Jeff Hobbs</i>	<i>Don Porter</i>	<i>Donal Fellows</i>	<i>Jim Ingham</i>
<i>Jan Nijtmans</i>	<i>Mo DeJong</i>	<i>Rolf Schroedter</i>	<i>Kevin Kenny</i>	<i>Miguel Sofer</i>
<i>Vince Darley</i>	<i>Andreas Kupries</i>	<i>Pat Thoyts</i>	<i>Joe Mistachkin</i>	<i>Pavel Goran</i>
<i>Lloyd Lim</i>	<i>Acacio Cruz</i>	<i>Alex Ferrieux</i>	<i>Colin McCormack</i>	<i>Zoran Vasiljevic</i>

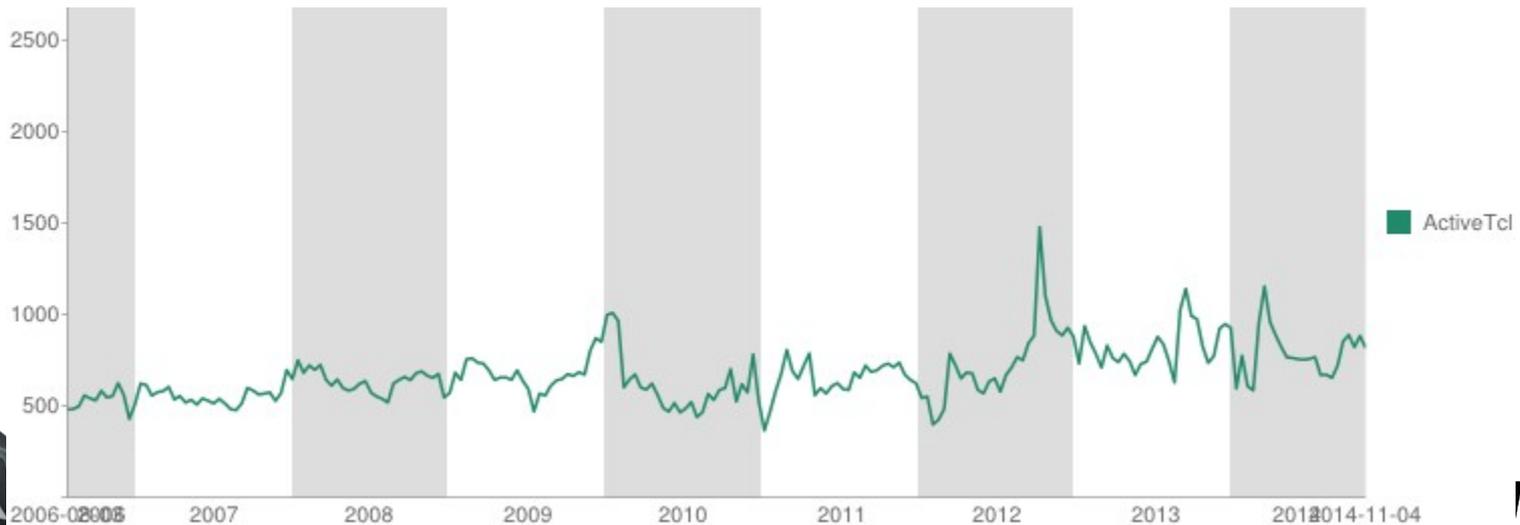
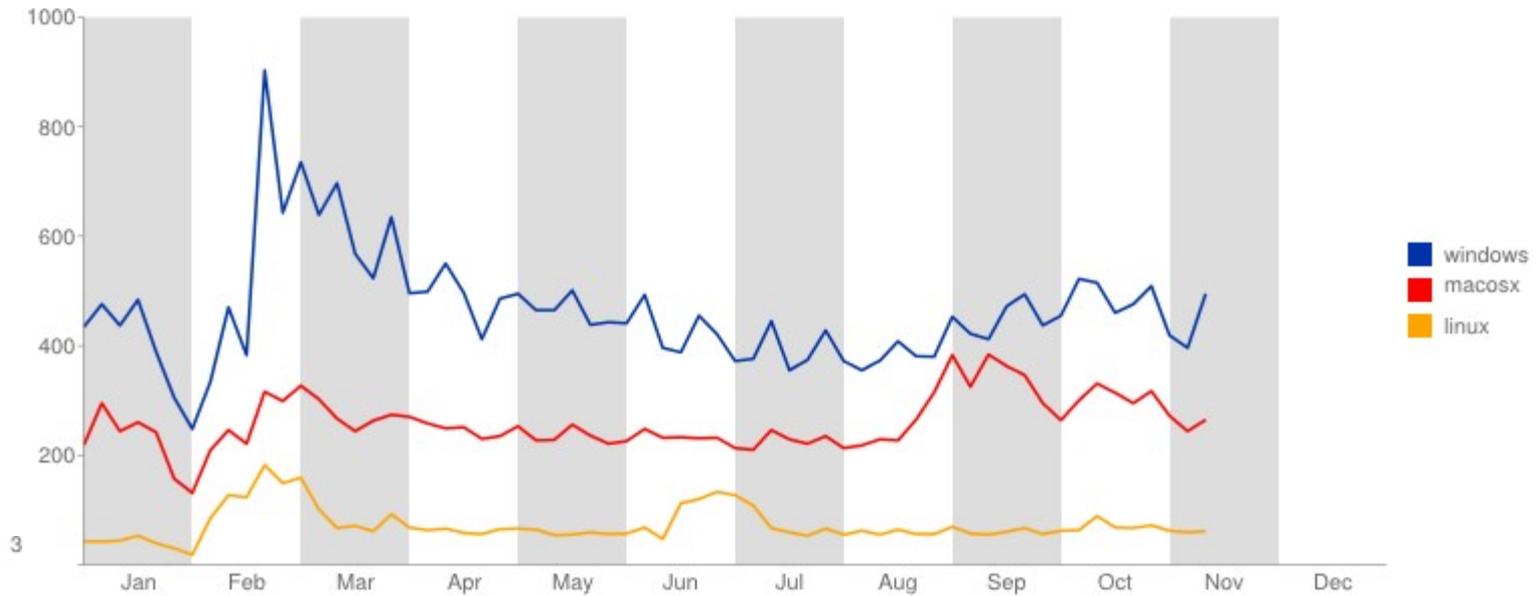
Tk (TIP #30):

<i>Daniel Steffen</i>	<i>Jeff Hobbs</i>	<i>Don Porter</i>	<i>Donal Fellows</i>	<i>Jim Ingham</i>
<i>Jan Nijtmans</i>	<i>Mo DeJong</i>	<i>Kevin Griffin</i>	<i>George Smith</i>	<i>Allen Flick</i>
<i>Vince Darley</i>	<i>Peter Spjuth</i>	<i>Frédéric Bonnet</i>	<i>Miguel Bañón</i>	<i>Todd Helfer</i>
<i>Lloyd Lim</i>	<i>Chengye Mao</i>	<i>Ben Riefenstahl</i>	<i>Joe English</i>	

Very open for new recruits ...

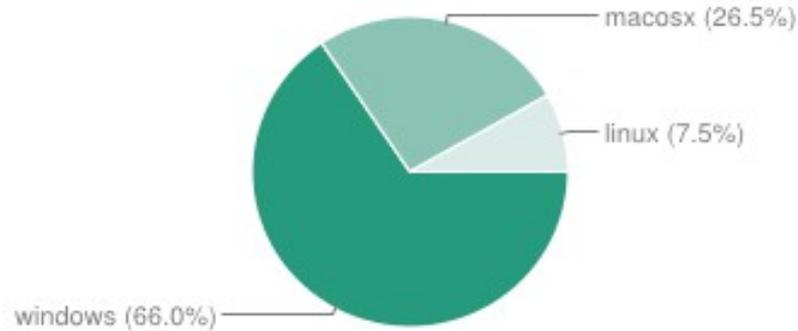


ActiveTcl Downloads

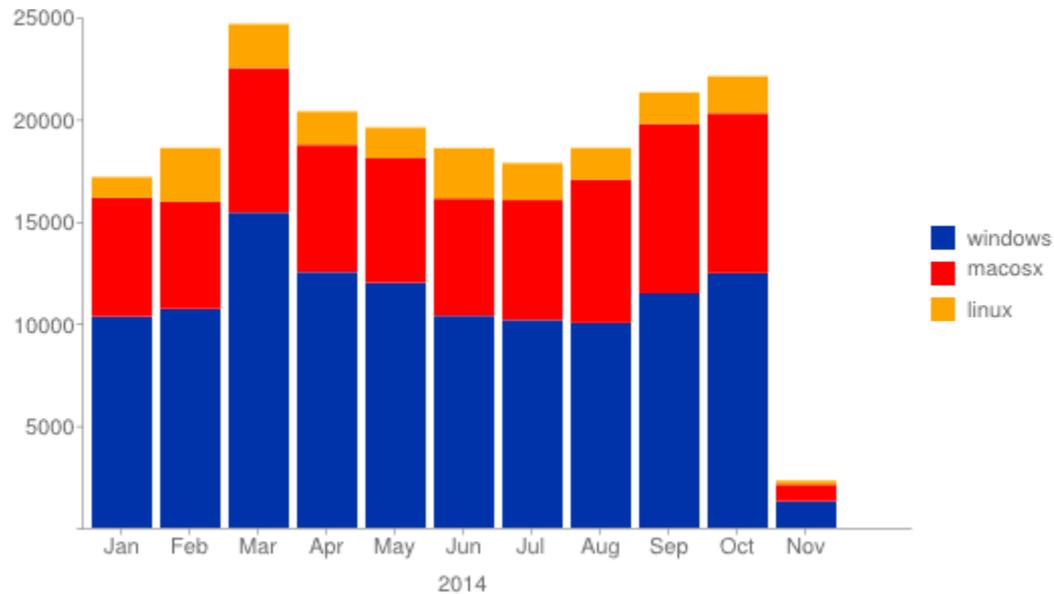
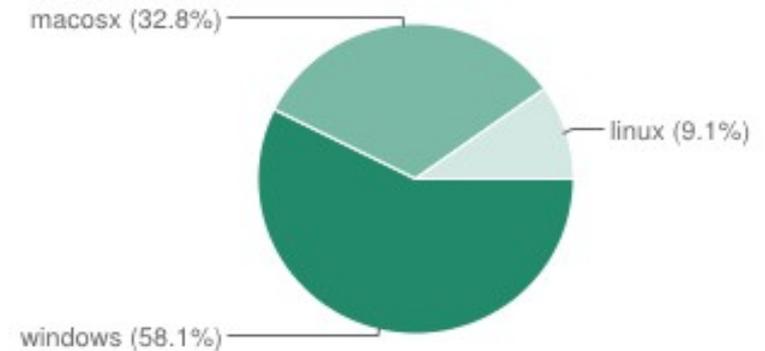


AT Downloads by Platform

Year 2013

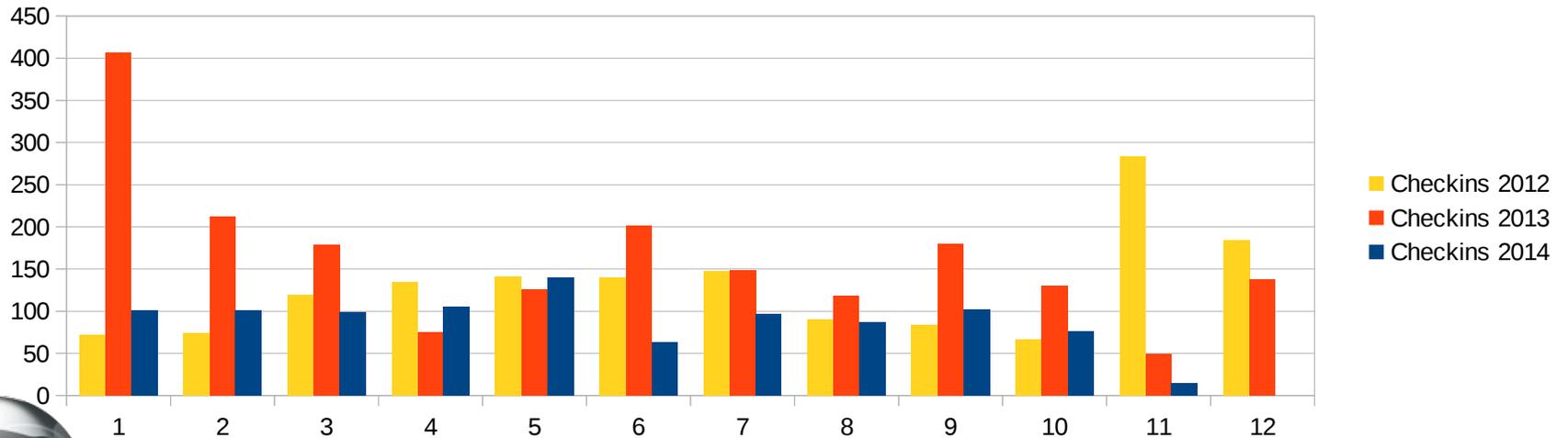
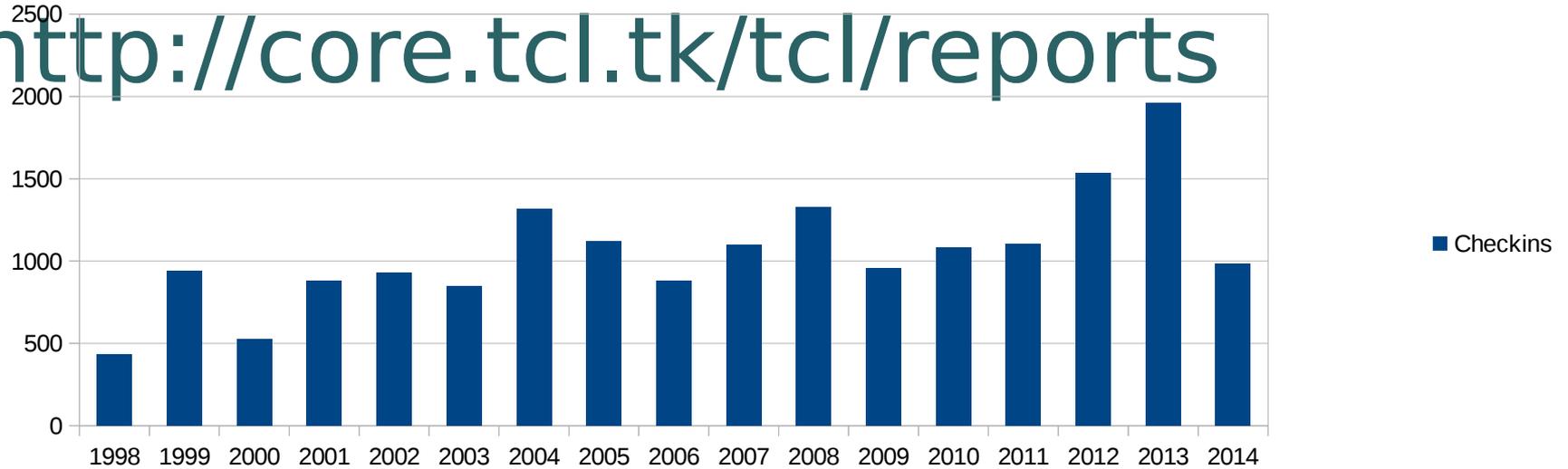


Year 2014



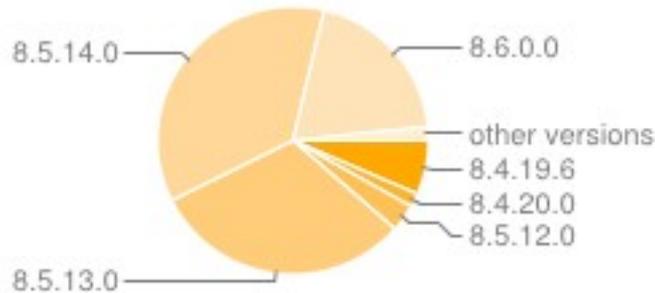
Core Dev -

<http://core.tcl.tk/tcl/reports>

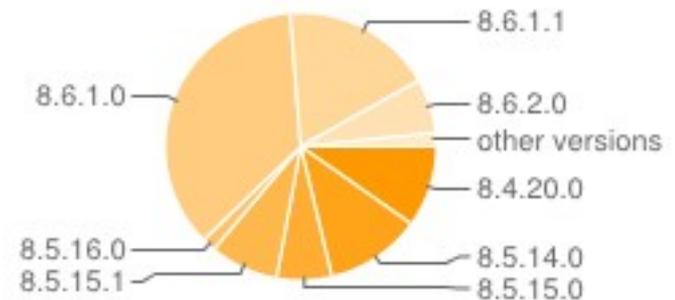


AT Downloads by Version

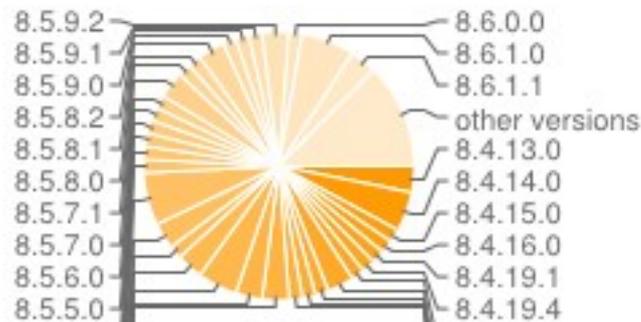
Year 2013



Year 2014



Since 2006

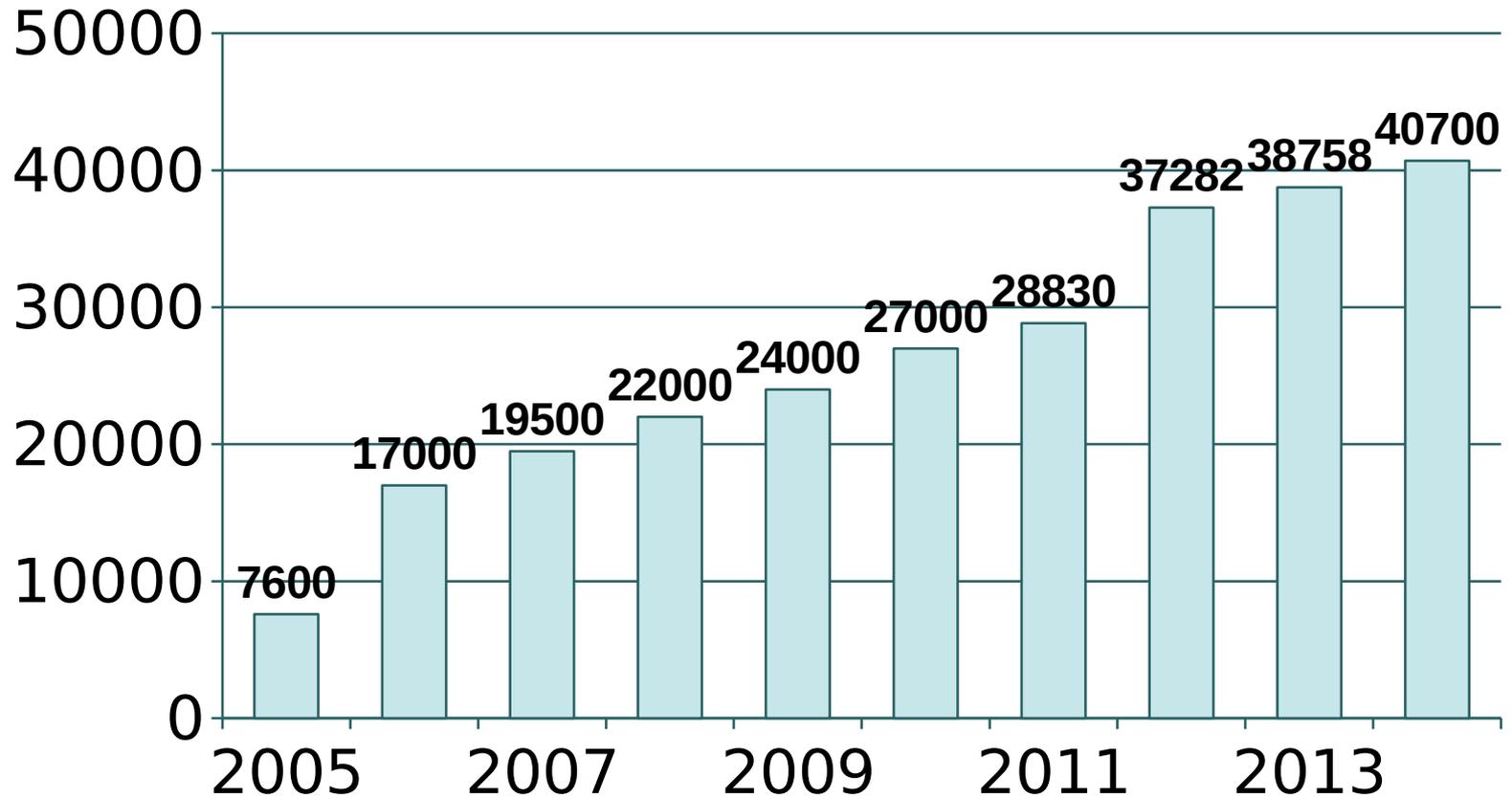


In the Community...

- » The Tcl Developer Xchange:
 - <http://www.tcl.tk/> aka <http://tcl.ActiveState.com/>
 - Official home page for Tcl and Tk
 - Formal front-end, downloads, advocacy, history, ...
- » ~~Tcl-URL! continues to provide weekly news:~~
 - ~~Posted weekly on news:comp.lang.tcl~~
 - ~~Or subscribe: tcl-announce@listserv.activestate.com~~
- » The Tcl'ers Wiki has 40,700 pages now:
 - <http://wiki.tcl.tk/>
 - Wiki chat has constant traffic, HTTP and IRC bridges
 - Community contributed and maintained
 - Primary discussion forum



Tcl'ers Wiki Page Growth



Tcl/Tk Sources Online

- » Fossil won the DVCS debate – Do vs. Talk
- » Home for Tcl core sources
 - » <http://core.tcl.tk/>
 - » Hosted by Roy Keene
- » Has history back to Tcl 8.0 (full CVS import)
 - » Only 8.5+ branches are “open”
 - » 9.0 branch opened November 2012 (during Tcl’19)
- » Revision control and Ticket systems are used
 - » Ticket system switch over from sf.net in June 2013
- » Wiki now used to record notes on Tcl internals
- » Managed by select Tcl/Tk maintainers



Hosts Tcl/Tk and some near core extensions

Tcl/Tk Dev Online

- » SourceForge is for developers
 - Yes, parts are still on SourceForge ...
<http://tcl.sourceforge.net/>
 - Mailing lists
 - File server
 - Has Tcl sources back to Tcl 2.1
 - Developer web pages
- » Managed by TCT and Tcl/Tk maintainers
- » Used by many other Tcl extensions and apps



Tcl @ SourceForge

Welcome to Tcl/Tk @ SF

This is the *source code release* home for Tcl (Tool Command Language) and the Tk toolkit.

The TEA (Tcl Extension Architecture) sample extension and Thread extension are part of the SF Tcl project.



[Tcl](#) / [Tk](#) project resources at SF:

- [File Distributions](#) Get all source releases!
- [Mailing Lists](#)

And elsewhere:

- [Source Code Repositories](#) Track the changes as they happen!
- [Tcl Bug Tracker](#)
- [Tk Bug Tracker](#)
- [The Tcl'ers Wiki](#)
- [Tcl Developer Xchange](#)
- [comp.lang.tcl newsgroup](#)
- [ActiveTcl binaries from ActiveState](#)



Tcl in Fossil



Tcl Source Code

Timeline

Not logged in

Home Timeline Files Branches Tags Tickets Wiki Login

200 Entries All Types Events Only Older Show Files Tags Only Tickets Only Wiki Only

20 most recent checkins

2013-09-21

12:49

[7c19121b2e] Leaf: merge trunk (user: [dgp](#), tags: [novem](#))

2013-09-20

13:05

[cb6e704762] Leaf: Potential fix for is command handling. (user: [dkf](#), tags: [trunk](#))

13:02

[f4c5c1b275] Leaf: New routines _Plus opportunity for optimizin... (user: [dgp](#), tags: [trunk](#))

13:02

[7c1d00afae] Leaf: merge trunk (user: [dgp](#), tags: [trunk](#))

12:22

[e1a17466ce] Revert mistaken commi

12:13

[eb9d41af7b] merge trunk (user: [dgp](#), tags: [trunk](#))

09:11

[d7d7d0857d] Leaf: Make sure that p... not by the default pa... (user: [jan.nijt](#), tags: [trunk](#))

05:31

[c186938df9] merge trunk (user: [dgp](#), tags: [trunk](#))

05:28

[63009ab07c] merge release (user: [dgp](#), tags: [trunk](#))

2013-09-19

22:37

[af5c35971a] [3970f54c4e]: Improved [dkf](#), tags: [trunk](#))

20:07

[2bcfea1433] Closed-Leaf: merge trunk (user: [dgp](#), tags: [trunk](#))

19:38

[5039d0589e] merge trunk (user: [dgp](#), tags: [dgp-refactor](#))

19:37

[836d61598d] [3970f54c4e]: Corrected regression in argument order processing in [unset]. (user: [dkf](#), tags: [trunk](#))

19:10

[c81d39a8aa] merge trunk; update changes (user: [dgp](#), tags: [core-8-6-1-rc](#))

19:02

[a6959b7e04] comment (user: [dgp](#), tags: [trunk](#))

18:53

[b7c97d2912] Line numbers wrong in compiled [unset]. (user: [dgp](#), tags: [trunk](#))

17:21

[985e1825e1] Line numbers wrong in compiled [dict with]. (user: [dgp](#), tags: [trunk](#))

17:01

[0c34f1cd4a] Line numbers wrong in compiled [dict exists]. (user: [dgp](#), tags: [trunk](#))

16:41

[4b8618f2b2] Line numbers wrong in compiled [global] and [variable]. (user: [dgp](#), tags: [trunk](#))

16:33

[5e60d6ec24] Leaf: Line numbers wrong in compiled [global] and [variable]. (user: [dgp](#), tags: [core-8-5-branch](#))

Tcl Source Code

This site contains canonical Tcl/Tk source code repositories. Available repositories (login-group Tcl):

- [Tcl](#) — Tool Command Language - the language and library.
 - [Tk](#) — The Tk toolkit for GUI development.
 - [Tclconfig](#) — Tcl Configurator: the `autoconf` machinery for Tcl Extension Architecture (TEA)-compliant extensions.
 - [Samplextension](#) — Sample extension giving the framework for building a Tcl Extension Architecture (TEA)-compliant extension.
 - [Thread](#) — Tcl Thread Package.
 - [TclOO](#) — Tcl OO Package (for Tcl 8.5).
 - [TclWS](#) — Tcl Web Services.
 - [TDBC Core](#) — Tcl DataBase Connectivity Core.
 - [TDBC SQLite3](#) — Tcl DataBase Connectivity SQLite3 Driver.
 - [TDBC ODBC](#) — Tcl DataBase Connectivity ODBC Driver.
 - [TDBC Mysql](#) — Tcl DataBase Connectivity Mysql Driver.
 - [TDBC Postgres](#) — Tcl DataBase Connectivity Postgres Driver.
 - [\[incr Tcl\]](#) — An object-oriented extension to Tcl.
 - [\[incr Tk\]](#) — Facilities to make Tk widgets with [incr Tcl] objects.
 - [\[incr Widgets\] 4](#) — Megawidgets made with [incr Tk] 4.
- This is only a **mirror**.
The mirrored site is <http://chiselapp.com/user/rene/repository/widgets/index>.

Tcllib Repositories (login-group Tcllib)

- [\[5039d0589e\]](#) merge trunk (user: [dgp](#), tags: [dgp-refactor](#))
- [\[836d61598d\]](#) [3970f54c4e]: Corrected regression in argument order processing in [unset]. (user: [dkf](#), tags: [trunk](#))
- [\[c81d39a8aa\]](#) merge trunk; update changes (user: [dgp](#), tags: [core-8-6-1-rc](#))
- [\[a6959b7e04\]](#) comment (user: [dgp](#), tags: [trunk](#))
- [\[b7c97d2912\]](#) Line numbers wrong in compiled [unset]. (user: [dgp](#), tags: [trunk](#))
- [\[985e1825e1\]](#) Line numbers wrong in compiled [dict with]. (user: [dgp](#), tags: [trunk](#))
- [\[0c34f1cd4a\]](#) Line numbers wrong in compiled [dict exists]. (user: [dgp](#), tags: [trunk](#))
- [\[4b8618f2b2\]](#) Line numbers wrong in compiled [global] and [variable]. (user: [dgp](#), tags: [trunk](#))
- [\[5e60d6ec24\]](#) Leaf: Line numbers wrong in compiled [global] and [variable]. (user: [dgp](#), tags: [core-8-5-branch](#))



Tcl Developer Xchange



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Welcome to the Tcl Developer Xchange!

*Join the many thousands of software developers who are already more productive with help from the **Tcl programming language** and the **Tk graphical user interface toolkit**.*

Tcl (Tool Command Language) is a very powerful but easy to learn dynamic programming language, suitable for a very wide range of uses, including web and desktop applications, networking, administration, testing and many more. Open source and business-friendly, Tcl is a mature yet evolving language that is truly cross platform, easily deployed and highly extensible.

Tk is a graphical user interface toolkit that takes developing desktop applications to a higher level than conventional approaches. Tk is the standard GUI not only for Tcl, but for many other dynamic languages, and can produce rich, native applications that run unchanged across Windows, Mac OS X, Linux and more.

- ▶ [Learn More about Tcl/Tk](#)
- ▶ [Get Tcl/Tk Now \(8.6 \) \(8.5 \)](#)
- ▶ [Tcl achieves Rung 2 \(highest\) Coverity security rank](#)
- ▶ New Tcl/Tk books on [network programming](#) and a [programming cookbook](#). See [more books](#).



Also check out the [TkDocs site](#) for Tk examples and design ideas.

Tcl Conference News

Mark your calendars for the **20th Anniversary Tcl/Tk Conference** to be held Sep 23-27, 2013 in the New Orleans French Quarter. An event to remember!

[Older conference info](#)

Latest Software Releases

[Tcl/Tk 8.6.1](#) Sep 20, 2013

[Tcl/Tk 8.5.15](#) Sep 18, 2013

[Tcl/Tk 8.4.20](#) Jun 1, 2013

[Download Tcl/Tk](#)

[Tcl Dev Kit 5.3.0](#) Oct 18, 2011

[ActiveTcl 8.6.0.0](#) Jan 18, 2013

[ActiveTcl 8.5.14.0](#) May 9, 2013

[ActiveTcl 8.4.20.0](#) Jul 8, 2013

[Tklib 0.6](#) Mar 25, 2013

[Tcllib 1.15](#) Feb 5, 2013

[Thread 2.7](#)

Core Development

A wide variety of developers contribute to the open

Tcl/Tk Community

The vibrant Tcl user community provides a variety

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Tcl'ers Wiki

Welcome to the Tclers Wiki!

wiki.tcl.tk



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Aloha!! Thanks for visiting the **Tcler's Wiki**

This is a collaboratively-edited area on the web, dedicated to the [Tcl programming language](#) and its extensions, including the [Tk graphical toolkit](#).

What is Tcl?

Tcl is a simple-to-learn yet very powerful language. Its syntax is described in just a dozen rules, but it has all the features needed to rapidly create useful programs in almost any field of application - on a wide variety of international platforms

What is Tk?

Tk is a graphical toolkit for Tcl. It allows you to develop graphical applications that run on Windows, Linux, MacOS X and many other platforms. And not just from Tcl - Tk can be used from many languages including C, Ruby, Perl, Python and Lua.

Tcl Community News

- [The Twentieth Annual Tcl/Tk Conference](#) (aka Tcl2013) will take place Sep 23-27 2013 in New Orleans, Louisiana, USA.
- Prepare yourself early for next year's Google Summer of Code. **Add your idea** to our [GSoC Idea Page](#)
- [The 11th European Tcl/Tk User Meeting](#) (aka EuroTcl 2013) was held July 6-7 2013 in Munich, Germany.
- [Tcl/Tk 8.6.0 Released!](#)

The Tcl Core Team is pleased to announce the 8.6.0 releases of the Tcl dynamic language and the Tk toolkit. We would like to express our gratitude to all those who submit bug reports and patches. This information is invaluable in enabling us to identify and eliminate problems in the core. Tcl/Tk 8.6.0 sources are freely available as open source from the [Tcl Developer Xchange](#).

Also check the [Tcl/Tk 8.6 highlights and changes](#).

Recent changes to this wiki

- Sep 23, 2013 [Tcl chatroom chrestomathy everything is a list Implement MSCHAPv2 Protocol\(RFC2759\)](#)
- Sep 22, 2013 [KK Poor Yorick View all recent changes...](#)

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Tcl/Tk 8.4

- » 8.4.20 released June 2013
 - > **Final release** of the 8.4 branch – **END OF LIFE**
 - > 8.5 is now considered the **conservative** line
 - > 8.6 is now considered the **stable** line



Tcl/Tk 8.5

- » First release after almost 4 years in development
 - 8.5a1 released March 2004
 - 8.5.0 final December 2007
 - 8.5.13 released November 2012
 - 8.5.15 released September 2013
 - 8.5.16 released August 2014
 - 8.5.17 released November 2014
- » 8.5 is 99.99% backwards compatible with 8.4 at the Tcl level, now the stable line.

