

Disclaimer: The presence of information in this list does not constitute an endorsement of that information or the developer of that information

This IPv6 application conversion information is divided into the following categories:

General Information about IPv6 conversion tools, utility Software, and guidelines for converting applications: This listing mentions several sources of available products. It does not attempt nor promise to be comprehensive.

NOTE: Terminology for IPv6 addresses has changed over time. Three changes of note in the terminology are: (1) RIR policy for default prefix allocations changed from /35 to /32 in March 2002, (2) site-local addresses were deprecated in September 2004 by RFC 3789, and (3) unique local addresses were adopted in October 2005 by RFC 4193.

2.5.1 Information about IPv6 conversion tools and utility Software			Date First Supported	Comments or Additional Information	Related Web Site
Manufacturer, Vendor or Developer	Make, Model, or Series	First Version with IPv6 support			
Brian Phaley	IPv6finder	0.3	May-08	C source code examiner	sourceforge.net/projects/ipv6finder/
Computer Associates, Inc. www.ca.com	CA Plex	r6.1	Dec-08	rapid application development environment for Microsoft .NET Framework, J2EE and IBM iWeb with IPv6 support	
Hewlett Packard Development Company www.hp.com	ipv6sniff		Dec-00	utility program. Runs on HP-UX and Tru64 only. Source code for porting to other operating systems available. Send inquiries to ipv6-team@hpc.mil	http://h30097.www3.hp.com/docs/base_doc/DOCUMENTATION/V51B_HTML/MAN/MAN8/0540____.HTM
Intermapper	IPv6 Test & Address Validation		Jan-15	on-line tool. On the web page is a link to an Intermapper HelpSystems Community forum posting that provides source code for the tool in RegEx, Perl, Ruby, and Java	www.helpsystems.com/intermapper/ipv6-test-address-validation
IPv6 Compliant Automatic Runtime Environment (CARE)	IPv6 CARE	1.1	Dec-08	open source software tool for porting IPv4 code to IPv6. While an application is running CARE will log all non-IPv6 compliant system calls for analysis	http://ipv6-care.sourceforge.net/
Microsoft Corporation www.microsoft.com	checkv4.exe	1-Dec-00		utility program. Runs on Windows only. Its use is described at msdn.microsoft.com/en-us/library/ms740624(VS.85).aspx	The Checkv4.exe utility is installed as part of the Microsoft Windows Software Development Kit (SDK) released for Windows Vista and later. The Windows SDK is available through an MSDN subscription and can also be directly downloaded from the Microsoft web site.
Monforte Salvatore, EUChinaGrid	IPV6_Code_Checker	V1.0	Sep-06	a BASH script	www.euchinagrid.org/IPv6/cod_checker.html
Sun Microsystems www.oracle.com/us/sun/index.html (an Oracle Corporation company)	Solaris IPv6 Socket Scrubber for C/C++	Dec-99		Utility program to analyze source code. Runs on Solaris\SPARC and Solaris\i386 only. Source code for porting to other operating systems available. Send inquiries to ipv6-team@hpc.mil	
2.5.2 Information about IPv6 conversion guidelines			Date First Supported	Comments or Additional Information	Related Web Site
Manufacturer, Vendor or Developer	Document Title	First Version with IPv6 support			
6 Deploy	Implementing IPv6 Applications		Jun-10	document. A comprehensive overview of application programming in C, Perl, Java, and PHP	www.6deploy.eu/workshops/20100621_athens/5%20IPv6%20Software%20Development.pdf

Ahmed Abu-Abed		Software changes for Website and Application IPv6 Readiness		Apr-10	as per Title	www.menog.net/sites/default/files/Code%20IPv6%20Migration%20MENOG%206.pdf
American Registry for Internet Numbers (ARIN)		Preparing Applications for IPv6		Jul-15	document	www.arin.net/knowledge/preparing_apps_for_v6.pdf
Arturo Servin		The importance of IPv6 Application		Feb-13	document	www.google.com/?gws_rd=ssl#q=ipv6apptesting_1361980313.pdf
Beej		Beej's Guide to Network Programming Using		Jul-12		beej.us/guide/bgnet/ website with downloadable PDF and errata, a printed version is available
Bert Hubbert PowerDNS		Making an Application Fully IPv6 Compliant		May-13	presentation with notes	www.hpc.mil/IPv6/wp-content/RIFE66-134-Making_an_application_fully_IPv6_compliant.pdf
Carl Williams Denver, CO	RMv6TF	Application Development		Apr-09	document	www.rmv6tf.org/2009-IPv6-Summit-Presentations/Carl%20Williams%20-%20RMv6TF%20IPv6%20Summit.pdf
Dan York		Migrating Applications to IPv6		Jun-12	2nd version by O'Reilly Media, ISBN 1-44930-787-6	http://migratingappstoipv6.com/ website with errata, updates, interactive Q&A
Derek Moore	PennState	IPv6 Programming		May-09	web page with programming guidelines for C/C++, RealBasic, Python, Perl, and Java	https://wikispaces.psu.edu/display/ipv6/IPv6+programming
Etienne Duple	CNRS/UREC	IPv6 Compliance with C/C++, JAVA, PYTHON and PERL		Nov-08	document	https://edms.cern.ch/file/971407/1/EGEE-III-SA2-TEC-971407-IPV6_Compliance_C_Cpp_Java_Python_Perl-v1.4.pdf
		How To Test a Socket Server IPv6 Compliance		Oct-08	document	https://edms.cern.ch/file/930868/1/EGEE-III-SA2-TEC-930868-test_server_IPv6_compliance-v1.2.doc
Owen DeLong Electric	Hurricane	Porting IPv4 Applications to IPv4/v6 dual stack		May-10	web site and documents for C, PERL, and PYTHON languages	http://owend.corp.he.net/ipv6/Porting/PortMeth.pdf and related example code and handout materials at
Qing Li, Jinmei Tatuya, and Keiichi Shima		IPv6 Socket API Extensions: Programmer's Guide		2009	Morgan Kaufmann Publishers ISBN 0-12375-076-8	
Steinar H. Gunderson, Google		IPv6 software porting		Jun-10	presentation at Google IPv6 Implementor's Conference	The agenda for the Conference may be found at: https://sites.google.com/site/ipv6implementors/2010/agenda The presentation and video may be found under the 14:15 - 14:45 Application readiness session in www.akkadia.org/drepper/userapi-ipv6.html
Ulrich Drepper		Userlevel IPv6 Programming Introduction		Oct-08	document	www.akkadia.org/drepper/userapi-ipv6.html

2.5.3 Archival information (published or presented in 2007 and earlier)

Manufacturer, Vendor or Developer	Document Title	First Version with IPv6 support	Date First Supported	Comments or Additional Information	Related Web Site
Carl Williams North American v6 Task Force ipv6seminar.com/tech.seminar.04	A Discussion about Porting Applications		Nov-04	ZIPed document	www.zhape.net/NAV6TF/PS3.1430.Williams.NAV6TF.pps.zip
Eva M. Castro, US IPv6 Summit	IPv6 Porting Applications		2003	document	www.usipv6.com/2003arlington/presents/Eva_Castro.pdf
Fulvio Risso	Writing IPv6 applications		Aug-03	presentation	www.disi.unige.it/person/GianuzziV/MobComp/lucidi/Microsoft03.ppt
Hewlett Packard Development Company www.hp.com	HP-UX IPv6 Porting Guide		Feb-07	document. May no longer be available on www.hp.com . Send inquiries to ipv6-team@hpc.mil	http://bizsupport2.austin.hp.com/bc/docs/support/SupportManual/c02013871/c02013871.pdf
IETF V6ops Working Group	Application Aspects of IPv6 Transition		Mar-05	IETF RFC 4038	www.ietf.org/rfc/rfc4038.txt

Jun-Ichiro Itojun Hagino		IPv6 Network Programming		2004	Butterworth-Heinemann ISBN 1-55558-318-0	
Jun-ichiro Itojun Itoh, Project www.kame.net	KAME	Implementing Address Family (AF)-independent		May-03	document	www.kame.net/newsletter/19980604/
Laboratories Over Next Generation Networks (LONG) long.ccaba.upc.es/		Key Issues in Porting Applications from IPv4 to IPv6		Jan-03	document (HTML and PDF) (other papers and software are available at long.ccaba.upc.es/contingut.php?dir=060Software)	http://long.ccaba.upc.es/long/040Deliverables/LONG-D32A.pdf
		Porting Applications to IPv6 HowTo by Eva M. Castro		Jan-03	document (HTML and PDF)	http://long.ccaba.upc.es/long/045Guidelines/eva/ipv6.html (also available from gsync.es/~eva/IPv6-web/ipv6-transition-app.html)
		Programming Guidelines on Transition to IPv6		Jan-03	document (HTML and PDF)	http://long.ccaba.upc.es/long/045Guidelines/LONG_Trans_app_IPv6.pdf
Large Scale International IPv6 Pilot Network (6net) www.6net.org		Final report on applications development and evaluations		Jun-05	document (PDF)	www.6net.org/publications/deliverables/D5.15.pdf (6net project completed Jun 2005, newer reports at www.6diss.org, which completed Sept 2007, newest reports at www.6deploy.eu -- see below)
		IPv6-enabled Globus Toolkit		Jun-04		www.6net.org/publications/deliverables/D5.12.pdf
Marc Blanchet, Andre Cormier, Florent Parent		Porting Applications to IPv6: simple and		May-00	document	www.viagenie.qc.ca/en/ipv6/presentations/IPv6_porting_appl_v1.pdf
Marc Tortonesi Deep Space 6	Deep	Designing and Testing IPv6-enabled Networking Software		Mar-04	document	www.deepspace6.net/docs/ipv6_app_design.html
Microsoft Corporation www.microsoft.com		IPv6 Guide for Windows Sockets Applications		12/1/1999 (revised May, 2009)	document	http://msdn.microsoft.com/en-us/library/ms738649(VS.85).aspx
		IPv6 Transition Technologies		Nov-02	web site and documents	http://technet.microsoft.com/en-us/library/bb726951.aspx
Rino Nuarda, EUChinaGrid		Introduction to IPv6 Programming		Jun-07	document. A comprehensive overview of application programming in C, Java, Perl, and PHP	www.euchinagrid.org/IPv6/IPv6_presentation/Introduction_to_IPv6_programming.pdf
Specific Support Action in the 7th Framework Programme of the EU 6Deploy-2 project (dull title -- good)		How-To Guide for Developers		Jul-07	document. A comprehensive overview of application programming in C and Perl	http://www.6deploy.eu/tutorials/210-6deploy_devel_v0_4.pdf
Sukhdeep Singh Johar Novell, India		Porting IPv4 Applications to IPv6		Sep-02	document.	read.pudn.com/downloads159/doc/712626/porting_ipv4tov6.pdf
Sun Microsystems www.oracle.com/us/sun/index.html (an Oracle Corporation company)		IPv6 and the Future of the Internet: a Technical White		Jun-99	document. No longer be available on www.oracle.com. Send inquiries to ipv6-team@hpc.mil	
		Porting Networking Applications to the IPv6 APIs		Jun-99	document. No longer be available on www.oracle.com. Send inquiries to ipv6-team@hpc.mil	
Tomas P. de Miguel and Eva M. Castro		Programming Guidelines on Transition to IPv6		Jan-03	document	www.nav6tf.org/documents/trans_ipv6_v013.pdf
W. Richard Stevens		UNIX Network Programming, Second Edition		1998	3 volumes by Prentice Hall ISBN 0-13-490012-X, 0-13-081081-9, and TBD.	
Yoshifuji Hideaki USAGI/WIDE Project/Keio University		IPv6 Standard Application Programming		Mar-06	document	www.linux-ipv6.org/materials/200603-APT-NAv6-IPV6-WORKSHOP/IPv6-API.pdf