



Perl 5.6.1 Build Instruction - IBM AIX

TIVOLI® NETCOOL® PERFORMANCE MANAGER FOR WIRELESS
TIVOLI® NETCOOL® GATEWAY FRAMEWORK

Note: Before using this information and the product it supports, read the information in Notices on page 27.

This edition applies to Version 4.1 of IBM® Tivoli® Netcool® Performance Manager for Wireless and to all subsequent releases and modifications until otherwise indicated in new editions.

© Copyright International Business Machines Corporation, 2009. All rights reserved.

US Government Users Restricted Rights - Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

Table of Contents

1	About this Documentation	4
1.1	Audience	4
1.2	Required Skills and Knowledge	4
2	Requirements	5
2.1	System Requirement.....	5
2.2	Software Requirement	5
3	Preparation	6
4	Build Instruction	7
Appendix A	Sample config.sh.....	9
Appendix B	Perl Configuration Summary.....	26
Appendix C	Notices and Trademarks.....	27

1 About this Documentation

The Tivoli Netcool Gateway Framework requires Perl 5.6.1. This provides the instruction on how to build Perl 5.6.1 for IBM AIX machine.

1.1 Audience

The target audience of this document is IBM Tivoli Netcool Performance Manager for Wireless customers. They should be familiar with Perl and IT principles and should also have a good understanding of IBM AIX.

Note: Performance Manager for Wireless Administrators should not, without prior consultation and agreement from IBM, make any changes to the Index Organized tables or database schema. Changes to the Index Organized tables or database schema may result in corruption of data and failure of the Performance Manager for Wireless System. This applies to all releases of Performance Manager for Wireless using all versions of interfaces.

1.2 Required Skills and Knowledge

This guide assumes you are familiar with the following:

- General IT Principles
- IBM AIX Operating System
- C Compiler
- Perl Scripting
- Windows operating systems
- Graphical User Interfaces

This guide also assumes that you are familiar with your company's network and with procedures for configuring, monitoring, and solving problems on your network.

2 Requirements

2.1 System Requirement

The operating system and processor architecture required is listed in the table below.

Vendor	O/S Version	Architecture
IBM	AIX 5.3	POWER

2.2 Software Requirement

The C Compiler required is listed in the table below:

Vendor	Compiler
IBM	IBM XL C/C++ Enterprise Edition for AIX, V9.0 C compiler

Additional Software Components required are:

1. tar
2. gunzip
3. make

3 Preparation

Download Perl 5.6.1 source code from <http://www.perl.com/CPAN/src>

Extract the content of the source package using the following command:

```
$ gunzip -dc perl-5.6.1.tar.gz | tar xvf -
```

The directory `perl-5.6.1` will be created with its contents.

Ensure that `make` and `cc` is in the `$PATH` environment.

Remove the `config.sh` and `Policy.sh` from within the `perl-5.6.1` directory if available:

```
$ cd perl-5.6.1  
$ rm -f config.sh Policy.sh
```

Create the installation directories at a desired location, e.g.:

```
$ mkdir -p /usr/local/gways/perl5/5.6.1/bin
```

Ensure path includes `/usr/vac/bin`, e.g.:

```
$ export PATH=/usr/vac/bin:$PATH
```

4 Build Instruction

Run Configure within the Perl source directory with the following parameters:

1. set the prefix to use the installation directory created earlier,
2. do not install perl as /usr/bin/perl, and
3. do not use nm extraction.

```
$ sh Configure -Dprefix=/usr/local/gways/perl5/5.6.1 \  
-Uinstallusrbinperl -Uusenm
```

NOTE: The Configure must be run in interactive mode, to allow the following step.

Accept all default configurations except for the following question, which must be answered with 'n':

```
Shall I use /usr/bin/nm to extract C symbols from the libraries?  
[y] n
```

A sample of the config.sh produced is in **Appendix A**.

Run make to build the binaries.

```
$ make
```

The binaries are verified using the following command:

```
$ make test
```

The last two lines of the output should show something similar to the following:

```
All tests successful.  
u=0.2  s=0.1  cu=8.38  cs=2.36  scripts=252  tests=12665
```

Finally, install perl into the target installation directory:

```
$ make install
```

Check the perl configuration summary by running the following command:

```
$ /usr/local/gways/perl5/5.6.1/bin/perl -V
```

A sample of the perl configuration summary is in **Appendix B**.

Please contact IBM support if you face any difficulties during the build.

Appendix A Sample config.sh

```
#!/bin/sh
#
# This file was produced by running the Configure script. It holds all the
# definitions figured out by Configure. Should you modify one of these values,
# do not forget to propagate your changes by running "Configure -der". You may
# instead choose to run each of the .SH files by yourself, or "Configure -S".
#
# Package name      : perl5
# Source directory  : .
# Configuration time:
# Configured by     : root
# Target system     :

Author=''
Date='$Date'
Header=''
Id='$Id'
Locker=''
Log='$Log'
Mcc='Mcc'
RCSfile='$RCSfile'
Revision='$Revision'
Source=''
State=''
_a='.a'
_exe=''
_o='.o'
afs='false'
alignbytes='8'
ansi2knr=''
aphostname='/usr/bin/hostname'
api_revision='5'
api_subversion='0'
api_version='5'
api_versionstring='5.005'
ar='ar'
archlib='/usr/local/gways/perl5/5.6.1/lib/5.6.1/aix'
archlibexp='/usr/local/gways/perl5/5.6.1/lib/5.6.1/aix'
archname64=''
archname='aix'
archobjs=''
awk='awk'
baserev='5.0'
bash=''
```

```

bin='/usr/local/gways/perl5/5.6.1/bin'
bincompat5005='define'
binexp='/usr/local/gways/perl5/5.6.1/bin'
bison='bison'
byacc='byacc'
byteorder='4321'
c='\c'
castflags='1'
cat='cat'
cc='cc'
cccdlflags=' '
ccdlflags=' -bE:/usr/local/gways/perl5/5.6.1/lib/5.6.1/aix/CORE/perl.exp'
ccflags='-D_ALL_SOURCE -D_ANSI_C_SOURCE -D_POSIX_SOURCE -qmaxmem=16384 -q32 -
D_LARGE_FILES -qlonglong'
ccflags_uselargefiles='-q32 -D_LARGE_FILES -qlonglong'
ccname='cc'
ccsymbols='_AIX50=1 _AIX51=1 _AIX52=1 _AIX53=1 _IBMR2=1 _POWER=1'
ccversion='9.0.0.0
9.0.0.0'
cf_by='root'
cf_email='root@unknown.(none)'
cf_time='Tue Mar 18 10:37:11 CUT 2008'
charsize='1'
chgrp=''
chmod=''
chown=''
clocktype='clock_t'
comm='comm'
compress=''
contains='grep'
cp='cp'
cpio=''
cpp='cpp'
cpp_stuff='42'
cppccsymbols='_AIX=1 _AIX32=1 _AIX41=1 _AIX43=1'
cppflags='-D_ALL_SOURCE -D_ANSI_C_SOURCE -D_POSIX_SOURCE -qmaxmem=16384'
cpplast=''
cppminus=''
cpprun='/usr/lib/cpp'
cppstdin='cppstdin'
cppsymbols='_ALL_SOURCE=1 _ANSI_C_SOURCE=1 _BIG_ENDIAN=1 __BIG_ENDIAN__=1
_IBMR2=1 _ILP32=1 _LARGE_FILE_API=1 _LONG_LONG=1 _POSIX_C_SOURCE=200112
_POSIX_SOURCE=1 _POWER=1 _XOPEN_SOURCE=600 _XOPEN_SOURCE_EXTENDED=1 __unix=1
__unix__=1'
crosscompile='undef'
cryptlib=''
csh='csh'
d_Gconvert='gcv((x),(n),(b))'
d_PRIEUldbl='define'
d_PRIFUldbl='define'
d_PRIGUldbl='define'
d_PRIXU64='define'

```

```
d_PRId64='define'
d_PRIeldbl='define'
d_PRIfldbl='define'
d_PRIgldbl='define'
d_PRIi64='define'
d_PRIo64='define'
d_PRIu64='define'
d_PRIx64='define'
d_SCNfldbl='define'
d__fwalk='undef'
d_access='define'
d_accessx='define'
d_alarm='define'
d_archlib='define'
d_atolf='undef'
d_atoll='define'
d_attribut='define'
d_bcmp='define'
d_bcopy='define'
d_bincompat5005='define'
d_bsd='define'
d_bsdgetpgrp='undef'
d_bsdsetpgrp='undef'
d_bzero='define'
d_casti32='define'
d_castneg='undef'
d_charvspr='undef'
d_chown='define'
d_chroot='define'
d_chsize='undef'
d_closedir='define'
d_const='define'
d_crypt='define'
d_csh='define'
d_cuserid='define'
d_dbl_dig='define'
d_difftime='define'
d_dirnamlen='define'
d_dlerror='define'
d_dlopen='define'
d_dlsymun='undef'
d_dosuid='undef'
d_drand48proto='define'
d_dup2='define'
d_eaccess='undef'
d_endgrent='define'
d_endhent='define'
d_endnent='define'
d_endpent='define'
d_endpwent='define'
d_endsent='define'
d_eofnblk='define'
```

```
d_eunice='undef'  
d_fchmod='define'  
d_fchown='define'  
d_fcntl='define'  
d_fcntl_can_lock='define'  
d_fd_macros='define'  
d_fd_set='define'  
d_fds_bits='define'  
d_fgetpos='define'  
d_flexfnam='define'  
d_flock='define'  
d_fork='define'  
d_fpathconf='define'  
d_fpos64_t='define'  
d_frexp1='define'  
d_fs_data_s='undef'  
d_fseeko='define'  
d_fsetpos='define'  
d_fstatfs='define'  
d_fstatvfs='define'  
d_fsync='define'  
d_ftello='define'  
d_ftime='undef'  
d_getcwd='define'  
d_getespwnam='undef'  
d_getfsstat='undef'  
d_getgrent='define'  
d_getgrps='define'  
d_gethbyaddr='define'  
d_gethbyname='define'  
d_gethent='define'  
d_gethname='define'  
d_gethostprotos='define'  
d_getlogin='define'  
d_getmnt='undef'  
d_getmntent='define'  
d_getnbyaddr='define'  
d_getnbyname='define'  
d_getnent='define'  
d_getnetprotos='define'  
d_getpagsz='define'  
d_getpbyname='define'  
d_getpbynumber='define'  
d_getpent='define'  
d_getpgid='define'  
d_getpgrp2='undef'  
d_getpgrp='define'  
d_getppid='define'  
d_getprior='define'  
d_getprotoprotos='define'  
d_getprpwnam='undef'  
d_getpwent='define'
```

```
d_getsbyname='define'
d_getsbyport='define'
d_getsent='define'
d_getservprotos='define'
d_getspnam='undef'
d_gettimeod='define'
d_gnulibc='undef'
d_grpasswd='define'
d_hasmntopt='define'
d_htonl='define'
d_iconv='define'
d_index='undef'
d_inetaton='define'
d_int64_t='define'
d_isascii='define'
d_isnan='define'
d_isnanl='undef'
d_killpg='define'
d_lchown='define'
d_ldbl_dig='define'
d_link='define'
d_locconv='define'
d_lockf='define'
d_longdbl='define'
d_longlong='define'
d_lseekproto='define'
d_lstat='define'
d_madvise='define'
d_mblen='define'
d_mbstowcs='define'
d_mbtowc='define'
d_memchr='define'
d_memcmp='define'
d_memcpy='define'
d_memmove='define'
d_memset='define'
d_mkdir='define'
d_mkdtemp='undef'
d_mkfifo='define'
d_mkstemp='define'
d_mkstemps='undef'
d_mktime='define'
d_mmap='define'
d_modfl='define'
d_mprotect='define'
d_msg='define'
d_msg_ctrunc='define'
d_msg_dontroute='define'
d_msg_oob='define'
d_msg_peek='define'
d_msg_proxy='undef'
d_msgctl='define'
```

```
d_msgget='define'
d_msgrcv='define'
d_msgsnd='define'
d_msync='define'
d_munmap='define'
d_mymalloc='undef'
d_nice='define'
d_nv_preserves_uv='define'
d_nv_preserves_uv_bits='32'
d_off64_t='define'
d_old_pthread_create_joinable='undef'
d_oldpthreads='undef'
d_oldsock='undef'
d_open3='define'
d_pathconf='define'
d_pause='define'
d_perl_otherlibdirs='undef'
d_phostname='undef'
d_pipe='define'
d_poll='define'
d_portable='define'
d_pthread_yield='undef'
d_pwage='undef'
d_pwchange='undef'
d_pwclass='undef'
d_pwcomment='undef'
d_pwexpire='undef'
d_pwgecos='define'
d_pwpasswd='define'
d_pwquota='undef'
d_qgcvt='undef'
d_quad='define'
d_readdir='define'
d_readlink='define'
d_rename='define'
d_rewinddir='define'
d_rmdir='define'
d_safebcpy='define'
d_safemcpy='define'
d_sanemcmp='define'
d_sbrkproto='define'
d_sched_yield='define'
d_scm_rights='define'
d_seekdir='define'
d_select='define'
d_sem='define'
d_semctl='define'
d_semctl_semids='define'
d_semctl_semuns='define'
d_semget='define'
d_semop='define'
d_setegid='define'
```

```
d_seteuid='define'
d_setgrent='define'
d_setgrps='define'
d_sethent='define'
d_setlinebuf='define'
d_setlocale='define'
d_setnent='define'
d_setpent='define'
d_setpgid='define'
d_setpgrp2='undef'
d_setpgrp='define'
d_setprior='define'
d_setproctitle='undef'
d_setpwent='define'
d_setregid='undef'
d_setresgid='undef'
d_setresuid='undef'
d_setreuid='undef'
d_setrgid='undef'
d_setruid='undef'
d_setsent='define'
d_setsid='define'
d_setvbuf='define'
d_sfio='undef'
d_shm='define'
d_shmat='define'
d_shmatprototype='define'
d_shmctl='define'
d_shmdt='define'
d_shmget='define'
d_sigaction='define'
d_sigsetjmp='define'
d_socket='define'
d_socklen_t='define'
d_sockpair='define'
d_socks5_init='undef'
d_sqrtl='define'
d_statblks='define'
d_statfs_f_flags='undef'
d_statfs_s='define'
d_statvfs='define'
d_stdio_cnt_lval='define'
d_stdio_ptr_lval='define'
d_stdio_ptr_lval_nochange_cnt='define'
d_stdio_ptr_lval_sets_cnt='undef'
d_stdio_stream_array='define'
d_stdibase='define'
d_stdstdio='define'
d_strchr='define'
d_strcoll='define'
d_strctcpy='define'
d_strerrorm='strerror(e)'
```

```
d_strerror='define'
d_strtod='define'
d_strtol='define'
d_strtold='define'
d_strtoll='define'
d_strtoul='define'
d_strtoull='define'
d_strtouq='undef'
d_strxfrm='define'
d_suidsafe='undef'
d_symlink='define'
d_syscall='undef'
d_sysconf='define'
d_sysernlst=''
d_syserrlst='define'
d_system='define'
d_tcgetpgrp='define'
d_tcsetpgrp='define'
d_telldir='define'
d_telldirproto='define'
d_time='define'
d_times='define'
d_truncate='define'
d_tzname='define'
d_umask='define'
d_uname='define'
d_union_semun='undef'
d_ustat='define'
d_vendorarch='undef'
d_vendorbin='undef'
d_vendorlib='undef'
d_vfork='undef'
d_void_closedir='undef'
d_voidsig='define'
d_voidtty=''
d_volatile='define'
d_vprintf='define'
d_wait4='define'
d_waitpid='define'
d_wcstombs='define'
d_wctomb='define'
d_xenix='undef'
date='date'
db_hashtype='u_int32_t'
db_prefixtype='size_t'
defvoidused='15'
direntrytype='struct dirent'
dlext='so'
dlsrc='dl_aix.xs'
doublesize='8'
drand01='drand48()'
```

```
dynamic_ext='B ByteLoader Data/Dumper Devel/DProf Devel/Peek Fcntl File/Glob IO
IPC/SysV NDBM_File ODBM_File Opcode POSIX SDBM_File Socket Sys/Hostname
Sys/Syslog attrs re'
eagain='EAGAIN'
ebcdic='undef'
echo='echo'
egrep='egrep'
emacs=''
eunicefix=':'
exe_ext=''
expr='expr'
extensions='B ByteLoader Data/Dumper Devel/DProf Devel/Peek Fcntl File/Glob IO
IPC/SysV NDBM_File ODBM_File Opcode POSIX SDBM_File Socket Sys/Hostname
Sys/Syslog attrs re Errno'
fflushNULL='define'
fflushall='undef'
find=''
firstmakefile='makefile'
flex=''
fpossize='8'
fpostype='fpos_t'
freetype='void'
full_ar='/usr/bin/ar'
full_csh='/usr/bin/csh'
full_sed='/usr/bin/sed'
gccosandvers=''
gccversion=''
gidformat='"lu"'
gidsign='1'
gidsize='4'
gidtype='gid_t'
glibpth='/usr/shlib /lib /usr/lib /usr/lib/386 /lib/386 /usr/ccs/lib /usr/ucblib
/usr/local/lib '
grep='grep'
groupcat='cat /etc/group'
groupstype='gid_t'
gzip='gzip'
h_fcntl='false'
h_sysfile='true'
hint='recommended'
hostcat='cat /etc/hosts'
i16size='2'
i16type='short'
i32size='4'
i32type='long'
i64size='8'
i64type='long long'
i8size='1'
i8type='char'
i_arpainet='define'
i_bsdiocntl=''
i_db='undef'
```

```
i_dbm='define'
i_dirent='define'
i_dld='undef'
i_dlfcn='define'
i_fcntl='undef'
i_float='define'
i_gdbm='undef'
i_grp='define'
i_iconv='define'
i_ieeeep='undef'
i_inttypes='define'
i_libutil='undef'
i_limits='define'
i_locale='define'
i_machcthr='undef'
i_malloc='define'
i_math='define'
i_memory='undef'
i_mntent='define'
i_ndbm='define'
i_netdb='define'
i_neterano='undef'
i_netinettcp='define'
i_niin='define'
i_poll='define'
i_prot='undef'
i_pthread='define'
i_pwd='define'
i_rpcsvcdbm='undef'
i_sfio='undef'
i_sgtty='undef'
i_shadow='undef'
i_socks='undef'
i_stdarg='define'
i_stddef='define'
i_stdlib='define'
i_string='define'
i_sunmath='undef'
i_sysaccess='define'
i_sysdir='define'
i_sysfile='define'
i_sysfilio='undef'
i_sysin='undef'
i_sysioctl='define'
i_syslog='define'
i_sysmman='define'
i_sysmode='define'
i_sysmount='undef'
i_sysndir='undef'
i_sysparam='define'
i_sysresrc='define'
i_sysseprt='undef'
```

```
i_sysselect='define'
i_syssockio=''
i_sysstat='define'
i_sysstatfs='define'
i_sysstatvfs='define'
i_systime='define'
i_systimek='undef'
i_systimes='define'
i_systypes='define'
i_sysuio='define'
i_sysun='define'
i_sysutsname='define'
i_sysvfs='define'
i_syswait='define'
i_termio='undef'
i_termios='define'
i_time='define'
i_unistd='define'
i_ustat='define'
i_utime='define'
i_values='define'
i_varargs='undef'
i_varhdr='stdarg.h'
i_vfork='undef'
ignore_versioned_solibs=''
inc_version_list=' '
inc_version_list_init='0'
incpath=''
inews=''
installarchlib='/usr/local/gways/perl5/5.6.1/lib/5.6.1/aix'
installbin='/usr/local/gways/perl5/5.6.1/bin'
installman1dir='/usr/local/gways/perl5/5.6.1/man/man1'
installman3dir='/usr/local/gways/perl5/5.6.1/man/man3'
installprefix='/usr/local/gways/perl5/5.6.1'
installprefixexp='/usr/local/gways/perl5/5.6.1'
installprivlib='/usr/local/gways/perl5/5.6.1/lib/5.6.1'
installscript='/usr/local/gways/perl5/5.6.1/bin'
installsitearch='/usr/local/gways/perl5/5.6.1/lib/site_perl/5.6.1/aix'
installsitebin='/usr/local/gways/perl5/5.6.1/bin'
installsitelib='/usr/local/gways/perl5/5.6.1/lib/site_perl/5.6.1'
installstyle='lib'
installusrbinperl='undef'
installvendorarch=''
installvendorbin=''
installvendorlib=''
intsize='4'
issymlink='test -h'
ivdformat='"ld"'
ivsize='4'
ivtype='long'
```

```

known_extensions='B ByteLoader DB_File Data/Dumper Devel/DProf Devel/Peek Fcntl
File/Glob GDBM_File IO IPC/SysV NDBM_File ODBM_File Opcode POSIX SDBM_File Socket
Sys/Hostname Sys/Syslog Thread attrs re'
ksh=''
ld='ld'
lddflags=' -bhalt:4 -bM:SRE -bI:$(PERL_INC)/perl.exp -bE:$(BASEEXT).exp -b
noentry -lc'
ldflags=' -b32'
ldflags_uselargefiles='-b32'
ldlibpthname='LIBPATH'
less='less'
lib_ext='.a'
libc=''
libperl='libperl.a'
libpth='/lib /usr/lib /usr/ccs/lib'
libs='-lbind -lnsl -ldbm -ldl -lld -lm -lc -lcrypt -lbsd -lPW -liconv'
libsdirs=' /lib'
libsfiles=' libbind.a libnsl.a libdbm.a libdl.a libld.a libm.a libc.a libcrypt.a
libbsd.a libPW.a libiconv.a'
libsfound=' /lib/libbind.a /lib/libnsl.a /lib/libdbm.a /lib/libdl.a /lib/libld.a
/lib/libm.a /lib/libc.a /lib/libcrypt.a /lib/libbsd.a /lib/libPW.a
/lib/libiconv.a'
libspath=' /lib /usr/lib /usr/ccs/lib'
libswanted='sfio socket bind inet nsl nm ndbm gdbm dbm db malloc dl dld ld sun m
c cposix posix ndir dir crypt sec ucb bsd BSD PW x iconv util c pthread m'
libswanted_uselargefiles='c pthread m'
line=''
lint=''
lkflags=''
ln='ln'
lns='/usr/bin/ln -s'
locincpth='/usr/local/include /opt/local/include /usr/gnu/include
/opt/gnu/include /usr/GNU/include /opt/GNU/include'
loclibpth='/usr/local/lib /opt/local/lib /usr/gnu/lib /opt/gnu/lib /usr/GNU/lib
/opt/GNU/lib'
longdblsize='8'
longlongsize='8'
longsize='4'
lp=''
lpr=''
ls='ls'
lseeksize='8'
lseektype='off_t'
mail=''
mailx=''
make='make'
make_set_make='#'
mallocobj=''
malloccsrc=''
malloctype='void *'
mandir='/usr/local/gways/perl5/5.6.1/man/man1'
mandirexp='/usr/local/gways/perl5/5.6.1/man/man1'

```

```
manlex='1'
man3dir='/usr/local/gways/perl5/5.6.1/man/man3'
man3direxp='/usr/local/gways/perl5/5.6.1/man/man3'
man3ext='3'
mips_type=''
mkdir='mkdir'
mmaptype='void *'
modetype='mode_t'
more='more'
multiarch='undef'
mv=''
myarchname='000ACFBCD600-aix'
mydomain='.ck.emea.vallent.com'
myhostname='unknown'
myuname='aix unknown 3 5 000acfbcd600 '
n=''
netdb_hlen_type='size_t'
netdb_host_type='const void *'
netdb_name_type='const char *'
netdb_net_type='in_addr_t'
nm='nm'
nm_opt='-B'
nm_so_opt=''
nonxs_ext='Errno'
nroff='nroff'
nvEUformat='"E"'
nvFUformat='"F"'
nvGUformat='"G"'
nveformat='"e"'
nvffformat='"f"'
nvgformat='"g"'
nvsize='8'
nvtype='double'
o_nonblock='O_NONBLOCK'
obj_ext='.o'
old_pthread_create_joinable=''
optimize='-O'
orderlib='false'
osname='aix'
osvers='5.3.0.0'
otherlibdirs=''
package='perl5'
pager='/usr/bin/more'
passcat='cat /etc/passwd'
patchlevel='6'
path_sep=':'
perl5='/usr/bin/perl'
perl=''
perladmin='root@unknown.(none)'
perllibs='-lbind -lnsl -ldl -lld -lm -lc -lcrypt -lbsd -lPW -liconv'
perlpath='/usr/local/gways/perl5/5.6.1/bin/perl'
pg='pg'
```

```
phostname='hostname'
pidtype='pid_t'
plibpth=''
pm_apiversion='5.005'
pmake=''
pr=''
prefix='/usr/local/gways/perl5/5.6.1'
prefixexp='/usr/local/gways/perl5/5.6.1'
privlib='/usr/local/gways/perl5/5.6.1/lib/5.6.1'
privlibexp='/usr/local/gways/perl5/5.6.1/lib/5.6.1'
prototype='define'
ptrsize='4'
quadkind='3'
quadtype='long long'
randbits='48'
randfunc='drand48'
randseedtype='long'
ranlib=':'
rd_nodata='-1'
revision='5'
rm='rm'
rmail=''
runnm='false'
sPRIEUldbl='"E"'
sPRIFUldbl='"F"'
sPRIGUldbl='"G"'
sPRIXU64='"l1X"'
sPRId64='"l1d"'
sPRIeldbl='"e"'
sPRIfldbl='"f"'
sPRIgldbl='"g"'
sPRIi64='"l1i"'
sPRIo64='"l1o"'
sPRIu64='"l1u"'
sPRIx64='"l1x"'
sSCNfldbl='"f"'
sched_yield='sched_yield()'
scriptdir='/usr/local/gways/perl5/5.6.1/bin'
scriptdirexp='/usr/local/gways/perl5/5.6.1/bin'
sed='sed'
seedfunc='srand48'
selectminbits='1'
selecttype='fd_set *'
sendmail=''
sh='/bin/sh'
shar=''
sharpbang='#!'
shmattype='void *'
shortsize='2'
shrpenv=''
shsharp='true'
sig_count='64'
```

```

sig_name='ZERO HUP INT QUIT ILL TRAP ABRT EMT FPE KILL BUS SEGV SYS PIPE ALRM
TERM IOINT STOP TSTP CONT CHLD TTIN TTOU AIO XCPU XFSZ NUM26 MSG WINCH PWR USR1
USR2 PROF DANGER VTALRM MIGRATE PRE VIRT ALRM1 WAITING NUM40 NUM41 NUM42 NUM43
NUM44 NUM45 NUM46 NUM47 NUM48 NUM49 RTMIN NUM51 NUM52 NUM53 NUM54 NUM55 NUM56
RTMAX RECONFIG CPUFAIL GRANT RETRACT SOUND MAX IOT LOST URG CLD IO POLL PTY KAP
MAX32 SAK '
sig_name_init='ZERO', 'HUP', 'INT', 'QUIT', 'ILL', 'TRAP', 'ABRT', 'EMT', 'FPE',
'KILL', 'BUS', 'SEGV', 'SYS', 'PIPE', 'ALRM', 'TERM', 'IOINT', 'STOP', 'TSTP',
'CONT', 'CHLD', 'TTIN', 'TTOU', 'AIO', 'XCPU', 'XFSZ', 'NUM26', 'MSG', 'WINCH',
'PWR', 'USR1', 'USR2', 'PROF', 'DANGER', 'VTALRM', 'MIGRATE', 'PRE', 'VIRT',
'ALRM1', 'WAITING', 'NUM40', 'NUM41', 'NUM42', 'NUM43', 'NUM44', 'NUM45',
'NUM46', 'NUM47', 'NUM48', 'NUM49', 'RTMIN', 'NUM51', 'NUM52', 'NUM53', 'NUM54',
'NUM55', 'NUM56', 'RTMAX', 'RECONFIG', 'CPUFAIL', 'GRANT', 'RETRACT', 'SOUND',
'MAX', 'IOT', 'LOST', 'URG', 'CLD', 'IO', 'POLL', 'PTY', 'KAP', 'MAX32', 'SAK',
0'
sig_num='0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26
27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53
54 55 56 57 58 59 60 61 62 63 6 6 16 20 23 23 23 60 63 63 '
sig_num_init='0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18,
19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38,
39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58,
59, 60, 61, 62, 63, 6, 6, 16, 20, 23, 23, 23, 60, 63, 63, 0'
signal_t='void'
sitearch='/usr/local/gways/perl5/5.6.1/lib/site_perl/5.6.1/aix'
sitearchexp='/usr/local/gways/perl5/5.6.1/lib/site_perl/5.6.1/aix'
sitebin='/usr/local/gways/perl5/5.6.1/bin'
sitebinexp='/usr/local/gways/perl5/5.6.1/bin'
sitelib='/usr/local/gways/perl5/5.6.1/lib/site_perl/5.6.1'
sitelib_stem='/usr/local/gways/perl5/5.6.1/lib/site_perl'
sitelibexp='/usr/local/gways/perl5/5.6.1/lib/site_perl/5.6.1'
siteprefix='/usr/local/gways/perl5/5.6.1'
siteprefixexp='/usr/local/gways/perl5/5.6.1'
size_size='4'
size_type='size_t'
sleep=''
smail=''
so='a'
socket_hdr=''
socketlib=''
socksize_type='socklen_t'
sort='sort'
spackage='Perl5'
spitshell='cat'
src='.'
ssize_type='ssize_t'
startperl='#!/usr/local/gways/perl5/5.6.1/bin/perl'
startsh='#!/bin/sh'
static_ext=''
stdchar='unsigned char'
stdio_base='((fp)->_base)'
stdio_bufsiz='((fp)->_cnt + (fp)->_ptr - (fp)->_base)'
stdio_cnt='((fp)->_cnt)'

```

```
stdio_filbuf=''
stdio_ptr='((fp)->_ptr)'
stdio_stream_array='_iob'
strings='/usr/include/string.h'
submit=''
subversion='1'
sysman='/usr/man/man1'
tail=''
tar=''
tbl=''
tee=''
test='test'
timeincl='/usr/include/sys/time.h /usr/include/time.h '
timetype='time_t'
touch='touch'
tr='tr'
trnl='\n'
troff=''
ul6size='2'
ul6type='unsigned short'
u32size='4'
u32type='unsigned long'
u64size='8'
u64type='unsigned long long'
u8size='1'
u8type='unsigned char'
uidformat='"lu"'
uidsign='1'
uidsize='4'
uidtype='uid_t'
uname='uname'
uniq='uniq'
uquadtype='unsigned long long'
use5005threads='undef'
use64bitall='undef'
use64bitint='undef'
usedl='define'
useithreads='undef'
uselargefiles='define'
uselongdouble='undef'
usemorebits='undef'
usemultiplicity='undef'
usemymalloc='n'
usenm='false'
useopcode='true'
useperlio='undef'
useposix='true'
usesfio='false'
useshrplib='false'
usesocks='undef'
sethreads='undef'
usevendorprefix='undef'
```

```
usevfork='false'
usrinc='/usr/include'
uname=''
uvXUformat='"lx"'
uvoformat='"lo"'
uvsize='4'
uvtype='unsigned long'
uvuformat='"lu"'
uvxformat='"lx"'
vendorarch=''
vendorarchexp=''
vendorbin=''
vendorbinexp=''
vendorlib=''
vendorlib_stem=''
vendorlibexp=''
vendorprefix=''
vendorprefixexp=''
version='5.6.1'
versiononly='undef'
vi=''
voidflags='15'
xlibpth='/usr/lib/386 /lib/386'
xs_apiversion='5.005'
yacc='yacc'
yaccflags=''
zcat=''
zip='zip'
# Configure command line arguments.
config_arg0='Configure'
config_args='-Dprefix=/usr/local/gways/perl5/5.6.1 -Uinstallusrbinperl -Uusenm'
config_argc=3
config_arg1='-Dprefix=/usr/local/gways/perl5/5.6.1'
config_arg2='-Uinstallusrbinperl'
config_arg3='-Uusenm'
PERL_REVISION=5
PERL_VERSION=6
PERL_SUBVERSION=1
PERL_API_REVISION=5
PERL_API_VERSION=5
PERL_API_SUBVERSION=0
CONFIGDOTSH=true
```

Appendix B Perl Configuration Summary

```
Summary of my perl5 (revision 5.0 version 6 subversion 1) configuration:
Platform:
  osname=aix, osvers=5.3.0.0, archname=aix
  uname='aix unknown 3 5 000acfbcd600 '
  config_args='-Dprefix=/usr/local/gways/perl5/5.6.1 -Uinstallusrbinperl -
Uusenm'
  hint=recommended, useposix=true, d_sigaction=define
  usethreads=undef use5005threads=undef useithreads=undef usemultiplicity=undef
  useperlio=undef d_sfio=undef uselargefiles=define usesocks=undef
  use64bitint=undef use64bitall=undef uselongdouble=undef
Compiler:
  cc='cc', ccflags ='-D_ALL_SOURCE -D_ANSI_C_SOURCE -D_POSIX_SOURCE -
qmaxmem=16384 -q32 -D_LARGE_FILES -qlonglong',
  optimize='-O',
  cppflags='-D_ALL_SOURCE -D_ANSI_C_SOURCE -D_POSIX_SOURCE -qmaxmem=16384'
  ccversion='undef', gccversion='', gccosandvers=''
  intsize=4, longsize=4, ptrsize=4, doublesize=8, byteorder=4321
  d_longlong=define, longlongsize=8, d_longdbl=define, longdblsize=8
  ivtype='long', ivsize=4, nvtype='double', nvsize=8, Off_t='off_t',
lseeksize=8
  alignbytes=8, usemymalloc=n, prototype=define
Linker and Libraries:
  ld='ld', ldflags =' -b32'
  libpth=/lib /usr/lib /usr/ccs/lib
  libs=-lbind -lnsl -ldbm -ldl -lld -lm -lc -lcrypt -lbsd -lpw -liconv
  perllibs=-lbind -lnsl -ldl -lld -lm -lc -lcrypt -lbsd -lpw -liconv
  libc=, so=a, useshrplib=false, libperl=libperl.a
Dynamic Linking:
  dlsrsrc=dl_aix.xs, dlextr=so, d_dlsymun=undef, ccdlflags=' -
bE:/usr/local/gways/perl5/5.6.1/lib/5.6.1/aix/CORE/perl.exp'
  ccdlflags=' ', lddlflags=' -bhalt:4 -bM:SRE -bI:$(PERL_INC)/perl.exp -
bE:$(BASEEXT).exp -b noentry -lc'

Characteristics of this binary (from libperl):
Compile-time options: USE_LARGE_FILES
Built under aix
Compiled at Mar 18 2008 10:55:33
@INC:
  /usr/local/gways/perl5/5.6.1/lib/5.6.1/aix
  /usr/local/gways/perl5/5.6.1/lib/5.6.1
  /usr/local/gways/perl5/5.6.1/lib/site_perl/5.6.1/aix
  /usr/local/gways/perl5/5.6.1/lib/site_perl/5.6.1
  /usr/local/gways/perl5/5.6.1/lib/site_perl
  .
```

Appendix C Notices and Trademarks

This appendix contains the following:

- Notices
- Trademarks

Notices

This information was developed for products and services offered in the U.S.A.

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing
IBM Corporation
North Castle Drive
Armonk NY 10504-1785
U.S.A.

For license inquiries regarding double-byte (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

IBM World Trade Asia Corporation
Licensing
2-31 Roppongi 3-chome
Minato-ku
Tokyo 106-0032
Japan.

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law: INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

IBM Corporation
5300 Cork Airport Business Park
Kinsale Road
Cork
Ireland.

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

All statements regarding IBM's future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

If you are viewing this information softcopy, the photographs and color illustrations may not appear.

Trademarks

IBM, IBM logo, Tivoli, and Netcool are trademarks of International Business Machines Corporation in the United States, other countries or both.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Intel and Pentium are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

Other company, product or service names may be trademarks or service marks of others.



© Copyright IBM Corporation 2009

International Business Machines Corporation
5300 Cork Airport
Business Park
Kinsale Road
Cork
Ireland

Printed in the Republic of Ireland
All Rights Reserved
IBM, IBM logo, Tivoli, and Netcool are trademarks of
International Business Machines Corporation in the
United States, other countries or both.

Other company, product and service names may be
trademarks or service marks of others.