

Instructions for building PKIF

- Install Visual Studio .NET 2005
- Install boost version 1_34. For installation instructions visit www.boost.org.
 - Specify BOOST_HOME environment variable pointing to the boost installation location.
- Install Python. It can be downloaded from <http://www.activestate.com/>
- Install Java 1.5.0 JDK (Needed to build JPKIF). It can be downloaded from http://java.sun.com/javase/downloads/index_jdk5.jsp.
 - Specify JAVA_HOME environment variable pointing to the location of java jdk. Place the bin folder of java installation in your path.
- Download and extract swig version 1.3.31 (Needed to build JPKIF and C# PKIF code). It can be downloaded from <http://www.swig.org/>. Place the extracted swig in your path.
- Download and build wxWidgets from <http://www.wxwidgets.org/> version 2.8.4 (Needed by PKIF Resources).
 - Specify WXWIN environment variable and point it to the location of the wxWidgets.
- Build NSS
 - Install GNU Tools for Microsoft Windows (Cygwin). The following packages are required for building NSS.
 - ash -- UNIX-like command line interpreter shell (Base category)
 - coreutils -- GNU core utilities (includes fileutils, sh-utils, and textutils) (Base category)
 - cvs -- concurrent versions system (Devel category)
 - diffutils -- file comparison utility (Base category)
 - findutils (Base category)
 - gawk -- pattern matching language (Base and Interpreters categories)
 - grep -- text search tool (Base category)
 - make -- dependency analyzer for software builds (Devel category)NOTE: The version of make has to be 3.80. It is no longer available in the cygwin installer. It can be downloaded from <http://cygwin.paracoda.com/release/make/make-3.80-1.tar.bz2>.
 - Copy make-3.80-1.tar.bz2 into c:\cygwin
 - Start cygwin command prompt and do the following
 - cd /usr/bin
 - mv make.exe make-orig.exe
 - cd /
 - tar jxvf make-3.80-1.tar.bz2
 - patchutils -- a small collection of programs that operate on patch files (Devel category)
 - perl -- a scripting language used to control parts of the build (Interpreters category)
 - sed -- a search and replace language (Base category)

- unzip -- zip file extraction (Archive category)
 - zip -- zip file creation (Archive category)
- Download moztools from <http://ftp.mozilla.org/pub/mozilla.org/mozilla/libraries/win32/moztools-static.zip>
- Place the Cygwin and moztools bin directories into your path
- Download NSS (PKIFv2_1-RC3-srclib-nss.zip) provided on PKIF sourceforge website and extract it into srclib folder.
- Open a Visual Studio command prompt and cd into srclib/nss directory.
- Enter perl grabbuild.pl . build debug from srclib/nss directory for building debug
- Enter perl grabbuild.pl . build release from srclib/nss directory for building release
- (Note if errors are encountered download DOS2UNIX.EXE program place it in the path and run fixEOL-win.pl on mozilla directory to correct line endings.)
- Build OpenSSL
 - Download openssl-0.9.7m source code from <http://www.openssl.org/> and extract it into srclib directory.
 - From srclib/openssl-0.9.7m directory execute following commands
 - perl Configure VC-WIN32
 - ms\do_masm.bat
 - nmake /f ms\nt.mak
 - copy out32*.lib into srclib/lib/2005
 - Create an environment variable OPENSSL_HOME pointing to srclib/openssl-0.9.7m
 - Create an environment variable PKIF_SRCLIB and point it to the srclib directory
- Build PKIF dependencies
 - Download PKIFv2_1-RC3-srclib.zip from the PKIF sourceforge site.
 - Extract the contents into the srclib folder (the srclib folder will now contain nss, openssl-0.9.7m, cryptopp, IETFASN1Library, ObjLib, libcurl, projects, lib folders)
 - Open the BuildSrcLibDependencies.sln located in srclib\projects\2005 folder using Visual Studio 2005.
 - Build srclib dependencies
 - Create an environment variable CRYPTOCROOT and point it to srclib\cryptopp folder.
- Build PKIFv2
 - Download PKIFv2_1-RC3-source.zip from the PKIF sourceforge site.
 - Extract the contents so the devel, applications, and dist folders are peers to srclib folder
 - Create an environment variable PKIF_HOME and point it to the dist/2005 directory
 - Open PKIF.sln located in devel\projects\2005 folder using Visual Studio 2005
 - Build PKIF

- Build PKIFCMS, PKIFTSP, and PKIFResources
 - Open PKIFCMS.sln located in applications/PKIFCMS/proj/2005 folder using Visual Studio 2005
 - Build PKIFCMS
 - Open PKIFTSP.sln located in applications\PKIFTSP\proj\2005 folder using Visual Studio 2005
 - Build PKIFTSP
 - Open AllResources.sln located in applications\PKIFResources\proj folder using Visual Studio 2005
 - Build PKIFResources
- Build PKIF Java and C# wrappers
 - Download JPKIF2_1-RC3-source.zip from the PKIF sourceforge site.
 - Extract the contents so JPKIF, SWIG, temp folders are located in the same place as devel, srclib, etc folders.
 - Download PKIF.Net2_1-RC3-source.zip from the PKIF sourceforge location.
 - Extract the contents so PKIF.Net and SWIG folders are located in the same place as devel, srclib, etc folders. Note: SWIG folder was already created by the step above; just copy the contents of the extracted swig folder into existing one.
 - Open PKIF.Net\PKIF.Net.sln using Visual Studio 2005.
 - Build PKIF .Net and PKIF Java
- Build PKIFXML
 - Download PKIFv2_1-RC3-PKIFXML-srclib-xalan.zip, PKIFv2_1-RC3-PKIFXML-srclib-xerces.zip, PKIFv2_1-RC3-PKIFXML-srclib-xmlsec.zip from PKIF sourceforge site.
 - Extract the contents into applications\PKIFXML\sclib folder.
 - Build each xalan, xerces, xmlsec using the solutions provided in the projects folder for each.
 - Download openssl-0.9.8e source code from <http://www.openssl.org/> and extract it into srclib directory.
 - From srclib\openssl-0.9.8e directory execute following commands
 - perl Configure VC-WIN32
 - ms\do_masm.bat
 - nmake /f ms\ntdll.mak
 - copy out32*.lib into srclib/lib/2005
 - Create XALANROOT environment variable and point it to applications\PKIFXML\sclib\xml-xalan\c
 - Create XERCESCROOT environment variable and point it to applications\PKIFXML\sclib\xerces-c-src_2_7_0
 - Create XMLSECROOT environment variable and point it to applications\PKIFXML\sclib\xml-security-c-1.3.1
 - Create OPENSSSLROOT environment variable and point it to applications\PKIFXML\sclib\openssl-0.9.8e
 - Download PKIF2_1-RC3-PKIFXML-source.zip and extract the devel folder into applications\PKIFXML.

- Open PKIFXSECProvider.sln located in applications\PKIFXML\devel\proj\2005 using Visual Studio 2005.
- Build PKIFXSECProvider