

HTCondor Source Builds

Compile HTCondor 9.2.0 on Power9 RHEL 7.6

```
## Dependencies
- pcre@8.44
- libpam@1.09
- libuuid@1.0.3
- boost@1.66.0
- scitokens@0.6.3 (git@github.com:scitokens/scitokens-cpp.git)

## Patch instructions

### Boost
- update: SRC/externals/bundles/boost/1.66.0/CMakeLists.txt
  - Comment the if condition 68-76
  - add
  find_package( Boost COMPONENTS ${BOOST_COMPONENTS} )
  set(USE_SYSTEM_BOOST True)

### Environment variables
export dependency_dir=/usr/WS2/iopp/software/spack/var/spack/environments/condor-build/.spack-env/view/
export scitokens_dir=/usr/workspace/iopp/software/scitokens-v0.6.3/install

## Instalation instructions

git clone git@github.com:htcondor/htcondor.git
cd htcondor
git checkout tags/V9_2_0
mkdir build-main
export SRC_DIR=$PWD
cd build-main
cmake -DUW_BUILD:BOOL=TRUE -D_VERBOSE:BOOL=TRUE -DBUILDID:STRING=BW -DCLIPPED:BOOL=ON -DWITH_BLAHP:BOOL=TRUE -
DWITH_CREAM:BOOL=OFF -DWANT_MAN_PAGES:BOOL=FALSE -DCMAKE_INSTALL_PREFIX:PATH=./release -DWITH_VOMS:BOOL=OFF -
DWITH_GLOBUS:BOOL=OFF -DWITH_LIBVIRT:BOOL=OFF -DHAVE_EXT_BOOST:BOOL=OFF -
DCMAKE_PREFIX_PATH="$dependency;$scitokens_dir" -DCMAKE_CXX_FLAGS="-I$scitokens_dir/include" -
DWITH_PYTHON_BINDINGS=OFF ..
make -j

cp /usr/share/automake-1.13/config.* externals/bundles/libcgroup/0.41/libcgroup-prefix/src/libcgroup

make -j
make install
cd ../release/
./condor_configure --install --make-personal-condor --prefix=$SRC_DIR/install

chmod +x ../install/condor.sh
cp ../install/condor.sh ../install/bin/condor.sh
```

```
$ cat /usr/WS2/iopp/software/htcondor-V9.2/install/local.lassen708/condor_config.local
CONDOR_ADMIN = hariharandev1@llnl.gov
ALLOW_WRITE = *
ALLOW_READ = *
SEC_PASSWORD_FILE = /usr/workspace/iopp/software/htcondor-V9.2/install/etc/condor/passwords.d/POOL
SEC_PASSWORD_DIRECTORY = /usr/workspace/iopp/software/htcondor-V9.2/install/etc/condor/passwords.d
LOCAL_CONFIG_DIR = /usr/WS2/iopp/software/htcondor-V9.2/install/local.lassen708
```

Compile HTCondor 8.4.3 on SLES 11 SP4

Here are some notes on compiling HTCondor 8.4.3 on SUSE Linux Enterprise Server 11 SP4.

I used this guide: <https://htcondor-wiki.cs.wisc.edu/index.cgi/wiki?p=BuildingHtcondorOnUnix>

1. Launch an SLES 11 SP4 image from the AWS Marketplace on Amazon EC2. I used an m3.xlarge instance type.

2. # zypper in git gcc gcc-c++ pcre-devel cmake boost-test boost-devel libcurl-devel python-devel libicu-devel openssl-devel libuuid-devel libxml2-devel pam-devel libxpat-devel bison flex mozilla-nss mozilla-nss-devel openldap2 openldap2-devel xorg-x11-libX11-devel autoconf automake libtoolize libcares-devel krb5-devel pkg-config
3. \$ git clone <https://github.com/htcondor/htcondor.git>
4. \$ cd htcondor
5. \$ git checkout V8_4_3
6. # I was not able to get the CREAM support to compile, so I turned it off
Also, I had problems with the glibc external for standard universe, so I ran with CLIPPED on
\$./configure_uw -DCLIPPED:BOOL=ON -DWITH_CREAM:BOOL=OFF
7. \$ make install
Note that the make package target doesn't produce a correct package (lib/condor and libexec/glite/lib are missing), thats why you need to tar it up yourself
8. Get coffee...
9. \$ mv release_dir condor-8.4.3-sles11
10. \$ tar czvf condor-8.4.3-sles11.tar.gz condor-8.4.3-sles11

HTCondor on Bluewaters

Some notes to compile HTCondor from source for Bluewaters

1. Download HTCondor source from website. We tried it with 8.5.5
2. install the following packages
 - a. PCRE
 - b. libpam
 - c. libuuid
3. make sure certain modules like boost and globus are loaded in your environment
 - a. module add boost
 - b. module add globus
4. Update CMAKE prefix to point to dependencies in step 1 . you may have to install newer version of CMAKE
 - a. export CMAKE_PREFIX_PATH=/u/training/instr006/SOFTWARE/install/pcre-7.6:/u/training/instr006/SOFTWARE/install/pcre:/u/training/instr006/SOFTWARE/install/libpam/1.3:/u/training/instr006/SOFTWARE/install/libuuid/
5. Set Compiler Flags before compiling
 - a. export CC=gcc

export CXX=g++

export CFLAGS=-I/u/training/instr006/SOFTWARE/install/pcre-7.6/include

export CXXFLAGS=-I/u/training/instr006/SOFTWARE/install/pcre-7.6/include

export LDFLAGS=-L/u/training/instr006/SOFTWARE/install/pcre-7.6/lib
6. Build condor
 - a. rm -rf condor-8.5.5; (tar xzf condor_src-8.5.5-all-all.tar.gz && cd condor-8.5.5 && rm -rf src/nordugrid_gahp && cmake -DUW_BUILD:BOOL=TRUE -D_VERBOSE:BOOL=TRUE -DBUILDID:STRING=BW -DCLIPPED:BOOL=ON -DWITH_BLAHP:BOOL=TRUE -DWITH_CREAM:BOOL=OFF -DWANT_MAN_PAGES:BOOL=FALSE -DCMAKE_INSTALL_PREFIX:PATH=\${PWD}/release_dir && make && make install) 2>&1 | tee build.log
7. # one successfully built, install condor
 - a. cd release_dir

./condor_configure --install --make-personal-condor --prefix=/u/training/instr006/SOFTWARE/install/condor/8.5.5
8. sds

As of August 18th, HTCondor is currently running on the login nodes

To use that installation do:

source /projects/eot/bafu/setup.sh

a.