Centos6.5+lamp+itop2.1

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ITOP 安装文档

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文档修订信息

文档名称	ITOP 安装文档		
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适用的对象

本文档适用 linux 初学者。

说明：本文档主要描述 ITOP 对初学者的安装步骤。开始本文档所述安装步骤前，需确保所需硬件与网络环境已安装配置完成。

1 环境描述

服务器：vmware 虚拟机（内存 4G）
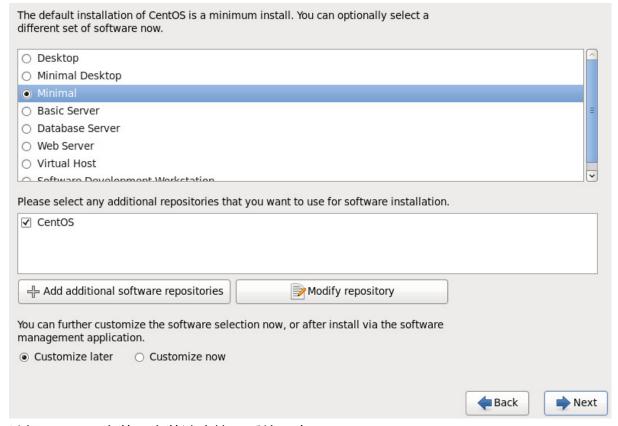
操作系统：Centos6.5 64 位

IP 地址：192.168.1.99

机器名：itop

Itop 版本：V2.1

Apache 版本：httpd-2.2.9

Mysql 版本：mysql-5.0.41

Php 版本：php-5.2.6

2 Centos6.5 操作系统安装与配置

2.1 安装操作系统

选择 minimal 安装。安装速度快，系统干净。

2.2 配置网络

```
[root@itop ~]# vi /etc/sysconfig/network-scripts/ifcfg-eth0
DEVICE=eth0
```

```
HWADDR=00:0C:29:D7:C8:90
TYPE=Ethernet
UUID=c15956e7-2f48-4ba8-9dcd-ded45cf7611b

ONBOOT=yes                        // 激活网卡

NM_CONTROLLED=no                  //关闭图形界面配置网络

BOOTPROTO=static                  //静态网络模式
IPADDR=192.168.1.99
NETMASK=255.255.255.0
GATEWAY=192.168.1.1
DNS1=211.138.24.66
DNS2=211.138.30.66
```

[root@itop ~]# service network restart   //重启网络服务
Shutting down interface eth0:   [OK] Shutting down loopback interface: [OK] Bringing up loopback interface: [OK] Bringing up interface eth0: Determining if ip address 192.168.1.99 is already in use for device eth0...   [OK]

2.3　关闭防火墙

[root@itop ~]# service iptables stop   //关闭防火墙服务
iptables: Setting chains to policy ACCEPT: filter   [OK] iptables: Flushing firewall rules: [OK] iptables: Unloading modules: [OK]
[root@itop ~]# chkconfig iptables off   //开机不启动防火墙
[root@itop ~]# vi /etc/selinux/config
SELINUX=disabled
[root@itop ~]# service network restart   //重启网络服务
Shutting down interface eth0:   [OK] Shutting down loopback interface: [OK] Bringing up loopback interface: [OK] Bringing up interface eth0: Determining if ip address 192.168.1.99 is already in use for device eth0...   [OK]

2.4　更改计算机名

[root@itop ~]# vi /etc/sysconfig/network
HOSTNAME=itop
[root@itop ~]# hostname itop
[root@itop ~]# su – root   //重新登录 root 用户，并加载环境变量
[root@itop ~]#   //看到红色部分内容，修改成功。

2.5 配置本地源

首先要将 Centos6.5 操作系统光盘放入光驱。

[root@itop ~]# mount /dev/cdrom /media

mount: block device /dev/sr0 is write-protected, mounting read-only

[root@itop ~]# cd /etc/yum.repos.d/ && ls

CentOS-Base.repo CentOS-Debuginfo.repo CentOS-Media.repo CentOS-Vault.repo

[root@itop yum.repos.d]# mkdir repo && mv ./*.repo ./repo/ && ls

Repo 　　　　　//创建 repo 文件夹，将以.repo 结尾的文件转移到 repo 文件夹，并显示

[root@itop yum.repos.d]# touch base.repo && vi /etc/yum.repos.d/base.repo

[base]
name=base
baseurl=file:///media/
gpgcheck=0

[root@itop yum.repos.d]# yum clean all

Loaded plugins: fastestmirror

Cleaning repos: base

Cleaning up Everything

[root@itop yum.repos.d]# yum update

Loaded plugins: fastestmirror

Determining fastest mirrors

base | 4.0 kB   00:00 ..

base/primary_db | 4.4 MB   00:00 ..

Setting up Update Process

No Packages marked for Update

[root@itop yum.repos.d]# yum repolist

Loaded plugins: fastestmirror

Loading mirror speeds from cached hostfile

repo id   repo name   status

base   base   6,367

repolist: 6,367 　　　　　　　　//软件仓库名称 base，看到软件包数量设置已经成功

[root@itop yum.repos.d]# yum search gcc 　　　　　　//测试搜索包含 gcc 字符软件包

Loaded plugins: fastestmirror

Loading mirror speeds from cached hostfile

================= N/S Matched: gcc =========================

gcc-c++.x86_64 : C++ support for GCC

gcc-gnat.x86_64 : Ada 95 support for GCC

gcc-java.x86_64 : Java support for GCC

gcc-objc.x86_64 : Objective-C support for GCC

gcc-objc++.x86_64 : Objective-C++ support for GCC

libgcc.i686 : GCC version 4.4 shared support library

libgcc.x86_64 : GCC version 4.4 shared support library

mingw32-gcc.x86_64 : MinGW Windows cross-compiler (GCC) for C

compat-gcc-34.x86_64 : Compatibility GNU Compiler Collection

compat-gcc-34-c++.x86_64 : C++ support for compatibility compiler

compat-gcc-34-g77.x86_64 : Fortran 77 support for compatibility compiler
gcc.x86_64 : Various compilers (C, C++, Objective-C, Java, ...)
gcc-gfortran.x86_64 : Fortran support
libgcj.i686 : Java runtime library for gcc
libgcj.x86_64 : Java runtime library for gcc
libgcj-devel.i686 : Libraries for Java development using GCC
libgcj-devel.x86_64 : Libraries for Java development using GCC
libgcj-src.x86_64 : Java library sources from GCC4 preview
libgomp.i686 : GCC OpenMP v3.0 shared support library
libgomp.x86_64 : GCC OpenMP v3.0 shared support library
libmudflap.i686 : GCC mudflap shared support library
libmudflap.x86_64 : GCC mudflap shared support library
libmudflap-devel.i686 : GCC mudflap support
libmudflap-devel.x86_64 : GCC mudflap support
mingw32-gcc-c++.x86_64 : MinGW Windows cross-compiler for C++
mingw32-gcc-gfortran.x86_64 : MinGW Windows cross-compiler for FORTRAN
mingw32-gcc-objc.x86_64 : MinGW Windows cross-compiler support for Objective C
mingw32-gcc-objc++.x86_64 : MinGW Windows cross-compiler support for Objective C++

  Name and summary matches only, use "search all" for everything.

3   安装 LAMP 环境及相关的软件包

3.1   上传软件包

```
[root@itop /]# mkdir /soft && ls
```
bin dev home lib64   media opt root selinux srv tmp var
boot etc lib lost+found mnt   proc sbin soft   sys usr

上传相关软件包到/soft

```
[root@itop /]# cd /soft && ls
```
autoconf-2.61.tar.gz libmcrypt-2.5.8.tar.gz php-5.2.6.tar.gz
freetype-2.3.5.tar.gz libpng-1.2.31.tar.gz   phpMyAdmin-3.0.0-rc1-all-languages.tar.gz
gd-2.0.35.tar.gz   libxml2-2.6.30.tar.gz ZendOptimizer-3.3.9-linux-glibc23-x86_64.tar.gz
httpd-2.2.9.tar.gz   mysql-5.0.41.tar.gz   zlib-1.2.3.tar.gz
jpegsrc.v6b.tar.gz   ncurses-5.6.tar.gz

软件包下载地址 http://dl.vmall.com/c0ua0omlgm   也可以到下面链接地址下载

httpd

1.   包名：httpd-2.2.15.tar.gz
2.   下载地址：http://httpd.apache.org/download.cgi
3.   包路径：http://labs.renren.com/apache-mirror/httpd/httpd-2.2.15.tar.gz

mysql

1.   包名：mysql-5.1.48.tar.gz

2. http://www.mysql.com/downloads/mysql/
3. http://mysql.byungsoo.net/Downloads/MySQL-5.1/mysql-5.1.48.tar.gz

php

1. 包名：php-5.3.2.tar.gz
2. http://www.php.net/downloads.php
3. http://cn2.php.net/get/php-5.3.2.tar.gz/from/cn.php.net/mirror

libxml2

1. 包名：libxml2-2.6.30-.tar.gz
2. http://ftp.gnome.org/pub/GNOME/sources/libxml2
3. http://ftp.acc.umu.se/pub/GNOME/sources/libxml2/2.6/libxml2-2.6.30.tar.gz

libxslt

1. 包名：libxslt-1.1.22.tar.gz
2. http://ftp.acc.umu.se/pub/GNOME/sources/libxslt/
3. http://ftp.acc.umu.se/pub/GNOME/sources/libxslt/1.1/libxslt-1.1.22.tar.gz

curl

1. 包名：curl-7.20.1.tar.gz
2. http://curl.haxx.se/download/
3. http://curl.haxx.se/download/curl-7.20.1.tar.gz

gd2

1. 包名：gd-2.0.35.tar.gz
2. http://www.libgd.org/releases/
3. http://www.libgd.org/releases/gd-2.0.35.tar.gz

freetype

1. 包名：freetype-2.3.12.tar.gz
2. http://sourceforge.net/projects/freetype/files/
3. http://sourceforge.net/projects/freetype/files/freetype2/2.3.12/freetype-2.3.12.tar.gz/download

jpeg

1. 包名：jpegsrc.v8b.tar.gz
2. http://ijg.org/files/
3. http://ijg.org/files/jpegsrc.v8b.tar.gz

libpng

1. 包名：libpng-1.4.2.tar.gz

2. 　http://www.libpng.org/pub/png/libpng.html
3. 　http://download.sourceforge.net/libpng/libpng-1.4.2.tar.gz

zlib

1. 　包名：gd-2.0.35.tar.gz
2. 　http://www.zlib.net/
3. 　http://zlib.net/zlib-1.2.5.tar.gz

cronolog

1. 　包名：cronolog-1.6.2.tar.gz
2. 　http://cronolog.org/download/index.html
3. 　http://cronolog.org/download/cronolog-1.6.2.tar.gz

libmcrypt

1. 　包名：libmcrypt-2.5.8.tar.gz
2. 　http://sourceforge.net/projects/mcrypt/files/Libmcrypt/
3. 　http://sourceforge.net/projects/mcrypt/files/Libmcrypt/2.5.8/libmcrypt-2.5.8.tar.gz/download

oracle

1. 　包名：
   oracle-instantclient11.2-basic-11.2.0.1.0-1.x86_64.zip,
   oracle-instantclient11.2-sqlplus-11.2.0.1.0-1.x86_64.zip,
   oracle-instantclient11.2-sdk-11.2.0.1.0-1.x86_64.zip
2. 　http://www.oracle.com/technology/software/tech/oci/instantclient/htdocs/linuxx86_64soft.html
3. 　http://sourceforge.net/projects/mcrypt/files/Libmcrypt/2.5.8/libmcrypt-2.5.8.tar.gz/download

将所有软件包解压（以解压 php-5.2.6.tar.gz 为例）

[root@itop soft]# tar zxvf php-5.2.6.tar.gz

......
php-5.2.6/README.PARAMETER_PARSING_API
php-5.2.6/acconfig.h
php-5.2.6/README.PHP4-TO-PHP5-THIN-CHANGES
php-5.2.6/CREDITS
php-5.2.6/README.UPDATE_5_2
php-5.2.6/README.UNIX-BUILD-SYSTEM
php-5.2.6/buildconf.bat

[root@itop soft]# ls

php-5.2.6　php-5.2.6.tar.gz

[root@itop soft]# rm -rf php-5.2.6.tar.gz

解压所有软件包，并删除压缩文件，结果如下

```
[root@itop soft]# ls
autoconf-2.61   jpeg-6b        mysql-5.0.41              ZendOptimizer-3.3.9-linux-glibc23-
x86_64
freetype-2.3.5  libmcrypt-2.5.8  ncurses-5.6             zlib-1.2.3
gd-2.0.35       libpng-1.2.31   php-5.2.6
httpd-2.2.9     libxml2-2.6.30  phpMyAdmin-3.0.0-rc1-all-languages
```

安装顺序基本为支持软件包-Apache-mysql-php

3.2　安装 libxml2 软件包

```
[root@itop soft]# cd libxml2-2.6.30/ && ls
acconfig.h              doc              macos          testAutomata.c    uri.c
acinclude.m4            DOCBparser.c               Makefile.am    testC14N.c        valid.c
aclocal.m4              elfgcchack.h               Makefile.in    testdso.c         vms
AUTHORS                 encoding.c               Makefile.tests  testHTML.c        win32
bakefile                entities.c               missing        testModule.c      xinclude.c
c14n.c                  error.c               mkinstalldirs   testReader.c       xlink.c
catalog.c               example               nanoftp.c      testRegexp.c      xml2-config.1
ChangeLog               gentest.py               nanohttp.c     testRelax.c       xml2-config.in
check-relaxng-test-suite2.py   genUnicode.py              NEWS            testSAX.c
xml2Conf.sh.in
check-relaxng-test-suite.py    globals.c                    parser.c        testSchemas.c
xmlcatalog.c
check-xinclude-test-suite.py  hash.c               parserInternals.c testThreads.c      xmlIO.c
check-xml-test-suite.py       HTMLparser.c               pattern.c        testThreadsWin32.c
xmllint.c
check-xsddata-test-suite.py    HTMLtree.c               python         testURI.c
xmlmemory.c
chvalid.c               include               README         testXPath.c        xmlmodule.c
config.guess            INSTALL               README.tests    threads.c         xmlreader.c
config.h.in             install-sh               regressions.py  TODO            xmlregexp.c
config.sub              legacy.c               regressions.xml  TODO_SCHEMAS      xmlsave.c
configure               libxml-2.0.pc.in               relaxng.c      tree.c          xmlschemas.c
configure.in                   libxml-2.0-uninstalled.pc.in   result          trio.c
xmlschemastypes.c
COPYING                 libxml2.spec               runsuite.c     triodef.h         xmlstring.c
Copyright               libxml.3               runtest.c       trio.h          xmlunicode.c
dbgenattr.pl            libxml.h               SAX2.c          trionan.c        xmlwriter.c
dbgen.pl                libxml.m4               SAX.c           trionan.h        xpath.c
debugXML.c              libxml.spec.in               schematron.c    triop.h          xpointer.c
depcomp                 list.c               test           triostr.c         xstc
dict.c                  ltmain.sh               testapi.c       triostr.h
[root@itop libxml2-2.6.30]# ./configure --prefix=/usr/local/libxml2     //prefix 指定安装路径
checking build system type... x86_64-redhat-linux-gnu
checking host system type... x86_64-redhat-linux-gnu
checking for a BSD-compatible install... /usr/bin/install -c
checking whether build environment is sane... yes
```

checking for gawk... gawk

checking whether make sets $(MAKE)... yes

checking for gcc... no

checking for cc... no

checking for cc... no

checking for cl... no

configure: error: no acceptable C compiler found in $PATH   //错误提示需安装 gcc

See `config.log' for more details.

[root@itop libxml2-2.6.30]# yum -y install gcc

……

Installed:

  gcc.x86_64 0:4.4.7-4.el6

Dependency Installed:

  cloog-ppl.x86_64 0:0.15.7-1.2.el6   cpp.x86_64 0:4.4.7-4.el6   glibc-devel.x86_64

0:2.12-1.132.el6

  glibc-headers.x86_64   0:2.12-1.132.el6   kernel-headers.x86_64   0:2.6.32-431.el6

libgomp.x86_64 0:4.4.7-4.el6

  mpfr.x86_64 0:2.4.1-6.el6   ppl.x86_64 0:0.10.2-11.el6

Complete!

[root@itop libxml2-2.6.30]# ./configure --prefix=/usr/local/libxml2   //重新编译

……

config.status: creating libxml-2.0.pc

config.status: creating libxml-2.0-uninstalled.pc

config.status: creating python/setup.py

config.status: creating config.h

config.status: executing depfiles commands

Done configuring

[root@itop libxml2-2.6.30]# make && make install   //编译及安装

等待一会

……

Making install in example

make[1]: Entering directory `/soft/libxml2-2.6.30/example'

make[2]: Entering directory `/soft/libxml2-2.6.30/example'

make[2]: Nothing to be done for `install-exec-am'.

make[2]: Nothing to be done for `install-data-am'.

make[2]: Leaving directory `/soft/libxml2-2.6.30/example'

make[1]: Leaving directory `/soft/libxml2-2.6.30/example'

Making install in xstc

make[1]: Entering directory `/soft/libxml2-2.6.30/xstc'

make[2]: Entering directory `/soft/libxml2-2.6.30/xstc'

make[2]: Nothing to be done for `install-exec-am'.

make[2]: Nothing to be done for `install-data-am'.

make[2]: Leaving directory `/soft/libxml2-2.6.30/xstc'

make[1]: Leaving directory `/soft/libxml2-2.6.30/xstc'	//无错误提示表示成功
[root@itop libxml2-2.6.30]# cd /usr/local/libxml2/ && ls	//指定安装目录查看
bin include lib man share	//安装成功至少应有显示文件

3.3 安装 libmcrypt 软件包

[root@itop libxml2]# cd /soft/libmcrypt-2.5.8/ && ls

acinclude.m4   buildconf   config.log   COPYING.LIB install-sh   libmcrypt.spec.in
Makefile.in   README
aclocal.m4   ChangeLog   config.status   depcomp   KNOWN-BUGS   libtool
missing   src
AUTHORS   config.guess config.sub   doc   lib   ltmain.sh   mkinstalldirs
stamp-h1
autom4te.cache config.h   configure   include   libltdl   Makefile   modules
THANKS
autoscan.log   config.h.in configure.in INSTALL   libmcrypt.spec Makefile.am   NEWS
TODO

[root@itop libmcrypt-2.5.8]# ./configure --prefix=/usr/local/libmcrypt

……
checking for xlC_r... no
checking for xlC... no
checking for C++ compiler default output file name... configure: error: C++ compiler cannot
create executables   //错误提示需安装 gcc-c++软件包
See `config.log' for more details.

[root@itop libmcrypt-2.5.8]# yum -y install gcc-c++

    Installed:
  gcc-c++.x86_64 0:4.4.7-4.el6

Dependency Installed:
  libstdc++-devel.x86_64 0:4.4.7-4.el6

Complete!

[root@itop libmcrypt-2.5.8]# ./configure --prefix=/usr/local/libmcrypt   //重新编译

……
config.status: creating Makefile
config.status: creating libmcrypt.spec
config.status: creating lib/Makefile
config.status: creating doc/Makefile
config.status: creating src/Makefile
config.status: creating include/mutils/mcrypt.h
config.status: creating include/Makefile
config.status: creating modules/Makefile
config.status: creating modules/modes/Makefile
config.status: creating modules/algorithms/Makefile
config.status: creating lib/libmcrypt-config
config.status: creating config.h

config.status: executing depfiles commands
config.status: executing default-1 commands

[root@itop libmcrypt-2.5.8]# make && make install

......
make[2]: Leaving directory `/soft/libmcrypt-2.5.8/doc'
make[1]: Leaving directory `/soft/libmcrypt-2.5.8/doc'
make[1]: Entering directory `/soft/libmcrypt-2.5.8'
make[2]: Entering directory `/soft/libmcrypt-2.5.8'
make[2]: Nothing to be done for `install-exec-am'.
make[2]: Nothing to be done for `install-data-am'.
make[2]: Leaving directory `/soft/libmcrypt-2.5.8'
make[1]: Leaving directory `/soft/libmcrypt-2.5.8'

[root@itop libmcrypt-2.5.8]# cd /usr/local/libmcrypt/ && ls

bin include lib man share

3.4 安装 zlib 软件包

[root@itop libmcrypt]# cd /soft/zlib-1.2.3/ && ls

adler32.c   compress.c deflate.c gzio.c   inffixed.h Makefile   old   trees.h   zlib.3
algorithm.txt configure deflate.h INDEX   inflate.c   Makefile.in projects uncompr.c
zlib.h
amiga   contrib   example.c infback.c inflate.h make_vms.com qnx   win32
zutil.c
as400   crc32.c   examples inffast.c inftrees.c minigzip.c README zconf.h   zutil.h
ChangeLog   crc32.h   FAQ   inffast.h inftrees.h msdos   trees.c zconf.in.h

[root@itop zlib-1.2.3]# ./configure --prefix=/usr/local/zlib

Checking for gcc...
Building static library libz.a version 1.2.3 with gcc.
Checking for unistd.h... Yes.
Checking whether to use vs[n]printf() or s[n]printf()... using vs[n]printf()
Checking for vsnprintf() in stdio.h... Yes.
Checking for return value of vsnprintf()... Yes.
Checking for errno.h... Yes.
Checking for mmap support... Yes.

[root@itop zlib-1.2.3]# make && make install

......
chmod 644 /usr/local/zlib/include/zlib.h /usr/local/zlib/include/zconf.h
cp libz.a /usr/local/zlib/lib
cd /usr/local/zlib/lib; chmod 755 libz.a
cd /usr/local/zlib/lib; if test -f libz.so.1.2.3; then \
        rm -f libz.so libz.so.1; \
        ln -s libz.so.1.2.3 libz.so; \
        ln -s libz.so.1.2.3 libz.so.1; \
        (ldconfig || true) >/dev/null 2>&1; \
     fi
cp zlib.3 /usr/local/zlib/share/man/man3
chmod 644 /usr/local/zlib/share/man/man3/zlib.3

[root@itop zlib-1.2.3]# cd /usr/local/zlib/ && ls

include lib share

3.5 安装 libpng 软件包

```
[root@itop zlib]# cd /soft/libpng-1.2.31/ && ls
```

aclocal.m4   configure   KNOWNBUG   Makefile.in   pngconf.h   pngpread.c
pngtest.png projects
ANNOUNCE   configure.ac libpng-1.2.31.txt missing   pngerror.c pngread.c pngtrans.c
README
autogen.sh   contrib   libpng.3   mkinstalldirs pnggccrd.c pngrio.c   pngvcrd.c
scripts
CHANGES   depcomp   libpngpf.3   png.5   pngget.c pngrtran.c pngwio.c   test-
pngtest.sh
config.guess example.c   LICENSE   pngbar.jpg   png.h   pngrutil.c pngwrite.c
TODO
config.h.in   INSTALL   ltmain.sh   pngbar.png   pngmem.c   pngset.c   pngwtran.c
Y2KINFO
config.sub   install-sh   Makefile.am   png.c   pngnow.png pngtest.c   pngwutil.c

```
[root@itop libpng-1.2.31]# ./configure --prefix=/usr/local/libpng
```

......
checking for size_t... yes
checking whether struct tm is in sys/time.h or time.h... time.h
checking for working strtod... yes
checking for memset... yes
checking for pow... no
checking for pow in -lm... yes
checking for zlibVersion in -lz... no

configure: error: zlib not installed   //解决问题需更改环境变量

```
[root@itop libpng-1.2.31]# cd /soft/zlib-1.2.3
[root@itop zlib-1.2.3]# make clean
[root@itop zlib-1.2.3]# ./configure
[root@itop zlib-1.2.3]# make && make install
[root@itop zlib-1.2.3]#cd /soft/ libpng-1.2.31
 [root@itop libpng-1.2.31]# ./configure --prefix=/usr/local/libpng        //重新编译
```

......
checking for symbol prefix...
configure: pkgconfig directory is ${libdir}/pkgconfig
configure: creating ./config.status
config.status: creating Makefile
config.status: creating libpng.pc
config.status: creating libpng-config
config.status: creating config.h
config.status: executing depfiles commands
config.status: executing libtool commands

```
[root@itop libpng-1.2.31]# make && make install
```

......

/usr/bin/ld: cannot find –lz   //需要安装 zlib-dev 软件包

```
collect2: ld returned 1 exit status
make[1]: *** [libpng12.la] Error 1
make[1]: Leaving directory `/soft/libpng-1.2.31'
make: *** [all] Error 2
```
```
[root@itop libpng-1.2.31]# yum -y install zlib-devel.x86_64
```
```
    Installed:
      zlib-devel.x86_64 0:1.2.3-29.el6


    Complete!
```
```
[root@itop libpng-1.2.31]# make clean              //清除编译内容
```
```
rm -f pngtest pngtest
test -z "pngout.png libpng12.pc libpng12-config libpng.vers libpng.sym" || rm -f pngout.png
libpng12.pc libpng12-config libpng.vers libpng.sym
test -z "libpng12.la libpng.la" || rm -f libpng12.la libpng.la
rm -f "./so_locations"
rm -f "./so_locations"
rm -rf .libs _libs
rm -f *.o
rm -f *.lo
```
```
[root@itop libpng-1.2.31]# make && make install
```
```
……
make  install-data-hook
make[2]: Entering directory `/soft/libpng-1.2.31'
cd /usr/local/libpng/include; rm -f png.h pngconf.h
cd /usr/local/libpng/include; ln -s libpng12/png.h png.h
cd /usr/local/libpng/include; ln -s libpng12/pngconf.h pngconf.h
cd /usr/local/libpng/lib/pkgconfig; rm -f libpng.pc
cd /usr/local/libpng/lib/pkgconfig; ln -s libpng12.pc libpng.pc
make[2]: Leaving directory `/soft/libpng-1.2.31'
make[1]: Leaving directory `/soft/libpng-1.2.31'
```
```
[root@itop libpng-1.2.31]# cd /usr/local/libpng/ && ls
```
```
bin  include  lib  share
```

3.6 安装 jpeg6 软件包

```
[root@itop libpng]# cd /soft/jpeg-6b/ && ls
```
```
ansi2knr.1      jcapimin.c    jconfig.sas   jdhuff.h     jinclude.h     ltconfig       makljpeg.st
testprog.jpg
ansi2knr.c      jcapistd.c    jconfig.st    jdinput.c    jmemansi.c     ltmain.sh      maktjpeg.st
transupp.c
cderror.h       jccoefct.c    jconfig.vc    jdmainct.c   jmemdosa.asm   makcjpeg.st    makvms.opt
transupp.h
cdjpeg.c        jccolor.c     jconfig.vms   jdmarker.c   jmemdos.c      makdjpeg.st    rdbmp.c
usage.doc
cdjpeg.h        jcdctmgr.c    jconfig.wat   jdmaster.c   jmemmac.c      makeapps.ds    rdcolmap.c
wizard.doc
change.log      jchuff.c      jcparam.c     jdmerge.c    jmemmgr.c      makefile.ansi  rdgif.c
```

wrbmp.c
cjpeg.1　　　　jchuff.h　　　jcphuff.c　　jdphuff.c　　jmemname.c　　makefile.bcc　　rdjpgcom.1
wrgif.c
cjpeg.c　　　　jcinit.c　　　jcprepct.c　　jdpostct.c　　jmemnobs.c　　makefile.cfg　　rdjpgcom.c
wrjpgcom.1
ckconfig.c　　jcmainct.c　　jcsample.c　　jdsample.c　　jmemsys.h　　makefile.dj　　rdppm.c
wrjpgcom.c
coderules.doc　jcmarker.c　　jctrans.c　　jdtrans.c　　jmorecfg.h　　makefile.manx　rdrle.c
wrppm.c
config.guess　jcmaster.c　　jdapimin.c　　jerror.c　　jpegint.h　　makefile.mc6　　rdswitch.c
wrrle.c
config.sub　　jcomapi.c　　jdapistd.c　　jerror.h　　jpeglib.h　　makefile.mms　　rdtarga.c
wrtarga.c
configure　　jconfig.bcc jdatadst.c jfdctflt.c jpegtran.1　makefile.sas　README
djpeg.1　　　jconfig.cfg jdatasrc.c jfdctfst.c jpegtran.c　makefile.unix structure.doc
djpeg.c　　　jconfig.dj jdcoefct.c jfdctint.c jquant1.c　makefile.vc　testimg.bmp
example.c　　jconfig.doc jdcolor.c jidctflt.c jquant2.c　makefile.vms testimg.jpg
filelist.doc　jconfig.mac jdct.h　jidctfst.c jutils.c　makefile.wat testimgp.jpg
install.doc　jconfig.manx jddctmgr.c jidctint.c jversion.h　makelib.ds　testimg.ppm
install-sh　jconfig.mc6 jdhuff.c　jidctred.c libjpeg.doc makeproj.mac testorig.jpg

因为此软件包配置文件不会自动创建安装目录，安装目录需手动创建

[root@itop jpeg-6b]# mkdir /usr/local/jpeg6
[root@itop jpeg-6b]# mkdir /usr/local/jpeg6/bin
[root@itop jpeg-6b]# mkdir /usr/local/jpeg6/lib
[root@itop jpeg-6b]# mkdir /usr/local/jpeg6/include
[root@itop jpeg-6b]# mkdir -p /usr/local/jpeg6/man/man1

[root@itop jpeg-6b]# ./configure \　　　　　　//\符合表示换行

> --prefix=/usr/local/jpeg6/ \　　　　　　//指定安装位置

> --enable-shared \　　　　　　　　//建立共享库使用的 GNU 的 libtool

> --enable-static　　　　　　　　//建立静态库使用的 GNU 的 libtool

……
checking libjpeg version number... 62
creating ./config.status
creating Makefile
creating jconfig.h

[root@itop jpeg-6b]# make && make install

./libtool --mode=compile gcc -O2 -I /usr/local/zlib/include -I. -c ./jcapimin.c

make: ./libtool: Command not found　　　　//需要安装 libtool 软件包

make: *** [jcapimin.lo] Error 127

[root@itop jpeg-6b]# yum -y install libtool

……
Installed:
　libtool.x86_64 0:2.2.6-15.5.el6

Dependency Installed:
  autoconf.noarch 0:2.63-5.1.el6   automake.noarch 0:1.11.1-4.el6
  perl.x86_64 4:5.10.1-136.el6   perl-Module-Pluggable.x86_64 1:3.90-136.el6
  perl-Pod-Escapes.x86_64 1:1.04-136.el6   perl-Pod-Simple.x86_64 1:3.13-136.el6
  perl-libs.x86_64 4:5.10.1-136.el6   perl-version.x86_64 3:0.77-136.el6

Complete!

[root@itop jpeg-6b]# cp /usr/share/libtool/config/config.sub .   //复制文件到当前文件

cp: overwrite `./config.sub'? y   //按 y，确认覆盖当前目录下文件

[root@itop jpeg-6b]# cp /usr/share/libtool/config/config.guess .   //复制文件到当前文件

cp: overwrite `./config.guess'? y   //按 y，确认覆盖当前目录下文件

[root@itop jpeg-6b]# make clean

rm -f *.o *.lo libjpeg.a libjpeg.la
rm -f cjpeg djpeg jpegtran rdjpgcom wrjpgcom
rm -f ansi2knr core testout* config.log config.status
rm -f -r knr .libs _libs

[root@itop jpeg-6b]# ./configure --prefix=/usr/local/jpeg6/ --enable-shared --enable-static

......
checking whether to build static libraries... yes
checking for objdir... .libs
creating libtool
checking libjpeg version number... 62
creating ./config.status
creating Makefile
creating jconfig.h
jconfig.h is unchanged

[root@itop jpeg-6b]# make && make install

......
see any operating system documentation about shared libraries for
more information, such as the ld(1) and ld.so(8) manual pages.

./libtool --mode=install /usr/bin/install -c cjpeg /usr/local/jpeg6//bin/cjpeg
/usr/bin/install -c .libs/cjpeg /usr/local/jpeg6//bin/cjpeg
./libtool --mode=install /usr/bin/install -c djpeg /usr/local/jpeg6//bin/djpeg
/usr/bin/install -c .libs/djpeg /usr/local/jpeg6//bin/djpeg
./libtool --mode=install /usr/bin/install -c jpegtran /usr/local/jpeg6//bin/jpegtran
/usr/bin/install -c .libs/jpegtran /usr/local/jpeg6//bin/jpegtran
./libtool --mode=install /usr/bin/install -c rdjpgcom /usr/local/jpeg6//bin/rdjpgcom
/usr/bin/install -c rdjpgcom /usr/local/jpeg6//bin/rdjpgcom
./libtool --mode=install /usr/bin/install -c wrjpgcom /usr/local/jpeg6//bin/wrjpgcom
/usr/bin/install -c wrjpgcom /usr/local/jpeg6//bin/wrjpgcom
/usr/bin/install -c -m 644 ./cjpeg.1 /usr/local/jpeg6//man/man1/cjpeg.1
/usr/bin/install -c -m 644 ./djpeg.1 /usr/local/jpeg6//man/man1/djpeg.1
/usr/bin/install -c -m 644 ./jpegtran.1 /usr/local/jpeg6//man/man1/jpegtran.1
/usr/bin/install -c -m 644 ./rdjpgcom.1 /usr/local/jpeg6//man/man1/rdjpgcom.1

```
/usr/bin/install -c -m 644 ./wrjpgcom.1 /usr/local/jpeg6//man/man1/wrjpgcom.1
```
```
[root@itop jpeg-6b]# cd /usr/local/jpeg6/ && ls
```
```
bin include lib man
```
```
[root@itop jpeg6]# cd bin && ls
```
```
cjpeg djpeg jpegtran rdjpgcom wrjpgcom
```

3.7 安装 freetype（字体库）软件包

```
[root@itop bin]# cd /soft/freetype-2.3.5/ && ls
```
```
autogen.sh ChangeLog.20 configure include Makefile    README     version.sed
builds     ChangeLog.21 devel    Jamfile modules.cfg README.CVS vms_make.com
ChangeLog  ChangeLog.22 docs     Jamrules objs        src
```
```
[root@itop freetype-2.3.5]# ./configure --prefix=/usr/local/freetype
```
```
……
checking for ld used by g++... /usr/bin/ld -m elf_x86_64
checking if the linker (/usr/bin/ld -m elf_x86_64) is GNU ld... yes
checking whether the g++ linker (/usr/bin/ld -m elf_x86_64) supports shared libraries... yes
checking for g++ option to produce PIC... -fPIC
checking if g++ PIC flag -fPIC works... yes
checking if g++ static flag -static works... no
checking if g++ supports -c -o file.o... yes
checking whether the g++ linker (/usr/bin/ld -m elf_x86_64) supports shared libraries... yes
checking dynamic linker characteristics... GNU/Linux ld.so
checking how to hardcode library paths into programs... immediate
appending configuration tag "F77" to libtool
configure: creating ./config.status
config.status: creating unix-cc.mk
config.status: creating unix-def.mk
config.status: creating freetype-config
config.status: creating freetype2.pc
config.status: creating ftconfig.h
make: Nothing to be done for `unix'.
```
```
[root@itop freetype-2.3.5]# make && make install
```
```
……
rmdir: failed to remove `/usr/local/freetype/include/freetype2/freetype/internal': No such file or directory
make: [install] Error 1 (ignored)          //错误不影响安装
/usr/bin/install -c -m 644 ./builds/unix/ft2unix.h \
     /usr/local/freetype/include/ft2build.h
/usr/bin/install -c -m 644 ./builds/unix/ftconfig.h                \
     /usr/local/freetype/include/freetype2/freetype/config/ftconfig.h
/usr/bin/install -c -m 644 /soft/freetype-2.3.5/objs/ftmodule.h               \
     /usr/local/freetype/include/freetype2/freetype/config/ftmodule.h
/usr/bin/install -c -m 755 ./builds/unix/freetype-config \
     /usr/local/freetype/bin/freetype-config
/usr/bin/install -c -m 644 ./builds/unix/freetype2.m4 \
     /usr/local/freetype/share/aclocal/freetype2.m4
```

/usr/bin/install -c -m 644 ./builds/unix/freetype2.pc \
/usr/local/freetype/lib/pkgconfig/freetype2.pc
[root@itop freetype-2.3.5]# cd /usr/local/freetype/ && ls
bin include lib share

3.8　安装 autoconf 软件包

```
[root@itop freetype]# cd /soft/autoconf-2.61/ && ls
aclocal.m4 build-aux ChangeLog.2 COPYING    lib        Makefile.in  README
AUTHORS    ChangeLog  config     doc        m4         Makefile.maint tests
bin        ChangeLog.0 configure  GNUmakefile Makefile.am man          THANKS
BUGS       ChangeLog.1 configure.ac INSTALL   Makefile.cfg NEWS        TODO
```

```
[root@itop autoconf-2.61]# ./configure            //直接安装到默认库，不用指定路径
......
config.status: creating tests/Makefile
config.status: creating tests/atlocal
config.status: creating man/Makefile
config.status: creating lib/emacs/Makefile
config.status: creating Makefile
config.status: creating doc/Makefile
config.status: creating lib/Makefile
config.status: creating lib/Autom4te/Makefile
config.status: creating lib/autoscan/Makefile
config.status: creating lib/m4sugar/Makefile
config.status: creating lib/autoconf/Makefile
config.status: creating lib/autotest/Makefile
config.status: creating bin/Makefile
config.status: executing tests/atconfig commands
```

```
[root@itop autoconf-2.61]# make && make install
......
make[2]: Leaving directory `/soft/autoconf-2.61/doc'
make[1]: Leaving directory `/soft/autoconf-2.61/doc'
Making install in tests
make[1]: Entering directory `/soft/autoconf-2.61/tests'
make[2]: Entering directory `/soft/autoconf-2.61'
make[2]: Leaving directory `/soft/autoconf-2.61'
make[2]: Entering directory `/soft/autoconf-2.61/tests'
make[3]: Entering directory `/soft/autoconf-2.61'
make[3]: Leaving directory `/soft/autoconf-2.61'
make[2]: Nothing to be done for `install-exec-am'.
make[2]: Nothing to be done for `install-data-am'.
make[2]: Leaving directory `/soft/autoconf-2.61/tests'
make[1]: Leaving directory `/soft/autoconf-2.61/tests'
```

3.9　安装 GD 库软件包（处理图像）

```
[root@itop autoconf-2.61]# cd /soft/gd-2.0.35/ && ls
aclocal.m4      entities.tcl    gdfontl.c    gdhelpers.c   gd_topal.c    pngtogd2.c
```

```
annotate.c     err.out       gdfontl.h   gdhelpers.h  gdtopng.c    pngtogd.c
bdftogd        fontconfigtest.c gdfontmb.c  gd_io.c     gd_wbmp.c    README-JPEG.TXT
circletexttest.c fontsizetest.c  gdfontmb.h  gd_io_dp.c  gdxpm.c      readme.jpn
cmake          fontwheeltest.c gdfonts.c   gd_io_file.c gifanimtest.c README.TESTING
CMakeLists.txt gd2copypal.c  gdfonts.h   gd_io.h     giftogd2.c   README.TXT
config         gd2time.c     gdfontt.c   gd_io_ss.c  index.html   strlcpy.c
config.h.cmake gd2togif.c    gdfontt.h   gd_jpeg.c   INSTALL      test
config.hin     gd2topng.c    gdft.c      gdkanji.c   install-item testac.c
configure      gd.c          gdfx.c      gdparttopng.c install-sh  tests
configure.ac   gdcache.c     gdfx.h      gd_png.c    jisx0208.h   testtr.c
COPYING        gdcache.h     gd_gd2.c    gd_security.c Makefile.am  VMS
demoin.png     gdcmpgif.c    gd_gd.c     gd_ss.c     Makefile.in  wbmp.c
depcomp        gddemo.c      gd_gif_in.c gdtables.c  missing      wbmp.h
entities.h     gdfontg.c     gd_gif_out.c gdtest.c    mkinstalldirs webpng.c
entities.html  gdfontg.h     gd.h        gdtestft.c  NEWS         windows
```

```
[root@itop gd-2.0.35]# ./configure \              //配置命令
> --prefix=/usr/local/gd2/ \                      //指定软件安装的位置
> --with-zlib=/usr/local/zlib/ \                  //指定到哪去找 zlib 库文件的位置
> --with-jpeg=/usr/local/jpeg6/ \                 //指定到哪去找 jpeg 库文件的位置
> --with-png=/usr/local/libpng/ \                 //指定到哪去找 png 库文件的位置
> --with-freetype=/usr/local/freetype/            //指定到哪找 freetype 2.x 字体库的位置
```

```
......
  Support for PNG library:        yes
  Support for JPEG library:       yes
  Support for Freetype 2.x library: yes
  Support for Fontconfig library:  no
  Support for Xpm library:         no
  Support for pthreads:           yes


configure: creating ./config.status
config.status: creating Makefile
config.status: creating config/Makefile
config.status: creating config/gdlib-config
config.status: creating test/Makefile
config.status: creating config.h
config.status: executing depfiles commands
```

```
[root@itop gd-2.0.35]# make && make install
```

```
......
gd_png.c:529: error: 'jmpbuf_wrapper' has no member named 'jmpbuf'
gd_png.c:537: error: 'gdPngWriteData' undeclared (first use in this function)
gd_png.c:538: error: 'gdPngFlushData' undeclared (first use in this function)
gd_png.c:595: error: 'PNG_INTERLACE_ADAM7' undeclared (first use in this function)
gd_png.c:595: error: 'PNG_INTERLACE_NONE' undeclared (first use in this function)
gd_png.c:602: error: 'PNG_COLOR_TYPE_RGB_ALPHA' undeclared (first use in this function)
```

gd_png.c:603: error: 'PNG_COMPRESSION_TYPE_DEFAULT' undeclared (first use in this function)

gd_png.c:604: error: 'PNG_FILTER_TYPE_DEFAULT' undeclared (first use in this function)

gd_png.c:609: error: 'PNG_COLOR_TYPE_RGB' undeclared (first use in this function)

gd_png.c:617: error: 'PNG_COLOR_TYPE_PALETTE' undeclared (first use in this function)

gd_png.c:623: error: 'trans_rgb_value' undeclared (first use in this function)

gd_png.c:672: error: 'trans_values' undeclared (first use in this function)

gd_png.c:694: error: 'palette' undeclared (first use in this function)

gd_png.c:725: error: 'png_bytep' undeclared (first use in this function)

gd_png.c:725: error: 'row_pointers' undeclared (first use in this function)

gd_png.c:731: error: 'prow_pointers' undeclared (first use in this function)

gd_png.c:747: error: expected ')' before 'gdMalloc'

gd_png.c:804: error: expected ')' before 'gdMalloc'

make[2]: *** [gd_png.lo] Error 1

make[2]: Leaving directory `/soft/gd-2.0.35'

make[1]: *** [all-recursive] Error 1

make[1]: Leaving directory `/soft/gd-2.0.35'

make: *** [all] Error 2 　　　　　　　　//解决方法如下

[root@itop gd-2.0.35]# make clean

……

rm -f "./so_locations"

rm -rf .libs _libs

 rm -f fontsizetest fontsizetest

 rm -f fontwheeltest fontwheeltest

 rm -f gdtest gdtest

 rm -f gddemo gddemo

 rm -f gd2time gd2time

 rm -f gdtestft gdtestft

 rm -f testac testac

 rm -f circletexttest circletexttest

 rm -f testtr testtr

 rm -f fontconfigtest fontconfigtest

 rm -f gifanimtest gifanimtest

rm -f *.o

rm -f *.lo

make[1]: Leaving directory `/soft/gd-2.0.35

[root@itop gd-2.0.35]#vi gd_png.c

将

#include "png.h"

替换成：

#include "/usr/local/libpng/include/png.h"

[root@itop gd-2.0.35]# ./configure --prefix=/usr/local/gd2/ --with-zlib=/usr/local/zlib/ --with-jpeg=/usr/local/jpeg6/ --with-png=/usr/local/libpng/ --with-freetype=/usr/local/freetype/

……

configure: creating ./config.status

config.status: creating Makefile

```
config.status: creating config/Makefile
config.status: creating config/gdlib-config
config.status: creating test/Makefile
config.status: creating config.h
config.status: config.h is unchanged
config.status: executing depfiles commands
```

```
[root@itop gd-2.0.35]# make && make install
……
/usr/bin/install -c 'bdftogd' '/usr/local/gd2//bin/bdftogd'
 /usr/bin/install -c 'config/gdlib-config' '/usr/local/gd2//bin/gdlib-config'
test -z "/usr/local/gd2//include" || mkdir -p -- "/usr/local/gd2//include"
 /usr/bin/install -c -m 644 'gd.h' '/usr/local/gd2//include/gd.h'
 /usr/bin/install -c -m 644 'gdfx.h' '/usr/local/gd2//include/gdfx.h'
 /usr/bin/install -c -m 644 'gd_io.h' '/usr/local/gd2//include/gd_io.h'
 /usr/bin/install -c -m 644 'gdcache.h' '/usr/local/gd2//include/gdcache.h'
 /usr/bin/install -c -m 644 'gdfontg.h' '/usr/local/gd2//include/gdfontg.h'
 /usr/bin/install -c -m 644 'gdfontl.h' '/usr/local/gd2//include/gdfontl.h'
 /usr/bin/install -c -m 644 'gdfontmb.h' '/usr/local/gd2//include/gdfontmb.h'
 /usr/bin/install -c -m 644 'gdfonts.h' '/usr/local/gd2//include/gdfonts.h'
 /usr/bin/install -c -m 644 'gdfontt.h' '/usr/local/gd2//include/gdfontt.h'
 /usr/bin/install -c -m 644 'entities.h' '/usr/local/gd2//include/entities.h'
make[2]: Leaving directory `/soft/gd-2.0.35'
make[1]: Leaving directory `/soft/gd-2.0.35'
```

```
[root@itop gd-2.0.35]# cd /usr/local/gd2/ && ls
bin  include  lib
```

3.10 安装 apache 服务

```
[root@itop gd2]# cd /soft/httpd-2.2.9/ && ls
ABOUT_APACHE       BuildAll.dsp    configure     httpd.spec      libhttpd.dsp  NOTICE
ROADMAP  VERSIONING
acinclude.m4      BuildBin.dsp   configure.in  include       LICENSE        NWGNUmakefile
server
Apache.dsw     buildconf    docs       INSTALL     Makefile.in  os       srclib
apachenw.mcp.zip  CHANGES       emacs-style    InstallBin.dsp  Makefile.win  README
support
build        config.layout  httpd.dsp    LAYOUT        modules      README.platforms  test
```

```
[root@itop httpd-2.2.9]# ./configure \              //配置命令

> --prefix=/usr/local/apache2 \                    //指定 apache 软件安装的位置

> --sysconfdir=/etc/httpd \                      //指定 apache 服务器的配置文件存放位置

> --with-z=/usr/local/zlib/ \                //指定 zlib 库文件的位置

> --with-included-apr \                       //使用捆绑 APR/APR-Util 的副本

> --enable-so \                          //以动态共享对象（DSO）编译

> --enable-deflate=shared \             //缩小传输编码的支持

> --enable-expires=shared \             //期满头控制
```

> --enable-rewrite=shared \   //基于规则的 URL 操控

> --enable-static-support   //建立一个静态链接版本的支持

```
……
config.status: creating support/apxs
config.status: creating support/apachectl
config.status: creating support/dbmmanage
config.status: creating support/envvars-std
config.status: creating support/log_server_status
config.status: creating support/logresolve.pl
config.status: creating support/phf_abuse_log.cgi
config.status: creating support/split-logfile
config.status: creating build/rules.mk
config.status: creating build/pkg/pkginfo
config.status: creating build/config_vars.sh
config.status: creating include/ap_config_auto.h
config.status: executing default commands
```

[root@itop httpd-2.2.9]# make && make install

```
……
a shared object; recompile with -fPIC
/usr/local/zlib//lib/libz.a: could not read symbols: Bad value
collect2: ld returned 1 exit status
make[4]: *** [mod_deflate.la] Error 1
make[4]: Leaving directory `/soft/httpd-2.2.9/modules/filters'
make[3]: *** [shared-build-recursive] Error 1
make[3]: Leaving directory `/soft/httpd-2.2.9/modules/filters'
make[2]: *** [shared-build-recursive] Error 1
make[2]: Leaving directory `/soft/httpd-2.2.9/modules'
make[1]: *** [shared-build-recursive] Error 1
make[1]: Leaving directory `/soft/httpd-2.2.9'
```

make: *** [all-recursive] Error 1   //解决方法如下

[root@itop httpd-2.2.9]# make clean

```
……
rm -rf .libs
make[2]: Leaving directory `/soft/httpd-2.2.9/support'
make[1]: Leaving directory `/soft/httpd-2.2.9/support'
make[1]: Entering directory `/soft/httpd-2.2.9'
rm -f *.o *.lo *.slo *.obj *.a *.la  httpd shared-build
rm -rf .libs
make[1]: Leaving directory `/soft/httpd-2.2.9'
```

[root@itop httpd-2.2.9]# cd /soft/zlib-1.2.3/
[root@itop zlib-1.2.3]# make clean

[root@itop zlib-1.2.3]# CFLAGS="-O3 -fPIC" ./configure   --prefix=/usr/local/zlib //使用 64 位元的方法进行编译

[root@itop zlib-1.2.3]# make && make install
[root@itop zlib-1.2.3]# make clean

```
[root@itop  httpd-2.2.9]# ./configure --prefix=/usr/local/apache2 --sysconfdir=/etc/httpd --
with-z=/usr/local/zlib/  --with-included-apr  --enable-so  --enable-deflate=shared  --enable-
expires=shared --enable-rewrite=shared --enable-static-support        //重新编译
[root@itop httpd-2.2.9]# make && make install
```

```
……
Installing configuration files
mkdir /etc/httpd
mkdir /etc/httpd/extra
mkdir /etc/httpd/original
mkdir /etc/httpd/original/extra
Installing HTML documents
mkdir /usr/local/apache2/htdocs
Installing error documents
mkdir /usr/local/apache2/error
Installing icons
mkdir /usr/local/apache2/icons
mkdir /usr/local/apache2/logs
Installing CGIs
mkdir /usr/local/apache2/cgi-bin
Installing header files
Installing build system files
Installing man pages and online manual
mkdir /usr/local/apache2/man
mkdir /usr/local/apache2/man/man1
mkdir /usr/local/apache2/man/man8
mkdir /usr/local/apache2/manual
make[1]: Leaving directory `/soft/httpd-2.2.9'
```

```
[root@itop httpd-2.2.9]# netstat -tnl
```

```
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address          Foreign Address          State
tcp    0    0 0.0.0.0:22            0.0.0.0:*          LISTEN
tcp    0    0 127.0.0.1:25          0.0.0.0:*          LISTEN
tcp    0    0 :::22              :::*          LISTEN
tcp    0    0 ::1:25              :::*          LISTEN    //无 80 端口，apache 未启动
```

```
[root@itop httpd-2.2.9]# ls /usr/local/apache2/
```

```
bin  build  cgi-bin  error  htdocs  icons  include  lib  logs  man  manual  modules
```

```
[root@itop httpd-2.2.9]# ls /etc/httpd
```

```
extra  httpd.conf  magic  mime.types  original
```

```
[root@itop httpd-2.2.9]# /usr/local/apache2/bin/apachectl start
```

```
httpd: apr_sockaddr_info_get() failed for itop
httpd: Could not reliably determine the server's fully qualified domain name, using 127.0.0.1
for ServerName                        //
```

```
[root@itop httpd-2.2.9]# vi /etc/httpd/httpd.conf
```

添加一行
ServerName localhost

```
[root@itop httpd]# /usr/local/apache2/bin/apachectl start
[root@itop httpd]# /usr/local/apache2/bin/apachectl stop
[root@itop httpd]# /usr/local/apache2/bin/apachectl start
[root@itop httpd]# netstat -tnl
tcp    0    0 :::80                ::::*                    LISTEN
```


3.11 安装 mysql 数据库

```
[root@itop httpd]# cd /soft/mysql-5.0.41/
[root@itop mysql-5.0.41]# groupadd mysql
[root@itop mysql-5.0.41]# useradd -g mysql mysql
[root@itop mysql-5.0.41]# id mysql
uid=500(mysql) gid=500(mysql) groups=500(mysql)
[root@itop mysql-5.0.41]# ./configure \
> --prefix=/usr/local/mysql \
> --with-extra-charsets=all
checking for nl_langinfo and CODESET... yes
checking for tgetent in -lncurses... no
checking for tgetent in -lcurses... no
checking for tgetent in -ltermcap... no
checking for tgetent in -ltinfo... no
checking for termcap functions library... configure: error: No curses/termcap library found
```

//解决方法如下

```
[root@itop mysql-5.0.41]# yum -y install ncurses-devel
......
Running Transaction
  Installing : ncurses-devel-5.7-3.20090208.el6.x86_64                        1/1
  Verifying  : ncurses-devel-5.7-3.20090208.el6.x86_64                         1/1

Installed:
  ncurses-devel.x86_64 0:5.7-3.20090208.el6

Complete!
[root@itop mysql-5.0.41]# ./configure \
> --prefix=/usr/local/mysql \
> --with-extra-charsets=all
......
config.status: creating usr/Makefile
config.status: creating ib_config.h
```

config.status: executing depfiles commands

MySQL has a Web site at http://www.mysql.com/ which carries details on the
latest release, upcoming features, and other information to make your
work or play with MySQL more productive. There you can also find
information about mailing lists for MySQL discussion.

Remember to check the platform specific part of the reference manual for
hints about installing MySQL on your platform. Also have a look at the
files in the Docs directory.

Thank you for choosing MySQL!

`[root@itop mysql-5.0.41]#make && make install`

......
make[4]: Entering directory `/soft/mysql-5.0.41/server-tools/instance-manager'
test -z "/usr/local/mysql/libexec" || mkdir -p -- "/usr/local/mysql/libexec"
 /bin/sh ../../libtool --preserve-dup-deps --mode=install /usr/bin/install -c 'mysqlmanager'
'/usr/local/mysql/libexec/mysqlmanager'
/usr/bin/install -c mysqlmanager /usr/local/mysql/libexec/mysqlmanager
make[4]: Nothing to be done for `install-data-am'.
make[4]: Leaving directory `/soft/mysql-5.0.41/server-tools/instance-manager'
make[3]: Leaving directory `/soft/mysql-5.0.41/server-tools/instance-manager'
make[3]: Entering directory `/soft/mysql-5.0.41/server-tools'
make[4]: Entering directory `/soft/mysql-5.0.41/server-tools'
make[4]: Nothing to be done for `install-exec-am'.
make[4]: Nothing to be done for `install-data-am'.
make[4]: Leaving directory `/soft/mysql-5.0.41/server-tools'
make[3]: Leaving directory `/soft/mysql-5.0.41/server-tools'
make[2]: Leaving directory `/soft/mysql-5.0.41/server-tools'
make[1]: Leaving directory `/soft/mysql-5.0.41'

配置 mysql

`[root@itop ~]# cp /soft/mysql-5.0.41/support-files/my-medium.cnf /etc/my.cnf`

cp: overwrite `/etc/my.cnf'? y

`[root@itop ~]# cd /usr/local/mysql/ && ls`

bin include info lib libexec man mysql-test share sql-bench

`[root@itop mysql]# bin/mysql_install_db --user=mysql     //创建授权表`

......
PLEASE REMEMBER TO SET A PASSWORD FOR THE MySQL root USER !
To do so, start the server, then issue the following commands:
/usr/local/mysql/bin/mysqladmin -u root password 'new-password'
/usr/local/mysql/bin/mysqladmin -u root -h itop password 'new-password'
See the manual for more instructions.
You can start the MySQL daemon with:
cd /usr/local/mysql ; /usr/local/mysql/bin/mysqld_safe &

You can test the MySQL daemon with mysql-test-run.pl

cd mysql-test ; perl mysql-test-run.pl

Please report any problems with the /usr/local/mysql/bin/mysqlbug script!

The latest information about MySQL is available on the web at
http://www.mysql.com
Support MySQL by buying support/licenses at http://shop.mysql.com

`[root@itop mysql]# ls`

bin include info lib libexec man mysql-test share sql-bench var   //多出 var 目录

`[root@itop mysql]# cd /var && ls`

mysql   mysql-bin.000002 mysql-bin.000004 mysql-bin.000006 test
mysql-bin.000001 mysql-bin.000003 mysql-bin.000005 mysql-bin.index

```
[root@itop mysql]# chown -R root .
[root@itop mysql]# chown -R mysql var
[root@itop mysql]# chgrp -R mysql .
[root@itop mysql]# ll
```

total 40
drwxr-xr-x. 2 root mysql 4096 Jun 1 17:49 bin
drwxr-xr-x. 3 root mysql 4096 Jun 1 17:49 include
drwxr-xr-x. 2 root mysql 4096 Jun 1 17:49 info
drwxr-xr-x. 3 root mysql 4096 Jun 1 17:49 lib
drwxr-xr-x. 2 root mysql 4096 Jun 1 17:49 libexec
drwxr-xr-x. 4 root mysql 4096 Jun 1 17:49 man
drwxr-xr-x. 8 root mysql 4096 Jun 1 17:49 mysql-test
drwxr-xr-x. 3 root mysql 4096 Jun 1 17:49 share
drwxr-xr-x. 5 root mysql 4096 Jun 1 17:49 sql-bench
drwx------. 4 mysql mysql 4096 Jun 1 18:34 var

`[root@itop mysql]# /usr/local/mysql/bin/mysqld_safe --user=mysql & //&后台运行`

`[root@itop ~]# netstat -tnl`

Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address   Foreign Address   State
tcp   0   0 0.0.0.0:22   0.0.0.0:*   LISTEN
tcp   0   0 127.0.0.1:25   0.0.0.0:*   LISTEN
tcp   0   0 0.0.0.0:3306   0.0.0.0:*   LISTEN
tcp   0   0 :::80   :::*   LISTEN
tcp   0   0 :::22   :::*   LISTEN
tcp   0   0 ::1:25   :::*   LISTEN

`[root@itop mysql]# bin/mysqladmin version`

bin/mysqladmin Ver 8.41 Distrib 5.0.41, for unknown-linux-gnu on x86_64
Copyright (C) 2000-2006 MySQL AB
This software comes with ABSOLUTELY NO WARRANTY. This is free software,
and you are welcome to modify and redistribute it under the GPL license

Server version   5.0.41-log
Protocol version   10
Connection   Localhost via UNIX socket

UNIX socket   /tmp/mysql.sock
Uptime: 2 min 17 sec

Threads: 1 Questions: 1 Slow queries: 0 Opens: 12 Flush tables: 1 Open tables: 6 Queries per second avg: 0.007

[root@itop mysql]# bin/mysql

Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 2
Server version: 5.0.41-log Source distribution

Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

mysql>

mysql> select * from mysql.user \G   //mysql 权限表，\G 竖形显示
*************************** 1. row ***************************
         Host: localhost
         User: root
     Password: //root 空密码
   Select_priv: Y
   Insert_priv: Y
   Update_priv: Y
   Delete_priv: Y
   Create_priv: Y
     Drop_priv: Y
   Reload_priv: Y
 Shutdown_priv: Y
  Process_priv: Y
     File_priv: Y
    Grant_priv: Y
References_priv: Y
    Index_priv: Y
    Alter_priv: Y
  Show_db_priv: Y
    Super_priv: Y
Create_tmp_table_priv: Y
 Lock_tables_priv: Y
  Execute_priv: Y
 Repl_slave_priv: Y
 Repl_client_priv: Y
 Create_view_priv: Y
  Show_view_priv: Y
Create_routine_priv: Y
 Alter_routine_priv: Y
  Create_user_priv: Y
     ssl_type:
   ssl_cipher:

```
        x509_issuer:
       x509_subject:
      max_questions: 0
       max_updates: 0
     max_connections: 0
  max_user_connections: 0
*********************** 2. row ***********************
             Host: itop
             User: root
           Password:
         Select_priv: Y
         Insert_priv: Y
         Update_priv: Y
         Delete_priv: Y
         Create_priv: Y
          Drop_priv: Y
         Reload_priv: Y
        Shutdown_priv: Y
         Process_priv: Y
           File_priv: Y
          Grant_priv: Y
       References_priv: Y
          Index_priv: Y
          Alter_priv: Y
        Show_db_priv: Y
          Super_priv: Y
   Create_tmp_table_priv: Y
       Lock_tables_priv: Y
         Execute_priv: Y
        Repl_slave_priv: Y
       Repl_client_priv: Y
       Create_view_priv: Y
        Show_view_priv: Y
     Create_routine_priv: Y
      Alter_routine_priv: Y
       Create_user_priv: Y
            ssl_type:
           ssl_cipher:
          x509_issuer:
         x509_subject:
        max_questions: 0
         max_updates: 0
       max_connections: 0
    max_user_connections: 0
*********************** 3. row ***********************
             Host: 127.0.0.1
             User: root
```

```
                       Password:
                    Select_priv: Y
                    Insert_priv: Y
                   Update_priv: Y
                   Delete_priv: Y
                   Create_priv: Y
                     Drop_priv: Y
                   Reload_priv: Y
                 Shutdown_priv: Y
                  Process_priv: Y
                      File_priv: Y
                     Grant_priv: Y
                References_priv: Y
                     Index_priv: Y
                     Alter_priv: Y
                   Show_db_priv: Y
                    Super_priv: Y
         Create_tmp_table_priv: Y
              Lock_tables_priv: Y
                  Execute_priv: Y
                 Repl_slave_priv: Y
                Repl_client_priv: Y
               Create_view_priv: Y
                Show_view_priv: Y
            Create_routine_priv: Y
             Alter_routine_priv: Y
               Create_user_priv: Y
                       ssl_type:
                     ssl_cipher:
                     x509_issuer:
                    x509_subject:
                  max_questions: 0
                    max_updates: 0
                max_connections: 0
           max_user_connections: 0
3 rows in set (0.00 sec)
```

mysql> delete from mysql.user where host!='localhost';   //删除表中主机名不等 localhost

Query OK, 2 rows affected (0.00 sec)

mysql> select * from mysql.user \G

```
*************************** 1. row *************************** 只留这一个用户
            Host: localhost
            User: root
        Password:
      Select_priv: Y
      Insert_priv: Y
     Update_priv: Y
```

```
                Delete_priv: Y
                Create_priv: Y
                  Drop_priv: Y
                Reload_priv: Y
              Shutdown_priv: Y
               Process_priv: Y
                  File_priv: Y
                 Grant_priv: Y
            References_priv: Y
                 Index_priv: Y
                 Alter_priv: Y
               Show_db_priv: Y
                 Super_priv: Y
       Create_tmp_table_priv: Y
            Lock_tables_priv: Y
               Execute_priv: Y
             Repl_slave_priv: Y
            Repl_client_priv: Y
            Create_view_priv: Y
             Show_view_priv: Y
         Create_routine_priv: Y
          Alter_routine_priv: Y
            Create_user_priv: Y
                   ssl_type:
                 ssl_cipher:
                x509_issuer:
               x509_subject:
              max_questions: 0
                max_updates: 0
            max_connections: 0
       max_user_connections: 0
1 row in set (0.00 sec)
```

mysql> flush privileges;   //刷新授权表

Query OK, 0 rows affected (0.00 sec)

mysql> set password for 'root'@'localhost'=password('passw0rd');   //设置 root 用户密码为

Query OK, 0 rows affected (0.00 sec)

mysql> select * from mysql.user \G

```
*********************** 1. row ***********************
              Host: localhost
              User: root
          Password: *74B1C21ACE0C2D6B0678A5E503D2A60E8F9651A3
        Select_priv: Y
        Insert_priv: Y
        Update_priv: Y
        Delete_priv: Y
        Create_priv: Y
```

```
            Drop_priv: Y
          Reload_priv: Y
        Shutdown_priv: Y
         Process_priv: Y
            File_priv: Y
           Grant_priv: Y
      References_priv: Y
           Index_priv: Y
           Alter_priv: Y
         Show_db_priv: Y
           Super_priv: Y
  Create_tmp_table_priv: Y
      Lock_tables_priv: Y
         Execute_priv: Y
       Repl_slave_priv: Y
      Repl_client_priv: Y
      Create_view_priv: Y
        Show_view_priv: Y
    Create_routine_priv: Y
     Alter_routine_priv: Y
       Create_user_priv: Y
            ssl_type:
          ssl_cipher:
          x509_issuer:
         x509_subject:
        max_questions: 0
         max_updates: 0
       max_connections: 0
   max_user_connections: 0
1 row in set (0.00 sec)
```

```
mysql> exit
Bye
[root@itop mysql]# bin/mysql                        //已无权限登陆
ERROR 1045 (28000): Access denied for user 'root'@'localhost' (using password: NO)

[root@itop mysql]# bin/mysql -u root -h localhost –p            //root 用户需输入密码
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 4
Server version: 5.0.41-log Source distribution

Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

mysql>
mysql> create database xxx;              //创建表测试

Query OK, 1 row affected (0.00 sec)
```

```
mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| mysql              |
| test               |
| xxx                |
+--------------------+
4 rows in set (0.00 sec)
```

```
[root@itop mysql]# bin/mysqladmin -u root -p shutdown        //关闭数据库
Enter password:
[root@itop mysql]# vi /etc/rc.local
```

添加如下两行，开机自动启动 apache 和 mysql

/usr/local/apache2/bin/apachectl start

/usr/local/mysql/bin/mysqld_safe --user=mysql &

3.12 安装 PHP 软件包

```
[root@itop php-5.2.6]# cd /soft/php-5.2.6/ && ls
acconfig.h        genfiles        php.ini-dist              run-tests.php
acconfig.h.in     header          php.ini-recommended       sapi
acinclude.m4      INSTALL         README.CVS-RULES          scripts
aclocal.m4        install-sh      README.EXTENSIONS         server-tests-config.php
build             LICENSE         README.EXT_SKEL           server-tests.php
buildconf         ltmain.sh       README.input_filter       snapshot
buildconf.bat     main            README.PARAMETER_PARSING_API    stamp-h.in
CODING_STANDARDS  makedist        README.PHP4-TO-PHP5-THIN-CHANGES  stub.c
config.guess      Makefile.frag   README.QNX                tests
config.sub        Makefile.gcov   README.SELF-CONTAINED-EXTENSIONS  TODO
configure         Makefile.global README.STREAMS            TODO-5.1
configure.in      makerpm         README.SUBMITTING_PATCH   TODO-PHP5
CREDITS           missing         README.TESTING            TSRM
cvsclean          mkinstalldirs   README.TESTING2           UPGRADING
cvsclean.bat      netware         README.UNIX-BUILD-SYSTEM  win32
ext               NEWS            README.UPDATE_5_2         Zend
EXTENSIONS        pear            README.WIN32-BUILD-SYSTEM
footer            php5.spec.in    README.Zeus
generated_lists   php.gif         regex
```

```
[root@itop php-5.2.6]# ./configure \                    //配置命令

> --prefix=/usr/local/php \                             //设置 PHP5 的安装路径

> --with-config-file-path=/usr/local/php/etc \          //指定 PHP5 配置文件存入路径

> --with-apxs2=/usr/local/apache2/bin/apxs \            //告诉 PHP 查找 apache2 的地方

> --with-mysql=/usr/local/mysql/ \                      //指定 mysql 的安装目录

> --with-libxml-dir=/usr/local/libxml2/ \               //告诉 PHP 放置 libxml2 库的地方
```

```
> --with-png-dir=/usr/local/libpng/ \           //告诉 PHP 放置 libpng 库的地方
> --with-jpeg-dir=/usr/local/jpeg6/ \           //告诉 PHP 放置 jpeg 库的地方
> --with-freetype-dir=/usr/local/freetype/ \    //告诉 PHP 放置 freetype 库的地方
> --with-gd=/usr/local/gd2/ \                    //告诉 PHP 放置 gd 库的地方
> --with-mcrypt=/usr/local/libmcrypt/ \         //告诉 PHP 放置 libmcrypt 库的地方
> --with-mysqli=/usr/local/mysql/bin/mysql_config \   //变量激活新增加的 mysqli 功能
> --enable-soap \                                //变量激活 SOAP 和 Webservices 支持
> --enable-mbstring=all \                        //使多字节字符串支持
> --enable-sockets                               //变量激活 socket 通讯特性
```

```
……
updating cache ./config.cache
creating ./config.status
creating php5.spec
creating main/build-defs.h
creating scripts/phpize
creating scripts/man1/phpize.1
creating scripts/php-config
creating scripts/man1/php-config.1
creating sapi/cli/php.1
creating main/php_config.h
creating main/internal_functions.c
creating main/internal_functions_cli.c
+--------------------------------------------------------------------+
| License:                                                           |
| This software is subject to the PHP License, available in this     |
| distribution in the file LICENSE.  By continuing this installation |
| process, you are bound by the terms of this license agreement.     |
| If you do not agree with the terms of this license, you must abort |
| the installation process at this point.                            |
+--------------------------------------------------------------------+

Thank you for using PHP.
```

```
[root@itop php-5.2.6]# make && make install
```

```
……
chmod 755 /usr/local/apache2/modules/libphp5.so
[activating module `php5' in /etc/httpd/httpd.conf]
Installing PHP CLI binary:      /usr/local/php/bin/
Installing PHP CLI man page:     /usr/local/php/man/man1/
Installing build environment:    /usr/local/php/lib/php/build/
Installing header files:        /usr/local/php/include/php/
Installing helper programs:      /usr/local/php/bin/
  program: phpize
  program: php-config
```

```
Installing man pages:          /usr/local/php/man/man1/
  page: phpize.1
  page: php-config.1
Installing PEAR environment:     /usr/local/php/lib/php/
[PEAR] Console_Getopt - installed: 1.2.3
[PEAR] Archive_Tar   - installed: 1.3.2
[PEAR] Structures_Graph- installed: 1.0.2
pear/PEAR can optionally use package "pear/XML_RPC" (version >= 1.4.0)
[PEAR] PEAR          - installed: 1.7.1
Wrote PEAR system config file at: /usr/local/php/etc/pear.conf
You may want to add: /usr/local/php/lib/php to your php.ini include_path
Installing PDO headers:         /usr/local/php/include/php/ext/pdo/
```

```
[root@itop php-5.2.6]# cd /usr/local/php/ && ls
```

```
bin  etc  include  lib  man
```

3.13 LAMP 环境整合

```
[root@itop php]# cp /soft/php-5.2.6/php.ini-dist /usr/local/php/etc/php.ini
[root@itop php]# cd /usr/local/apache2/modules/ && ls
```

```
httpd.exp  libphp5.so  mod_deflate.so  mod_expires.so  mod_rewrite.so
```

```
[root@itop modules]# vi /etc/httpd/httpd.conf
```

查看下面一行是否存在，apache 加载 php

LoadModule php5_module   modules/libphp5.so

添加下面一行，解析后缀名为.php 或.phtml 的文件

　　AddType application/x-compress .Z
　　AddType application/x-gzip .gz .tgz
　　AddType application/x-httpd-php .php .phtml

添加下面红色部分

　　<IfModule dir_module>
　　　　DirectoryIndex index.php index.html
　　</IfModule>

```
只要修改 apache 和 php 相关配置文件都需要重启 apache 服务
[root@itop modules]# /usr/local/apache2/bin/apachectl stop
[root@itop modules]# /usr/local/apache2/bin/apachectl start
```

查看 php 环境，需创建一测试页面

```
[root@itop modules]# cd /usr/local/apache2/htdocs/ && ls
```

```
apache_pb22_ani.gif   apache_pb22.gif   apache_pb22.png   apache_pb.gif   apache_pb.png
index.html
```
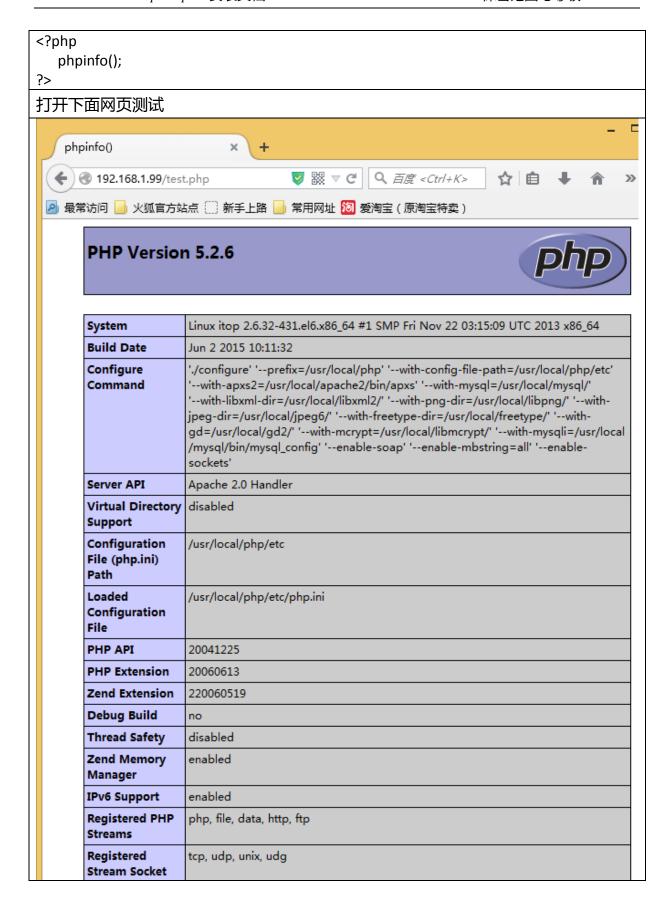
```
[root@itop htdocs]# touch test.php && ls
```
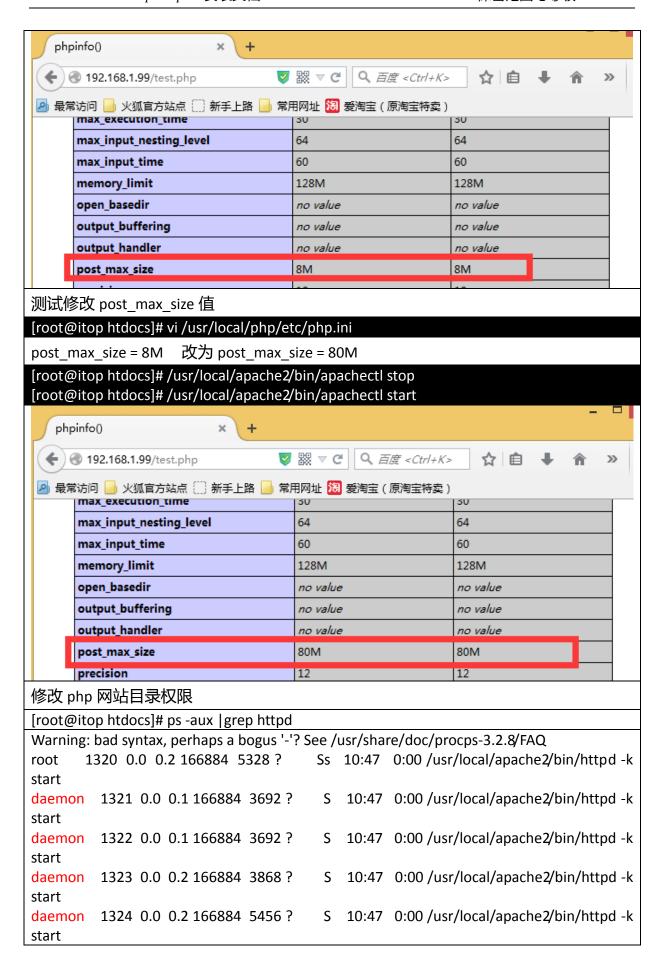
```
apache_pb22_ani.gif  apache_pb22.png  apache_pb.png  test.php
apache_pb22.gif     apache_pb.gif    index.html
```

```
[root@itop htdocs]# vi test.php
```

添加如下几行

```
<?php
    phpinfo();
?>
```

打开下面网页测试

测试修改 post_max_size 值

[root@itop htdocs]# vi /usr/local/php/etc/php.ini

post_max_size = 8M   改为 post_max_size = 80M

[root@itop htdocs]# /usr/local/apache2/bin/apachectl stop
[root@itop htdocs]# /usr/local/apache2/bin/apachectl start

修改 php 网站目录权限

[root@itop htdocs]# ps -aux |grep httpd

Warning: bad syntax, perhaps a bogus '-'? See /usr/share/doc/procps-3.2.8/FAQ
root   1320 0.0 0.2 166884 5328 ?   Ss   10:47   0:00 /usr/local/apache2/bin/httpd -k start
daemon   1321 0.0 0.1 166884 3692 ?   S   10:47   0:00 /usr/local/apache2/bin/httpd -k start
daemon   1322 0.0 0.1 166884 3692 ?   S   10:47   0:00 /usr/local/apache2/bin/httpd -k start
daemon   1323 0.0 0.2 166884 3868 ?   S   10:47   0:00 /usr/local/apache2/bin/httpd -k start
daemon   1324 0.0 0.2 166884 5456 ?   S   10:47   0:00 /usr/local/apache2/bin/httpd -k start

daemon	1325	0.0	0.1	166884	3692	?	S	10:47	0:00 /usr/local/apache2/bin/httpd -k start
daemon	1326	0.0	0.1	166884	3692	?	S	10:47	0:00 /usr/local/apache2/bin/httpd -k start
daemon	1327	0.0	0.1	166884	3692	?	S	10:47	0:00 /usr/local/apache2/bin/httpd -k start
daemon	1328	0.0	0.1	166884	3692	?	S	10:47	0:00 /usr/local/apache2/bin/httpd -k start
root	1332	0.0	0.0	103244	852	pts/0	S+	10:53	0:00 grep httpd

```
[root@itop htdocs]# mkdir itop
[root@itop htdocs]# ll
```

```
total 32
-rw-r--r--. 1  501 games 2205 Dec 15  2005 apache_pb22_ani.gif
-rw-r--r--. 1  501 games 2410 Dec 15  2005 apache_pb22.gif
-rw-r--r--. 1  501 games 1502 Dec 15  2005 apache_pb22.png
-rw-r--r--. 1  501 games 2326 Nov 21  2004 apache_pb.gif
-rw-r--r--. 1  501 games 1385 Nov 21  2004 apache_pb.png
-rw-r--r--. 1  501 games   44 Nov 21  2004 index.html
drwxr-xr-x. 2 root root  4096 Jun  2 10:55 itop
-rw-r--r--. 1 root root    26 Jun  2 10:34 test.php
```

```
[root@itop htdocs]# chown -R daemon.daemon itop && ll
```

```
total 32
-rw-r--r--. 1   501 games  2205 Dec 15  2005 apache_pb22_ani.gif
-rw-r--r--. 1   501 games  2410 Dec 15  2005 apache_pb22.gif
-rw-r--r--. 1   501 games  1502 Dec 15  2005 apache_pb22.png
-rw-r--r--. 1   501 games  2326 Nov 21  2004 apache_pb.gif
-rw-r--r--. 1   501 games  1385 Nov 21  2004 apache_pb.png
-rw-r--r--. 1   501 games    44 Nov 21  2004 index.html
drwxr-xr-x. 2 daemon daemon 4096 Jun  2 10:55 itop
-rw-r--r--. 1 root   root     26 Jun  2 10:34 test.php
```

3.14 安装 zendoptimizer 软件包（PHP 加速）

```
[root@itop soft]# ls
```
```
ZendOptimizer-3.3.3-linux-glibc23-x86_64.tar.gz
```
```
[root@itop soft]# tar zxvf ZendOptimizer-3.3.3-linux-glibc23-x86_64.tar.gz
[root@itop soft]# rm -rf ZendOptimizer-3.3.3-linux-glibc23-x86_64.tar.gz
[root@itop soft]# cd ZendOptimizer-3.3.3-linux-glibc23-x86_64/ && ls
```
```
data          install    install-tty   LICENSE  README-ZendOptimizer
EULA-ZendOptimizer  install.sh  Inventory.xml  md5     zui_files
```
```
[root@itop ZendOptimizer-3.3.3-linux-glibc23-x86_64]# ./install.sh
```

```
                    Zend Optimizer 3.3.3

Welcome to the Zend Optimizer 3.3.3 Installation!

For more information regarding this procedure, please see the
Zend Optimizer Installation Guide.


                         <  OK  >
```
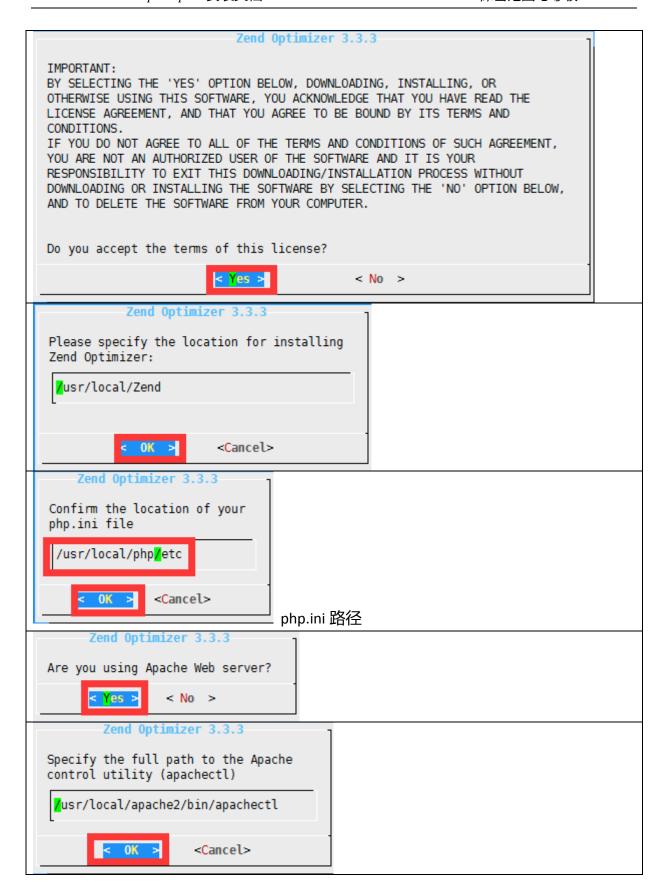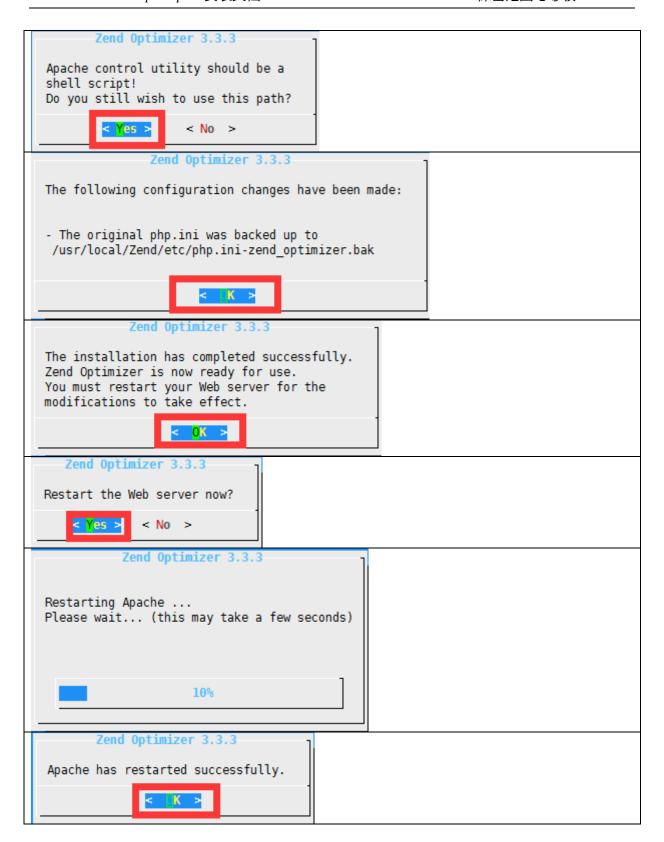
```
                    Zend Optimizer 3.3.3
Zend or to incur any obligation its behalf or to represent itself as
Zend's agent or in any way that might result in confusion as to the fact
that the parties are separate and distinct entities. The section headings
herein are provided for convenience only and have no substantive effect on
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provision.  The failure by Zend to exercise any right hereunder shall not
operate as a waiver of Zend's right to exercise such right or any other
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document executed by a duly authorized representative of each of the
parties. This Agreement constitutes the complete and exclusive statement
of the terms and agreement between Zend and Licensee and supersedes all
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provision of this Agreement, all costs and expenses, including reasonable
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paid by Licensee, in addition to other damages to which Zend or its
licensors may be lawfully entitled. Licensee agrees that it will not refer
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Zend's name in any press releases, advertising, marketing or other
materials without Zend's advanced written consent in each instance. Any
notice provided by Licensee to Zend pursuant to this Agreement shall be in
writing to Zend Technologies Ltd. at P.O. Box 3619, Ramat Gan 52136,
Israel, and shall be deemed given (i) if by hand delivery, upon receipt
thereof; (ii) if mailed, three (3) days after deposit in the U.S. mails,
postage prepaid, certified mail, return receipt requested; or (iii) if by
next day delivery service, upon such delivery. Any notice provided by Zend
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mailing address provided by Licensee upon registering on Zend's Web site,
and shall be deemed given (i) if by hand delivery, upon receipt thereof;
(ii) if mailed, three (3) days after deposit in the U.S. mails, postage
prepaid, certified mail, return receipt requested; or (iii) if by next day
delivery service, upon such delivery. Either party may change its address
by giving written notice to the other party.

                                                              100%
                         < EXIT >
```
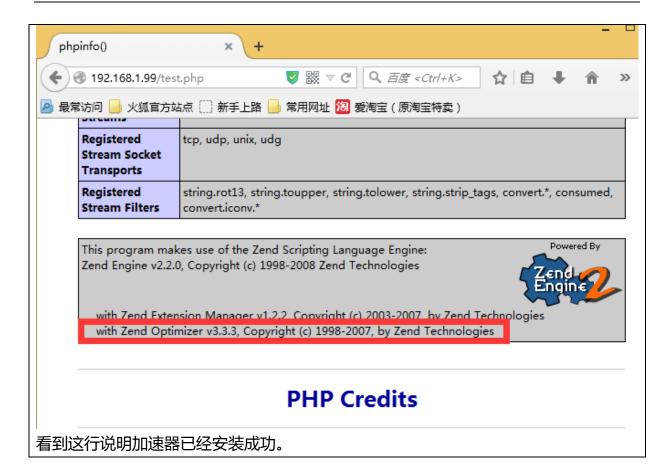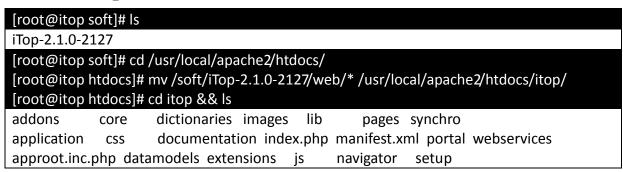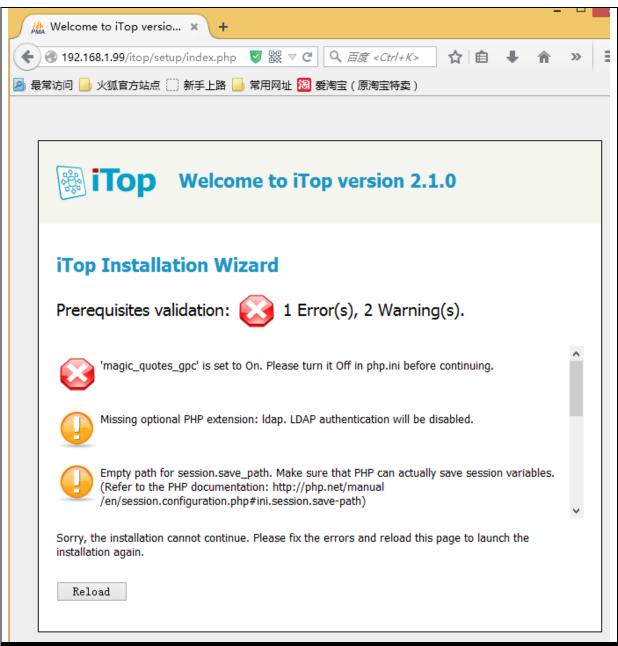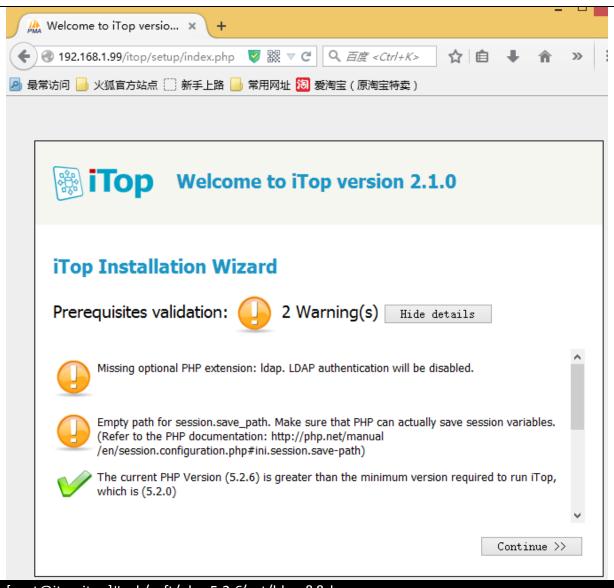
Zend Optimizer 3.3.3

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OTHERWISE USING THIS SOFTWARE, YOU ACKNOWLEDGE THAT YOU HAVE READ THE
LICENSE AGREEMENT, AND THAT YOU AGREE TO BE BOUND BY ITS TERMS AND
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YOU ARE NOT AN AUTHORIZED USER OF THE SOFTWARE AND IT IS YOUR
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DOWNLOADING OR INSTALLING THE SOFTWARE BY SELECTING THE 'NO' OPTION BELOW,
AND TO DELETE THE SOFTWARE FROM YOUR COMPUTER.

Do you accept the terms of this license?

< Yes >   < No >

Zend Optimizer 3.3.3

Please specify the location for installing
Zend Optimizer:

/usr/local/Zend

<   OK   >   <Cancel>

Zend Optimizer 3.3.3

Confirm the location of your
php.ini file

/usr/local/php/etc

<   OK   >   <Cancel>

php.ini 路径

Zend Optimizer 3.3.3

Are you using Apache Web server?

< Yes >   < No >

Zend Optimizer 3.3.3

Specify the full path to the Apache
control utility (apachectl)

/usr/local/apache2/bin/apachectl

<   OK   >   <Cancel>

```
           Zend Optimizer 3.3.3

Apache control utility should be a
shell script!
Do you still wish to use this path?

            < Yes >        < No  >
```

```
           Zend Optimizer 3.3.3

The following configuration changes have been made:


- The original php.ini was backed up to
 /usr/local/Zend/etc/php.ini-zend_optimizer.bak

                < OK  >
```

```
           Zend Optimizer 3.3.3

The installation has completed successfully.
Zend Optimizer is now ready for use.
You must restart your Web server for the
modifications to take effect.
                < OK  >
```

```
     Zend Optimizer 3.3.3

Restart the Web server now?

    < Yes >    < No  >
```

```
           Zend Optimizer 3.3.3


Restarting Apache ...
Please wait... (this may take a few seconds)



    ▉▉▉▉        10%
```

```
        Zend Optimizer 3.3.3

Apache has restarted successfully.
         < OK  >
```

看到这行说明加速器已经安装成功。

4 安装 itop

```
[root@itop soft]# ls
iTop-2.1.0-2127
[root@itop soft]# cd /usr/local/apache2/htdocs/
[root@itop htdocs]# mv /soft/iTop-2.1.0-2127/web/* /usr/local/apache2/htdocs/itop/
[root@itop htdocs]# cd itop && ls
addons         core       dictionaries images      lib      pages synchro
application     css        documentation index.php manifest.xml portal webservices
approot.inc.php datamodels extensions    js        navigator    setup
```

[root@itop itop]# vi /usr/local/php/etc/php.ini

magic_quotes_gpc = On 改成 magic_quotes_gpc = Off

[root@itop itop]# /usr/local/apache2/bin/apachectl stop
[root@itop itop]# /usr/local/apache2/bin/apachectl start

```
[root@itop itop]# cd /soft/php-5.2.6/ext/ldap && ls
config.m4   CREDITS  ldap.dsp  LDAP_Win32_HOWTO.txt  tests
config.w32  ldap.c   ldap.mak  php_ldap.h
```

```
[root@itop ldap]# /usr/local/php/bin/phpize
Configuring for:
PHP Api Version:        20041225
Zend Module Api No:     20060613
Zend Extension Api No:  220060519
```

```
[root@itop ldap]# ls
acinclude.m4    config.guess  configure    install-sh  LDAP_Win32_HOWTO.txt  mkinstalldirs
aclocal.m4      config.h.in   configure.in ldap.c      ltmain.sh             php_ldap.h
autom4te.cache  config.m4     config.w32   ldap.dsp    Makefile.global       run-tests.php
build           config.sub    CREDITS      ldap.mak    missing               tests
```

```
[root@itop ldap]# ./configure \
> --with-php-config=/usr/local/php/bin/php-config \
> --with-ldap
```

```
hecking for re2c... no
```

configure: WARNING: You will need re2c 0.12.0 or later if you want to regenerate PHP parsers.
checking for gawk... gawk
checking for LDAP support... yes, shared
checking for LDAP Cyrus SASL support... no

configure: error: Cannot find ldap.h　　//解决方法如下

```
[root@itop ldap]# yum -y install openldap.x86_64 openldap-devel.x86_64
[root@itop ldap]# cp -frp /usr/lib64/libldap* /usr/lib/
[root@itop ldap]# ./configure \
> --with-php-config=/usr/local/php/bin/php-config \
> --with-ldap
```

……
checking how to hardcode library paths into programs... immediate
checking whether stripping libraries is possible... yes
checking if libtool supports shared libraries... yes
checking whether to build shared libraries... yes
checking whether to build static libraries... no

creating libtool
appending configuration tag "CXX" to libtool
configure: creating ./config.status
config.status: creating config.h

```
[root@itop ldap]# make && make install
```

Libraries have been installed in:
   /soft/php-5.2.6/ext/ldap/modules

If you ever happen to want to link against installed libraries
in a given directory, LIBDIR, you must either use libtool, and
specify the full pathname of the library, or use the `-LLIBDIR'
flag during linking and do at least one of the following:
   - add LIBDIR to the `LD_LIBRARY_PATH' environment variable
     during execution
   - add LIBDIR to the `LD_RUN_PATH' environment variable
     during linking
   - use the `-Wl,--rpath -Wl,LIBDIR' linker flag
   - have your system administrator add LIBDIR to `/etc/ld.so.conf'

See any operating system documentation about shared libraries for
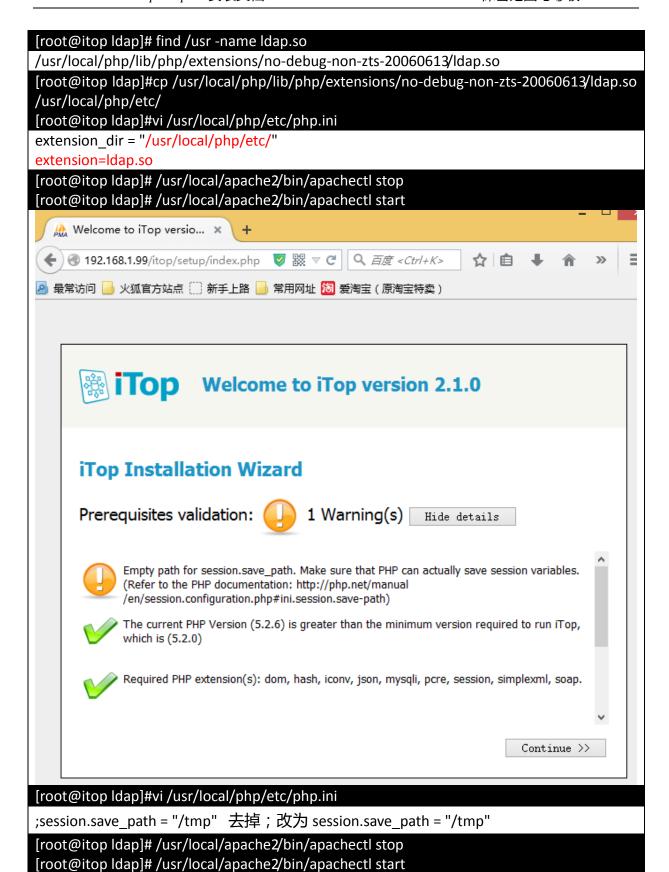more information, such as the ld(1) and ld.so(8) manual pages.
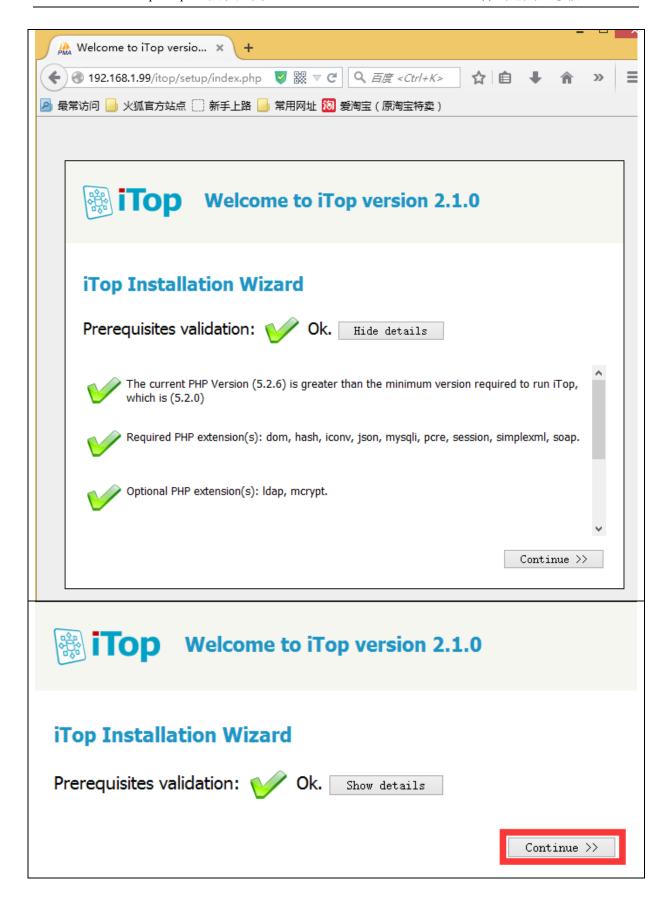--

Build complete.
Don't forget to run 'make test'.

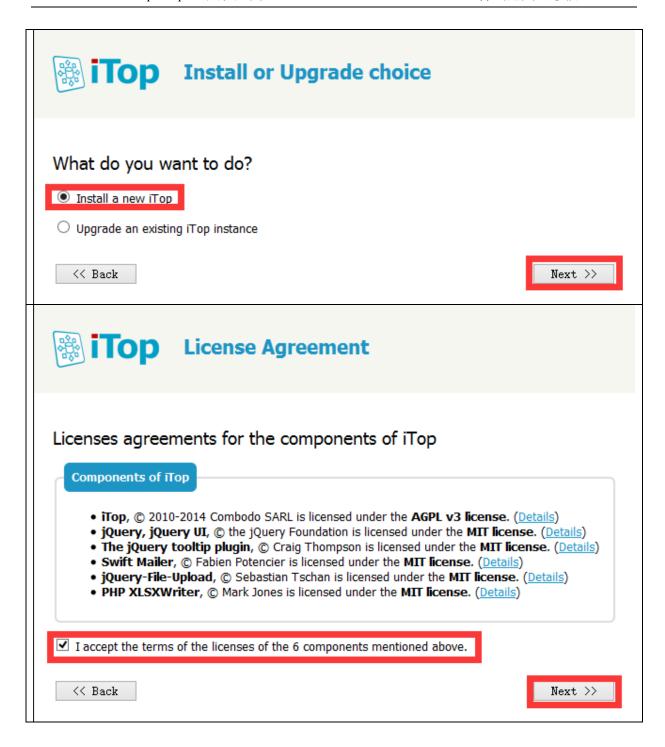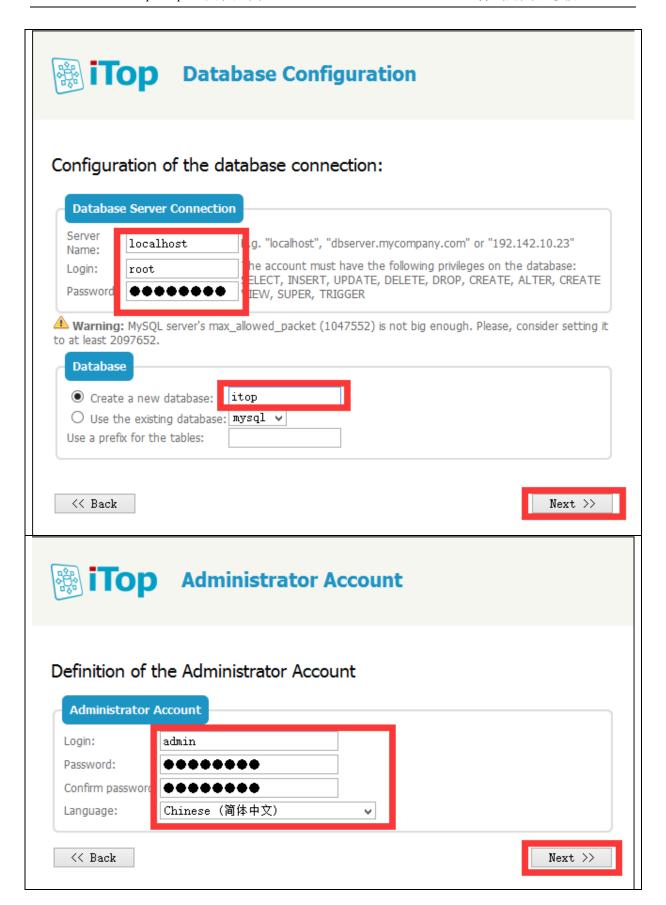Installing shared extensions:　　　　　/usr/local/php/lib/php/extensions/no-debug-non-zts-20060613/

```
[root@itop ldap]# find /usr -name ldap.so
/usr/local/php/lib/php/extensions/no-debug-non-zts-20060613/ldap.so
[root@itop ldap]#cp /usr/local/php/lib/php/extensions/no-debug-non-zts-20060613/ldap.so
/usr/local/php/etc/
[root@itop ldap]#vi /usr/local/php/etc/php.ini
```

extension_dir = "/usr/local/php/etc/"
extension=ldap.so

```
[root@itop ldap]# /usr/local/apache2/bin/apachectl stop
[root@itop ldap]# /usr/local/apache2/bin/apachectl start
```



```
[root@itop ldap]#vi /usr/local/php/etc/php.ini
```

;session.save_path = "/tmp" 去掉；改为 session.save_path = "/tmp"

```
[root@itop ldap]# /usr/local/apache2/bin/apachectl stop
[root@itop ldap]# /usr/local/apache2/bin/apachectl start
```

iTop Install or Upgrade choice

What do you want to do?

- ● Install a new iTop
- ○ Upgrade an existing iTop instance

<< Back　　　　　　　　　　Next >>

iTop License Agreement

Licenses agreements for the components of iTop

Components of iTop

- **iTop**, © 2010-2014 Combodo SARL is licensed under the **AGPL v3 license**. (Details)
- **jQuery, jQuery UI**, © the jQuery Foundation is licensed under the **MIT license**. (Details)
- **The jQuery tooltip plugin**, © Craig Thompson is licensed under the **MIT license**. (Details)
- **Swift Mailer**, © Fabien Potencier is licensed under the **MIT license**. (Details)
- **jQuery-File-Upload**, © Sebastian Tschan is licensed under the **MIT license**. (Details)
- **PHP XLSXWriter**, © Mark Jones is licensed under the **MIT license**. (Details)

☑ I accept the terms of the licenses of the 6 components mentioned above.

<< Back　　　　　　　　　　Next >>

iTop Database Configuration

Configuration of the database connection:

Database Server Connection

Server Name:	localhost
Login:	root
Password:	●●●●●●●

e.g. "localhost", "dbserver.mycompany.com" or "192.142.10.23"

The account must have the following privileges on the database: SELECT, INSERT, UPDATE, DELETE, DROP, CREATE, ALTER, CREATE VIEW, SUPER, TRIGGER

⚠ **Warning:** MySQL server's max_allowed_packet (1047552) is not big enough. Please, consider setting it to at least 2097652.

Database

◉ Create a new database: `itop`

○ Use the existing database: `mysql ▾`

Use a prefix for the tables: _____

`<< Back`   `Next >>`

---

iTop Administrator Account

Definition of the Administrator Account

Administrator Account

Login:	admin
Password:	●●●●●●●
Confirm password	●●●●●●●
Language:	Chinese (简体中文) ▾

`<< Back`   `Next >>`

如果初次使用 itop，尽量安装带演示数据的。

iTop **Configuration Management options**

The options below allow you to configure the type of elements that are to be managed inside iTop.

☑ **Configuration Management Core**
All the base objects that are mandatory in the iTop CMDB: Organizations, Locations, Teams, Persons, etc.

☑ **Data Center Devices**
Manage Data Center devices such as Racks, Enclosures, PDUs, etc.

☑ **End-User Devices**
Manage devices related to end-users: PCs, Phones, Tablets, etc.

☑ **Storage Devices**
Manage storage devices such as NAS, SAN Switches, Tape Libraries and Tapes, etc.

☑ **Virtualization**
Manage Hypervisors, Virtual Machines and Farms.

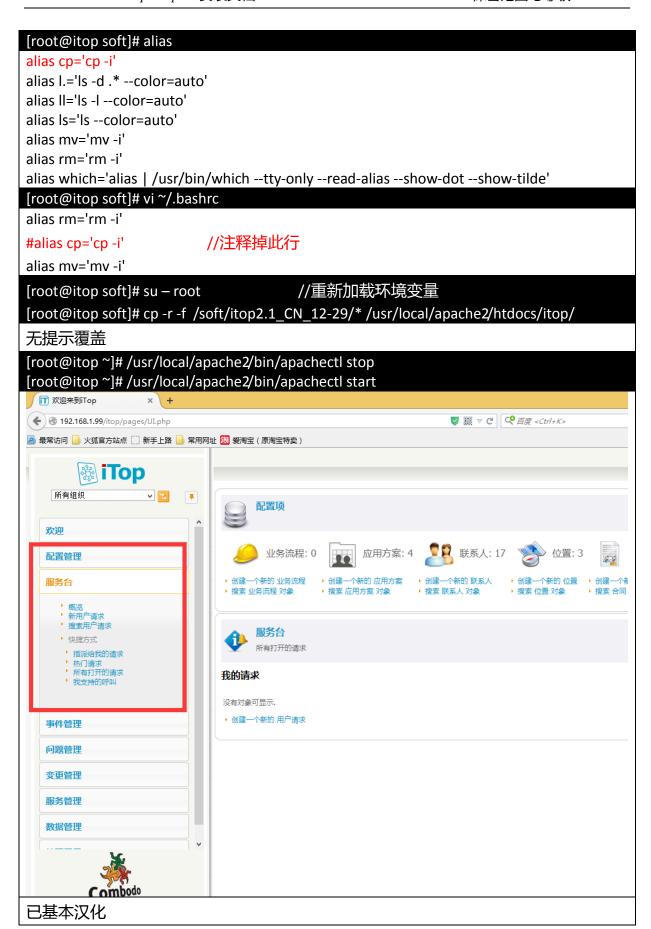`<< Back`   `Next >>`

有英文菜单，需要进行汉化。

5 汉化 itop

[root@itop etc]# cd /soft/ && ls

itop2.1_CN_12-29   //汉化包，网上可找到

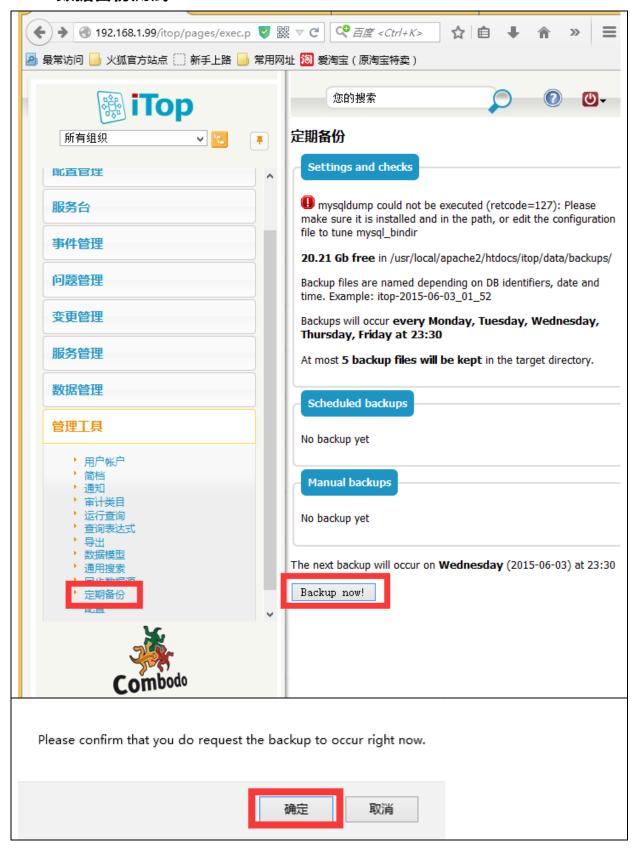[root@itop soft]# cp -r -f ./itop2.1_CN_12-29/* /usr/local/apache2/htdocs/itop/

cp: overwrite `/usr/local/apache2/htdocs/itop/dictionaries/es_cr.dictionary.itop.ui.php'?

提示覆盖确认，需要解决强制覆盖不提示问题

```
[root@itop soft]# alias
alias cp='cp -i'
alias l.='ls -d .* --color=auto'
alias ll='ls -l --color=auto'
alias ls='ls --color=auto'
alias mv='mv -i'
alias rm='rm -i'
alias which='alias | /usr/bin/which --tty-only --read-alias --show-dot --show-tilde'
[root@itop soft]# vi ~/.bashrc
alias rm='rm -i'
#alias cp='cp -i'                //注释掉此行
alias mv='mv -i'
[root@itop soft]# su – root                //重新加载环境变量
[root@itop soft]# cp -r -f  /soft/itop2.1_CN_12-29/* /usr/local/apache2/htdocs/itop/
```

无提示覆盖

```
[root@itop ~]# /usr/local/apache2/bin/apachectl stop
[root@itop ~]# /usr/local/apache2/bin/apachectl start
```


已基本汉化

具体使用请参照使用手册。

6 数据备份与还原

6.1 数据备份测试

The next backup will occur on **Wednesday** (2015-06-03) at 23:30

Backup now!

⚠️ Error: Failed to execute mysqldump: sh: mysqldump: command not found

[root@itop backups]# ln -fs /usr/local/mysql/bin/mysqldump /usr/bin
[root@itop bin]# cd /soft/php-5.2.6/ext/zip
[root@itop zip]# /usr/local/php/bin/phpize

Configuring for:
PHP Api Version: 20041225
Zend Module Api No: 20060613
Zend Extension Api No: 220060519

[root@itop zip]# ls

acinclude.m4   config.h.in   config.w32 ltmain.sh   php_zip.c   zip_stream.c
aclocal.m4   config.m4   CREDITS   Makefile.frag php_zip.h
autom4te.cache config.sub   examples   Makefile.global run-tests.php
build   configure   install-sh missing   tests
config.guess   configure.in lib   mkinstalldirs   TODO

[root@itop zip]# ./configure \
> --with-php-config=/usr/local/php/bin/php-config \
> --with-zip

……
checking whether -lc should be explicitly linked in... no
checking dynamic linker characteristics... GNU/Linux ld.so
checking how to hardcode library paths into programs... immediate
checking whether stripping libraries is possible... yes
checking if libtool supports shared libraries... yes
checking whether to build shared libraries... yes
checking whether to build static libraries... no

creating libtool
appending configuration tag "CXX" to libtool
configure: creating ./config.status
config.status: creating config.h

[root@itop zip]# make && make install

…..
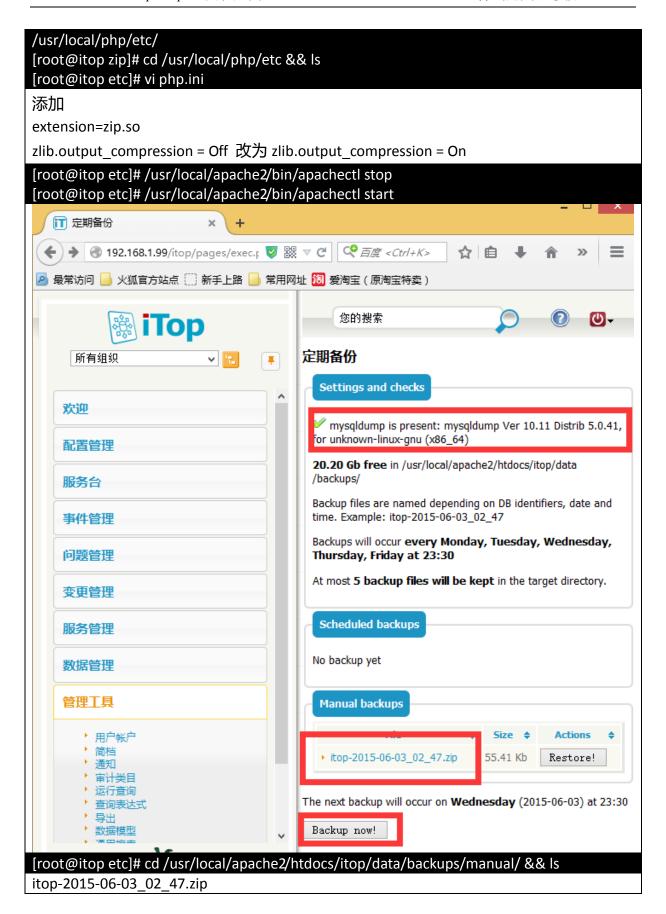Build complete.
Don't forget to run 'make test'.

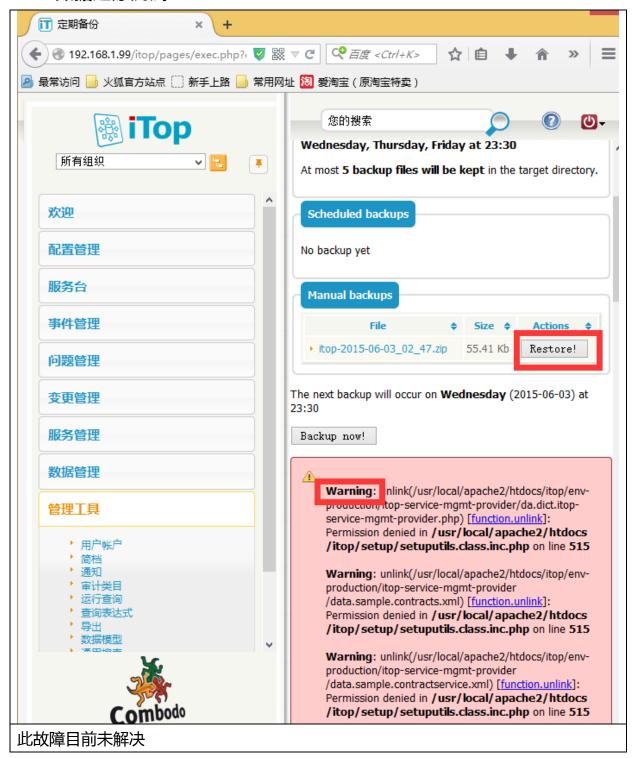Installing shared extensions: /usr/local/php/lib/php/extensions/no-debug-non-zts-20060613/
Installing header files: /usr/local/php/include/php/
Installing ZIP headers: /usr/local/php/include/php/ext/zip/lib

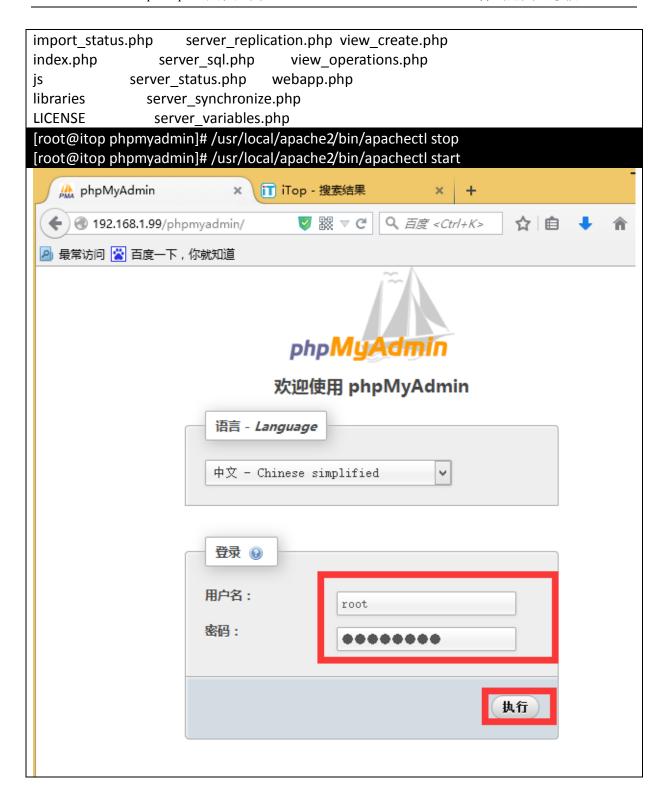[root@itop zip]# cp /usr/local/php/lib/php/extensions/no-debug-non-zts-20060613/zip.so

```
/usr/local/php/etc/
[root@itop zip]# cd /usr/local/php/etc && ls
[root@itop etc]# vi php.ini
```
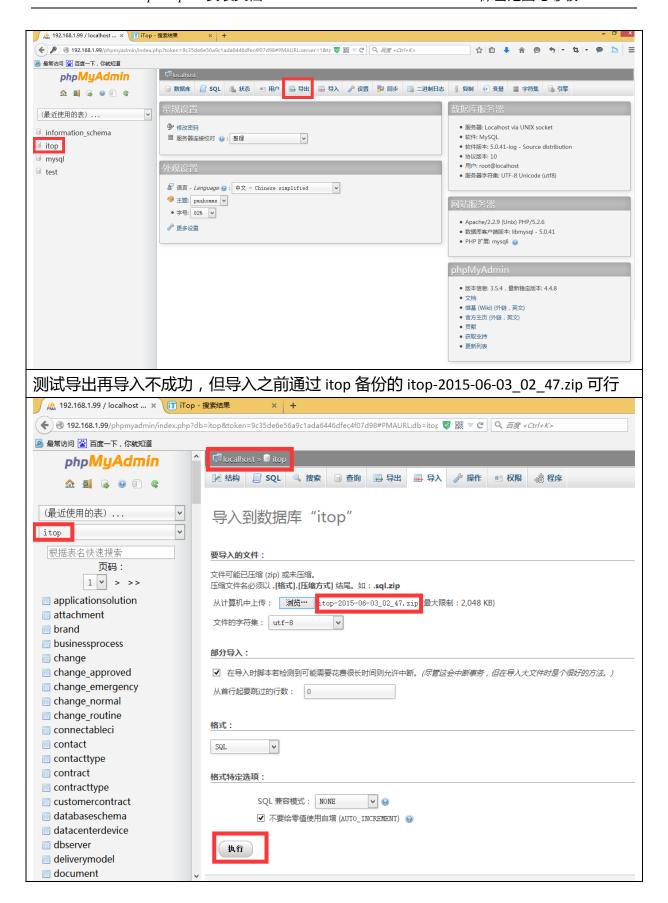
添加

extension=zip.so

zlib.output_compression = Off 改为 zlib.output_compression = On

```
[root@itop etc]# /usr/local/apache2/bin/apachectl stop
[root@itop etc]# /usr/local/apache2/bin/apachectl start
```



```
[root@itop etc]# cd /usr/local/apache2/htdocs/itop/data/backups/manual/ && ls
itop-2015-06-03_02_47.zip
```

6.2 数据还原测试

此故障目前未解决

6.3 安装 phpmyadmin 管理工具
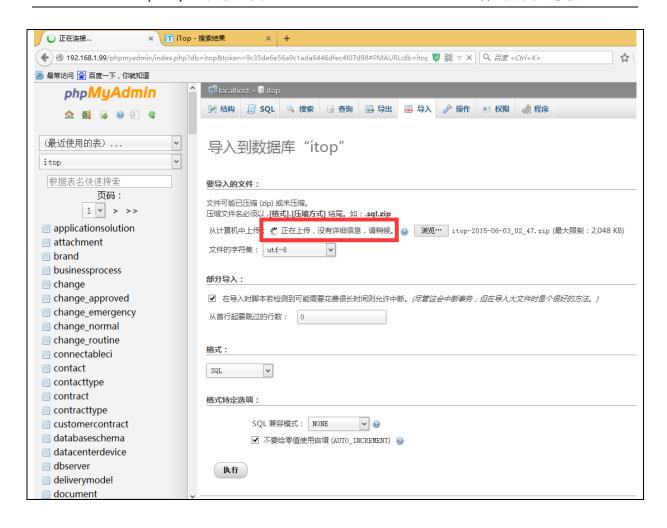
```
[root@itop soft]# yum -y install unzip
[root@itop soft]# ls
phpMyAdmin-3.5.4-all-languages.zip
[root@itop soft]# unzip phpMyAdmin-3.5.4-all-languages.zip
```
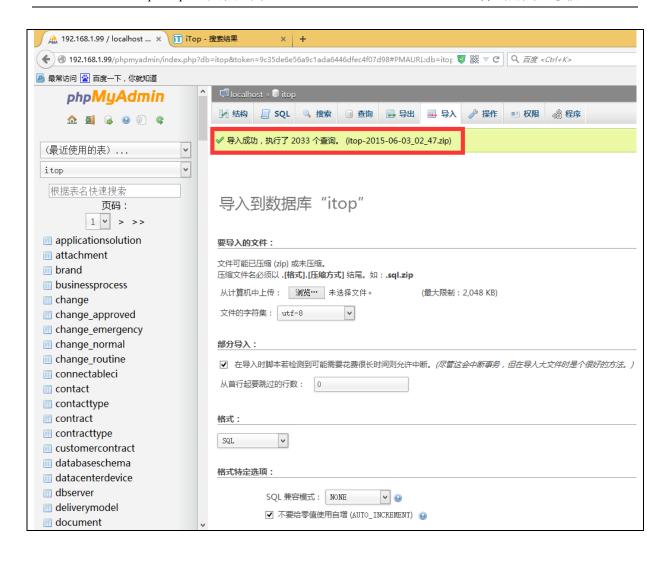
```
......
inflating: phpMyAdmin-3.5.4-all-languages/themes/pmahomme/sprites.lib.php
  inflating: phpMyAdmin-3.5.4-all-languages/themes/sprites.css.php
  inflating: phpMyAdmin-3.5.4-all-languages/themes/svg_gradient.php
  inflating: phpMyAdmin-3.5.4-all-languages/transformation_overview.php
  inflating: phpMyAdmin-3.5.4-all-languages/transformation_wrapper.php
  inflating: phpMyAdmin-3.5.4-all-languages/url.php
  inflating: phpMyAdmin-3.5.4-all-languages/user_password.php
  inflating: phpMyAdmin-3.5.4-all-languages/version_check.php
  inflating: phpMyAdmin-3.5.4-all-languages/view_create.php
  inflating: phpMyAdmin-3.5.4-all-languages/view_operations.php
  inflating: phpMyAdmin-3.5.4-all-languages/webapp.php
[root@itop soft]# rm -rf phpMyAdmin-3.5.4-all-languages.zip
[root@itop soft]# cp -r -f /soft/phpMyAdmin-3.5.4-all-languages/*
/usr/local/apache2/htdocs/phpmyadmin/
[root@itop soft]# cd /usr/local/apache2/htdocs/phpmyadmin/ && ls
```

```
browse_foreigners.php    license.php              setup
bs_disp_as_mime_type.php  locale                  show_config_errors.php
bs_play_media.php         main.php                sql.php
ChangeLog                 navigation.php          tbl_addfield.php
changelog.php             phpinfo.php             tbl_alter.php
chk_rel.php               phpmyadmin.css.php      tbl_change.php
config.sample.inc.php     phpunit.xml.nocoverage  tbl_chart.php
db_create.php             pmd_display_field.php   tbl_create.php
db_datadict.php           pmd_general.php         tbl_export.php
db_events.php             pmd_pdf.php             tbl_get_field.php
db_export.php             pmd_relation_new.php    tbl_gis_visualization.php
db_import.php             pmd_relation_upd.php    tbl_import.php
db_operations.php         pmd_save_pos.php        tbl_indexes.php
db_printview.php          prefs_forms.php         tbl_move_copy.php
db_qbe.php                prefs_manage.php        tbl_operations.php
db_routines.php           print.css               tbl_printview.php
db_search.php             querywindow.php         tbl_relation.php
db_sql.php                README                  tbl_replace.php
db_structure.php          README.VENDOR           tbl_row_action.php
db_tracking.php           RELEASE-DATE-3.5.4      tbl_select.php
db_triggers.php           robots.txt              tbl_sql.php
docs.css                  schema_edit.php         tbl_structure.php
Documentation.html        schema_export.php       tbl_tracking.php
Documentation.txt         server_binlog.php       tbl_triggers.php
enum_editor.php           server_collations.php   tbl_zoom_select.php
examples                  server_databases.php    themes
export.php                server_engines.php      themes.php
favicon.ico               server_export.php       transformation_overview.php
file_echo.php             server_import.php       transformation_wrapper.php
gis_data_editor.php       server_plugins.php      url.php
import.php                server_privileges.php   user_password.php
```

```
import_status.php        server_replication.php  view_create.php
index.php                server_sql.php          view_operations.php
js                       server_status.php       webapp.php
libraries                server_synchronize.php
LICENSE                  server_variables.php
```
[root@itop phpmyadmin]# /usr/local/apache2/bin/apachectl stop
[root@itop phpmyadmin]# /usr/local/apache2/bin/apachectl start

测试导出再导入不成功，但导入之前通过 itop 备份的 itop-2015-06-03_02_47.zip 可行