



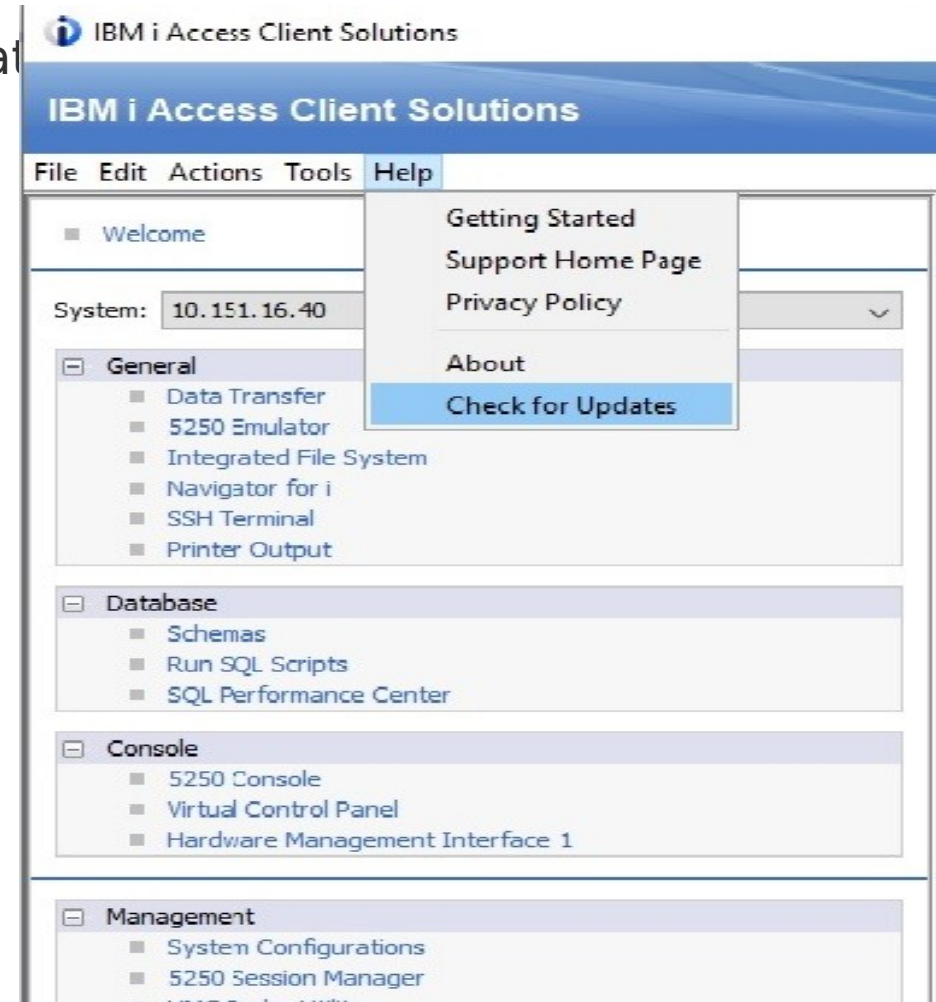
# IBM i Access Client Solution

# IBM i Access Client Solutions (ACS)

- IBM i Access Client Solutions the Open-Source Package Management utility
  - Available since, 2018 on OS 7.2 and up
  - The preferred way to installing Open-Source related software on IBM i server
  - ACS is required, see the Getting started document for installation instructions  
<https://www.ibm.com/support/pages/getting-started-open-source-package-management-ibm-i-accs>
- Update to the latest available IBM i Access Client Solutions client Version 1.1.8.8 dated 2021-09-13
  - The next available update is planned for April 2022
  - Download the latest Base Package IBMiAccess\_v1r1.zip from here:  
<https://www.ibm.com/support/pages/ibm-i-access-client-solutions>

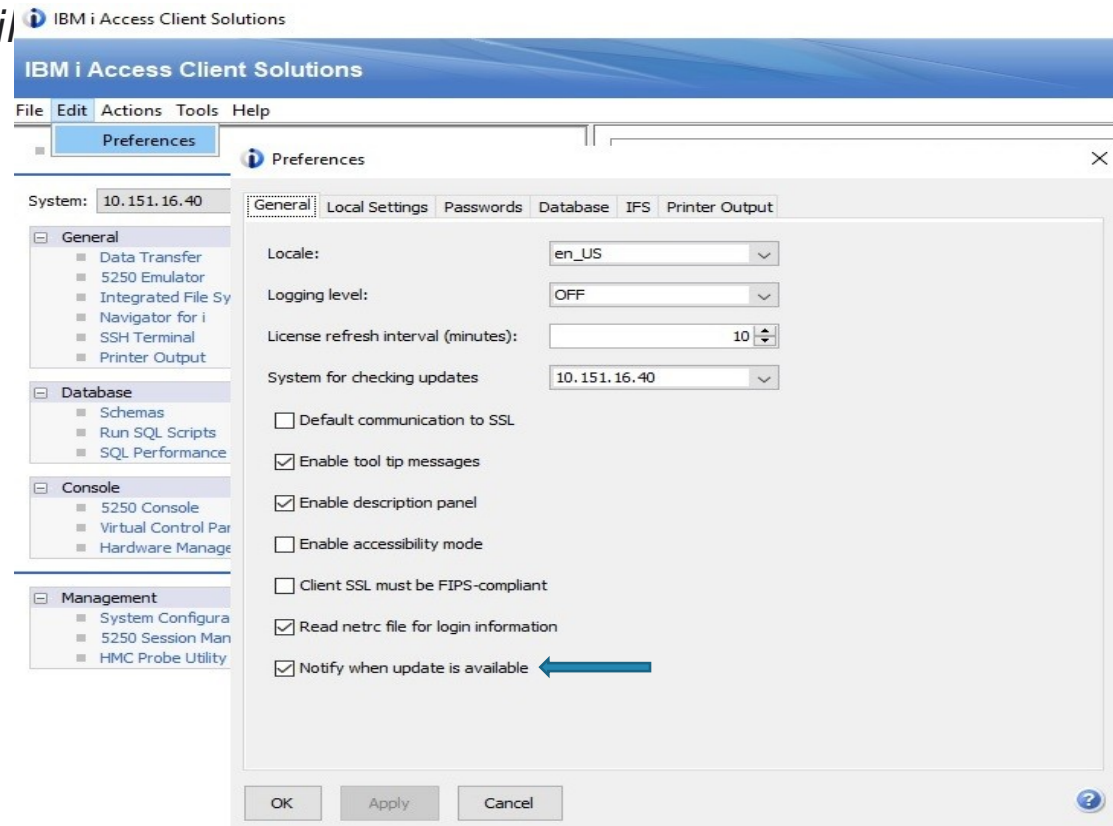
# IBM i Access Client Solutions (ACS)

- Check for Access Client Solutions product updates
  - Select the *Help -> Check for updates*



# IBM i Access Client Solutions (ACS)

- Notify when new releases of Access Client Solutions available
  - Select the *Edit -> Preferences*
  - Check option "*Notify when update is available*"







# ZendPHP on IBM i

# Installing ZendPHP on I i

- Set up your home directory
  - Use an SSH terminal session with a \*SECOFR class user profile
  - Check if your home directory exists -> `echo $HOME` or `ls -al $HOME`
  - To create the home directory use the `mkdir` command to create it -> `mkdir $HOME`
- Set up your PATH and .profile
  - Use the `echo` command with a redirect to create the `.profile` file
    - > `echo "PATH=/QOpenSys/pkgs/bin:\$PATH\nexport PATH" > $HOME/.profile`
  - Use the `cat` command to display the contents of your `.profile` file
    - > `cat $HOME/.profile`
  - End your PASE/SSH terminal/session, allow changes to take effect

# Installing ZendPHP on IBM i

- A script is provided by Zend for managing the install/uninstall
  - > `wget https://downloads.zend.com/zendphp/ibmi/zendphp_manage.sh`
  - > `chmod ug+x zendphp_manage.sh`
  - The script installs the ZendPHP `yum` repository file and the requested version of ZendPHP
    - > `zendphp_manage.sh -help`
  - Make sure you have Installed all Prerequisites tools
    - > `yum install wget tar-gnu gzip db2util`
- The Community ZendPHP installation contains
  - Cli and CGI binaries
  - Common package with the basic set of extensions
    - `IBM_db2` extension for PHP
    - XML Service Toolkit
  - Apache Configuration

# Installing ZendPHP on IBM i

- The `zendphp_manage.sh` script
  - Creates the ZendPHP `yum` repository file `/QOpenSys/etc/yum/repos.d/zendphp.repo`
  - Install the requested ZendPHP version `./zendphp_manage.sh --version=<PHP version>`
  - Use the `--help` option to get full details on how to use the tool
- ZendPHP executable binary installed directory `/QOpenSys/pkgs/bin`  
-> `yum list installed | grep zend`



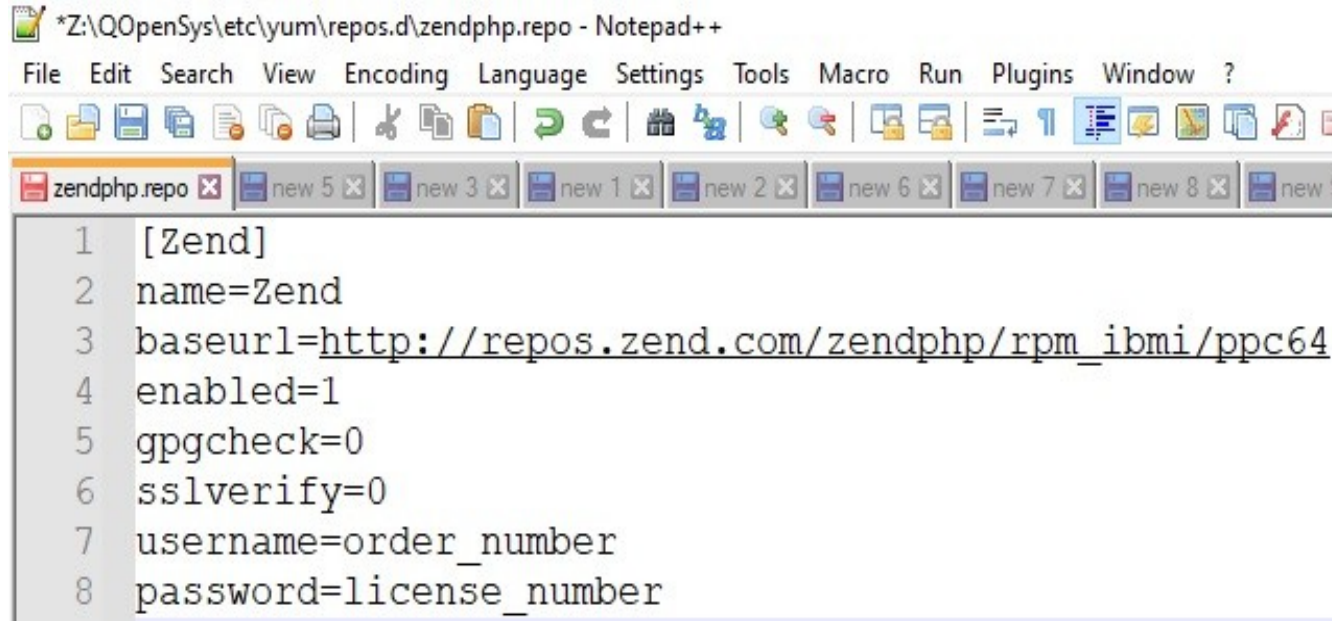
A terminal window screenshot showing the execution of the `zendphp_manage.sh` script. The terminal has a dark background with light-colored text. The prompt is `-bash-5.1$`. The first command is `echo $PATH`, which outputs the path `/QOpenSys/pkgs/bin:/QOpenSys/pkgs/sbin:/QOpenSys/usr/bin:/usr/ccs/bin:/QOpenSys/usr/bin/X11:/usr/sbin:./usr/bin`. The second command is `./zendphp_manage.sh --version=8.1`, which is partially visible with a cursor at the end.

```
-bash-5.1$ echo $PATH
/QOpenSys/pkgs/bin:/QOpenSys/pkgs/sbin:/QOpenSys/usr/bin:/usr/ccs/bin:/QOpenSys/usr/bin/X11:/usr/sbin:./usr/bin
-bash-5.1$ ./zendphp_manage.sh --version=8.1
```



# Installing ZendPHP on IBM i

- Installing LTS packages
  - Update your credentials, open the file `/QOpenSys/etc/yum/repos.d/zendphp.repo`
  - Open using any selected text editor **EDTF** on IBMi , **vim** on linux, **NotePad** on windows
  - Fill in the values `{LOGIN_OR_ORDER_ID}` and `{PASSWORD}` based on your Zend license credentials
    - `username={LOGIN_OR_ORDER_ID}`
    - `password={PASSWORD}`



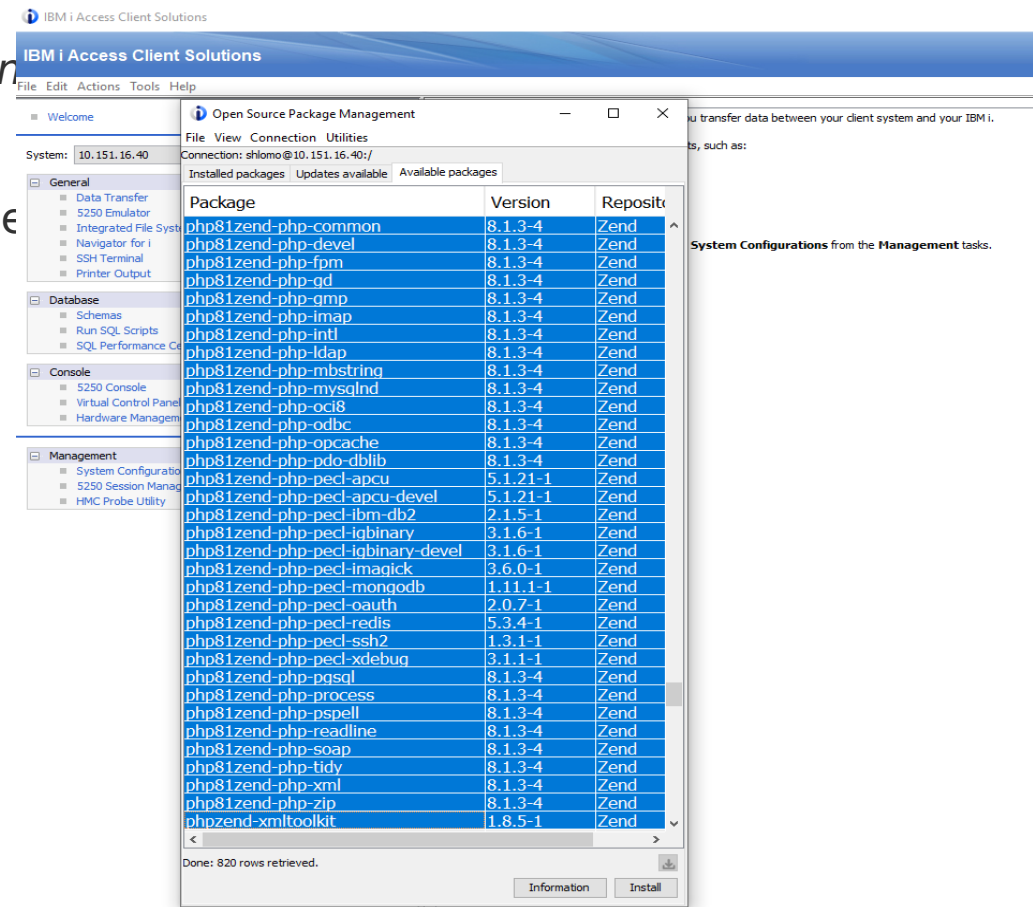
```
*Z:\QOpenSys\etc\yum\repos.d\zendphp.repo - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
zendphp.repo x new 5 x new 3 x new 1 x new 2 x new 6 x new 7 x new 8 x new 9
1 [Zend]
2 name=Zend
3 baseurl=http://repos.zend.com/zendphp/rpm_ibmi/ppc64
4 enabled=1
5 gpgcheck=0
6 sslverify=0
7 username=order_number
8 password=license_number
```

# Installing ZendPHP on IBM i

- Adding packages after initial install
  - Additional extensions are installed separately
  - ZendPHP naming format prefix, contains the PHP for version specific released package
  - For example, packages compatible with PHP version 8.1 have the prefix "**php81zend-php**"
- Installing additional extensions
  - To install the '*mbstring*' extension for PHP version 8.1
    - > *yum install -y php81zend-php-mbstring*
  - Or install it using the Access Client Solution Manager

# Installing ZendPHP on IBM i

- Launch the IBM i Access Client Solution
  - Select *Tools -> Open Source Package Manager*
  - Select the 'Available packages' tab
  - Select '*php81zend-php*' from the list of packages
  - Click the *Install* button



# ZendPHP on IBM i

- The ZendPHP installed /QOpenSys directories

*/qopensys/etc/php/81zend - php.ini, php-fpm conf files {version number prefix zend}*

*/qopensys/pkgsrc/lib/php/81zend - php extensions .so binary files {version number prefix zend}*

*/qopensys/pkgsrc/bin/php/81zend - symlink & php executable binaries {version number prefix zend}*

*-lrwxrwxrwx phar-81zend -> phar-81zend.phar*

*-rwxr-xr-x phar-81zend.phar*

*-lrwxrwxrwx php -> php-81zend*

*-rwxr-xr-x php-81zend*

*-lrwxrwxrwx php-cgi -> php-cgi-81zend*

*-rwxr-xr-x php-cgi-81zend*

*/qopensys/pkgsrc/share/zendphp/libraries - included libraries like xmlservice and toolkit.ini*

*-> ls -al /qopensys/pkgsrc/share/zendphp/libraries/xmltoolkit/1.8.5*

# Uninstall ZendPHP on IBM i

- Uninstall from a shell command line or use the ACS Open Source Manager
- To uninstall ZendPHP packages, use the provided helper script
  - > `zendphp_manage.sh --erase --version=<PHP version>`

```
==> ./home/shlomo/zendphp_manage.sh --erase --version=7.4
```

# ZendPHP on IBM i

- The *zendphp\_manage* script using *yum*

```
55 if [[ "${ERASE}" == "yes" ]]; then
56     # Erase Apache conf?
57     if [[ "${ERASE_APACHE}" == "yes" ]]; then
58         yum erase phpzend-apache-conf
59     fi
60     # Erase ZendPHP version
61     if [[ "${VERSION}" != "" ]]; then
62         yum erase "php${VERSION//./}zend*"
63     fi
64 else
65     # Add repository
66     if [ ! -f /QOpenSys/etc/yum/repos.d/zendphp.repo ]; then
67         echo -e "[Zend]\nname=Zend\nbaseurl=http://repos.zend.com/
68     fi
69     # Install requested version of ZendPHP
70     if [[ "${VERSION}" != "" ]]; then
71         yum install -y php${VERSION//./}zend
72     else
73         # Install the default version of ZendPHP
74         yum install -y phpzend
75     fi
76 fi
```





# Resources

# Resources

- IBM i Access - Client Solutions 5733XJ1  
<https://www.ibm.com/support/pages/ibm-i-access-client-solutions-5733xj1>
- iACS Getting started document for installation instructions  
<https://www.ibm.com/support/pages/getting-started-open-source-package-management-ibm-i-acs>
- Preparing for ZendPHP installation  
[https://help.zend.com/zend/current/content/i5\\_installing\\_zs\\_preparing.htm](https://help.zend.com/zend/current/content/i5_installing_zs_preparing.htm)
- ZendPHP installation  
[https://help.zend.com/zendphp/current/content/installation/ibmi\\_installation.htm](https://help.zend.com/zendphp/current/content/installation/ibmi_installation.htm)