MID-ATLANTIC GROUP OF IBMI COLLABORATORS GETTING STARTED WITH OPEN SOURCE

Session 1

ABSTRACT

This document will walk you through the steps to install and check the configurations for the needed software for the Open Source Sessions

Laura Open Source – Session 1 - Setup

Table of Contents

Download Necessary Objects	2
Configuring Notepad ++	2
Hello World Example	6
Trouble shooting	8
WINSCP Setup	9



Download Necessary Objects

Go to the magic website and download the zip file that contains the software needed for the Open Source Sessions.

http://www.magic-ug.org/ibm-i-presentations/

The password will need to be entered. Then go to the Open Source link and click on the magictools link. You will need to unzip the contents to a folder to use it.

Contents of the zip:

Name	Туре	Compressed size
📜 npp	File folder	
🔳 psftp	Application	282 KB
🔳 putty	Application	373 KB
WinSCP	Application	7,105 KB

Configuring Notepad ++

Once the files are extracted, go to the npp folder and click on the notepad++ application. The following window will appear. Fill it in per the picture.

Name ContextMenu doLocalConf functionList langs.model	Thanks for using IBMiCmo System.	ds. You will now be prompted t	to enter in a Remote
langs			ОК
license			
🔛 notepad++		6/3/2017 3:36 PM	Application
readme		6/3/2017 3:35 PM	Text Document
Remote System	×		
IBMiCmd use machine is re enter the remo	s remote builds, a quired to host the ote system details l		
Host name: m Username: Ih Password: **	nagic.magic-ug.o namway ******		
Relic Build: rp Relic Outpu#	ogapp dev		
Save	Canc		



Once Notepad ++ opens go to the plugin manager and install the NppFTP plugin.

🔤 new 1 - Notepad++			
File Edit Search View Encoding Language Settings Tools Macro Run	Plugins Window ?		
🔁 🗁 🖻 🕞 🕞 🕹 🕹 👘 🛅 🖨 🗲 🛤 🧏 🔍 👒 🖼 🖼 🔤	Converter	>	• • • • •
🔚 new 1 🗵	IBMiCmd	>	
1	MIME Tools	>	
	NppExport	>	
	Plugin Manager	>	Show Plugin Manager
			About

Select the NppFTP plugin and click on Install.

Plugin Manager				
Available Updates Installed				
Plugin	Cate	Available V	Stability	^
Named bookmarks	Others	1.2	Good	
NativeLang	Others	1.2	Good	
NewFileBrowser	Others	0.1.3	Good	
Notepad++ bplist plugin	Others	1.2	Good	
NotepadStarterPlugin	Others	2.0	Good	
Npp Xml Treeview	Others	1.5.0.51	Good	
NppAutoIndent	Others	1.2	Good	
NppCalc	Others	1.4	Good	
NppCrypt	Others	1.0.1.2	Good	
NppExec	Others	0.5.3	Good	
✓ NppFTP	Others	0.26.9	Good	~
NppFTP: a plugin that allows FTP, Author: ashish_kulz Source: http://github.com/ashkulz Homepage: http://ashkulz.github.i	FTPS, F /NppFTP io/NppFT	TPES and SFTP / P/	communications. Very useful for web development.	^
Latest update: - Fix for issue #122	about m	nissing support	for TLS V1.2 for FTPS and FTPES.	~
			Install	
Settings			Clos	e



Once Installed (Notepad ++ will ask you to restart), click on Show NppFTP Window.

lun	Plugins	Window	?			
=	Cor	nverter		>	•] 🔲 🕨 📭 🔤
	IBM	liCmd		>		
	MIM	ME Tools		>		
	Np	pExport		>		
	Np	pFTP		>	~	Show NppFTP Window
	Plugin Manager		er	>		Focus NppFTP Window
						About NppFTP

To create a profile, enter the information below and click Add new. The new profile will be listed. Then click close to close the window.

Profile settings	\times
Profiles: Connection Authentication Transfers FTP Misc. Cache	
Profiles: Connection Authentication Transfers FTP Misc. Cache Magic Hostname: Connection type: magic.magic-ug.org SFTP Port: 22 Username: Ihamway Password: Ask for password Timeout (seconds): 30 Initial remote directory: Initial remote directory:	
Delete	e .

To open the connection to the MAGiC IBM I, click on the name you just created.





The connection will open and you will see your home directory on the IFS on the IBM i.



To create an additional folder to store your source, right click on your folder and select Create new directory. You will be prompted for the name. Enter the name and click Enter.

~	1	1								
	~	l ho	me							
	1	~ 📜	LHAMWAY							
		>	📕 QRPGLI	ESI	Create new directory					
		>	📜 QTXTSF	RC	Create new file					
					Rename Directory					
					Delete directory					
			Upload current file here		Creating directory X					
					Upload other file here		Please enter the name of the new directory:			
					Refresh					
							QSOURCE			
							ОК	Cancel		

The IFS displaying your home directory





Hello World Example

Now that all the configuration is done for Notepad ++, we will do a Hello World example.

Create a new notepad entry, named HelloWorld.c

```
#include <stdio.h>
#include <stdlib.h>
int main(int argc,char **argv) {
    printf ("Hello World\n");
exit(0);
```

}

To save it to the IFS in the right panel, right click on the folder where you want to save the source. Click on Upload current file here. Once saved you will see the entry in the folder. Once the source is in the IFS you can open it there and the save icon will update the IFS.







Next log onto the IBM i and go to your home directory.

Wrklnk '/home/lhamway/'

Look in the directory that you uploaded the source to. Verify that your source is there.

Go back to notepad ++ and open the source in the IFS Folder and find the Hello World line -

printf ("Hello World\n");

Change to something else like printf ("Hello World and Magic User Group\n");

Save the file the changes. You can check it again on the IBM i and see your changes. Since you opened the source on the IFS, when you click on the save icon the source is automatically saved to the IFS.



The next step is to compile the program and to run it.

You can compile it by executing the following command, changing the location of your source and where you want to compile it to.

CRTBNDC PGM(LHAMWAY/HELLOWORLD) SRCSTMF('/home/lhamway/qsource/helloworld.c')



										-	
File Edit Vie	w Communica	tion Actions	Window Help								
5 h 🛱	1 🛃 🗐 🖥	3 📰 📰	💥 📩 📕 🚽	B 💾 📙 🧟	>						
			Crea	ate Bou	nd C F	rogram	(CRTBN	DC)			
Type 🤇	choices	, press	Enter.								
Progra Libi Source Libi Source Source	am Pary . Pary . Pary . Parembe Strea	 r m file			<u>hell</u> <u>lh</u> QCSF *L *PGN /hom	Loworld hamway RC IBL 1 ne/lhamw	Nam _ Nam _ Nam _ Nam _ Nam _ au/gso	e e, *CUR e, *LIB e, *PGM urce/he	LIB L, *CUI llowor	RLIB ld.c	
Text	descri	ption'			<u>*SRC</u>	CMBRTXT					
F3=Ex3 F13=H0	it F4 bwtou	=Prompt se this	F5=R6 display	efresh	F10= F24=	=Additio ≡More ke	nal pa ys	rameter	s F1:	2=Cance	Bottom
М <u>А</u> + ғ	À		МШ								10/071
PF1	PF2	PF3	PF4	PF5	PF6	Enter	PA1	Attn	Insert	Backtab	NewLi
PF7	PF8	PF9	PF10	PF11	PF12	Clear	PA2	SysReq	Delete	FIdExit	NextPad
									·	216.48.125.3	8:992 128

To run the command do the following:



Here are the results:

Hello	World	and	A MAC	GIC		
Press	ENTER	to	end	terminal	session.	

Congratulations!

At this point you have checked that all connectivity is correct to the IBM i when using Notepad ++.

Trouble shooting

If the C program did not compile properly, then recompile it changing the OUTPUT option to *PRINT. This will generate a spool file so you can see what the error is.



										-	
File Edit View	Communicat	tion Actions	Window Help								
Ē ħ Å .	t 🛨 🗉 😼	s 📰 🖼 🏢	🗱 🛃 📕	at 💾 🍺 🖉	2						
			Cre	ate Bo	und C P	rogram	(CRTBN	DC)			
Type c	hoices	, press	Enter.								
				Addit	ional P	aramete	rs				
Output	optio	ns:			OUTPUT						
Outp	ut file	e name					*pri	<u>nt</u>			
Titl	е										
Subt	itle .										
Compil	er opt:	ions .		 + for	OPTION	lues					
Checko	ut opt:	ions .			СНЕСКО	UT	*NON	E			
Optimi	zation			+ for .	more va OPTIMI	ZE	10				
										м	
F3=Exi F24=Mo	t F4ª ore keys	=Prompt s	F5=R	tefresh	F12=	Cancel	F13=	How to	use thi	is disp	ore lay
MA L + A			Ми								09/050
PF1	PF2	PF3	PF4	PE5	PE6	Enter	PA1	Attn	Insert	Backtab	Newl i
PF7	PF8	PF9	PF10	PF11	PF12	Clear	PA2	SvsReg	Delete	FIdExit	NextPad
									-	216.48.125.3	8:992 🔒 128

WINSCP Setup

Fill out the information below to create a new site in WINSCP. Make sure you click SAVE to save your entry.



🖺 Login		- 🗆 X
New Site	Session File protocol: SFTP Host name: magic.magic-ug.org User name: Ihamway Save Save Set Defaults	Port number: 22 > Password: ••••••• Advanced
Tools Manage	🔁 Login 🛛 🖵	Close Help

When you click Save the window below will be displayed, enter the name of the location, such as Magic. Click OK.

Save session as site	?	\times
<u>S</u> ite name:		
Magic		
<u>F</u> older:		
<none></none>		~
Save password (not recommended)		
OK Cancel	ŀ	lelp

Once that is done you can test the connection to Putty.

Click on the icon and the black window will open and enter your IBM i credentials. You should come



back to a \$ prompt.

🍓 Documents - Magic - WinSCP	- 🗆 X
Local Mark Files Commands Session Options Remote Help	
🕀 🔁 🍞 Synchronize 🔳 🧬 🗈 🔅 🎒 Queue 🔹 Transfer Settings Default	• <i>Ø</i> •
🖵 Magic 🔛 New Session	
🗈 My documents 🔹 🗂 🐨 🔂 🔁 🔁 😓 🐳 🐳	📕 LHAMWAY 🔹 🚰 🕎 🛅 🏹 🏠 🎜 🕼 Find Files 🚼 🔶
🎚 颵 Upload 🔹 📝 Edit 🔹 🗶 📝 🕞 Properties 🗳 🕞 🗄 💌	🛙 🔐 Download 🔹 📝 Edit 🔹 🗶 📝 🕞 Properties 🞬 🕞 🐨 🐨
C:\Users\Laura\Documents	/home/LHAMWAY
Name Size Type Changed Parent directory 5/24/2017 3:17:47 PM Parent directory 5/24/2017 3:17:47 PM Parent directory 5/24/2017 3:17:47 PM Cogin as: lhamway login as: lhamway lhamway@magic.magic-ug.org's password: \$	Name Size Changed Rights Owner Q 5/25/2017 4:17:58 PM rvxrvsrvx qsys QRPGLESRC 6/3/2017 5:19:49 PM rvxr-sr-x Iharnway QSOURCE 6/3/2017 4:01:19 PM rvxr-sr-x Iharnway QTXTSRC 6/3/2017 3:56:48 PM rvxr-sr-x Iharnway
0 B of 543 MB in 0 of 45 5 hidden	0 B of 0 B in 0 of 3

