

The latest release of the .Net data prep tool has added SFTP functionality and the ability to process an entire folder of XML files. With the options provided, a single XML file or an entire folder can be sent automatically via SFTP. This document will help explain how each option functions.

1. Sending a file via SFTP

- a. Select the Auto SFTP File checkbox as shown below

The screenshot shows the 'Create Data Packet' window with the 'SFTP Settings' tab selected. The window has a tabbed interface with 'Create Data Packet', 'Decrypt Notification', 'Utilities', and 'SFTP Settings'. The 'SFTP Settings' tab contains the following fields and options:

- XML File:** C:\sample\000000.00000.TA.124.xml
- Tax Year:** 2015
- Signing Certificate (Sender's Private Key):** C:\sample\canadacert.p12
- Signing Certificate Password:** [password field]
- Encryption Key Certificate (Receiver's Public Key):** C:\sample\encryption-service_services_irs.gov.cer
- Encryption Key Certificate password (if needed):** [password field]
- Model 1 Opt 2:** ☐ Model 1 Opt 2
- CBC Mode:** ☒ CBC Mode
- ECB Mode:** ☐ ECB Mode
- Schema Validation:** ☐ Schema Validation
- Signature Validation:** ☐ Signature Validation
- Auto SFTP File:** ☒ Auto SFTP File
- Send Entire Folder:** ☐ Send Entire Folder
- Buttons:** 'Sign and Encrypt XML' and 'EXIT'.

- b. Select the SFTP Settings tab and select the Server, Username, and Password fields. These will be used to connect to the SFTP server and upload the encrypted data packet directly to IDES.

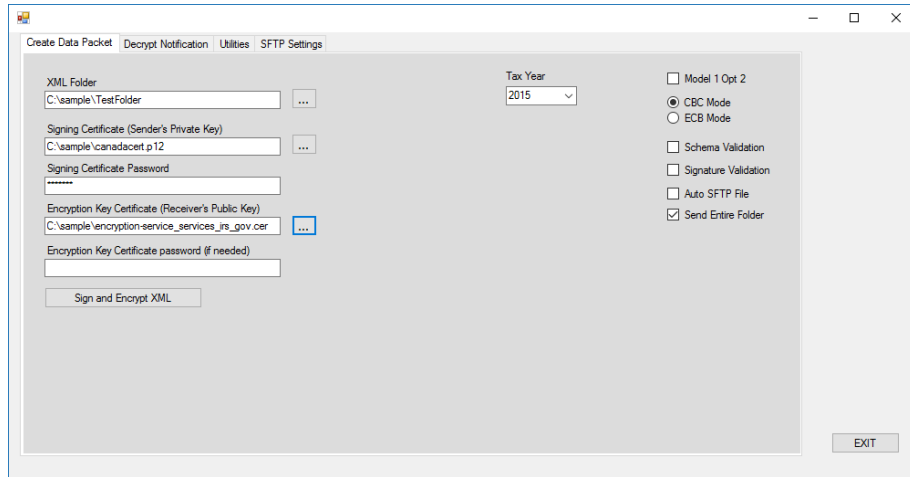
The screenshot shows the 'SFTP Settings' tab in the 'Create Data Packet' window. The fields and options are as follows:

- SFTP Server:** TEST: WWWPSE.IDESGATEWAY.COM
- SFTP Username:** myaccount
- SFTP Password:** [password field]
- Receiver Certificate (Receiver Private Key):** [empty field]
- Certificate password (if needed):** [empty field]
- Notification Download Folder:** [empty field]
- Buttons:** 'Check Notification' and 'EXIT'.

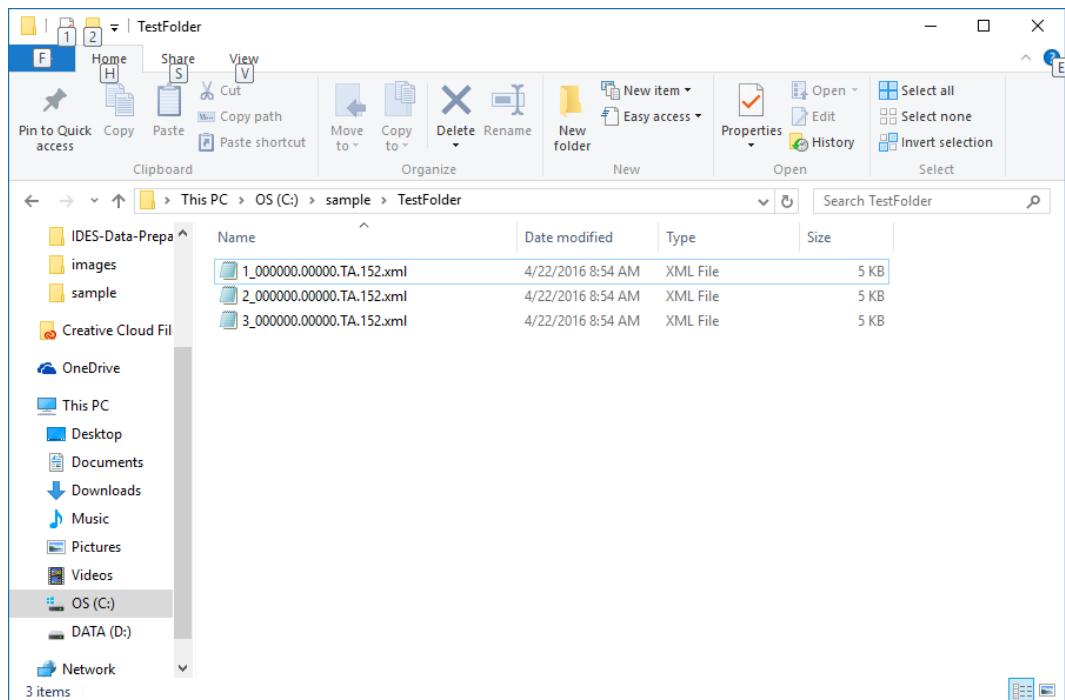
- c. Return to Create Data Packet tab. Click Sign and Encrypt XML button to create the data packet and automatically send the newly created file to IDES.

2. Processing a folder of XML files without sending via SFTP

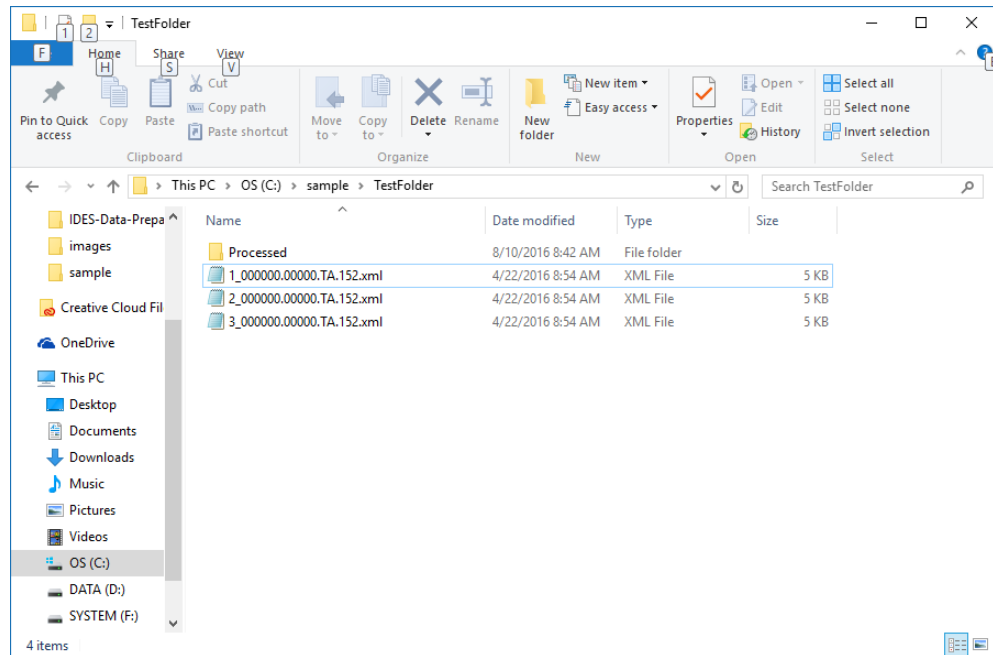
a. Select the Send Entire Folder checkbox



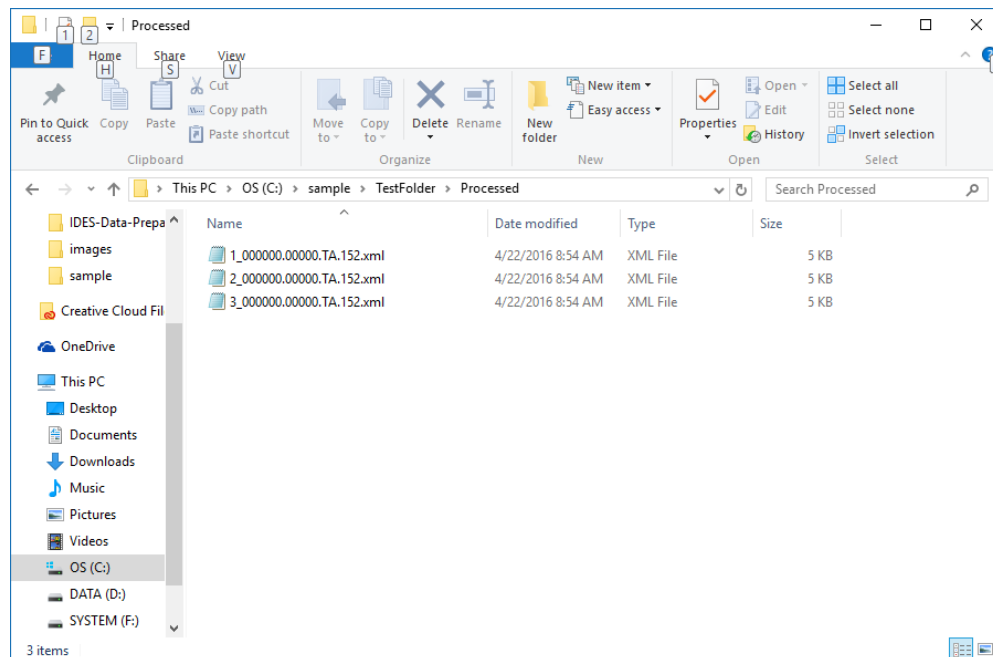
- b. Instead of selecting an XML file, select the XML Folder that contains the XML files to be sent. The file naming convention is similar to what is normally used but each file should have a sequence number followed by an underscore and the GIIN of the sender. For example, 1_000000.00000.TA.152.xml and 2_000000.00000.TA.152.xml as shown below.



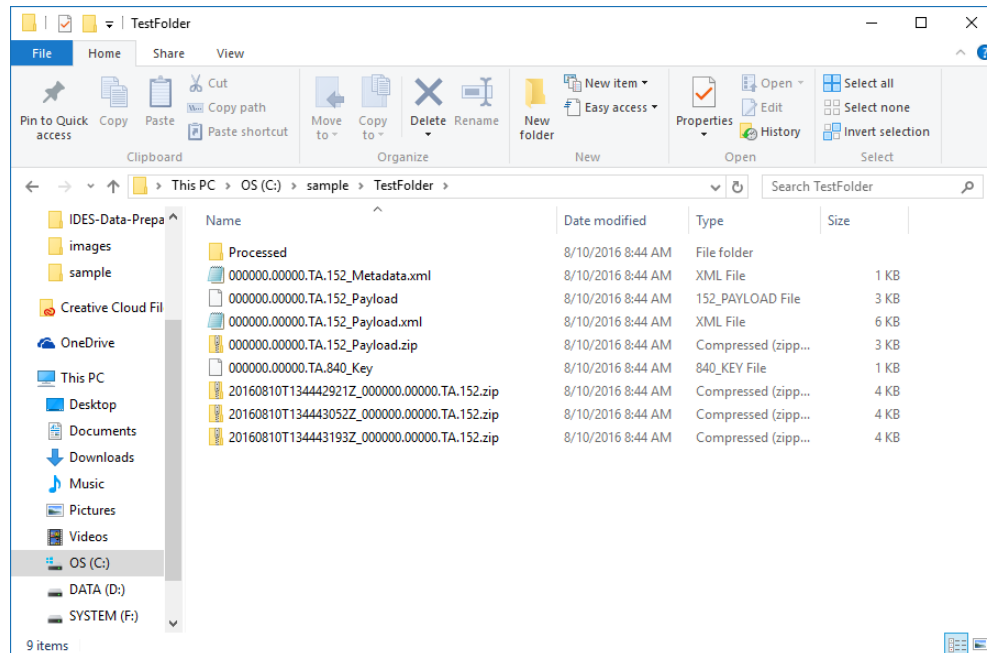
- c. Click the Sign and Encrypt XML button to start the process.
- d. This will create a "Processed" folder in the root of the selected XML folder.



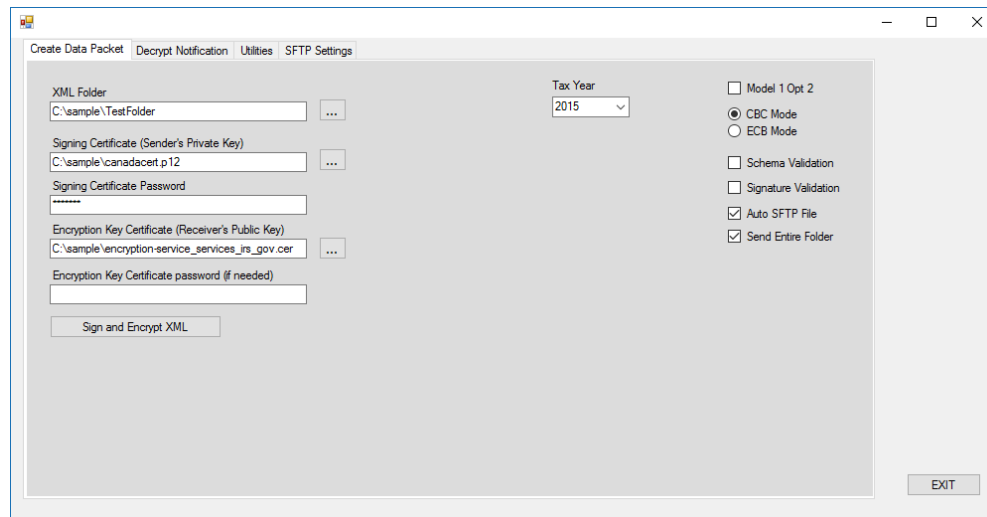
- e. As the XML files within the folder are processed, they are moved into the “Processed” folder.



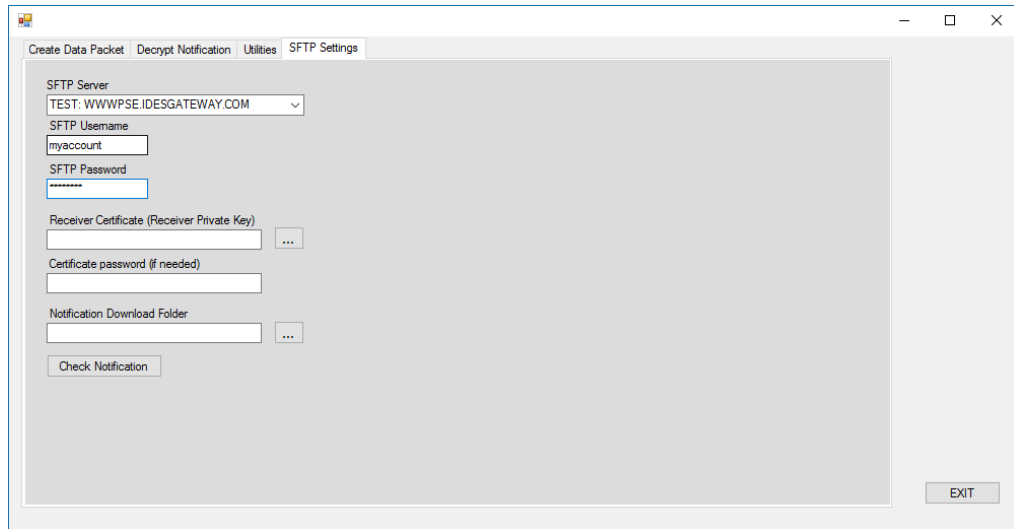
- f. The processed data packets are created in the root of the select XML folder.



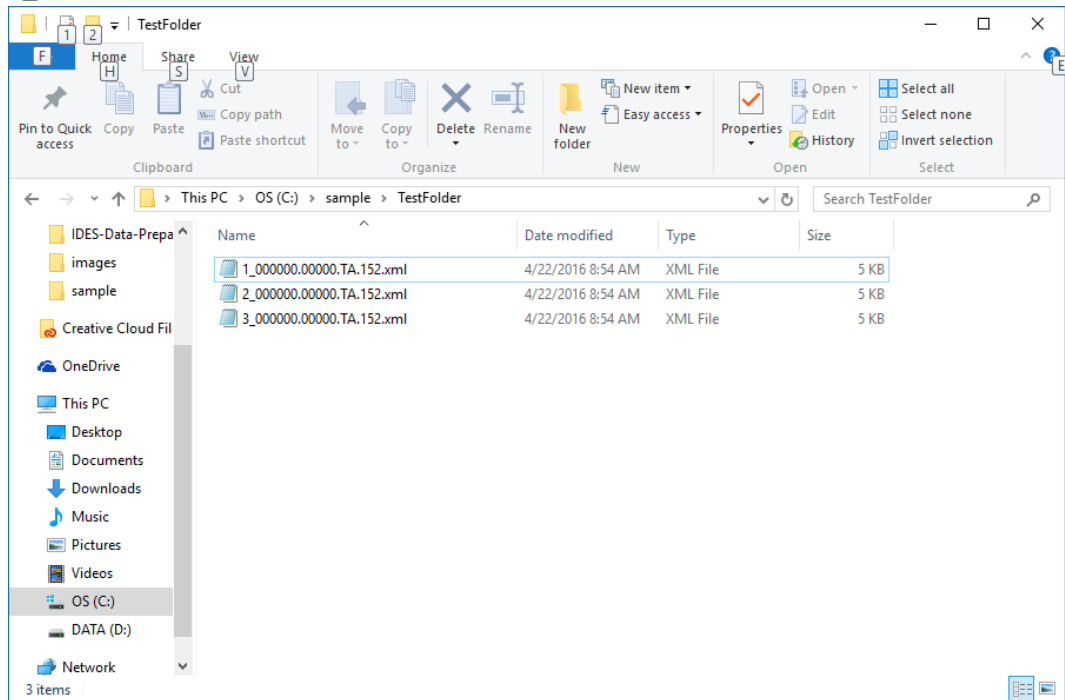
3. Processing a folder of XML files and automatically sending via SFTP
 - a. Check the Auto SFTP File and Send Entire Folder checkboxes.



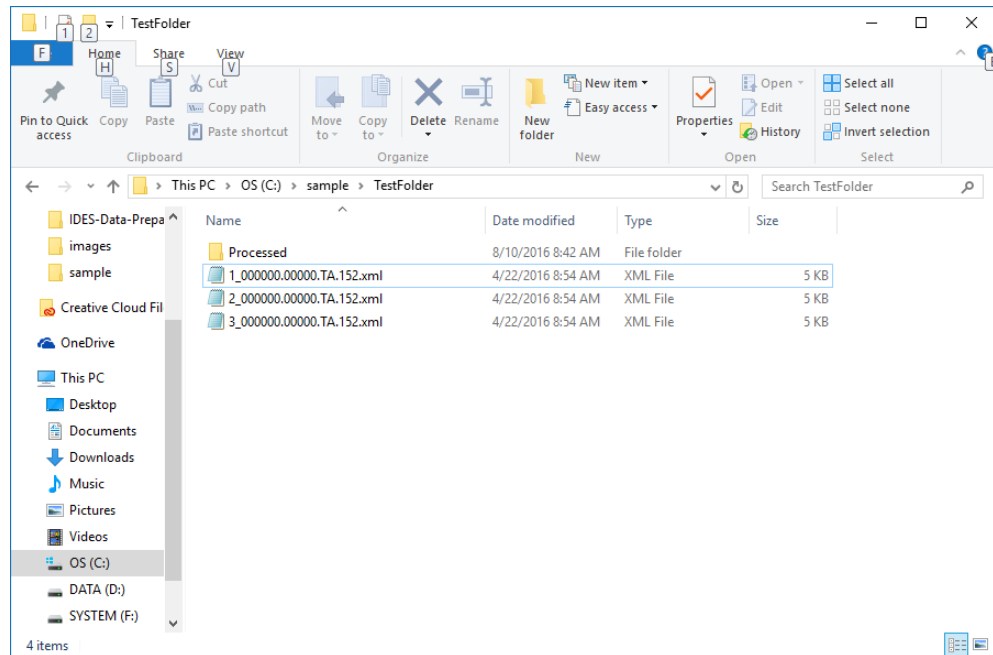
- b. Select the SFTP Settings tab and select the Server, Username, and Password fields. These will be used to connect to the SFTP server and upload the encrypted data packet directly to IDES.



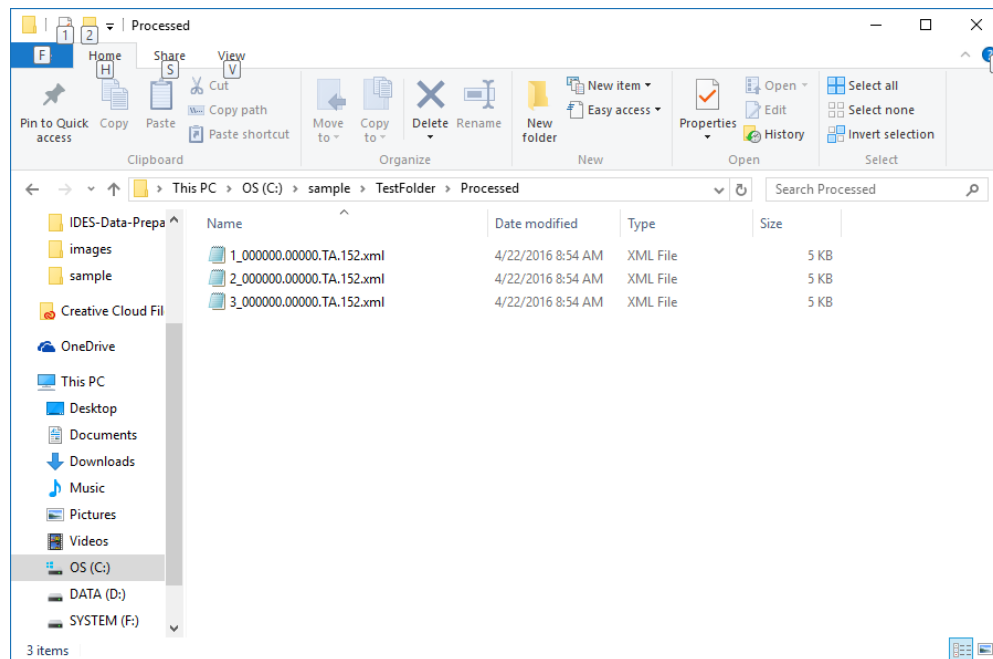
- c. Return to the Create Data Packet tab. Instead of selecting an XML file, select the XML Folder that contains the XML files to be sent. The file naming convention is similar to what is normally used but each file should have a sequence number followed by an underscore and the GIIN of the sender. For example, 1_000000.00000.TA.152.xml and 2_000000.00000.TA.152.xml as shown below.



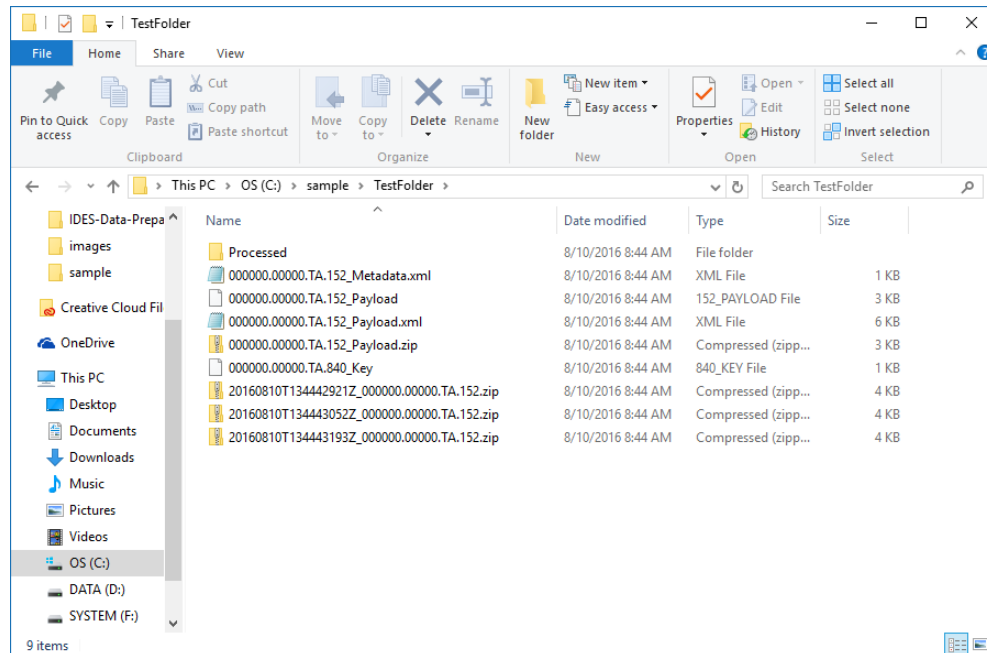
- d. Click the Sign and Encrypt XML button to start the process.
- e. This will create a "Processed" folder in the root of the selected XML folder.



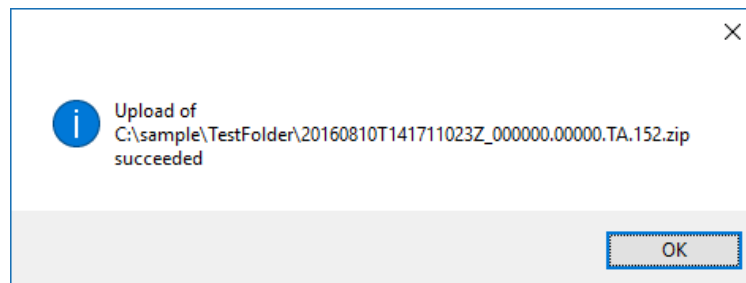
- f. As the XML files within the folder are processed, they are moved into the “Processed” folder.



- g. The processed data packets are created in the root of the select XML folder.



- h. There is a confirmation message for the upload of each file that can be commented out if needed.



- i. A log file is also created in the root of the folder that is running the application. For example, when running through Visual Studio, it will place the log file in the Debug folder.

- k. This is designed to work with the Check Notification button on the SFTP settings page as this will automatically download, decrypt, and parse the Payload to match entries in the log file. This could be extended to fully log record level errors from notifications.

4. Automatically Checking Notifications

- a. Select the SFTP Settings tab, enter all fields, and click the Check Notification button. This will connect to the Inbox in IDEs for this account.

SFTP Server
TEST: WWWPSE.IDESGATEWAY.COM

SFTP Username
myaccount

SFTP Password

Receiver Certificate (Receiver Private Key)
C:\sample\canadacert.p12

Certificate password (if needed)

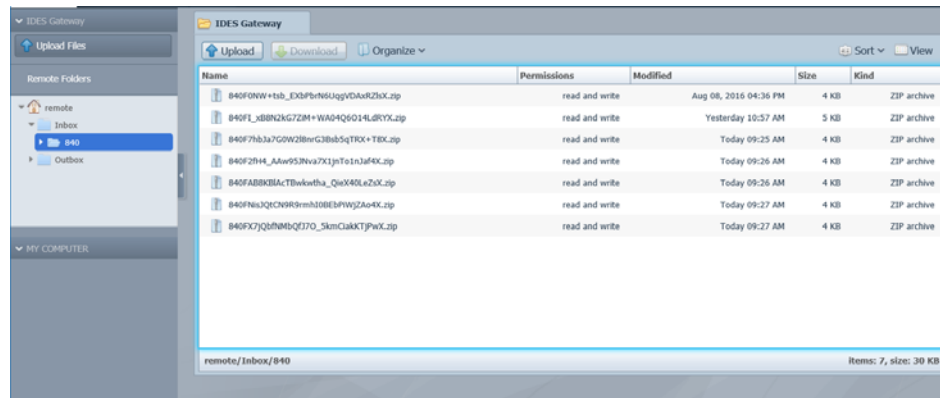
Notification Download Folder
c:\sample\downloadtest

Check Notification

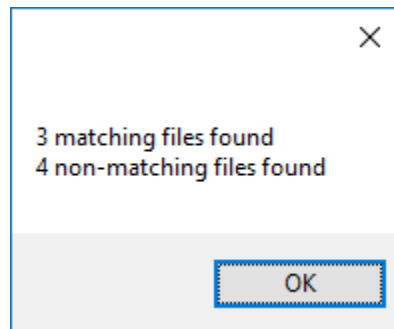
EXIT

- b. For the sample screens below, three files were uploaded via SFTP and were logged. There are an additional 4 files in the Inbox that were not logged.

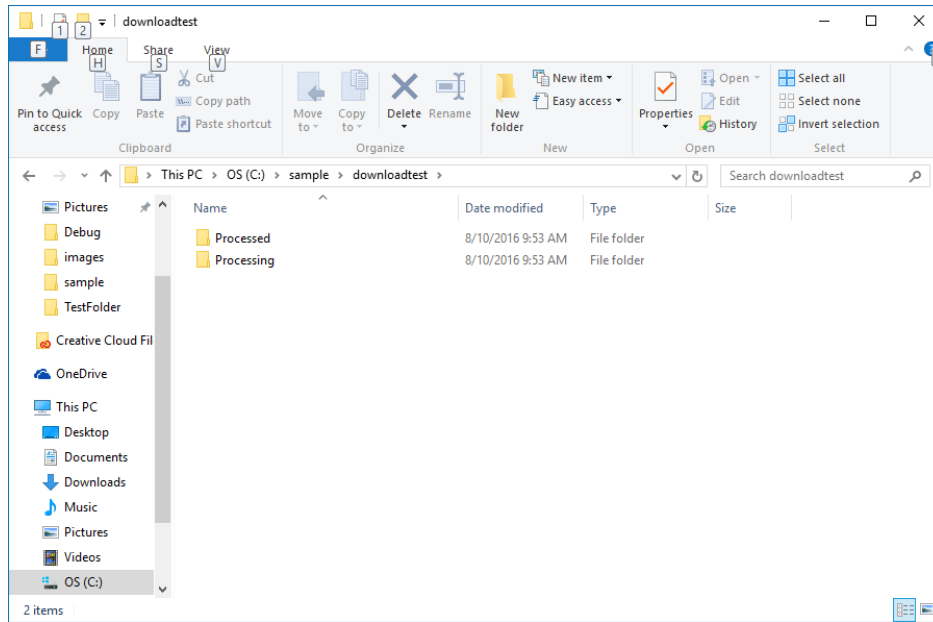
	A	B	C	D	E	F	G
1	C:\sample\TestFolder\1_000000.00000.TA.152.xml	C:\sample\TestFolder\000000.00000.TA.152.xml	20160810T142245313Z_000000.00000.TA.152	IDESTRANSID	NOTIFICATIONID	NULL	
2	C:\sample\TestFolder\2_000000.00000.TA.152.xml	C:\sample\TestFolder\000000.00000.TA.152.xml	20160810T142249750Z_000000.00000.TA.152	IDESTRANSID	NOTIFICATIONID	NULL	
3	C:\sample\TestFolder\3_000000.00000.TA.152.xml	C:\sample\TestFolder\000000.00000.TA.152.xml	20160810T142253349Z_000000.00000.TA.152	IDESTRANSID	NOTIFICATIONID	NULL	
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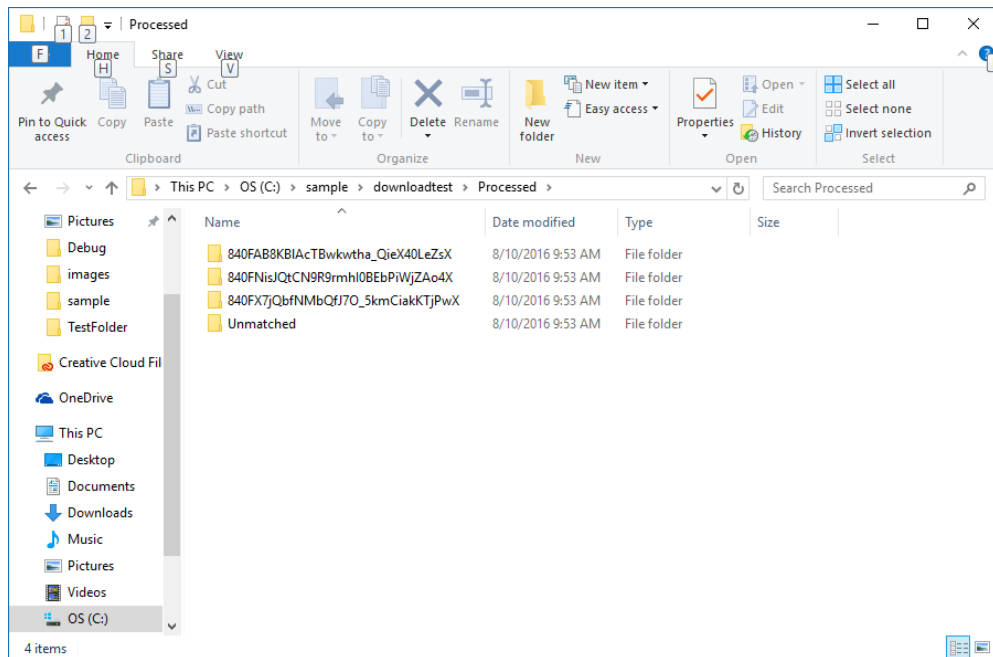
- c. The application will download all 7 files, decrypt them, and look at the Payload file to retrieve the transmission id, notification id, and notification code (such as NVF or NDM).
- d. The application will display a message with the count of files matching the log and those not matching. For this sample, 3 matching files were found and 4 non-matching files were found.



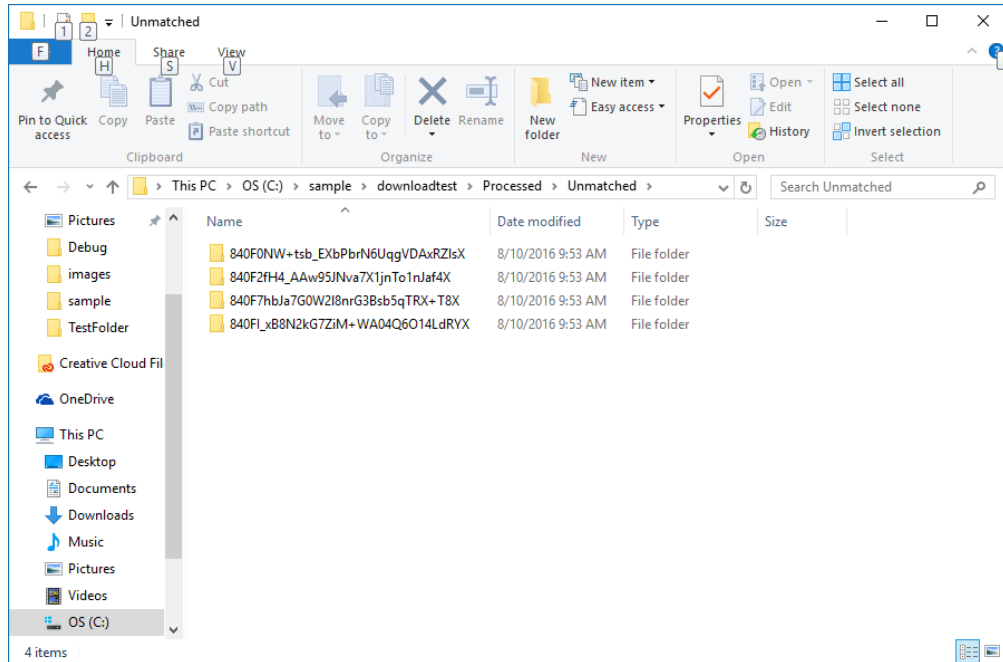
- e. Within the selected Notification Download Folder, a folder named "Processed" and a folder named "Processing" is created. As each downloaded file is decrypted, it is placed in the "Processing" folder. Based on the contents of the Payload file, if the notification matches a file from the log file, the contents are placed into the "Processed" folder. If the notification does not match the log file it is placed into the "Unmatched" subfolder.



- f. For this sample, three folders containing the matched notifications are placed into the root of the “Processed” folder.



- g. Four files are placed into the “Unmatched” subfolder and these contain the contents of the four files that did not match anything on the log file. The name for each folder will be the name of the notification file that was in the Inbox in IDEs.



- h. For each matching file found, the log file is updated for these three columns:
- i. IDESTRANSID – this is updated with the IDES transmission ID reported by the matching notification for this file
 - ii. NOTIFICATIONID - this is updated with the notification ID reported by the matching notification for this file
 - iii. NULL - this is updated with the FATCANotificationCd (such as “NVF” or “NDM”) reported by the matching notification for this file

	A	B	C	D	E	F
1	C:\sample\TestFolder\1_000000.00000.TA.152.xml	C:\sample\TestFolder\000000.00000.TA.152.xml	20160810T142245313Z_000000.00000.TA.152	152FnN3jHq+YsVVVAVWQ3dmXp7PpJ8X	840FX7QbFMbQf/70_5kmCiaKKTjPvX.zip	NDM
2	C:\sample\TestFolder\2_000000.00000.TA.152.xml	C:\sample\TestFolder\000000.00000.TA.152.xml	20160810T142249750Z_000000.00000.TA.152	152F8A55+BOlvHIPpQ8seXWWD7VmxMX	840FNUJ2C9N989mhj0BEbPwJZA04X.zip	NDM
3	C:\sample\TestFolder\3_000000.00000.TA.152.xml	C:\sample\TestFolder\000000.00000.TA.152.xml	20160810T142253349Z_000000.00000.TA.152	152Fmbew+T6E+KTPymnxWRfe322x4X	840FAB8kBlactBwKwtha_QieX40LeZsX.zip	NDM
4						
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- i. If the Check Notification button is clicked again, any files that have already been matched in the log file will not be downloaded again. Other files would still be downloaded and decrypted. For this sample, it would report 0 matching files found, and 4 non-matching files found.

