
**Wide Area Workflow (WAWF)
Interface Design Document (IDD)**

**Appendix AAA
Binary Data Attachments
(BIN Segments)**

WAWF EDI Instructions

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5.2.0**

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History Page

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1 Overview

To successfully add attachments to an EDI 841 Transaction Set, the contents of the attached file must be converted to Base64 Binary data. WAWF makes available a utility called base64.exe to aide in adding Binary data to an EDI 841 Transaction Set.

The base64.exe file utility can be downloaded from a link located under the “About WAWF” drop-down menu titled “Electronic Submission of Attachments in EDI”. This utility will do the actual transformation of the file into Base64 Binary data.

2 Instructions

Using screen prints and examples, this step-by-step guide shows you how to successfully add an attachment to an 841 EDI transaction. From downloading the application to entering the converted binary data, the information below illustrates the complete process.

Read all instructions thoroughly from start to finish paying careful attention to **BOLDED TEXT** as well as **BOLDED NOTES**. Once completed begin with first section and continue through the instruction document making any pertinent notes which may be needed on following steps.

This Binary data conversion process can be mastered easily within 2 or 3 start to finish processes. It has worked with various types of documents, all of which are listed in the 841 guide.

2.1 Creating the new c:\Base64Application directory

1. In order to create the new directory, go to the “File” option at the top of the Microsoft Explorer Window of your home directory as shown below in Figure 1 and select “New” from the drop-down menu.
2. When the “New” option is clicked, a new menu will display. In the displayed menu, select the “Folder” option to create a new folder under your home directory.

NOTE: The “c:\” drive is used as the home directory for all examples and screen shots.

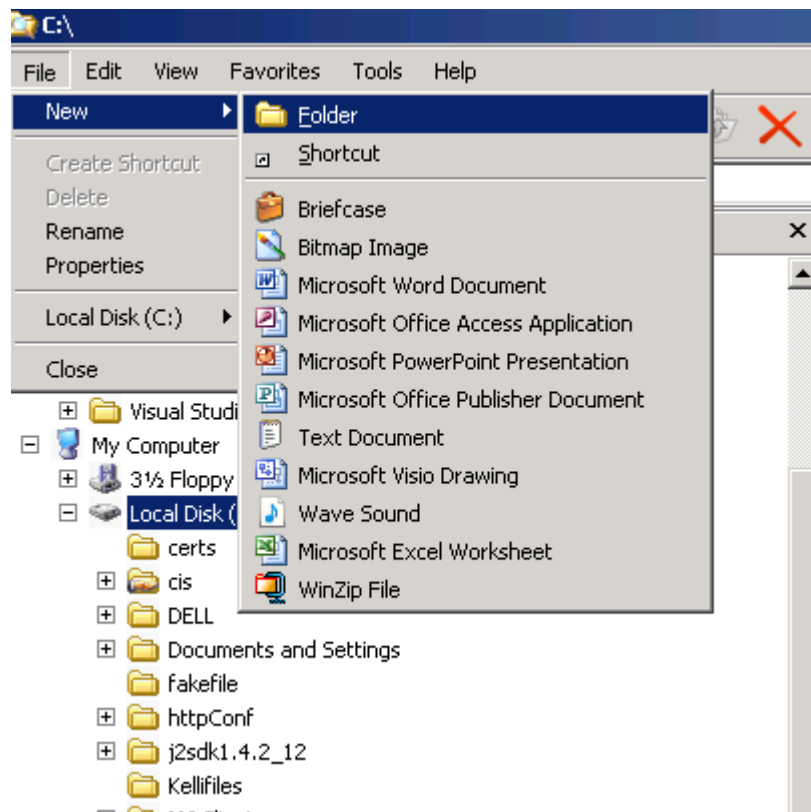


Figure 1: The “New->Folder” menu option.

3. As shown in Figure 2 below, a “New Folder” icon displays. Rename the “New Folder” text with the words “Base64Application.”

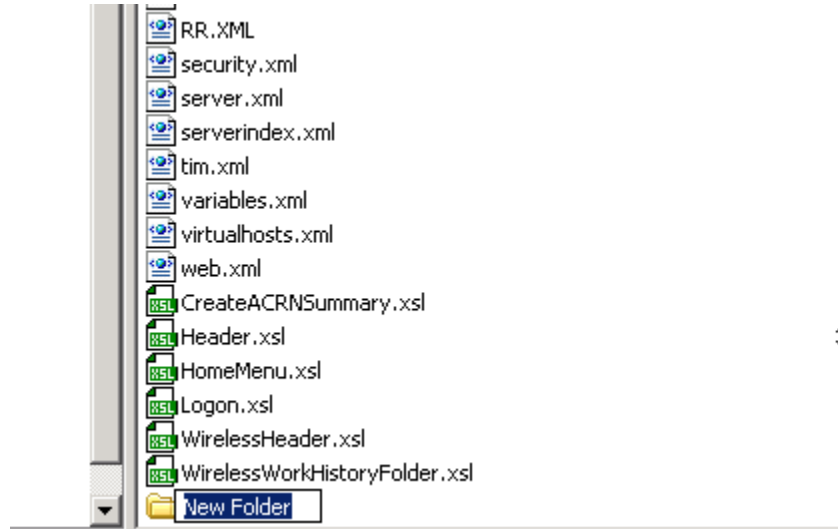


Figure 2: The “New Folder” icon

4. The folder is now renamed and will display as shown below in Figure 3.



serverindex.xml	3 KB	XML Document
tim.xml	28 KB	XML Document
variables.xml	1 KB	XML Document
virtualhosts.xml	41 KB	XML Document
web.xml	37 KB	XML Document
CreateACRNSummary.xsl	21 KB	XSL Stylesheet
Header.xsl	388 KB	XSL Stylesheet
HomeMenu.xsl	15 KB	XSL Stylesheet
Logon.xsl	7 KB	XSL Stylesheet
WirelessHeader.xsl	90 KB	XSL Stylesheet
WirelessWorkHistoryFolder.xsl	10 KB	XSL Stylesheet
Base64Application		File Folder

Figure 3: The “Base64Application” folder name

NOTE: The Base64 Application will output a file when it is executed. These instructions, examples and screen shots, will use a temporary directory named “c:\temp” for the output file location. The output files can be placed in any directory or location needed by your current business process.

2.2 Downloading the Base64.exe Utility

1. From the main WAWF web site at <https://wawf.eb.mil>, select the “About WAWF” expansion option and click on the link “Electronic Submission of Attachments in EDI” as shown in Figure 4 below.

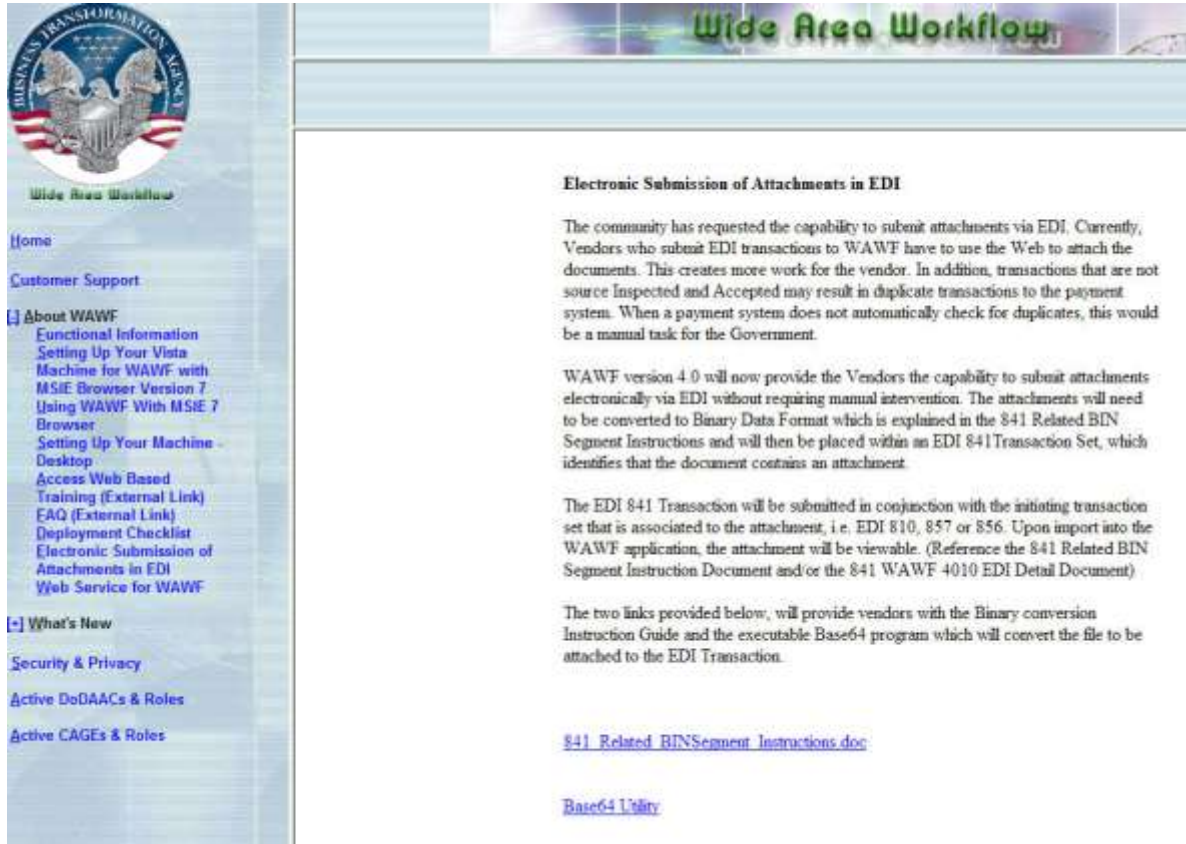
The screenshot shows the WAWF website interface. On the left is a navigation menu with the following items: Home, Customer Support, About WAWF (expanded), Functional Information, Setting Up Your Vista Machine for WAWF with MSIE Browser Version 7, Using WAWF With MSIE 7 Browser, Setting Up Your Machine Desktop, Access Web Based Training (External Link), FAQ (External Link), Deployment Checklist, Electronic Submission of Attachments in EDI Web Service for WAWF, What's New, Security & Privacy, Active DoDAACs & Roles, and Active CAGES & Roles. The main content area is titled "Wide Area Workflow" and contains a table of system information:

Version:	4.0.0 Test Build 2_2
Build Date:	07-09-2008
Application Server:	WebSphere 6.1.3.17
HTTP Server:	IBM WE 6.1.0.17
Database:	TPRM400
Archive Database:	TARCH400
FTP/EDI Server:	Comcastone
FTP/EDI Server Path:	\\aci.dhs.gov\WAWF_S&S\Test\Version400\FTPEDIDirectory

A callout box with a blue border and white background points to the "Electronic Submission of Attachments in EDI" link in the navigation menu. The text inside the callout box reads: "New link for EDI Vendors to obtain the 841 Related BINSegment Instructions.doc and Base64 Utility. The utility will take the attachment file and convert that file to Base64 Binary Data." Below the callout box, there is a link for "Help with registration for access to WAWF" and a note: "Note: Your computer must be set up to run WAWF before you can self register. See 'About WAWF.'"

Figure 4: Link to “841 Related BINSegment Instructions.doc and Base64 Utility”

2. After clicking the “Electronic Submission of Attachments in EDI” link, a new window will appear giving an overview of the Attachments for EDI capabilities and why it was incorporated into WAWF. The two links provided, as illustrated below in Figure 5, will provide vendors with the 841 Related BINSegment Instructions.doc and the Base64 Utility, which will convert the file that is to be attached to the EDI Transaction.



The screenshot shows the WAWF website interface. On the left is a navigation menu with the following items: Home, Customer Support, About WAWF (with sub-links: Functional Information, Setting Up Your Vista Machine for WAWF with MSIE Browser Version 7, Using WAWF With MSIE 7 Browser, Setting Up Your Machine Desktop, Access Web Based Training (External Link), FAQ (External Link), Deployment Checklist, Electronic Submission of Attachments in EDI, Web Service for WAWF), What's New, Security & Privacy, Active DoDAACs & Roles, and Active CAGEs & Roles. The main content area is titled "Wide Area Workflow" and "Electronic Submission of Attachments in EDI".

Electronic Submission of Attachments in EDI

The community has requested the capability to submit attachments via EDI. Currently, Vendors who submit EDI transactions to WAWF have to use the Web to attach the documents. This creates more work for the vendor. In addition, transactions that are not source Inspected and Accepted may result in duplicate transactions to the payment system. When a payment system does not automatically check for duplicates, this would be a manual task for the Government.

WAWF version 4.0 will now provide the Vendors the capability to submit attachments electronically via EDI without requiring manual intervention. The attachments will need to be converted to Binary Data Format which is explained in the 841 Related BIN Segment Instructions and will then be placed within an EDI 841 Transaction Set, which identifies that the document contains an attachment.

The EDI 841 Transaction will be submitted in conjunction with the initiating transaction set that is associated to the attachment, i.e. EDI 810, 857 or 856. Upon import into the WAWF application, the attachment will be viewable. (Reference the 841 Related BIN Segment Instruction Document and/or the 841 WAWF 4010 EDI Detail Document)

The two links provided below, will provide vendors with the Binary conversion Instruction Guide and the executable Base64 program which will convert the file to be attached to the EDI Transaction.

[841 Related BINSegment Instructions.doc](#)

[Base64 Utility](#)

Figure 5: “Electronic Submission of Attachments in EDI and related links”

3. To obtain a copy of the instruction document you are currently reading, select the 841 Related BINSegment Instructions.doc hyperlink as shown in Figure 6 below. After clicking the link, a file download window will appear. Select “save” and place the document into a folder of your choice.

The screenshot shows the WAWF website interface. On the left is a navigation menu with links like Home, Customer Support, About WAWF, What's New, Security & Privacy, Active DoDAACs & Roles, and Active CAGEs & Roles. The main content area is titled 'Electronic Submission of Attachments in EDI' and contains several paragraphs of text. A blue callout box with a red arrow points to the hyperlink '[841 Related BINSegment Instructions.doc](#)' in the text. Below this link is another link for '[Base64 Utility](#)'.

Figure 6: “The 841 Related BINSegment Instructions.doc”

4. To save the Base64.exe utility program, select the Base64 Utility hyperlink as shown in Figure 7 below. After clicking the link, a file download window will appear. Select “save” and place the Base64.exe utility program into the folder called “Base64Application” we created previously.

The screenshot shows the WAWF website interface. On the left is a navigation menu with links like Home, Customer Support, About WAWF, and What's New. The main content area is titled 'Electronic Submission of Attachments in EDI' and contains several paragraphs of text explaining the EDI process. At the bottom right of the content area, there are two hyperlinks: '841_Related_BINSegment_Instructions.doc' and 'Base64 Utility'. A blue callout box with the text 'Select the Base64 Utility' and a red arrow points to the 'Base64 Utility' link.

Figure 7: “The Base64 Utility”

2.3 Using the Base64 Utility

1. Open a command line window to use the base64.exe by selecting the “Start” button on the Windows environment as shown in Figure 11 below.



Figure 8: The Windows “Start” button

3. Select “Run” from the menu options as shown in Figure 12 below to display the “Open” text box.

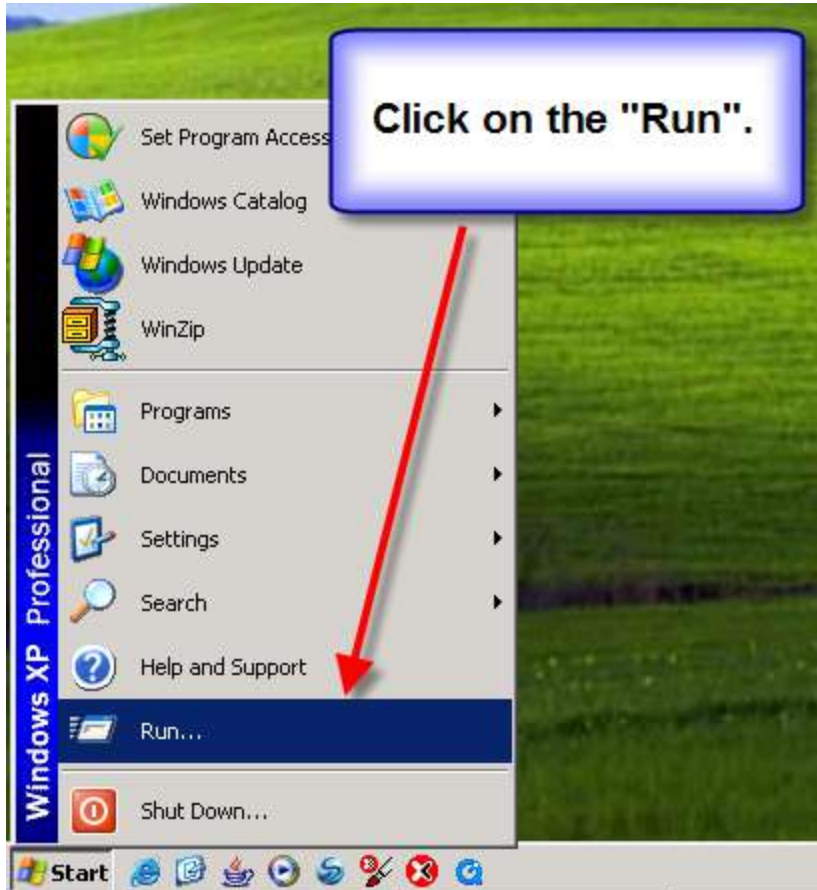


Figure 9: The “Run” menu option

4. Type “cmd” in the “Open” text box and click the “OK” button as shown in Figure 13 below. The command line window will then display.

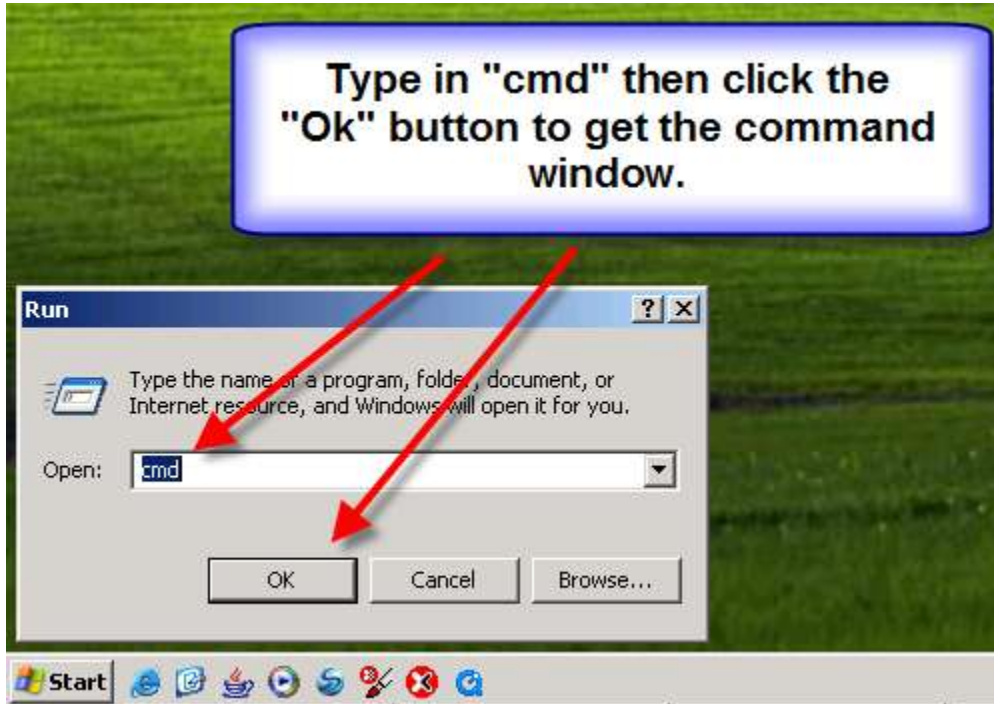


Figure 10: The “Open” textbox

5. Type in “cd c:\Base64Application” at the command prompt “>” as shown in Figure 14 below and press the keyboard “Enter” key.

NOTE: Remember to enter your current home directory structure, again the instructions are written using “c:\” as our home directory.

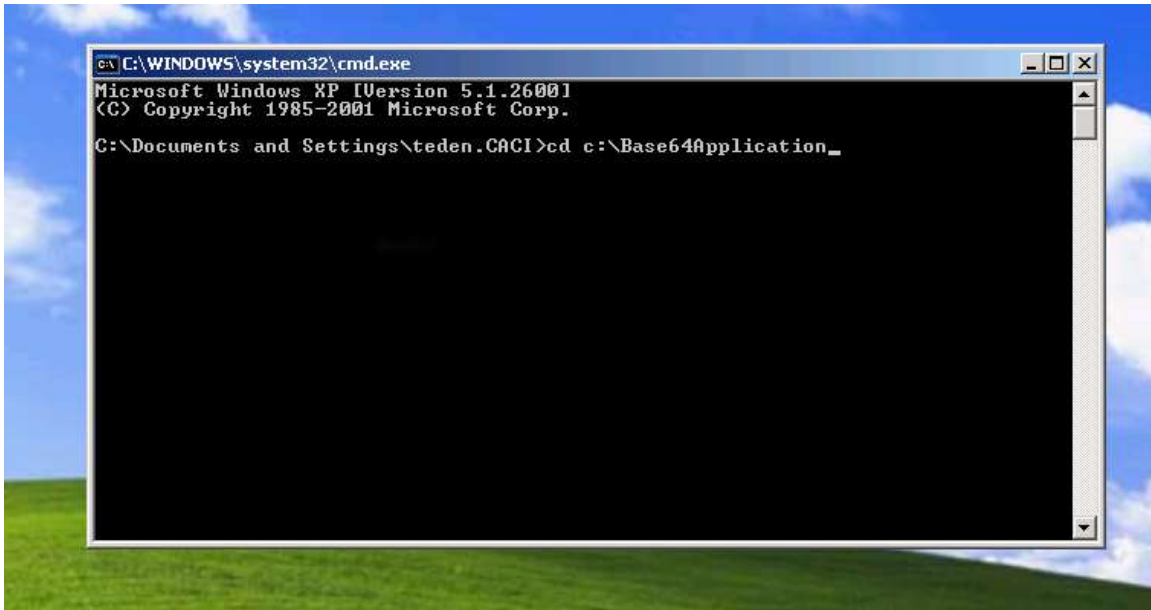


Figure 11: The command line window

6. After pressing the Enter key on the keyboard, the command line window should now be in the directory `c:\Base64Application`. The command line window should appear similar to Figure 15 below.

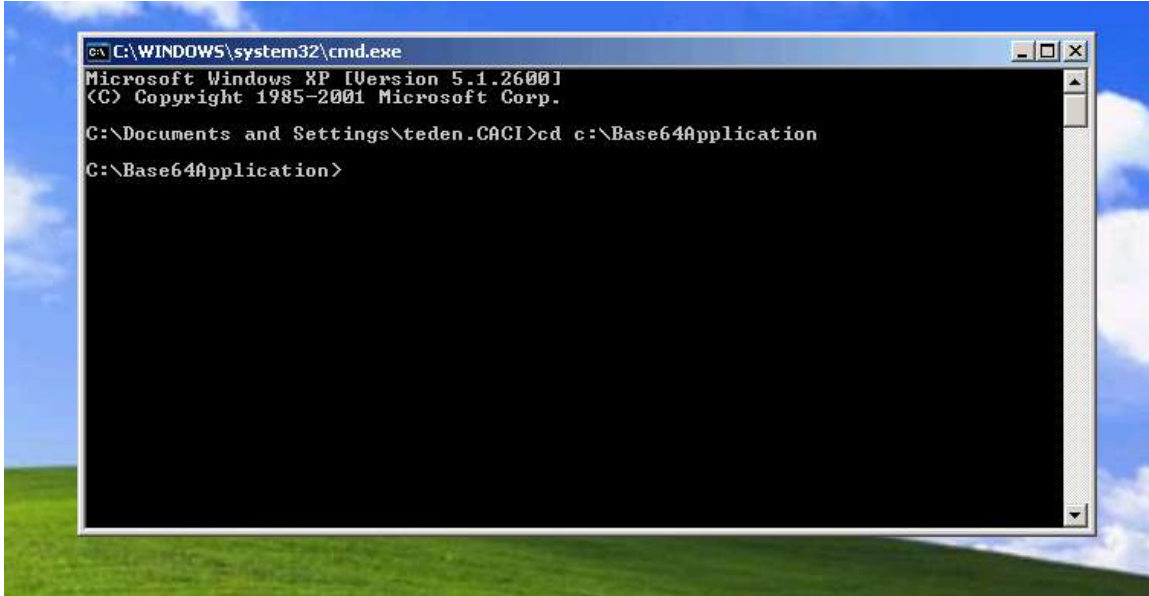


Figure 12: The command line window `C:\Base64Application>`

2.4 Converting a file to Binary Data

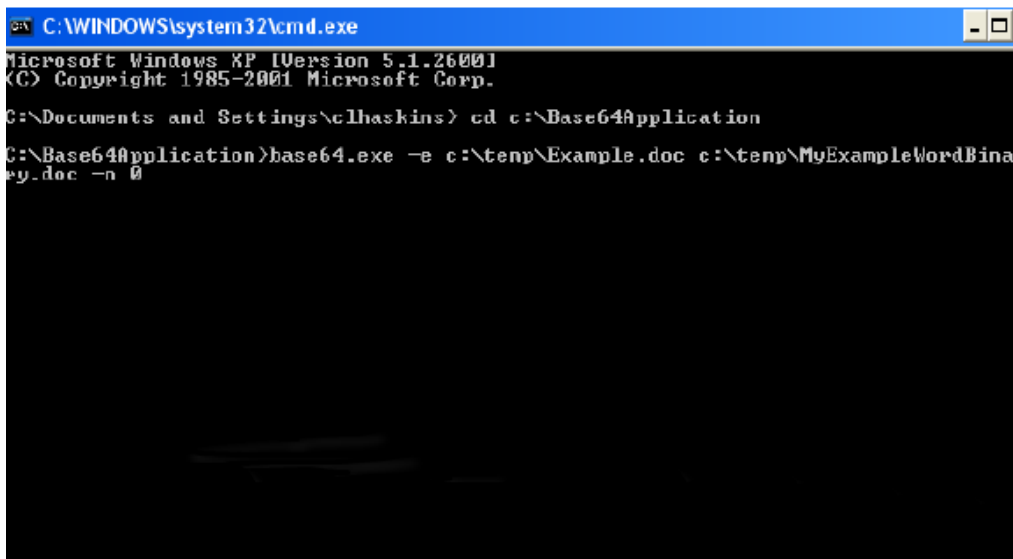
1. Here's an example of converting a Microsoft Word Document named Example.doc located in the c:\temp directory into Base64 binary data. **The file extension used for the output file should always be “.doc”** This will help later in getting the Binary Count for the EDI 841 BIN Segment. The output binary data file will be placed in c:\temp and will be named “MyExampleWordBinary.doc”. This is the directory structure and file name example for the output data. The original attachment could be named Example.xls, Example.pdf, Example.bmp etc. but the output file will always be named with the extension “.doc”

Type the following two lines at the command prompt as one complete command as shown in Figure 16 below and then hit the Enter Key on the keyboard. Please use your directory structure and file names:

```
c:\Base64Application > base64.exe -e c:\temp\Example.doc  
c:\temp\MyExampleWordBinary.doc -n 0
```

The following will aid in understanding the items on the command-line:

- base64.exe** – the name of the executable program.
- e** - this tells the utility to Base64 encode the file
- c:\temp\Example.doc** – the name of the original file to Base64 encode
- c:\temp\MyExampleWordBinary.doc** – the name of the output file from the Base 64 encode
- n 0** - this tells the application to not place any line breaks into the output data file and **MUST** always be used.



```
C:\WINDOWS\system32\cmd.exe  
Microsoft Windows [Version 5.1.2600.1  
(C) Copyright 1985-2001 Microsoft Corp.  
C:\Documents and Settings\clhaskins> cd c:\Base64Application  
C:\Base64Application> base64.exe -e c:\temp\Example.doc c:\temp\MyExampleWordBinary.doc -n 0
```

Figure 13: Execution of the base64.exe on the command line window

2. After running the base64.exe utility on your document, the data will be converted into binary form with a “.doc” extension and stored as a new document as in Figure 17 below.

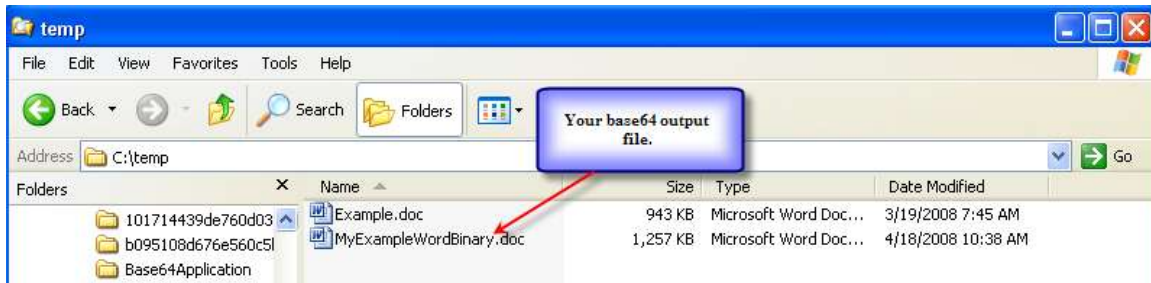


Figure 14: The resulting binary file

2.5 Obtaining the Binary Count for the EDI 841 Transaction Set

1. To obtain the actual binary data count for the BIN Segment (BIN01) of the EDI 841 Transaction Set, right click to open the output file in Microsoft Office Word program as shown below in Figure 18.

NOTE: Microsoft Office Word “MUST” be used at all times for capturing the correct Binary data count. Failure to adhere to this rule will cause a data transfer error unless an automated process is implemented to correctly obtain the Binary Data Count. Microsoft Office Word 2003 SP3 was used in the following set of instructions.

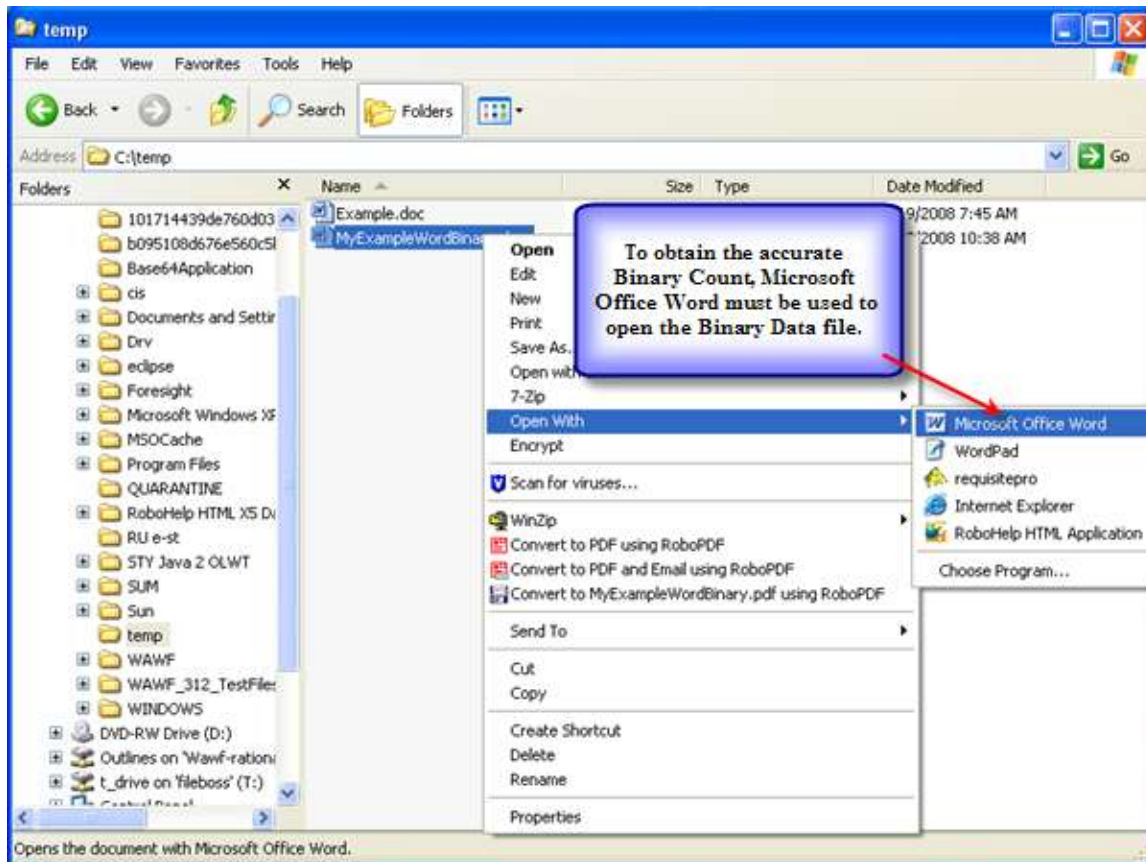


Figure 15: Open file in Microsoft Office Word

2. Once the Binary data file is opened with Microsoft Office Word it will appear as shown below in Figure 19.

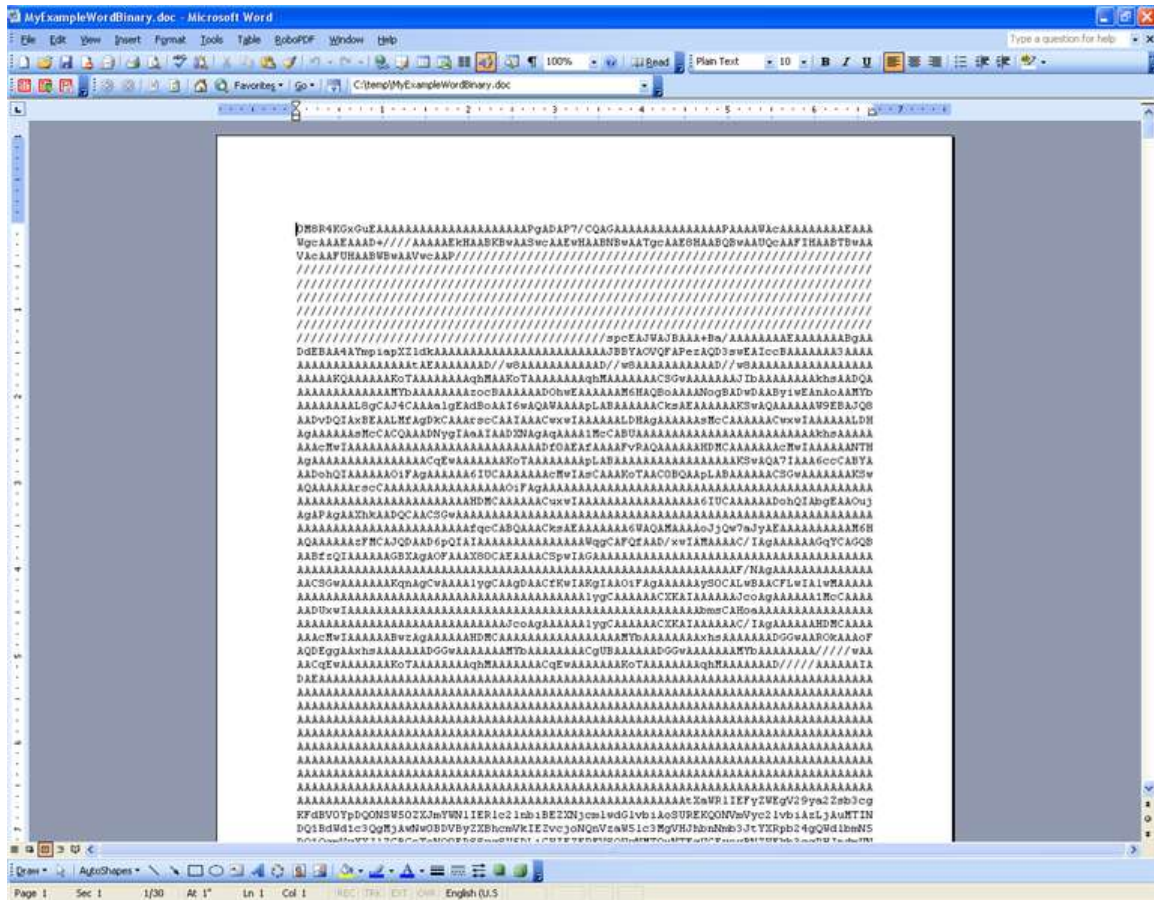


Figure 16: Binary Data file

3. From the menu bar select the “Edit” option. After selecting edit, next scroll down and select the “Select All” option as shown in Figure 20 below. This will highlight all Binary Data in your output file.

NOTE: Alternatively, you could use the Microsoft program short cut of “Ctrl A” to highlight the data.

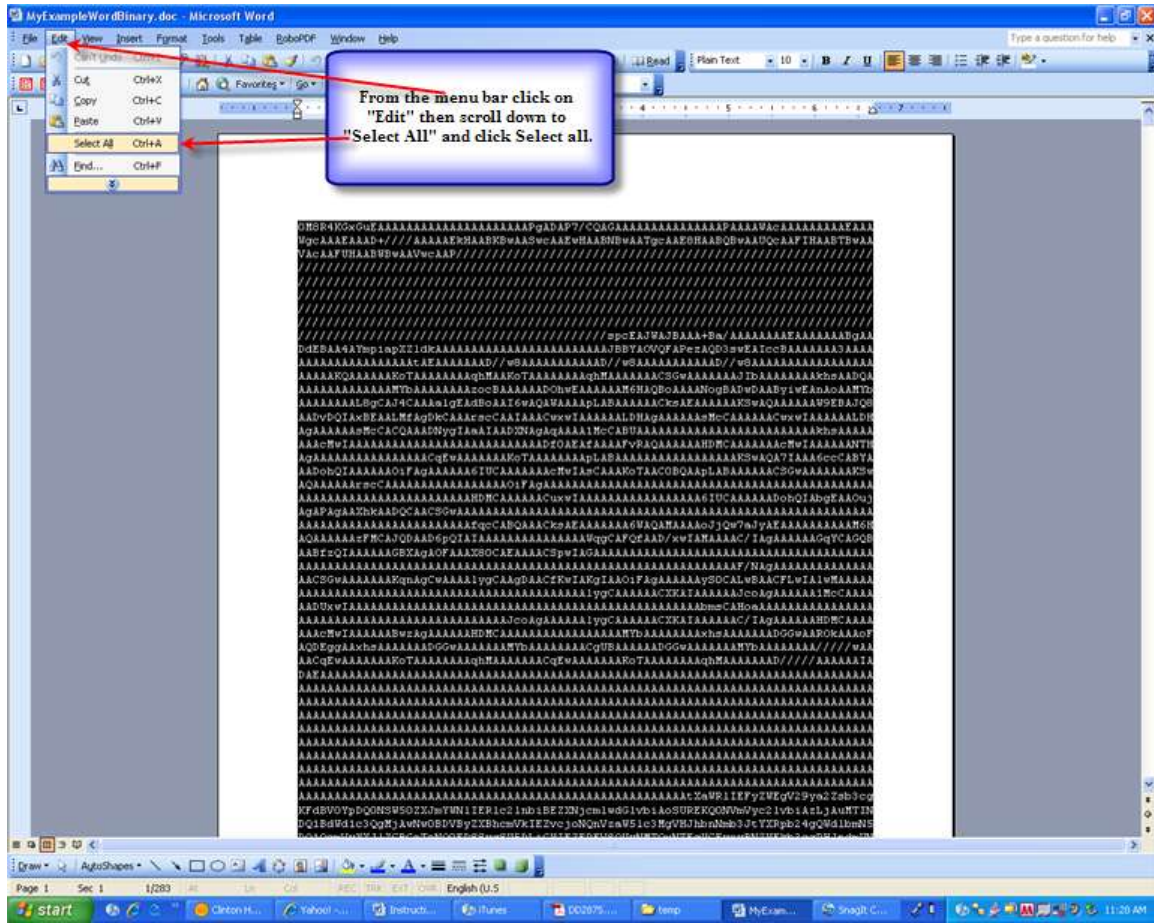


Figure 17: Highlighted Binary Data

4. The Binary Data Count is gathered from the data by selecting Tools from the menu bar as shown below in Figure 21. Select Tools from the menu bar then scroll down to Word Count and select this option.

NOTE: Alternatively, you could use the Microsoft program short cut of “Alt” then “T” then “W” to get the Binary Count.

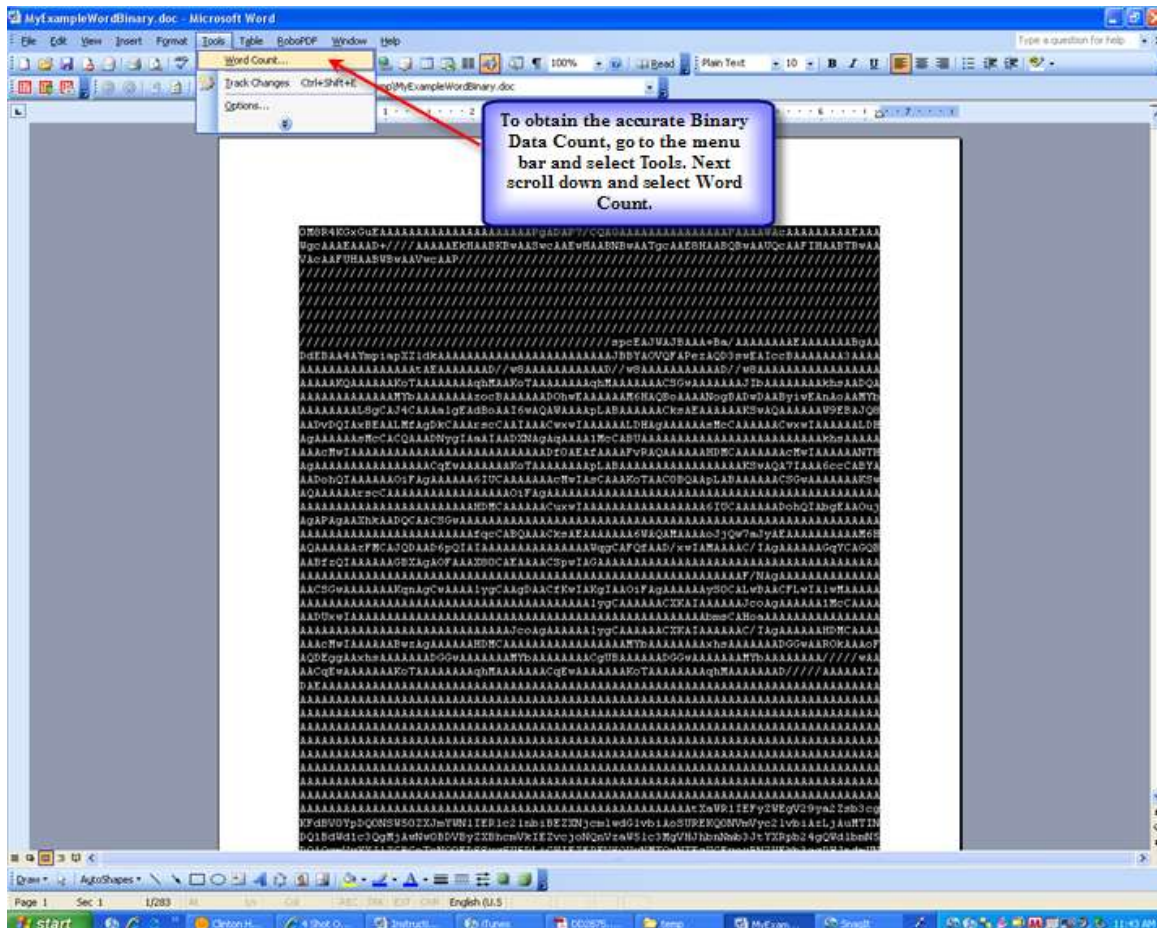


Figure 18: Binary Count Tool

5. The information shown in Figure 22 below is the Binary Data Count which is used in the EDI 841 Transaction Set. The option circled is the character Count (No spaces) and must always be chosen to get the accurate Binary County. This Binary number will be manually placed into the EDI 841 BIN Segment (BIN01).

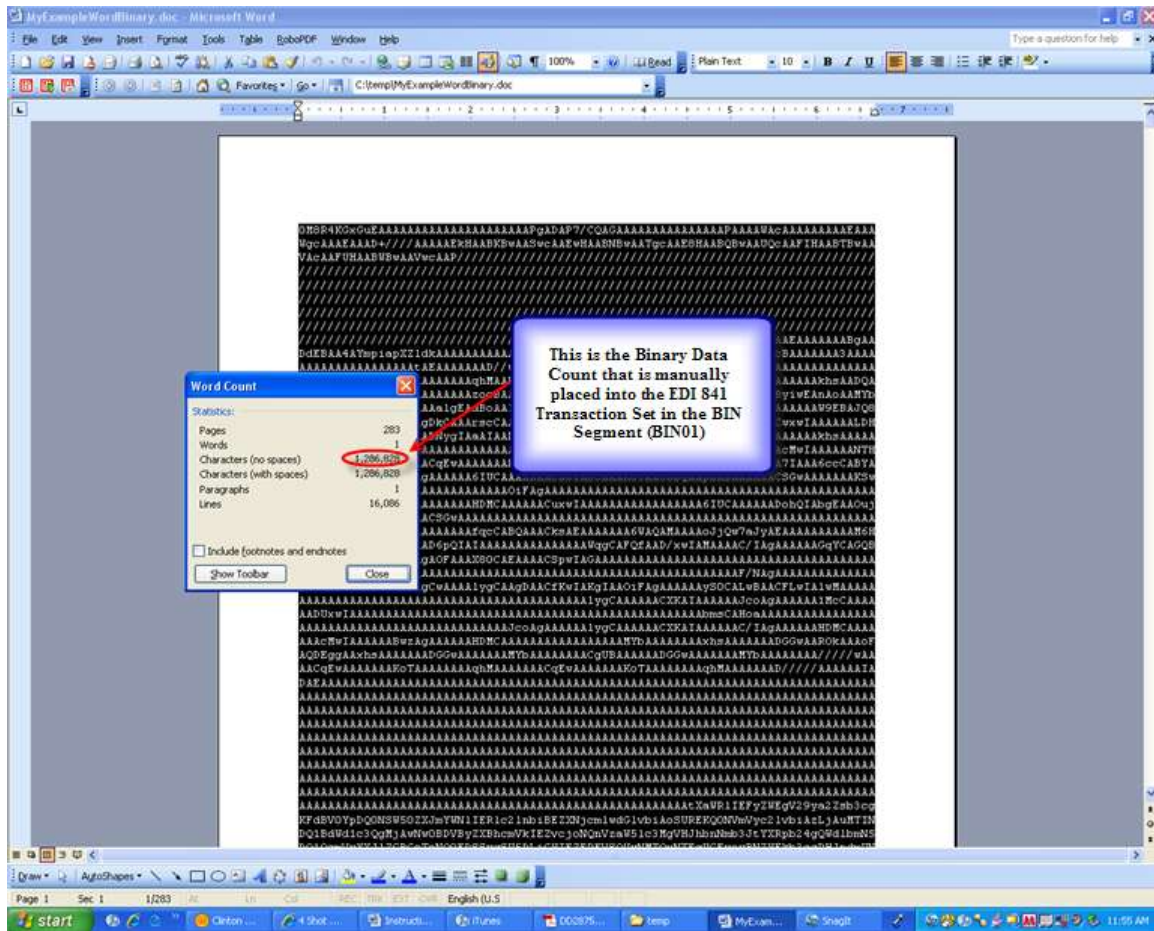


Figure 19: Binary Data Count

2.6 Copying & Pasting converted data into the Transaction

1. With the Output Binary Data file still open in Microsoft Office Word, select “Edit” from the menu bar. Next, scroll down the options and select “Select All” as shown below in Figure 23. This will again select the entire Binary Data in the file and highlight it.

NOTE: Alternatively, you could use the Microsoft program short cut of “Ctrl a” to highlight the data.

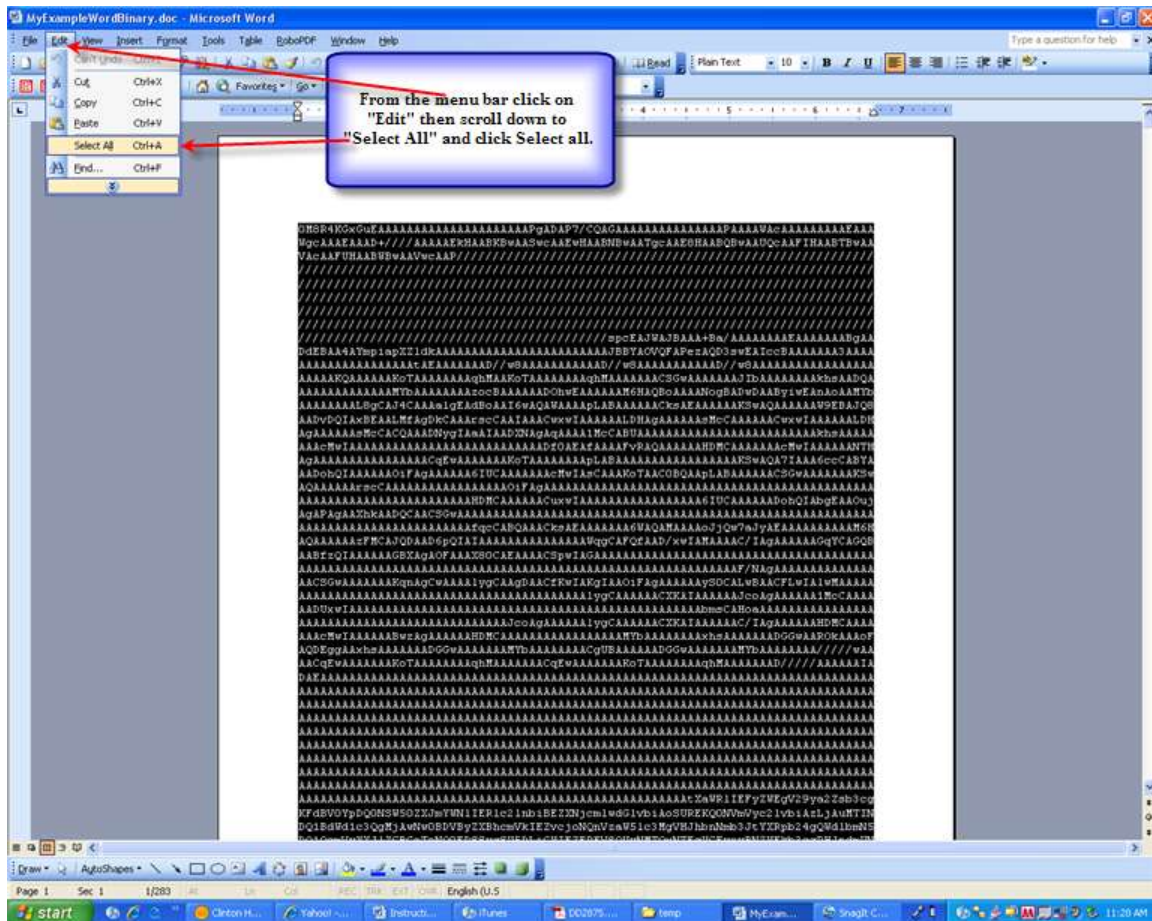


Figure 20: Highlighted Binary Data

2. From the menu bar again select “Edit” then scroll down to select the “Copy” option as shown in Figure 24. This will copy the Binary Data to be pasted into the EDI 841 BIN Segment (BIN01).

NOTE: Alternatively, you could use the Microsoft program short cut of “Ctrl c” to copy the data.

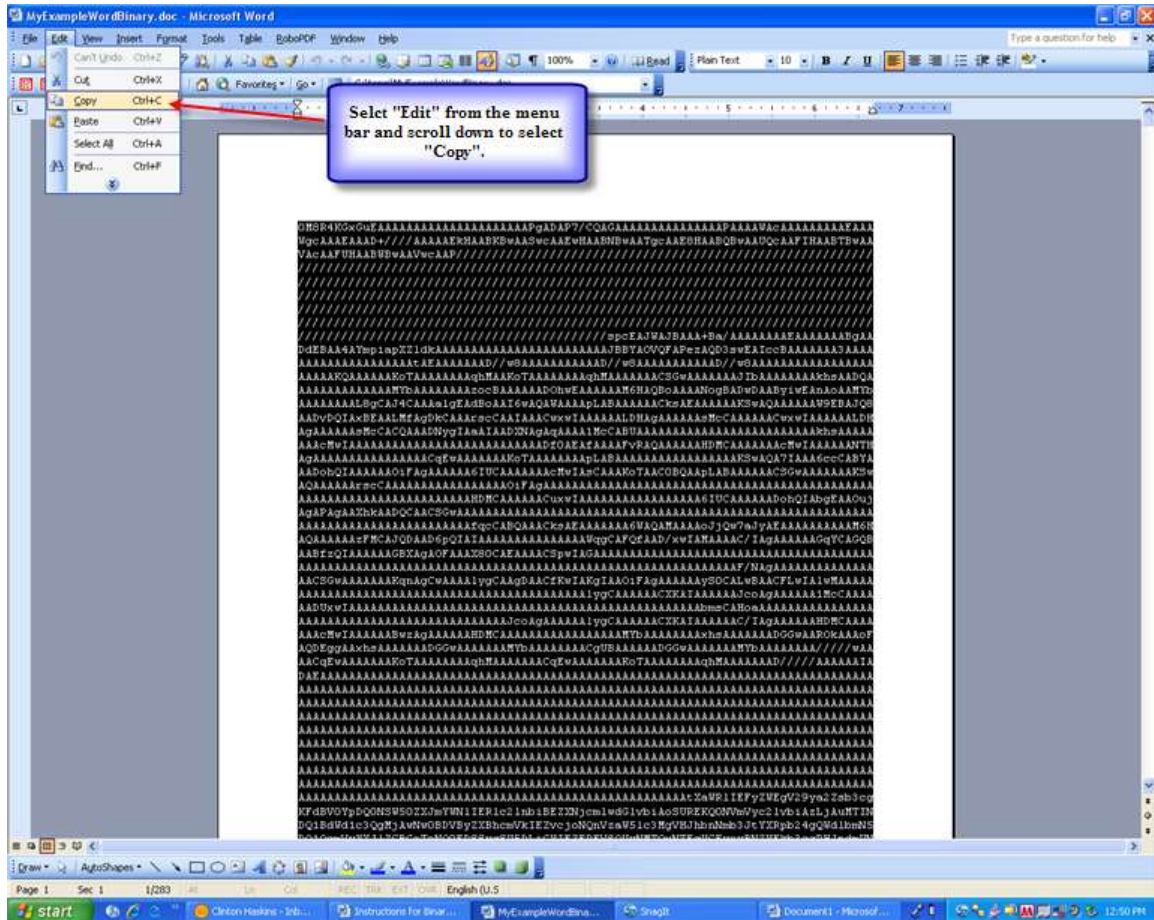


Figure 21: The Binary Data Highlighted and Copied

