

Instructions to Handle Problem Files

--Dealing with Files Flagged as Possible Security Risks

Extension Service has partnered with WVU Information Security (<http://it.wvu.edu/security>) to pilot a program to help identify potential data security issues. Using a system named “Identity Finder” or IDF, Information Security is able to scan all computer drives to check for files containing Social Security or credit card numbers.

This handout was created to help you deal with files that may contain Social Security numbers (SSNs) and/or credit card information. It also offers suggestions on how to modify, delete, or move files to keep them protected.

Note: This handout is **not** a how-to guide for Adobe Acrobat Pro, Microsoft Access, or Microsoft Excel and assumes you have a working knowledge of these programs and file management.

Please review the attached comma-separated value (CSV) file. Once you double click on it, the file should open in Excel.

Overview of Suggestions for File Remediation from the Office of Technology

After eliminating or correcting our own files with potential data security problems, we developed remediation guidelines. We will continue to update instructional materials and guidelines on our unit’s website (<http://technology.ext.wvu.edu>). Please refer to the site for help.

Remediation of suspect files to eliminate the exposure of SSNs and credit card numbers could include actions such as:

- Moving files to a secure area on a network drive (N:\Extension\Secure or on Drive J: for campus and Jackson’s Mill users). This area meets the criteria set forth by WVU Information Security –only accessible by Login credentials and only available to a limited number of users. **Do not store files with SSNs or credit card numbers on a jump/thumb drive!**
- Deleting or modifying old travel forms created in Excel.
- Deleting or modifying PDF files. (Note: All Extension users have the option to install Adobe Acrobat Pro at no cost and use this software to edit PDF files. Visit <https://slic-acc.wvu.edu> to download the software.)
- Deleting or modifying Microsoft Access databases.
- Maintaining only one copy of a shared database and housing it in a limited access area on a network drive (e.g., N:, J: for campus and Jackson’s Mill). Note: That has always been our recommendation, but the scans indicate different user practices.
- Reviewing personal Dropbox account files to delete or edit them.
- Substituting email addresses or other unique number/text as an identifier instead of SSNs.
- Deleting email and text messages.
- Reviewing files stored on jump/thumb drives plugged into computers.
Keeping files with private data on jump drives is dangerous, since those devices are very easy to lose.

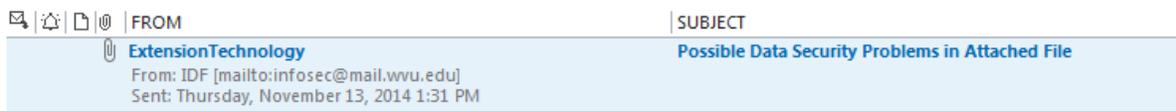
- Finding files stored by the computer’s previous owner (e.g., on computers reassigned to graduate students). Further, if a user does not have an administrative account, these files may not be accessible to modify or delete.
- “Cleaning” your computer before assigning it to someone else.
- Deleting files from the computer’s Recycle Bin.
- Deleting email messages in the Deleted Items folder in email.
- Moving email messages to a network drive accessible only by a password.
- Deleting text messages with SSNs or credit card numbers.
- Files stored in temporary system folders *should* be deleted when you turn off or restart your computer.

Instructions for Finding, Modifying, Deleting, and Moving Files

The following instructions are to be used to help you carefully and properly deal with any files that might contain SSNs or credit card numbers.

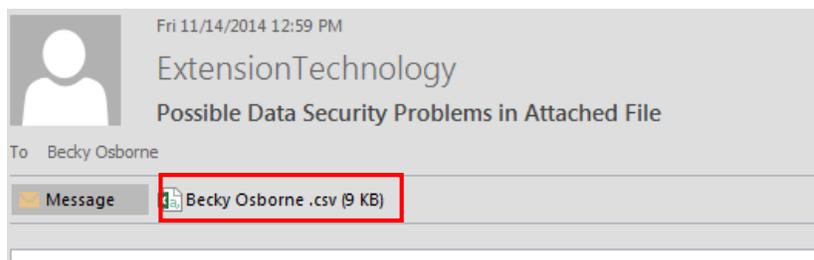
1. If you are not logged into your email account, please do so to get started.

The screen capture below is similar to what you might see if you receive an email message and attached file with data security issues.



2. Find the message from ExtensionTechnology with a subject line similar to “Possible Data Security Problems in Attached File.” Open the message.

It might look similar to the screen capture below.



3. Next, double click on the attached file (e.g., Becky Osborne.csv). Microsoft Excel should open the file, and you will see something similar to the following image.

	A	B	C	D	E	F	G	H	I	J	K
1	Date/Time	Endpoint	Owner	Identity T	Identity M	Match Qu	Location	Location T	Action	Classification	N
2	#####	EXT-KNP- WVU-AD\	WVU-AD\	Social Sec	3525	1	C:_RRO\	Adobe Aci	No Longer Exists		
3	#####	EXT-KNP- WVU-AD\	WVU-AD\	Social Sec	3525	1	C:\Users\	Adobe Aci	No Longer Exists		
4	#####	EXT-KNP- WVU-AD\	WVU-AD\	Social Sec	3525	1	C:_RRO\	Adobe Aci	No Longer Exists		
5	#####	EXT-KNP- WVU-AD\	WVU-AD\	Social Sec	380	1	C:\Users\	Compress	Shred		
6	#####	EXT-KNP- WVU-AD\	WVU-AD\	Social Sec	8163	2	C:_RRO\	Microsoft	No Longer Exists		
7	#####	EXT-KNP- WVU-AD\	WVU-AD\	Social Sec	3525	1	C:_RRO\	Adobe Aci	No Longer Exists		
8	#####	EXT-KNP- WVU-AD\	WVU-AD\	Social Sec	3525	1	C:\Users\	Adobe Aci	No Longer Exists		
9	#####	EXT-KNP- WVU-AD\	WVU-AD\	Social Sec	380	1	C:_RRO\	Microsoft	No Longer Exists		
10	#####	EXT-KNP- WVU-AD\	WVU-AD\	Social Sec	5372	6	C:\Users\	Adobe Aci	None		
11	#####	EXT-KNP- WVU-AD\	WVU-AD\	Social Sec	5372	6	C:\Users\	Adobe Aci	None		
12	#####	EXT-KNP- WVU-AD\	WVU-AD\	Social Sec	5372	4	C:\Users\	Adobe Aci	None		

Don't panic! The following information and steps should help you understand what is on your screen and guide you through handling each line in the Excel file.

First, you will learn what each column in the file contains and how to format the attached CSV file to make it easier to use.

Explanation of columns

Column Letter	Column Contents
A	Date/Time the scan was run
B	Endpoint – This is the computer name and should match the name of YOUR computer.
C	Owner – This should be the name of the account by which you log into your computer.
D	Identity Type – You will see “Social Security Number” or “Credit Card Number” here.
E	Identity Match – This indicates the last four digits of the match.
F	Match Quantity – This indicates the number of times the four digits were found.
G	Location – Use this path to determine the file name(s) and where it is stored.
H	Location Type – This column tells what type of file it is.
I	Action – Initially, that column will probably be marked “None.” Once you delete a file, a subsequent scan will indicate this with “No Longer Exists.”

Making the Columns Easier to Read

To be able to work with the files referenced in the CSV file that opens in Excel, you will need to widen some of the columns.

1. Widen the “Location” column G with your mouse by moving the mouse pointer to the line between columns G and H. (Refer to the screen capture below for location.) Hold the left mouse button down while dragging the divider line to the right. Note: The mouse pointer will turn to a double-headed arrow and vertical line as shown to the right.



Shortcut: Double click on the dividing line between the column letters, and the column will become as wide as the widest entry.

	A	B	C	D	E	F	G	H	I	J	K
1	Date/Time	Endpoint	Owner	Identity T	Identity M	Match Qu	Location	Location T	Action	Classification	N
2	#####	EXT-KNP-5	WVU-AD\	Social Sec	3525		1 C:_RRO\	Adobe Ac	No Longer	Exists	
3	#####	EXT-KNP-5	WVU-AD\	Social Sec	3525		1 C:\Users\	Adobe Ac	No Longer	Exists	
4	#####	EXT-KNP-5	WVU-AD\	Social Sec	3525		1 C:_RRO\	Adobe Ac	No Longer	Exists	
5	#####	EXT-KNP-5	WVU-AD\	Social Sec	380		1 C:\Users\	Compress	Shred		

You should now see the full file path in Column G (Location). Your screen should look similar to the screen capture below.

	A	B	C	D	E	F	G	
1	Date/Time	Endpoint	Owner	Identity T	Identity M	Match Qu	Location	Loca
2	8/27/2014 9:00	EXT-KNP-5	WVU-AD\	Social Sec	3525		1 C:_RRO_Training_Office 2010\Access\access2007dbdesign.pdf	Adot
3	8/27/2014 9:00	EXT-KNP-5	WVU-AD\	Social Sec	3525		1 C:\Users\rrosborne\Dropbox_Training_Office 2007\Access\access2007dbdesign.pdf	Adot
4	8/27/2014 9:00	EXT-KNP-5	WVU-AD\	Social Sec	3525		1 C:_RRO_Training_Office\Access\PDF Files\supp.pdf	Adot
5	8/27/2014 9:00	EXT-KNP-5	WVU-AD\	Social Sec	380		1 C:\Users\rrosborne\Dropbox\Apps\Easy Android Backup\BackupJuly312014Phone.zip <SmsBackup.csv>	Com
6	8/27/2014 9:00	EXT-KNP-5	WVU-AD\	Social Sec	8163		2 C:_RRO\Supervisor stuff\Performance Appraisal John McCord 2005.doc	Micr
7	8/27/2014 9:00	EXT-KNP-5	WVU-AD\	Social Sec	3525		1 C:_RRO_Training_Office 2007\Access\access2007dbdesign.pdf	Adot
8	8/27/2014 9:00	EXT-KNP-5	WVU-AD\	Social Sec	3525		1 C:\Users\rrosborne\Dropbox_Office 2010\Access\access2007dbdesign.pdf	Adot
9	8/27/2014 9:00	EXT-KNP-5	WVU-AD\	Social Sec	380		1 C:_RRO\personal\Savannah Trip.xls	Micr

Now, this is when you become a file-finding sleuth!

Look at the full path and file name in each line in the Location column. The first example in the screenshot is on Row 2 in the sample Excel file.

File Location Example

So, where is the file? Using the “path” in the example below, you can see that the file is stored on Drive C:. After double clicking on the drive letter, you would locate the folder and double click on it. Then, you would follow the path until you see the file. In this case, the file is named “access2007dbdesign.pdf.” Note: You can use Windows Explorer for file management tasks.

C:_RRO_Training_Office 2010\Access\access2007dbdesign.pdf

The path to the file is explained below.

- C: - drive (could be C:, F:, J:, etc. -- depending on what drives you have available)
- _RRO - first-level folder
- _Training - second-level folder
- _Office 2010 - third-level folder
- Access - fourth-level folder and, in this case, where the file is stored

The file named “access2007dbdesign.pdf” should be visible once you browse to the \Access folder.

In this example, the file turned out to be an older handout with sample SSNs in it. That file was deleted. However, if you wanted to *edit* the file in Adobe Acrobat Pro, you would need to open the software (Adobe Acrobat Pro) and then “browse” to the folder where the file is stored. Next, you would make changes to the file to remove the SSNs. Or, if you wanted to delete



the file, open Windows Explorer (graphic to right) from the Taskbar, browse to the file, RIGHT click on it, and select “Delete.”

Below is a screenshot from a user’s data security file. Notice the far left corner. That indicates the Excel file has 29,787 lines or records of possible problems. To put that in perspective, a printed 8.5” x 11” sheet of paper has around 66 lines.

29785	8/25/2014 7:24	EXT-KNP-9054DX1	S-1-5-21-515967899-1957994488-854245398-35663	Social Security Number
29786	8/25/2014 7:24	EXT-KNP-9054DX1	S-1-5-21-515967899-1957994488-854245398-35663	Social Security Number
29787	8/25/2014 7:24	EXT-KNP-9054DX1	S-1-5-21-515967899-1957994488-854245398-35663	Social Security Number

That large number (29787) could represent Access/Excel files with many records/lines.

For example, a 3000-record database with a column for SSNs will have 3000 matches and contribute to the total number of lines in the CSV file. In other words, deleting that Access/Excel file would reduce the number of matches by 3000. What if you have that same file stored in multiple places? Then, that number of matches would increase accordingly.

The bottom line is to keep the number of matches in perspective as you review the CSV/Excel file. If you see the same location over and over, that means the one file has many records. If that’s the case, then you probably would see different numbers in the “Identity Match” column – indicating different SSNs for different people.

You will have to decide what to do with the file – delete, modify, or move it to a secure location.

Editing a PDF File

This handout is not a “how-to” guide with details about editing a PDF file.

Note: If you need to download and install the software, go to <https://slic-acc.wvu.edu>. Make sure you download the 32-bit version unless you know your computer has a 64-bit operating system. Computers purchased in 2014 have a 64-bit operating system. (To determine the version, click on Start, RIGHT click on Computer, select Properties from the shortcut menu. Look at the “System” section and then the “System type” entry.)

As you download Adobe Acrobat Pro, watch your browser’s toolbar to see if there’s an arrow indicating the download process. Usually, downloaded files will be stored in your “Download” folder. To install the software, you will “unzip” the downloaded file and then run the “exe” file in the folder that is created.

The basic steps of editing in Adobe Acrobat Pro include:

1. Once Acrobat Pro is installed, launch the software.
2. Load the file that needs edited by browsing to it and opening it (File, Open).
3. Select Tools, Content, and then Edit Text & Images.
4. Select a text box to edit and then change the contents as you would in a Word text box. Repeat as needed.
5. Save the file.

Moving or Deleting Email Messages

Does the problematic file you received have any entries with “Outlook” as the location? If so, you will need to delete these messages (and empty Deleted Items in Outlook) or save them to a password-protected network drive. If you save them to another location, you will still need to delete the messages and then empty Deleted Items.

D	E	F	
Identity Type	Identity Match	Match Qu:	Location
Credit Card Number	9962	1	Outlook:



Possible Solutions when Dealing with Email Messages

- Delete messages.
- Empty or delete messages in “Deleted Items.”
- Save email messages to a network drive accessible only by a password. Use “File, Save As” to select the most appropriate file type for your access. Then, make sure you delete the messages.
- In the future, do not send messages with critical data or ask others to send messages with critical data.

Editing an Access File

The following information will not make you an Access expert.

The assumption is that if you created a database, then you will know how to delete fields with SSNs or credit card numbers or replace the fields with some other unique identifier (e.g., email address).

If your list of problematic files includes a database(s) that **you did not design or that you do not maintain**, you should delete it. However, before deleting it, check with your co-workers to make sure your copy is not the only copy or the most up-to-date copy.

Important Database Notes:

- Shared databases need to be stored in a password-protected area.
- Shared databases should be stored and edited in **only** one place and should not be “backed up” to anyone’s local computer (e.g., Drive C: or jump drive). Note: Off-campus (county) computers have the network-attached storage for backup purposes. On-campus users have their network-stored files backed up automatically by Information Technology Support (ITS).
- The purpose of having one storage location is for accurate updates and easy access for all authorized users.
- Most people do not need to keep clients’ SSNs or credit card numbers stored in a database.
- **Scary observation about database files** - Many of the files that have been “flagged” are stored on jump drives. What if you would lose the jump drive with others’ SSNs or credit card numbers? What if someone is carrying around your personal information (e.g., SSN, credit card number) on a jump drive?

Look at the screen capture below. Notice the file name of “Class Registration.” If this database has 3000 records and each record contains the SSN field, then there will be 3000 occurrences or matches. Keep that in mind as you look at the entries in the CSV file you received.

Social Security Number	7316	1	C:\WVSFS\2006\WVSFS2006.mdb [Class Registration]
Social Security Number	2801	1	C:\WVSFS\2006\WVSFS2006.mdb [Class Registration]
Social Security Number	3991	1	C:\WVSFS\2006\WVSFS2006.mdb [Class Registration]
Social Security Number	6071	2	C:\WVSFS\2006\WVSFS2006.mdb [Class Registration]
Social Security Number	3145	2	C:\WVSFS\2006\WVSFS2006.mdb [Class Registration]
Social Security Number	6383	1	C:\WVSFS\2006\WVSFS2006.mdb [Class Registration]
Social Security Number	7426	1	C:\WVSFS\2006\WVSFS2006.mdb [Class Registration]
Social Security Number	6160	1	C:\WVSFS\2006\WVSFS2006.mdb [Class Registration]
Social Security Number	3313	1	C:\WVSFS\2006\WVSFS2006.mdb [Class Registration]
Social Security Number	2962	1	C:\WVSFS\2006\WVSFS2006.mdb [Class Registration]

Possible Solutions when Dealing with Access Files:

- Delete the database file if it is not the main copy used by others.
- Edit the database to delete the SSN field.
- Replace the SSN field with another unique identifier.
- Move the database from Drive C: to Drive J: or N: (for Knapp Hall users) where it will be accessed by an authorized individual or group using Login login credentials.

Editing an Excel File

If the IDF scan found Excel files with SSNs and/or credit card numbers, the files might be older travel forms. You can safely delete these. However, other Excel files will need to be treated in a way similar to Access files. You will need to remove any columns/rows/cells that have SSN or credit card information. If you do need to keep the file(s) intact, please move it to a password-protected network drive.

The points made in the section “Important Database Notes” apply to Excel files, too. Please review them.

Identity Type	Identity Match	Match Quantity	Location
Credit Card Number	5862	1	J:\CDI\2011\Motor Pool Reqcdi.xls
Credit Card Number	5862	1	C:\CDI\2011\Motor Pool Reqcdi.xls
	2126	1	C:\WVSFS\2006\WVSFS2006.mdb [Class Registration]
	1873	3	C:\WVSFS\2006\WVSFS2006.mdb [Class Registration]

Note the multiple occurrences of these SSNs. It looks like the same file in two locations.

Possible Solutions when Dealing with Excel Files:

- Delete the file if it is no longer needed.
- Edit the file to delete the SSN or credit card number column/row/cell.
- Replace the SSN field with another unique identifier.
- Move the file from Drive C: to Drive J: or N: (for Knapp Hall users) where Login credentials are required.

Deadline for Dealing with Files and Reporting to the Office of Technology

Please take care of the files with possible SSN and credit card numbers **within 30 days**.

Then, report your progress to the Office of Technology by replying to the original email message with your attached CSV file or by composing a new email message to the same address (ExtensionTechnology@mail.wvu.edu).

Report to us what you have done with the questionable files. Your options are:

- Deleted.
- Moved to a secure network drive (e.g., Drive N:, Drive J:) that's only accessible with a password.
- Modified the file to remove the SSN or credit card information.

Doing nothing is not an option. Machines will be rescanned. If we continue to see problematic files on your computer, these files will be deleted. That means any files on C:\, N:\Extension\Common, and jump/thumb drive files will be marked to be deleted.

If you have questions, please contact the ITS Service Desk (ITSHelp@mail.wvu.edu, 304-293-4444, or 877-327-9260) to log your question or problem.

Thank you for your patience and cooperation as we strengthen our data security practices.