


Instruction Manual for Scanning Microfiche



Installation of
Software/Hardware
Process Included





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Note: You can also refer back to Micro-Image Capture Manual that came with the scanners. This also has links to You Tube Tutorials, if you need additional help.

The African Centre of Meteorological Applications for Development (ACMAD), through cooperation with The International Environmental Data Rescue Organization (IEDRO), is establishing the **West Africa Data Rescue and Digitization Facility** at the ACMAD Headquarters in Niamey, Niger.

This facility will enable ACMAD to locate, image and digitize millions of historic African environmental records for the benefit of the world's researchers, scientists and educators for the betterment of all humanity.

This effort, under the administration of Dr. Adama Alhassane DIALLO, Director-General of ACMAD and with the assistance of IEDRO, will be the premier data rescue and digitization operation in Africa.

This Instruction Manual for Scanning Microfiche is the first of a series of operational manuals that, along with state-of-the-art imaging equipment, will form the core of the facility's data rescue and digitization library.

We are confident that this effort is only the beginning of a solid and effective professional relationship between ACMAD and IEDRO to the benefit of the world community.

A handwritten signature in black ink, appearing to read 'Richard Crouthamel', is centered on a light gray rectangular background.

Dr. Richard Crouthamel
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Microfiche Handling

Everyone on the Imaging Team is a vitally important part of the success of this project. Without each of you, we cannot succeed.

Important Daily Procedures

In all phases of inventory and imaging, when working with microfiche/film, all historical records will be treated as one-of-a-kind items which cannot be replaced if lost or damaged. Each image is a reflection of historical weather data which is being preserved for the health and well-being of your children, grandchildren and all the members of your community.

When handling any microfiche/film, please wear white gloves at all times. It is your responsibility to keep the gloves safe and clean. Each member of the Inventory and Imaging Group will be provided a pair of white gloves as needed.

At the beginning and end of each day, it is the responsibility of the data entry employee to clean the glass platen of your imaging scanner. Spray bottles with a mixture of rubbing alcohol and clean water are provided in the scanning room. Please spray an area of the white cotton cloths provided and wipe both sections of the platen to remove dust. A damp cloth may also be used to keep the work area clean of dust and finger prints.

As necessary please gently wipe the dust from your computer screen, using the white cotton cloths. Please do not spray any chemicals or water on the screen. And avoid touching the screen with a sharp object, such as a pen tip.

Thank you!



Daily Scanning Procedures for Data Entry Personnel

1. Ensure the platen of the scanner is clean and free from dust.
2. Inspect work area for fiche or documents left by other employees.
3. Retrieve and check-out microfiche to be scanned from check-out/check-in inventory checklist (**See Appendix A.**) with the Project Supervisor.
4. ***Very Important*** - Data entry personnel have to be assigned an employee number before scanning (**see Appendix B**).
5. Verify the information on the inventory spreadsheet agrees with the header on the fiche.
6. Confirm the number of images on the fiche matches the number of images stated on the inventory sheet.
7. Initial and date the Check-out columns on inventory sheet.
8. Data entry personnel will be assigned a computer, locate the corresponding file folder to be used and create a new file folder for that days scanning.
9. Verify the settings of the scanner are correct.
10. Begin scanning each image in sequence from top left to right along the top row, continuing onto second row, left to right, etc. until all images have been scanned.
11. Each image should be inspected for clarity, readability and borders around images so all data is showing **before** capturing and saving image.
12. When all images on the fiche have been scanned, data entry personnel will verify total number of .jpeg files created match total number of images on the fiche. Data entry personnel will create a word document (.docx) file.
13. Once the Word Document (.docx) is created, (Quality Control I). The fiche will be returned the Project Supervisor and the Check-in column on inventory spreadsheet is initialed.
14. Retrieve next fiche to be scanned from the check-out desk and proceed to Step 7 above and continue with steps.
15. At end of each scanning session clean the platen glass and tracks of scanner. Return all fiche to the check-out desk. Initial and date all necessary paperwork.

Duties and Responsibilities of the Project Supervisor



1. The primary duty of the Supervisor is to ensure the safe keeping of each and every microfiche or piece of microfilm. Please be aware on a daily basis that you are working with rare historical documents which cannot be replaced.
2. When handling microfiche/film, wear clean cotton gloves and avoid bending or scratching the fiche or film.
3. Supervisor will oversee the inventory of microfiche, scanning procedures and quality checks of all the image files created in this project.
4. Supervisor will assign and document an employee user number for personnel working on this project. **This user number will also be added to the end of each file name, ex. 0200_.**
5. Supervisor will Check-out the microfiche to data entry personnel.
6. Supervisor will Check-in microfiche from data entry personnel.
7. ***Very Important*** - When Checking-in microfiche, it is important to keep the microfiche that needs to be scanned away from the microfiche that has already been scanned. A separate appropriate microfiche container is recommended for storage until all the microfiche of that country have been scanned.
8. Once the microfiche has been Check-in from the data entry personnel, the Supervisor will check all image files created in that days file folder and ensure the best quality picture was captured. Looking for: borders around the image (to ensure no data was inadvertently left off image), readability and clarity.
9. Once the image files have been approved for storage. The Supervisor will open the document (.docx) file and check if there are the same number of files as there are images and save the .docx file as a .txt file. Note: This procedure is done for two reasons. 1. Quality Control II, ensuring all images are captured and 2. Saving in .txt can enable ACMAD in the future to link each image to an Excel spreadsheet, if desired.
10. At the end of each day, a copy of that days inventory spreadsheet of what was checked-out/checked-in will be downloaded into that days file folder of images captured.
11. Lastly, please keep IEDRO aware of any specified issues that may occur. Discuss any difficulty with a piece of equipment and/or any changes to procedures that are necessary.

Installation of Micro-Image Capture Driver



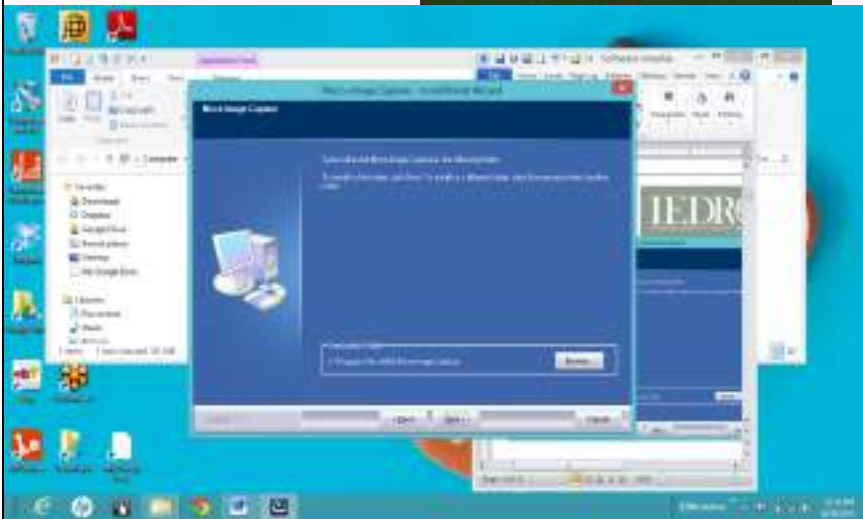
- Insert Micro-Image Capture Driver/Graphical User Interface for PC & Mac disc into disc drive



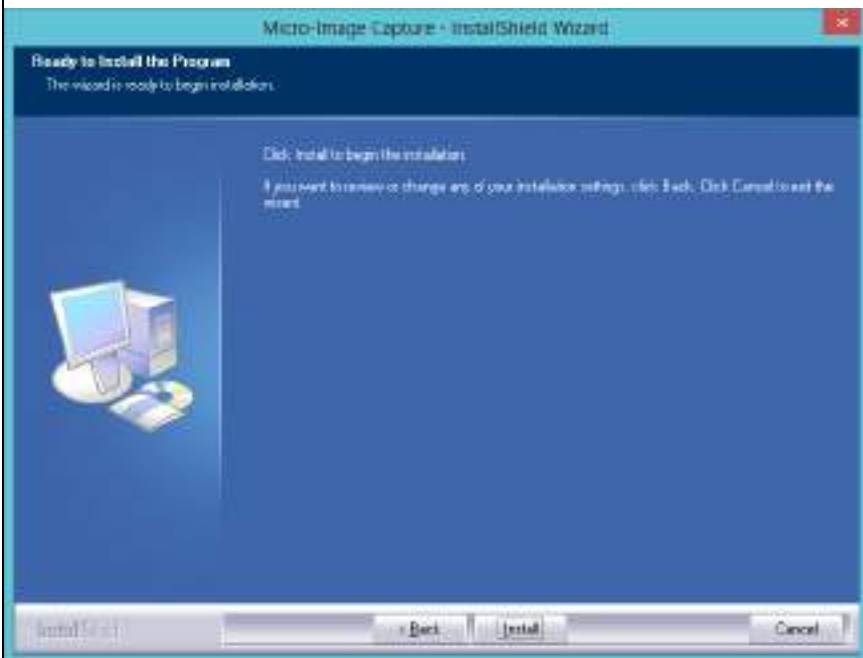
- Double click Micro-Image capture Driver for pc.exe

Note: User Account Control Pop-up window: Do you want to allow the following program from an unknown publisher to make changes to this computer?

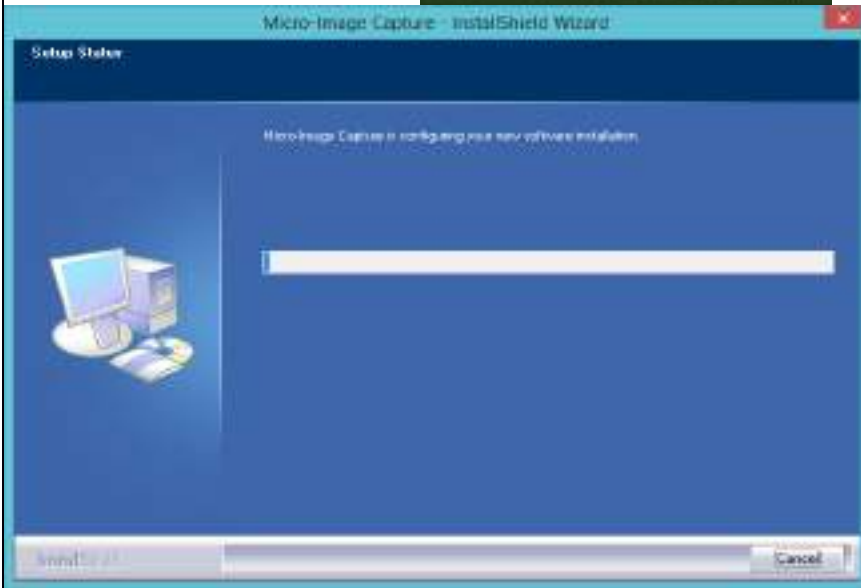
- Click Yes or Allow



- Click Next >



- Click Install



Note: Wait for the following screen:



- Click Finish
- Eject disc

Installation of the Micro-Image Capture program is complete.



Installation of Snagit

Snagit capture software allows you to capture anything you see on your screen. ACMAD will use Snagit to capture microfiche images instantly, convert them to .jpg and store to file folder. Before inserting the Snagit disc into computer, write down the disc system key word code located on the front bottom of the disc. Each scanner will have a different key word code.

- Insert Snagit disc

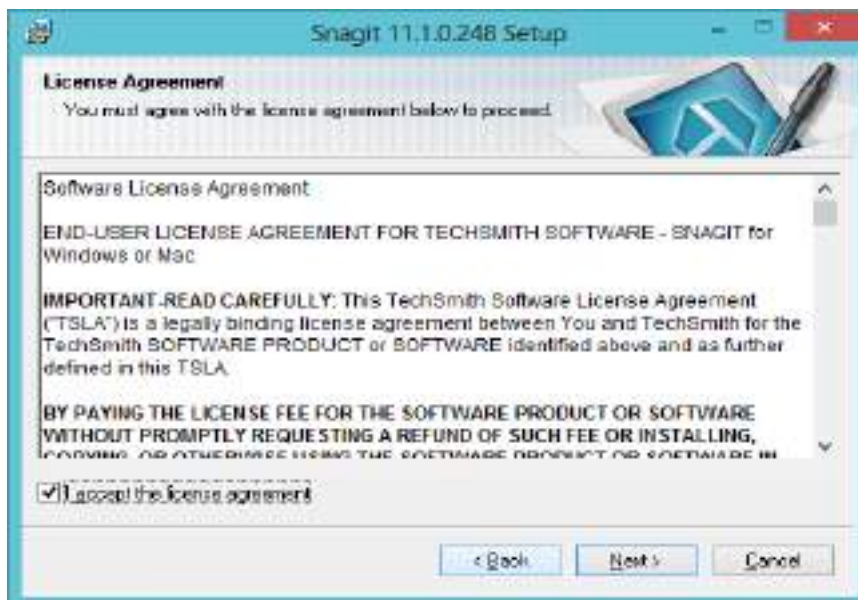


- Click Run autorun.exec



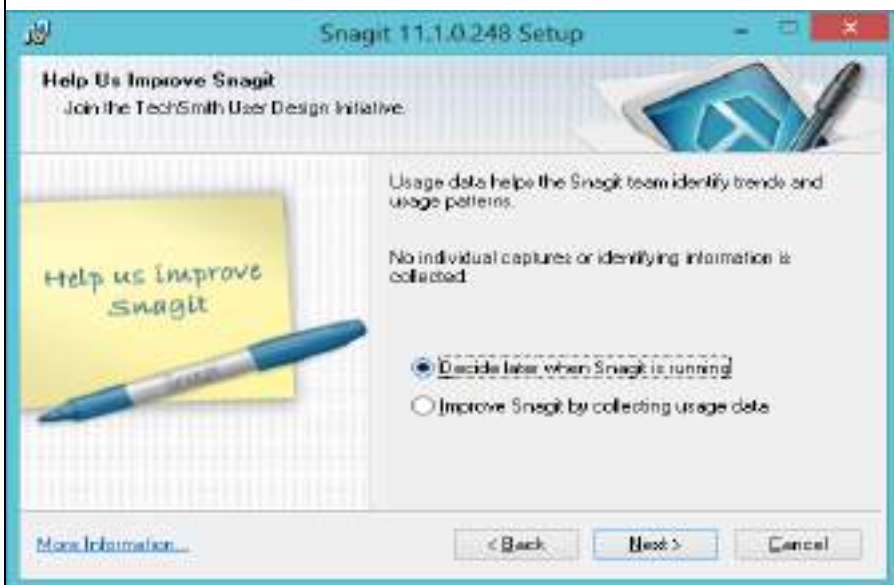
Note: Close down all open window programs

- Click Next >

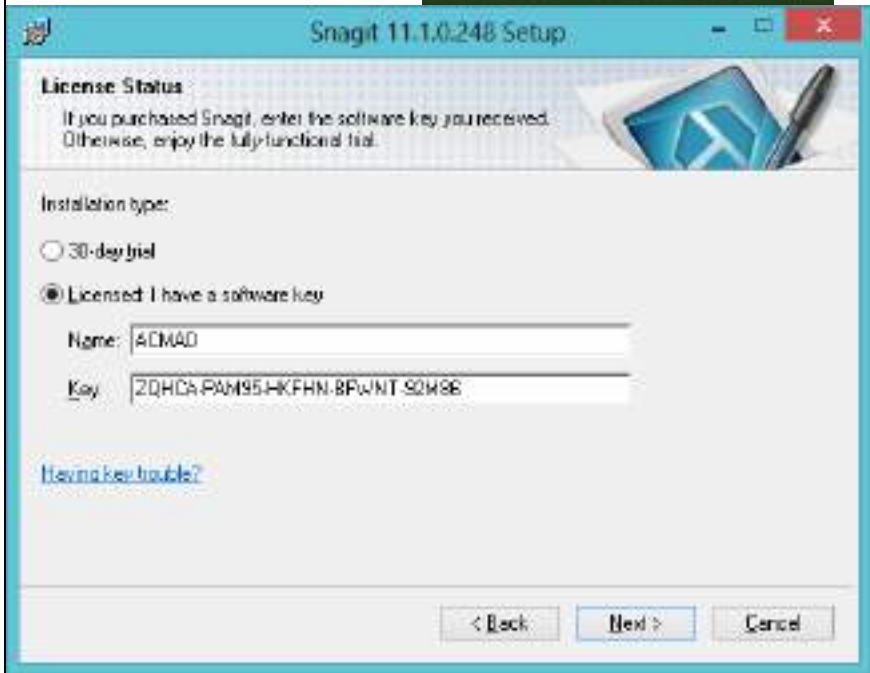


Check box I accept the license agreement

- Click Next >



- Chose option Decide later when Snagit is running
- Click Next >

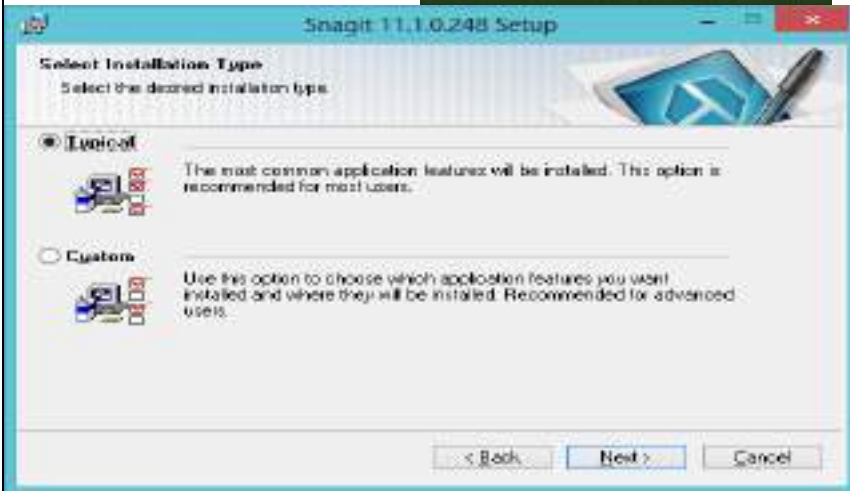


- Choose option Licensed: I have a software key

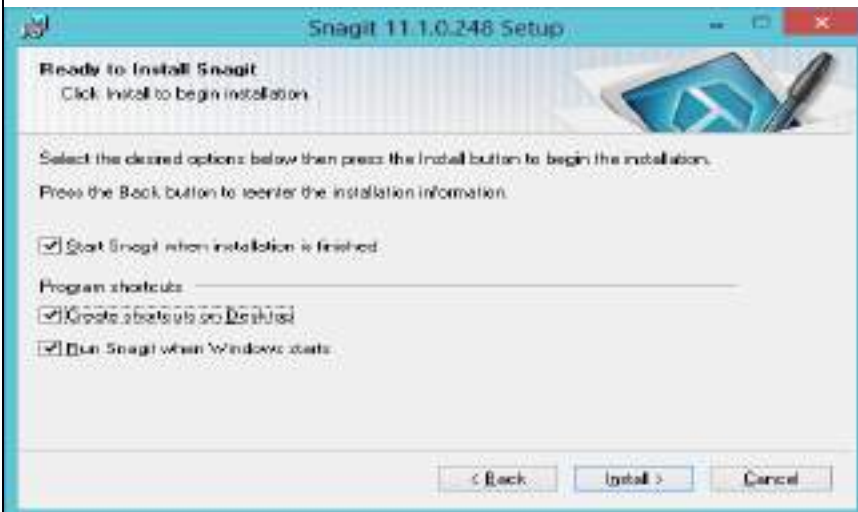
Note: Example of software key, include dashes in field box (i.e., ZQHCA-PAM95-HKFHN-BFWNT-92M86). Each Snagit disc will have a unique software key.

- Delete in field box, Name: Owner
- Enter in field box, Name: ACMAD101
- Enter in field box, Key: _____ - _____ - _____ - _____ - _____
- Click Next >

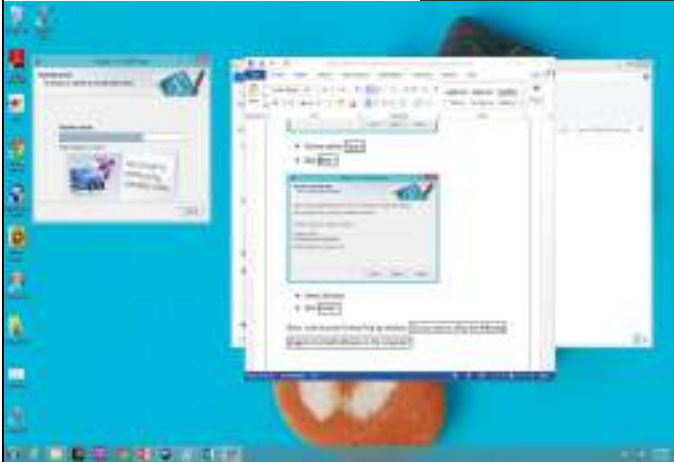
Note: The software key number will be different for each scanner and must be saved in case the program needs to be reinstalled and each computer will have a different name, ex., ACMAD102, ACMAD103, ACMAD104



- Choose option Typical
- Click Next >



- Check all boxes
- Click Install >



- Do nothing



- Click Finish

Note: The software will run through initializing screen shots. Below is the screen that will be displayed.



- Click Close



- Click Close Window



Close Snagit User Interface screen

- Click File
- Click Exit
- Eject disc

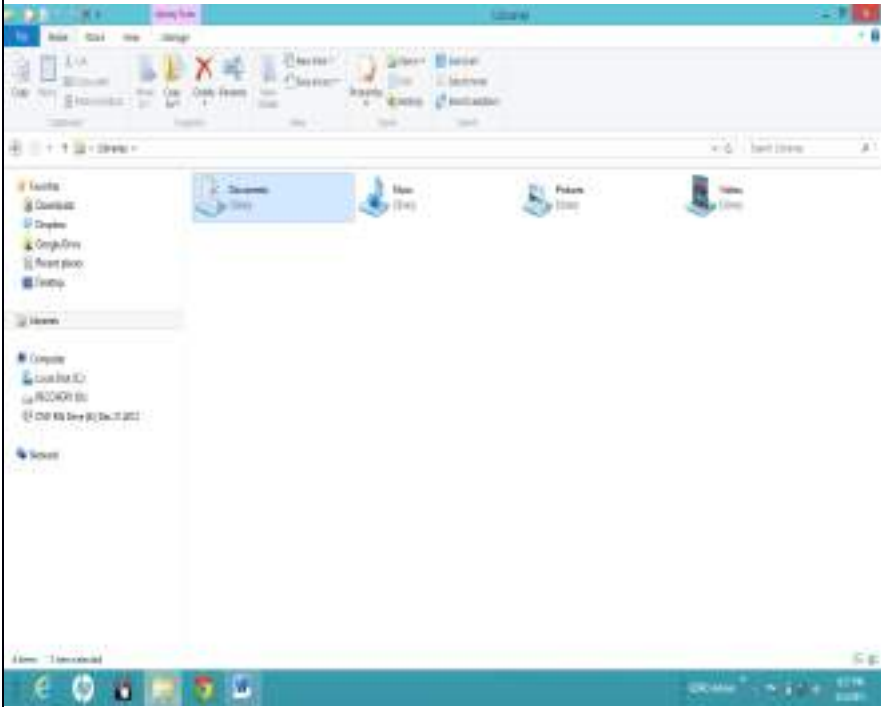
Installation of Snagit software is complete.

Setting up Computer Folders for Imaging



First, File Folders need to be created for each computer. If this has not been done already, the following procedure needs to be followed. In this example, we will set up the File Folder for ACMAD101. Every computer needs to be set up the same way using the following table for appropriate naming for each computer:

- Computer 1 (known as ACMAD101) - File Folder name to create - ACMAD101
- Computer 2 (known as ACMAD102) - File Folder name to create - ACMAD102
- Computer 3 (known as ACMAD103) - File Folder name to create - ACMAD103
- Computer 4 (known as ACMAD104) - File Folder name to create - ACMAD104



- Double-Click on Documents



- Double-Click on My Google Docs



- Create a New Folder



- Name File Folder: ACMAD101

Continue to Create File Folders until all computers have a File Folder using this format structure:

Computer ACMAD101 file structure: Documents\My Google Docs\ACMAD101

Computer ACMAD102 file structure: Documents\My Google Docs\ACMAD102

Computer ACMAD103 file structure: Documents\My Google Docs\ACMAD103

Computer ACMAD104 file structure: Documents\My Google Docs\ACMAD104



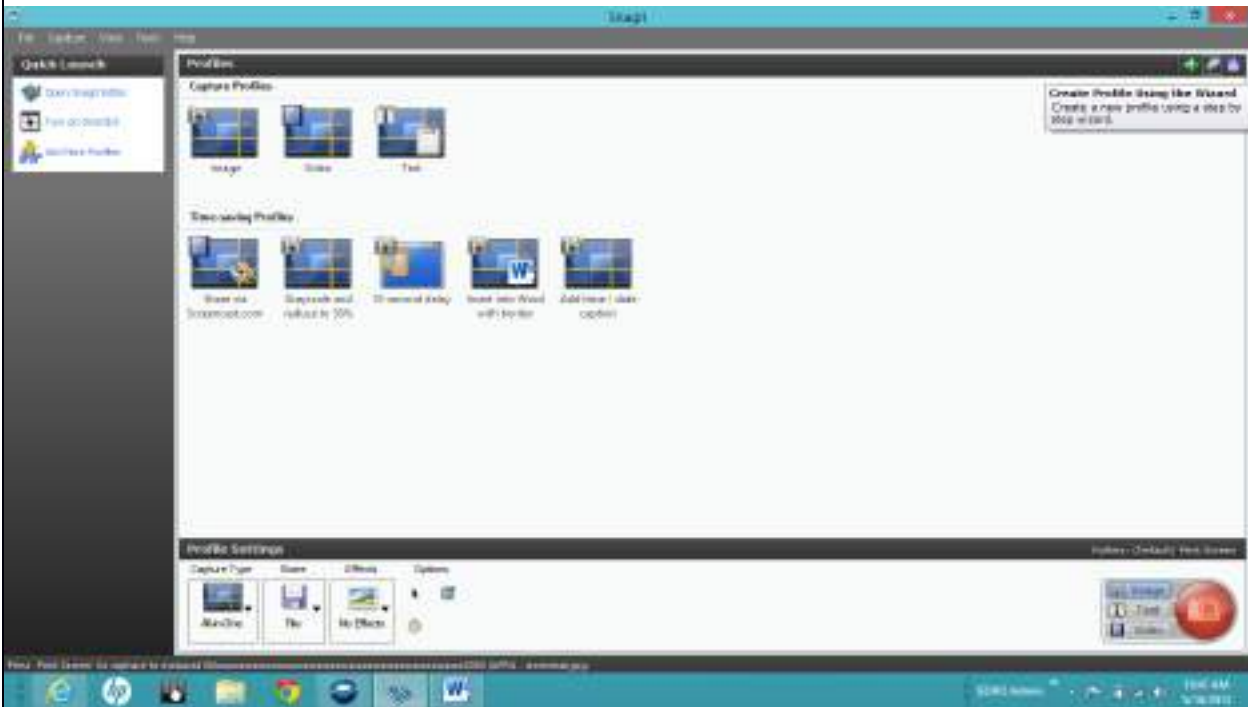
Setting up Snagit



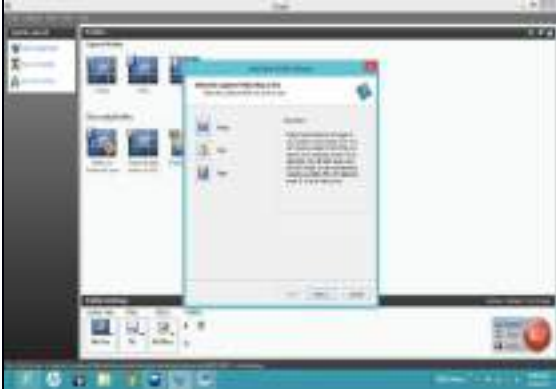
- Double click Snagit 11 icon from desktop. Note: **NOT** Snagit 11 Editor



- Click No



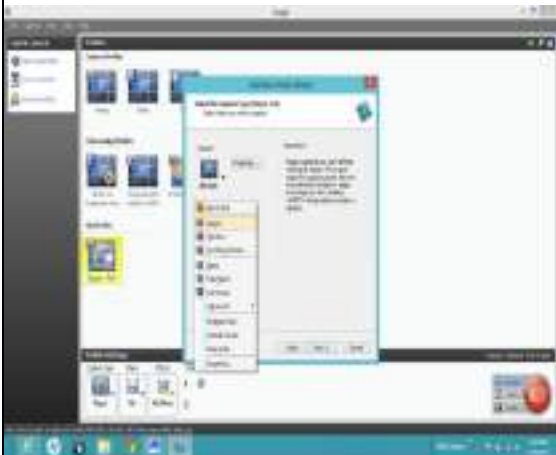
- Click on the Profiles banner the small green (+) in the upper right hand corner (the middle icon).



- Click the Image icon

Note: Notice the Select the Capture Mode (Step 1 of 6) at top of screen. Steps 1 and 2 are a one-time set up procedure.

- Click Next>



- Click on Capture icon
- Select Region from drop down box (Step 2 of 6)
- Click Properties



- Choose the Fixed Region Tab
- Type in the Width box 1920
- Type in the Height box 1080
- Click Apply
- Click OK
- Click Next>



Microfiche File Format Procedure



- Choose the Share icon drop down arrow (Step 3 of 6)
- Select File
- Choose the Share icon drop down arrow again
- De-Select Preview in Editor
- Click Properties



In the File Name field:

- Select Automatic File Name

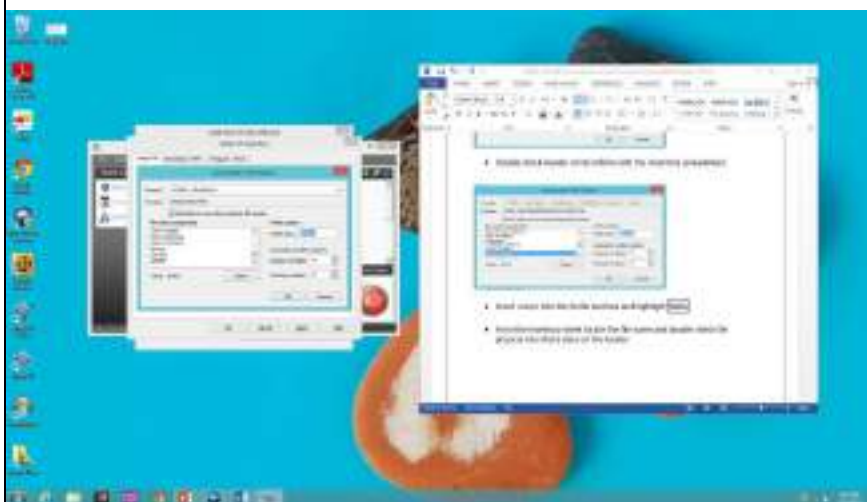


- Click Options

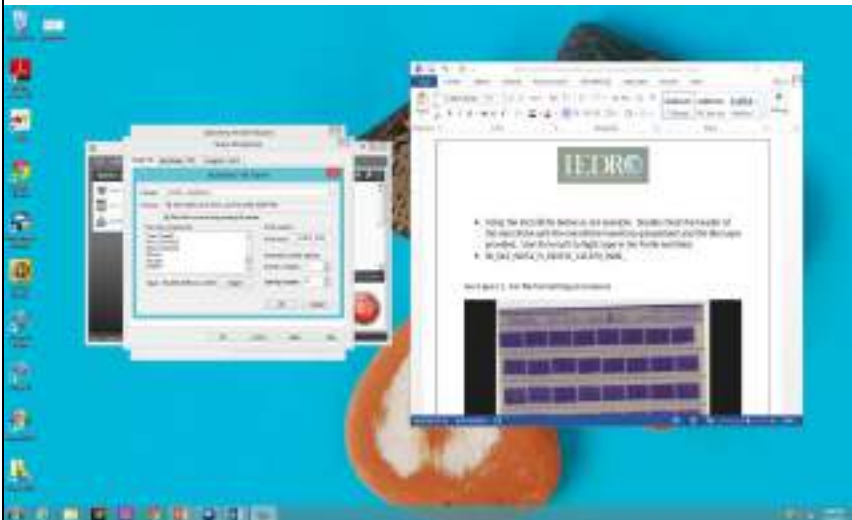
Entering microfiche file format name taken from the pre-existing inventory spreadsheet occurs in the Prefix options field.



- Double-check header of microfiche with the inventory spreadsheet.



- Insert cursor into the Prefix text box and highlight SNAG



- Using the microfiche below as our example. Double check the header of the microfiche with the microfiche inventory spreadsheet and the file name provided. Start from Left to Right type in the Prefix text field:
- NI_063_NI251_R_011931_121970_0200_ *Do not forget employee number*

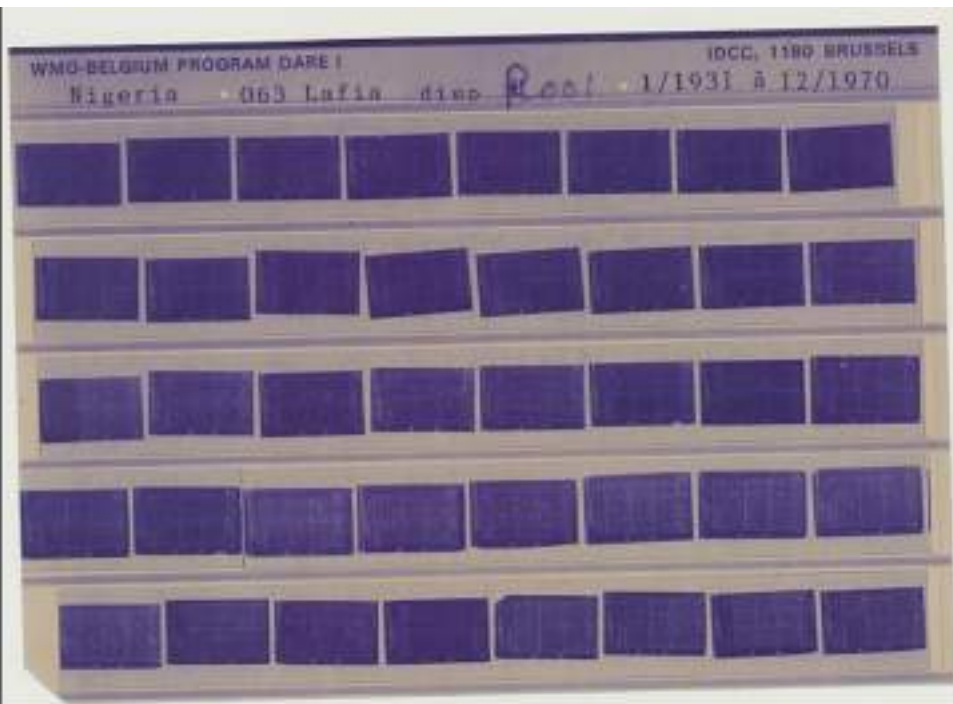


Figure 1. File Formatting Structure



File Format Procedure: Starting from Left to Right:

- NI_063_NI251_R_011931_121970_0200_

.....Underscore will be used to separate data fields AND at the end
NI.....Country (Taken from Standard Informational Processing System (FIPS)

063.....IDCC#

NI251.....This is a temporary ACMAD/IEDRO file name for a Station that does NOT have a WMO station number already assigned. We are identifying the station as best as we can so that later we can go back and enter Longitude, Latitude and Elevation, if needed.

R.....Data Type

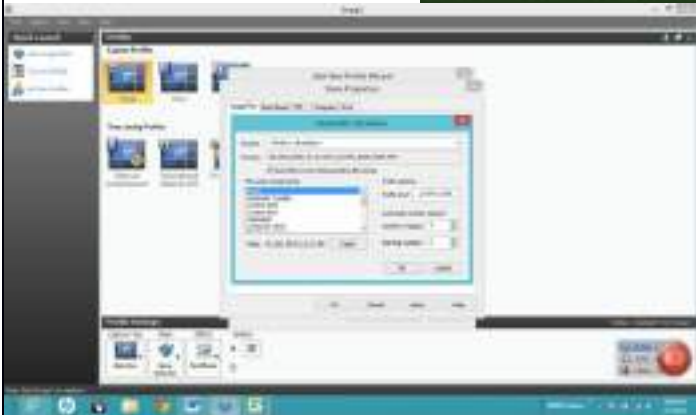
011931.....Start Date of Microfiche images on sheet

121970.....End date of Microfiche images on sheet

0200.....User ID number

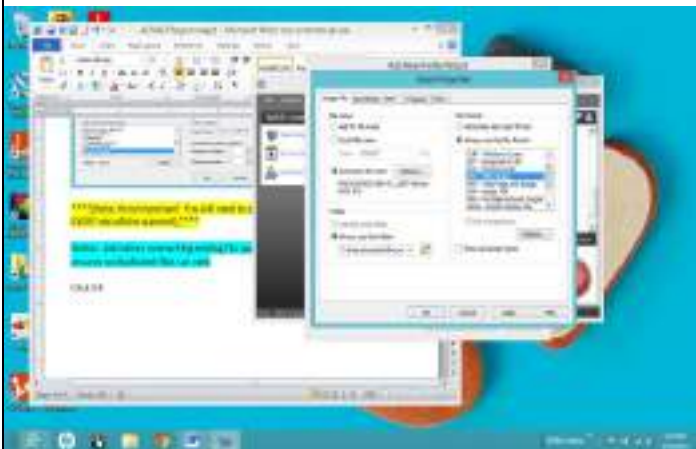
0000.....DO NOT ENTER. An automatic number will be assigned within the software program.

***** (Note: Very Important! You will need to enter a NEW Prefix text field for EVERY microfiche scanned). *****



Notice: Ask before overwriting existing file names is ALWAYS checked. This ensures no files will duplicate.

Click OK



- In the Folder field box: Select Always use this folder:
- Choose the Folder icon



- In the Browse For Folder pop-up Click Folder My Documents
- Click Folder My Google Docs
- Click Folder ACMAD101
- Click Make New Folder
- Enter the New File Folder this example: ACMAD101_20130604

Very Important: A New File Folder will be created HERE every day for EACH computer for that days imaging and scanning.

- Click OK



- In the File Format field Select Always use this file format:
- Select JPG – JPEG Image

Very Important: Always make sure image is saved in .JPG – JPEG Image.

- Click Apply
- Click OK



Click Next>



- Select Nothing (Step 4 of 6)
- Click Next>



- Select Nothing (Step 5 of 6)
- Click Next>



- Click Finish



- Drag the cursor over the highlighted Region – File area

Note: Check to make sure My Profiles is labeled correctly from the data entered.



- Click File
- Click Exit



Scanning

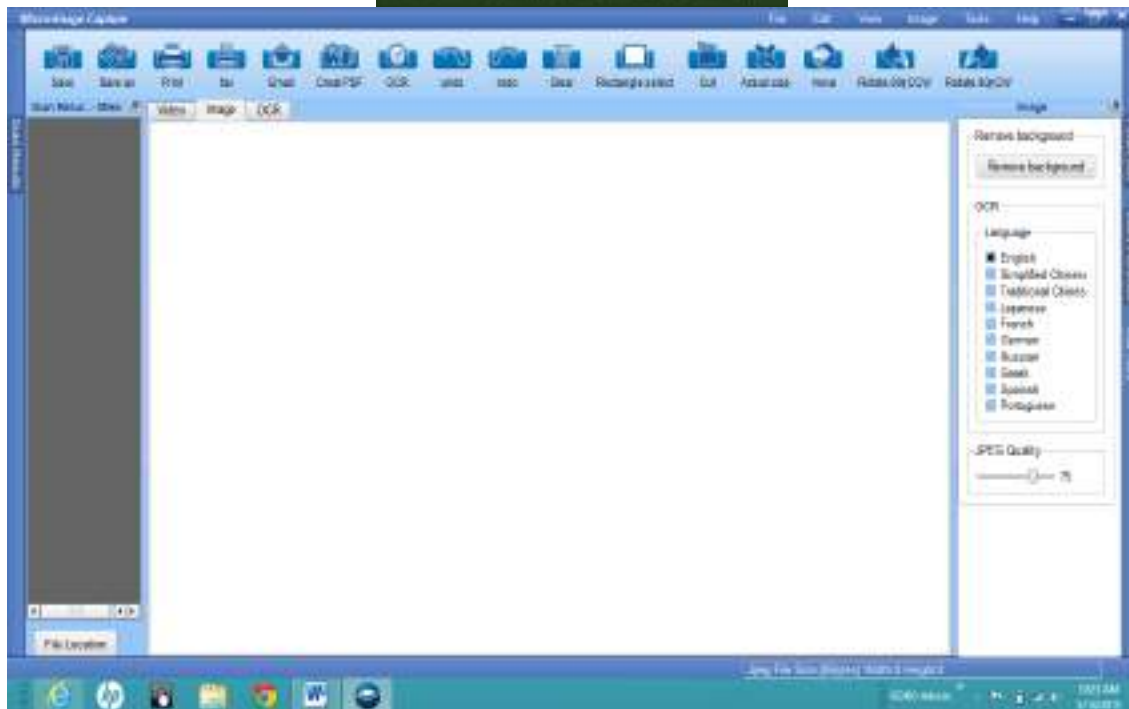
- Plug in two (2) Micro-Image Capture 7 USB ports into the computer



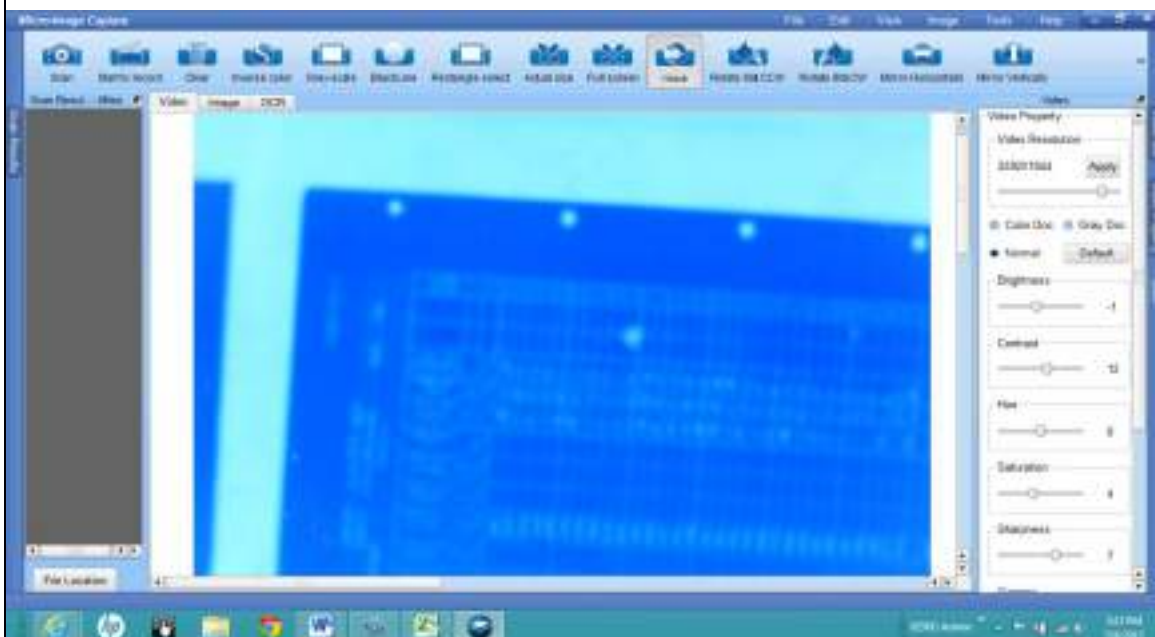
- Locate on desktop:
- Double click Micro-Image Caption icon

An User Account Control pop-up screen will appear: Do you want to allow the following program from an unknown publisher to make changes to this computer? (not pictured)

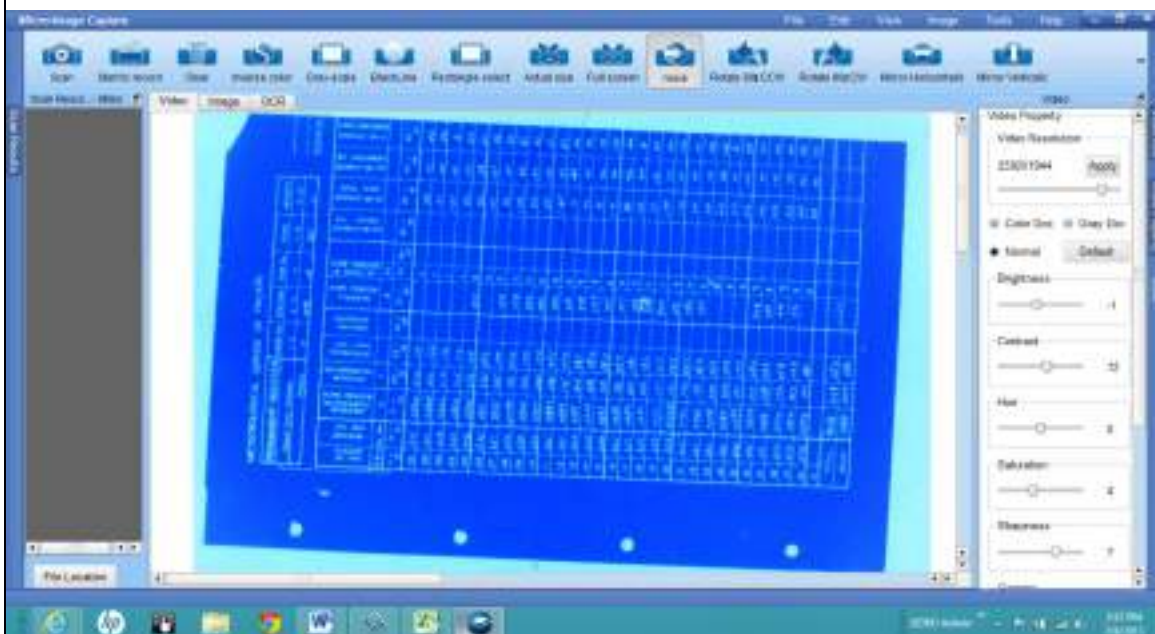
- Click Yes



- Click Video tab on screen (Left of Image tab)
- Turn on your Micro-Image Capture 7 scanner
- Insert microfiche into the glass plate begin with the first image with the border in the upper left corner.

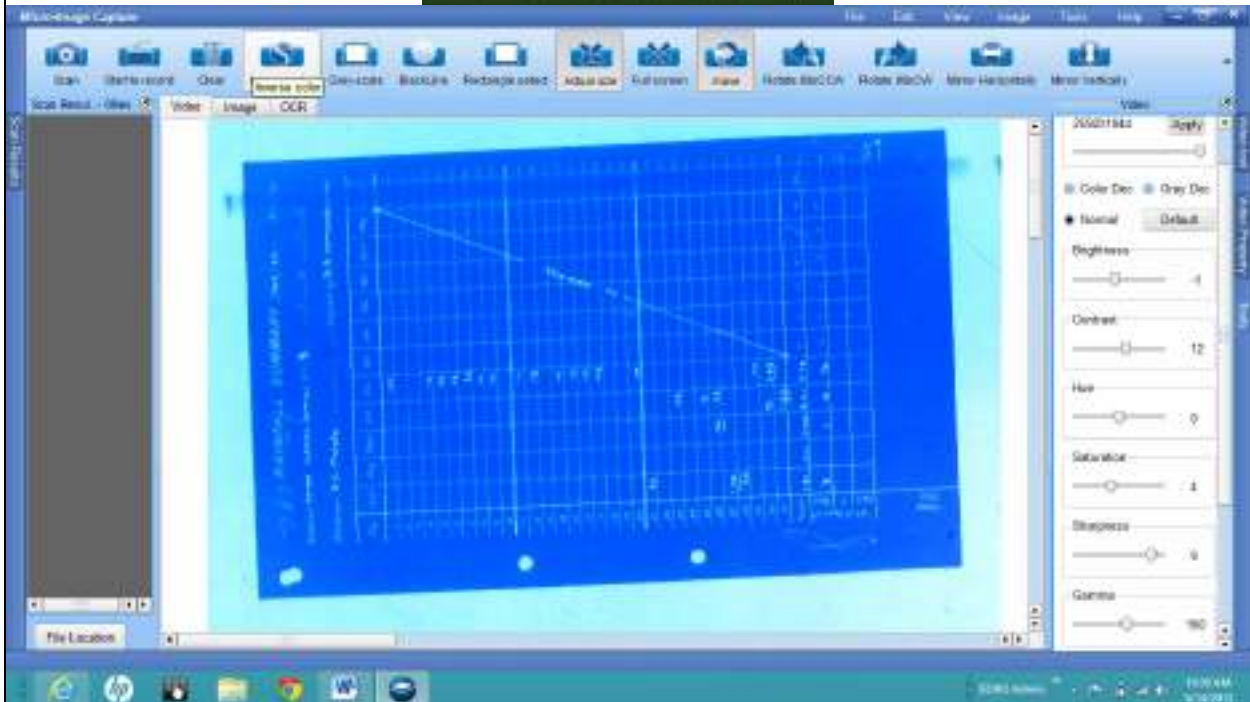


Above: If the image is out of focus. Take this time to refocus and adjust the microfiche.

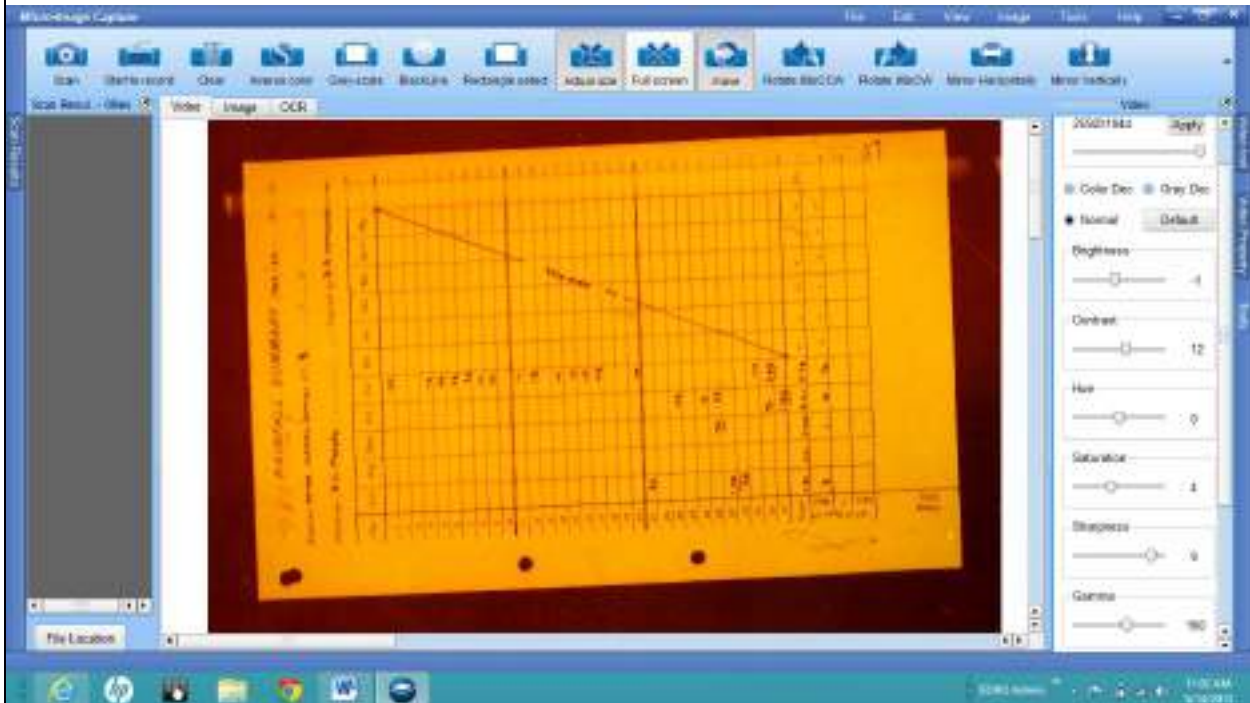


Note: Verify the Video Resolution at 2592 X 1944

- Click Apply

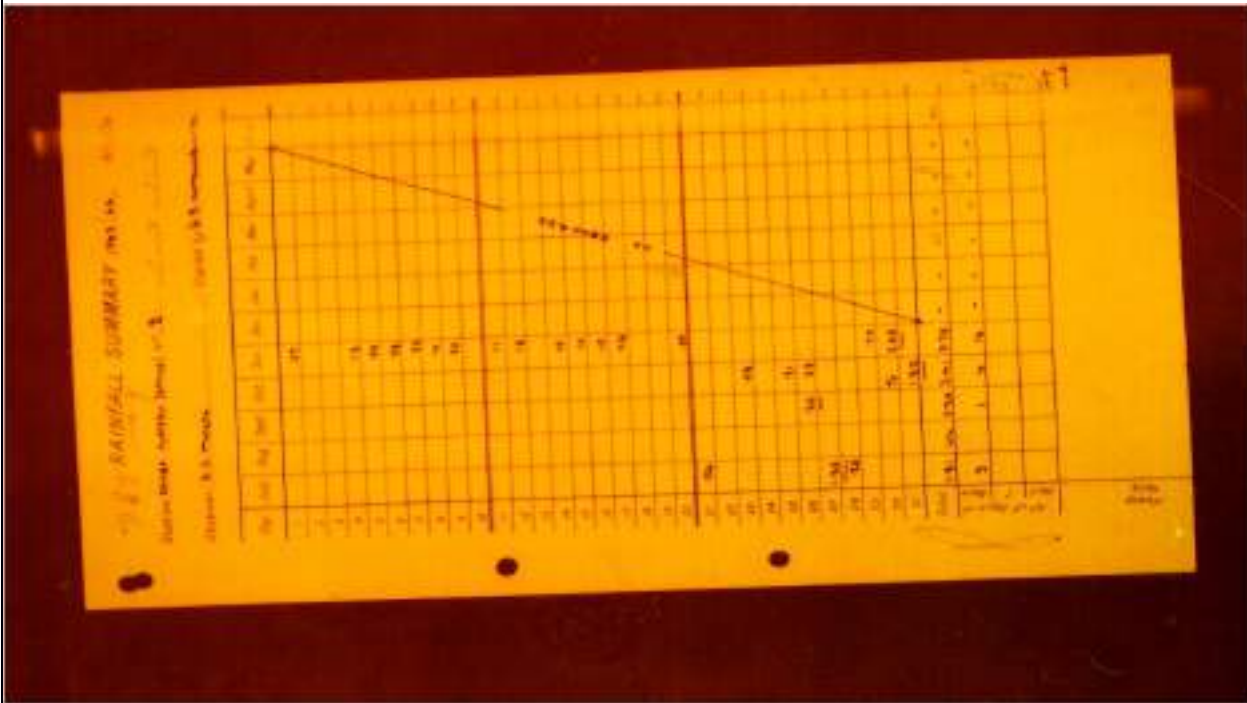


- Click Inverse Color icon (This will only be done once per microfiche session)



- Click Full Screen icon

Below is the image that will appear on the screen. Keep the original data paper image in landscape for best scanning results.



- Begin to fine focus the image

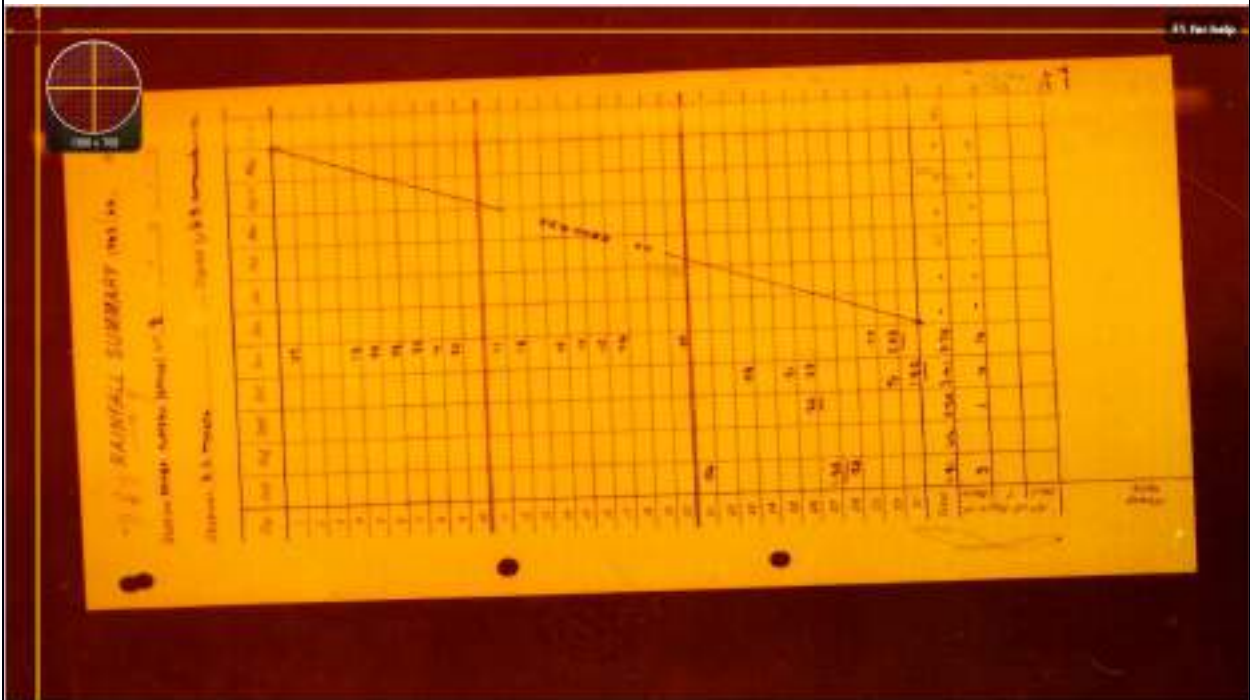
Note: Setting up the microfiche for scanning will take some time. Begin by using Full Screen Mode and using the Adjust Zoom Dial to get image to the approximate size this includes **having all borders of the image**. For the initial focus use the Lens Rough Focus Dial. Once focus is close to optimum, use the large Zoom Dial again to fine focus the image even more. **This is a slow process in the beginning.** **The scanner is a precision scientific mechanical device that is designed to move gradually. Take care not to turn too fast, as damage may occur.**

- Lock the tray but not too much. (This will help in the case of accident movement of the image.)



Note: When Micro-Image Capture is open, the Snapit software automatically runs.

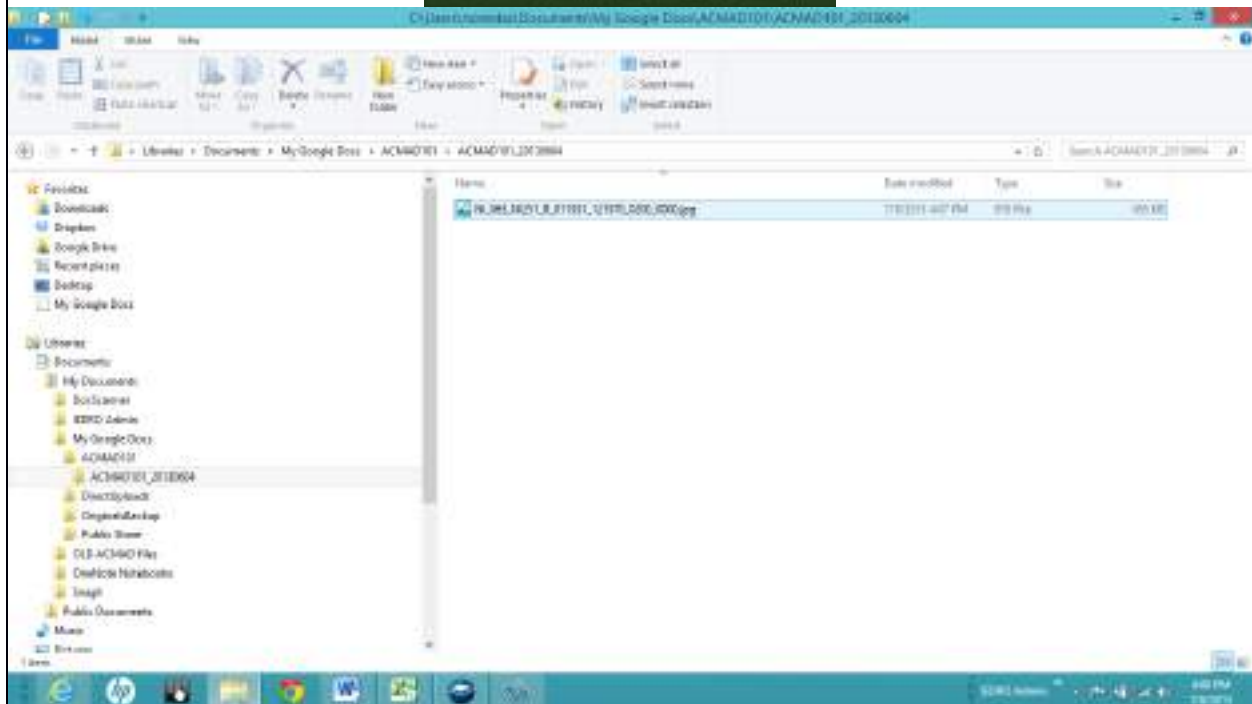
- Make sure there is a border around the image to make sure all data from the image is collected.



- Press the Print Screen key
- Left Click

Congratulations, the first image has been saved.

Checking File Folder for Captured Image



- Click Documents Folder
- Click My Documents Folder
- Click My Google Docs Folder
- Click ACMAD101 Folder
- Click ACMAD101_20130604 Folder (That days file folder)
- Click on File NI_063_NI251_R_011931_121970_0200_0000.jpg



Now the microfiche image has been saved in the appropriate Folder.

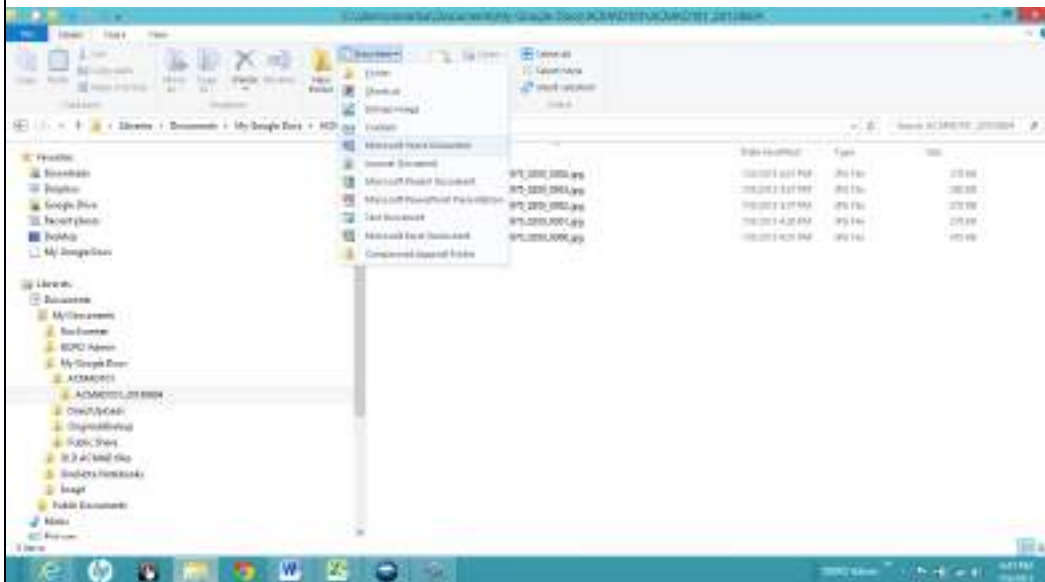
- Continue scanning until microfiche sheet is complete.



Quality Control Part I

Converting .jpeg files to word doc file

As part of the Quality Control (QC) process, there is a need to double check at the data entry level the number of images on the microfiche sheet and the number of .jpeg files created. This also tells the supervisor, the images are ready to be reviewed and you can proceed to another. In this example, there are 5 images.

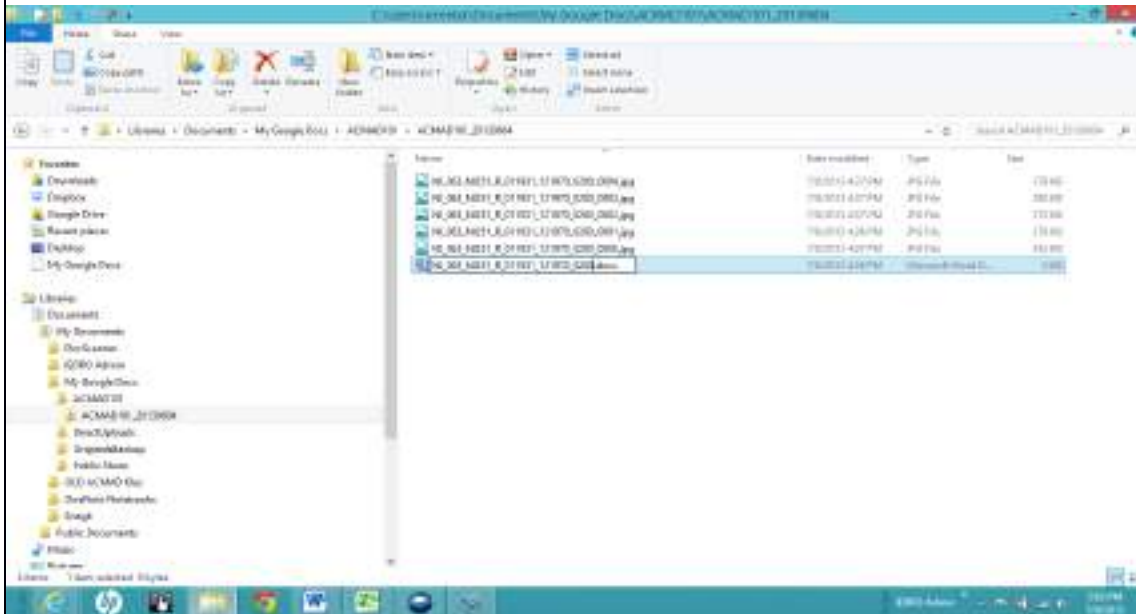


Proceed to your stored images:

File format structure will look like this:

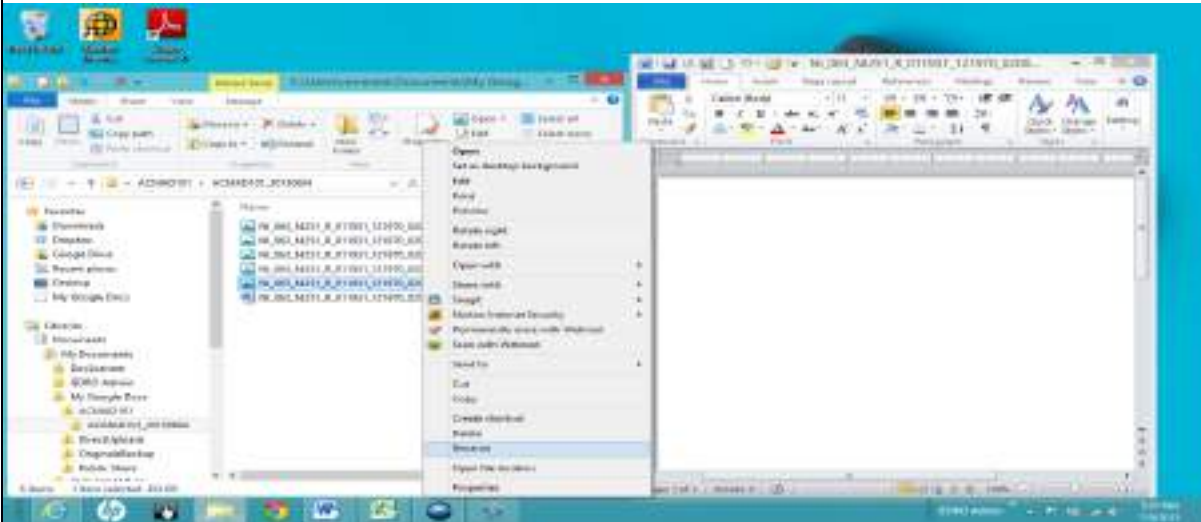
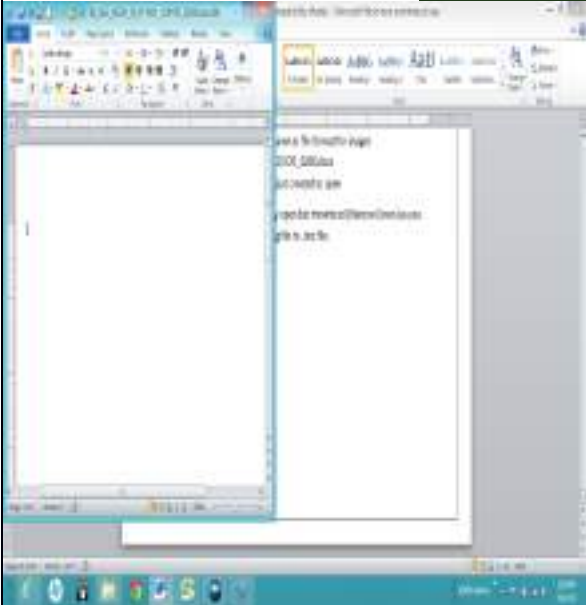
MyDocuments\MyGoogleDocs\ACMAD101\ACMAD101_20130604

- Click on New Item button
- Select Microsoft Word Document from the drop down menu



- Name Word Document the same as file format for images
NI_063_NI251_R_011931_121970_0200.docx
- Double Click on the .doc file just created to open

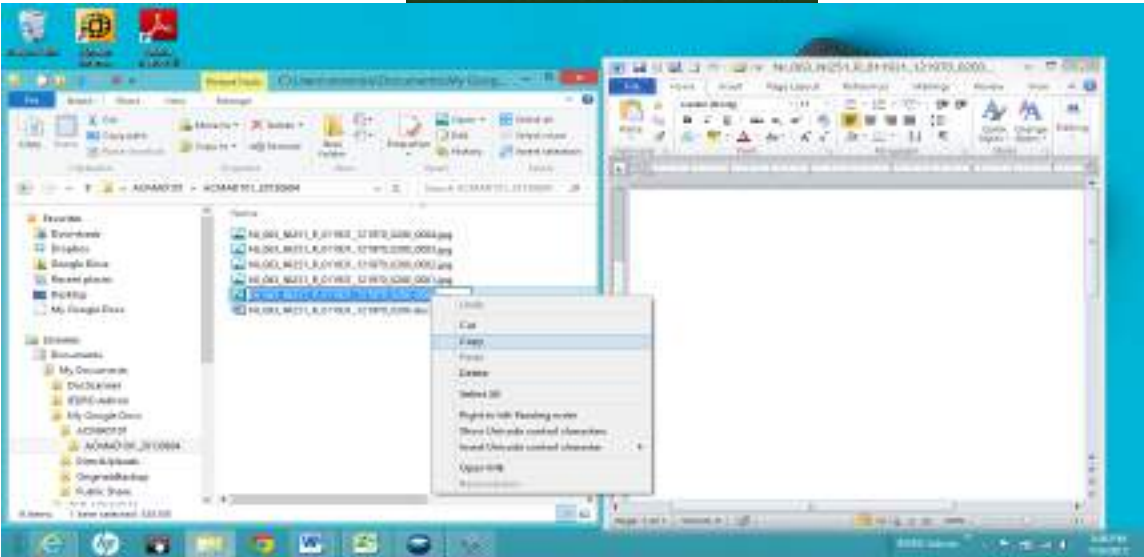
Note: The word document will stay open but minimized (Restore Down) as you convert file format name from .jpeg file to .docx file.



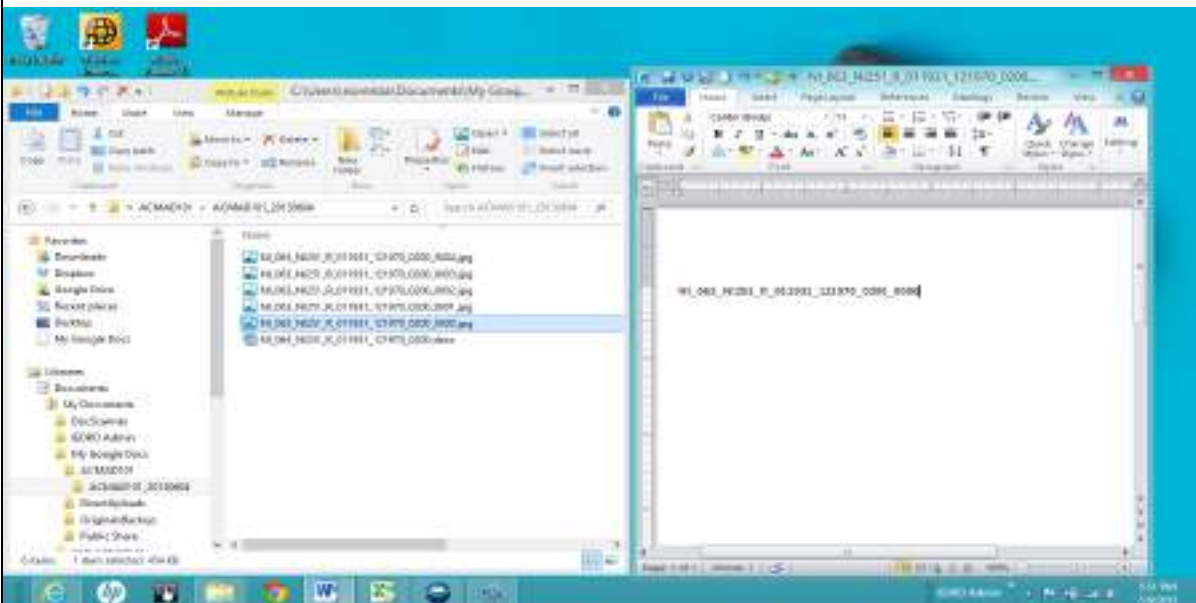
Right-Click on the first automated number generated, this will always end .0000.jpeg

- Drop down menu will appear
- Select Rename

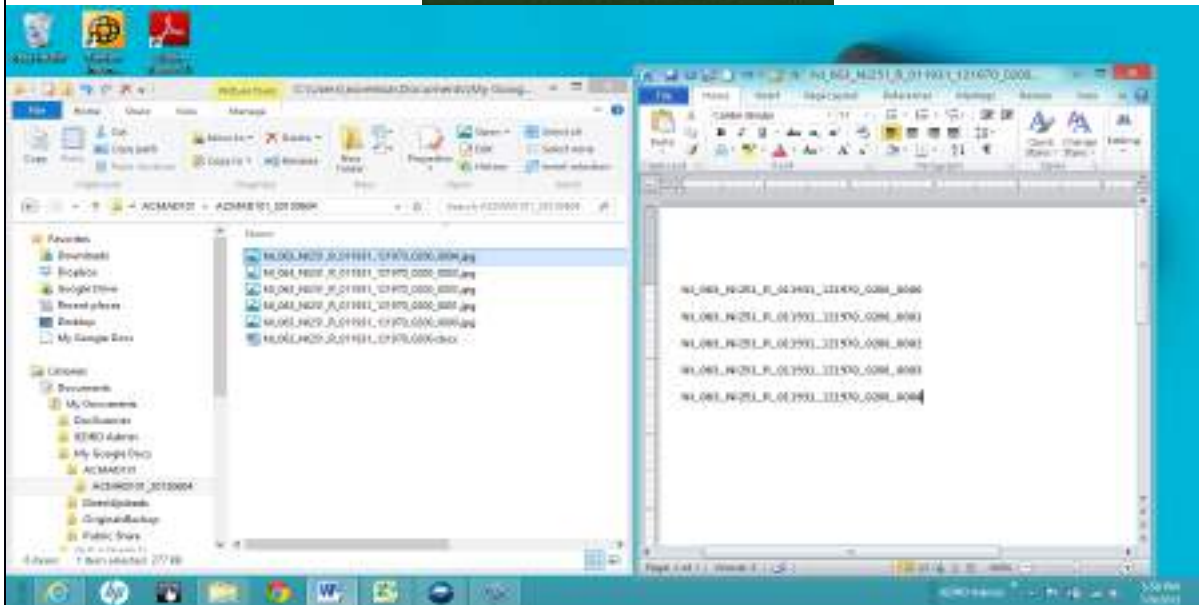
The file will stay highlighted



- Right Click and Select Copy



- Go to Word Document and Paste
- Continue to Rename, Copy, Paste into .doc until complete



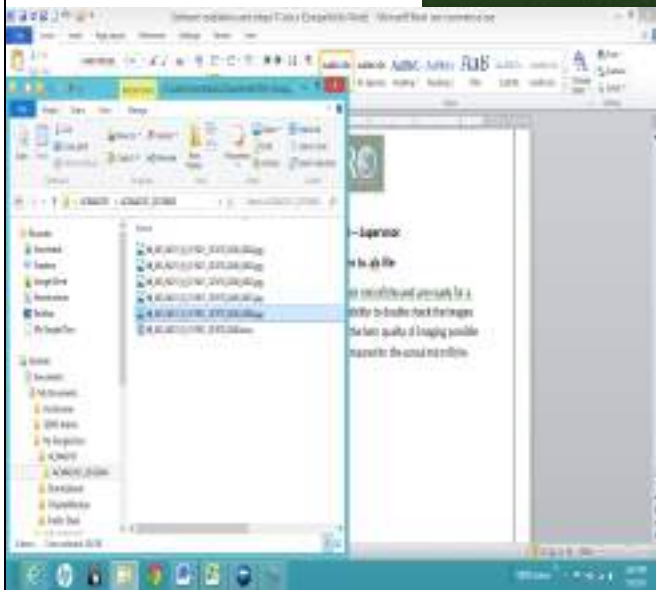
- Click Save and Close

Data Entry personnel have completed their microfiche image capture and are ready to move on to the next microfiche.

Quality Control Part II – Supervisor

Converting .docx files to *.txt file

As QCII, when data entry personnel return their microfiche and are ready for a new microfiche. It is the Supervisors responsibility to double check the images for clarity, accuracy of image within borders, the best quality of imaging possible and the correct number of images created compared to the actual microfiche.



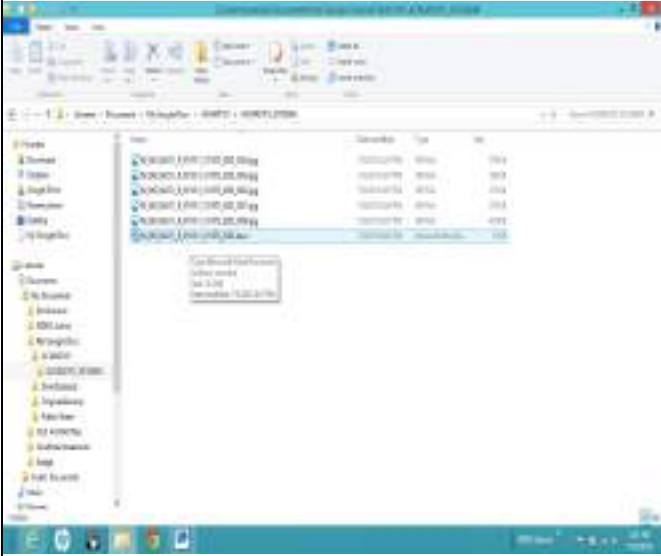
Go to appropriate folder of computer

- Double Click on first file image and Open

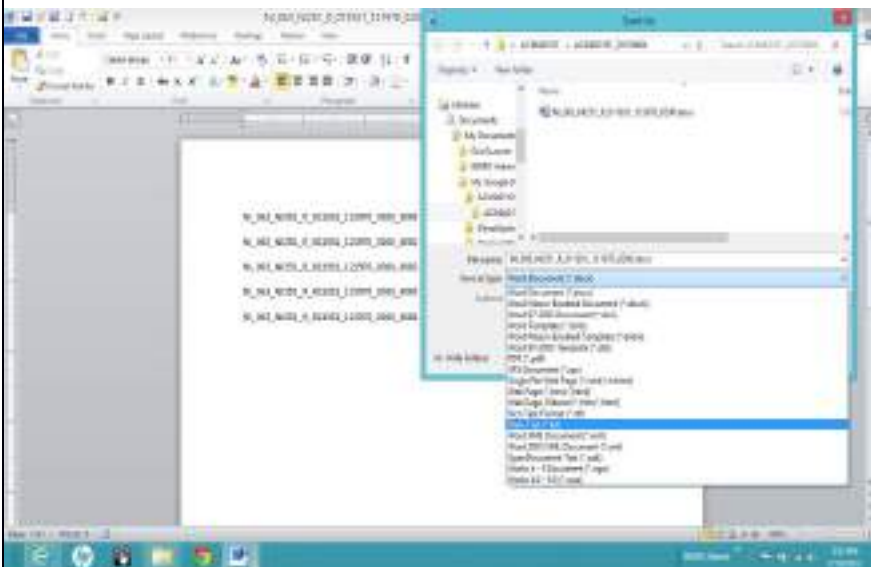


Image should be clear, readable and a border around image to ensure all data is collected.

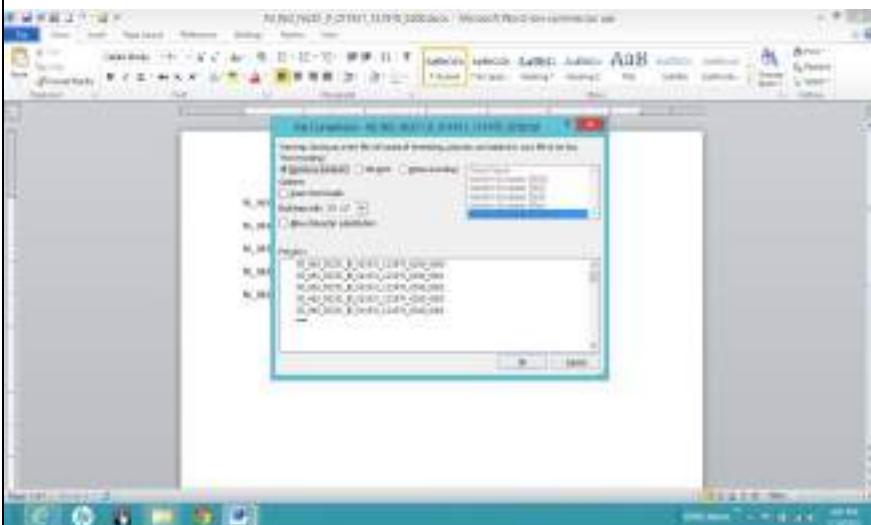
- Continue checking remainder of the files for clarity



- Open the data entry word document



- Select Save As icon
- In the Save as type: Select Plain text (*.txt) from drop down menu
- Click Save



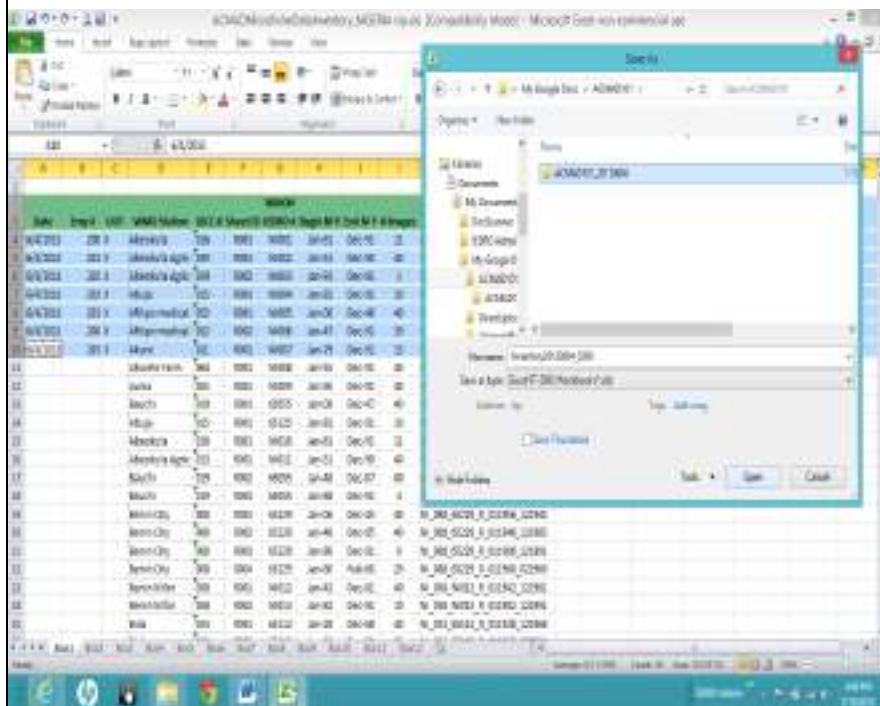
- Click OK

Congratulations, your Quality Control II is complete!



Supervisor's End of Day Inventory Update Check-in/Check-out procedure

At the end of the day, it is the Supervisor's responsibility to provide that days file folder of images captured with the corresponding inventory Check-in/Check-out spreadsheet.



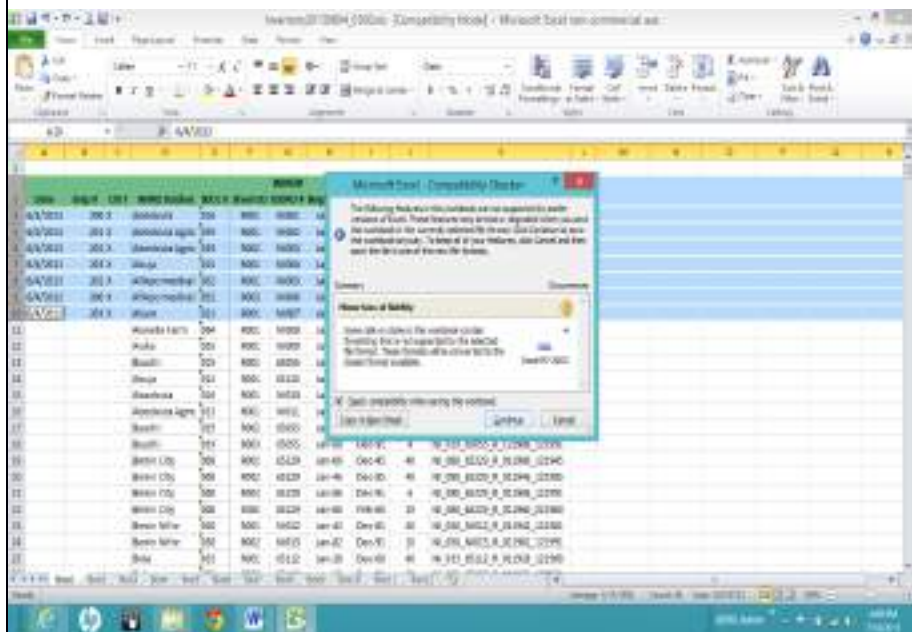
- Open ACMAD inventory spreadsheet
- Highlight that days work
- Select Copy
- File Name field Enter: Inventory20130604_0300

Note: This is the same date as the folder and supervisor's employee number.

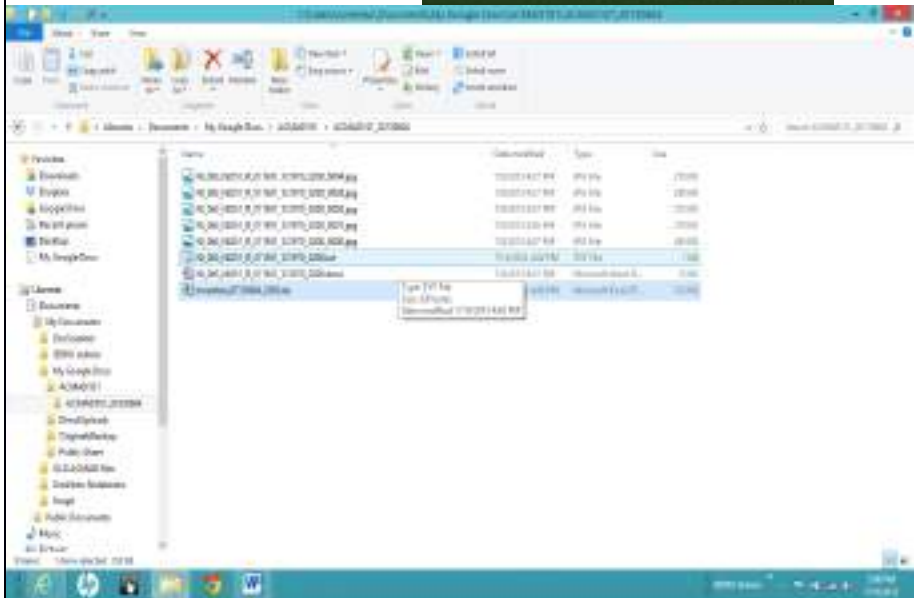
- Find that days File Folder (in this example: ACMAD101_20130604)



- Click Save



- Click Continue



At the end of the day, the working file folder (in this example ACMAD_20130604) will have the microfiche image captured file, the word document (.doc) created by the data entry personnel (QCI), the Plain Text file (*.txt) created by the Supervisor (QCII) and the inventory Check-in/Check-out Excel spreadsheet.

Appendix A. Inventory check-out/check-in spreadsheet



Microsoft Excel 2010 window: A:\Data\Microsoft\Calendar\by\WMO\data\1\Connections Made - Microsoft Excel\calendar.xlsx

Site	Image	IRIT	WMO Station	Site #	Sheet ID	WMO #	Begin M Y	End M Y	# Images	File Format #
Abeokuta		719	8000	8001	Jan-81	Dec-81	11	M_818_8001_P_011981_111991		
Abeokuta Agri		719	8000	8002	Jan-81	Dec-81	80	M_818_8002_P_011981_111991		
Abeokuta Agri		719	8000	8003	Jan-81	Dec-81	1	M_818_8003_P_011981_111991		
Abeokuta		715	8000	8004	Jan-81	Dec-81	20	M_815_8004_P_011981_111991		
AFIpo medical		652	8000	8005	Jan-80	Dec-80	40	M_812_8005_P_011980_111990		
AFIpo medical		652	8000	8006	Jan-87	Dec-87	39	M_812_8006_P_011987_111997		
Akure		721	8000	8007	Jan-79	Dec-81	15	M_812_8007_P_111979_111991		
Akure		721	8000	8008	Jan-80	Dec-81	80	M_812_8008_P_011980_111991		
Akure		721	8000	8009	Jan-80	Dec-81	80	M_812_8009_P_011980_111991		
Akure		719	8000	8010	Jan-80	Dec-81	80	M_812_8010_P_011980_111991		
Akure		719	8000	8011	Jan-80	Dec-81	80	M_812_8011_P_011980_111991		
Akure		715	8000	8012	Jan-81	Dec-81	20	M_815_8012_P_011981_111991		
Abeokuta		718	8000	8013	Jan-81	Dec-81	11	M_818_8013_P_011981_111991		
Abeokuta Agri		713	8000	8014	Jan-81	Dec-81	40	M_813_8014_P_011981_111991		
Akure		719	8000	8015	Jan-80	Dec-87	40	M_812_8015_P_111980_111987		
Akure		719	8000	8016	Jan-80	Dec-81	1	M_812_8016_P_111980_111991		
Berlin City		908	8000	8120	Jan-80	Dec-81	80	M_808_8120_P_011980_111991		
Berlin City		908	8000	8121	Jan-80	Dec-81	80	M_808_8121_P_011980_111991		
Berlin City		908	8000	8122	Jan-80	Dec-81	5	M_808_8122_P_011980_111991		
Berlin City		908	9084	8123	Jan-80	Feb-80	29	M_808_8123_P_011980_011980		
Berlin Hilar		908	8000	8012	Jan-80	Dec-81	40	M_808_8012_P_011980_111991		
Berlin Hilar		908	8000	8013	Jan-80	Dec-81	20	M_808_8013_P_011980_111991		
Bila		719	8000	8112	Jan-80	Dec-81	80	M_812_8112_P_011980_111991		



Appendix B. ACMAD/IEDRO Employee Name and Number

- Supervisor Personnel starts at 0300
- Data Entry Personnel starts at 0200

Date	Print Name	Signature	Number Assigned
06-04-2013	Mbaiguedem Miambaye		0300
06-04-2013	Tombong Komma		0200
06-04-2013	Maman Bachir Ahamaadou		0201
06-04-2013	Abass Mariama		0202
06-04-2013	Malam Abdou Kassimou		0203

