Digizing Procedure

Using the information processing technique to process and preserve maps with digitization can extend the physical life of the maps, accumulate historical maps, and reveal the values of the maps.

I.Scanning procedure:A professional is required to check and record the volumes and quality of the maps.

II. Arrangement:To arrange and make a catalogue for the maps before digitizing will help us design the schedule for the scanning procedure and construct the basic concepts of the contents, styles and the preservation status. Furthermore, we can design the scanning procedure by the properties of the maps.

1. unpacking: Since the maps are antique and fragile, the professionals need to unpack the maps carefully. (Shown in the graph 1)

Graph 1: Unpacking the maps carefully.

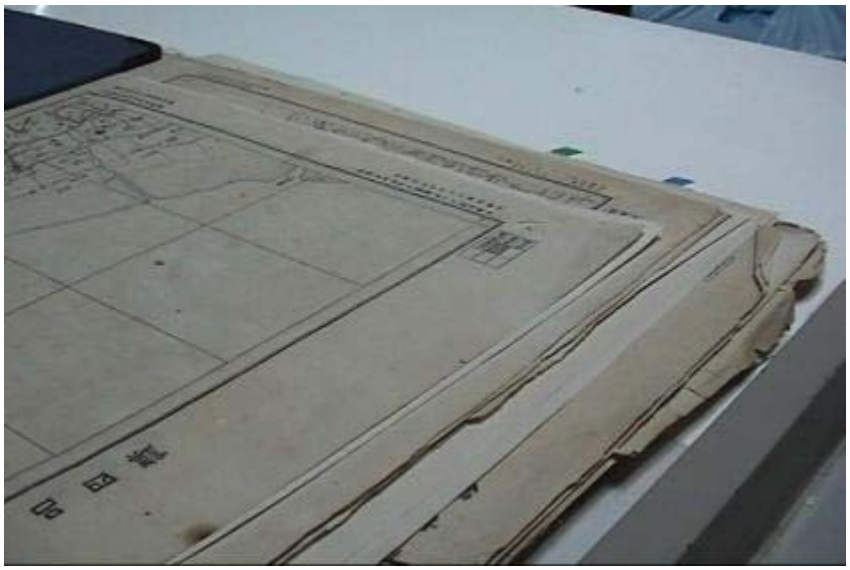
2. Four conditions classified by the preservation status of the maps.(Shown in graph 2)

(1) Well preserved

(2) Maps are damaged or folded ,but can be scanned

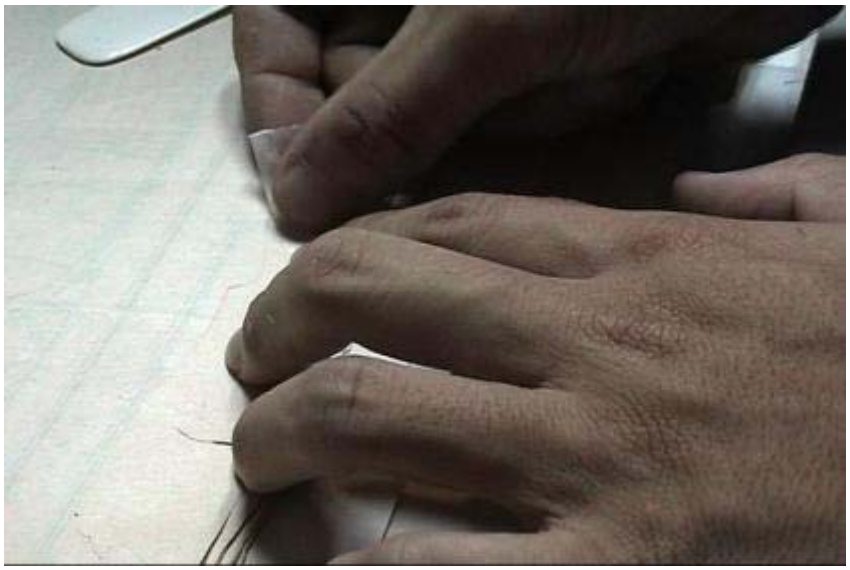
(3) Maps are damaged or folded ,requiring to be patched or be taken a picture by digital camera

(4) Maps are damaged and in poor condition, which can not be scanned.



Graph 2: Maps are classified by the preservation conditions, and marked up when the maps need to be processed separately

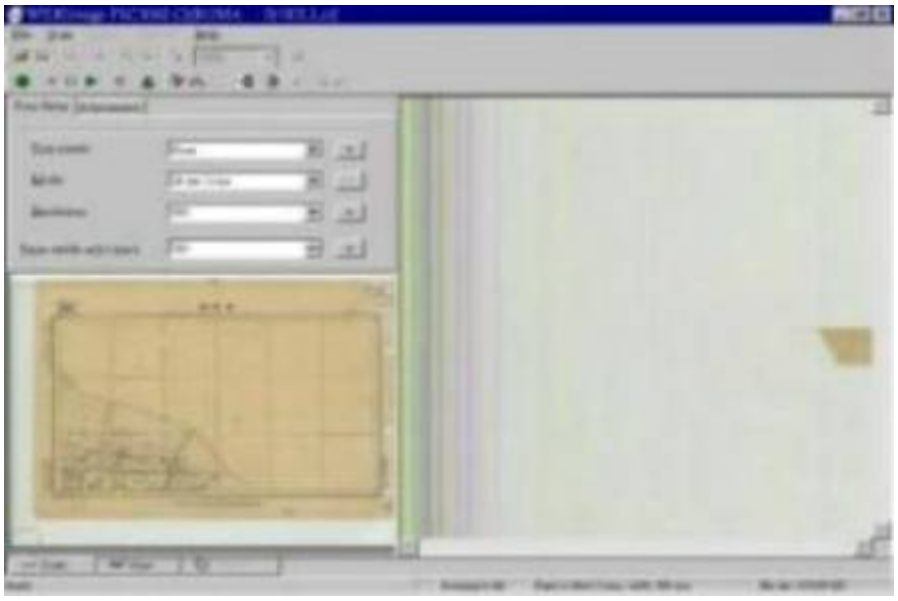
III. Patch: To avoid harming the damaged maps, they need to be patched with a non-acid adhesive tape. (Shown in graph 3)



Graph 3: Patching with a non-acid adhesive tape.

IV. Scan: Put a map in a transparecy folder, and then to scan with a big size roller scanner.(Shown in graph 4), Scanned image will show on the monitor gradually. To scan a map takes about 1 minute and about 100 maps can be scanned per day.

Graph 4: Put the map into a transparency and scan

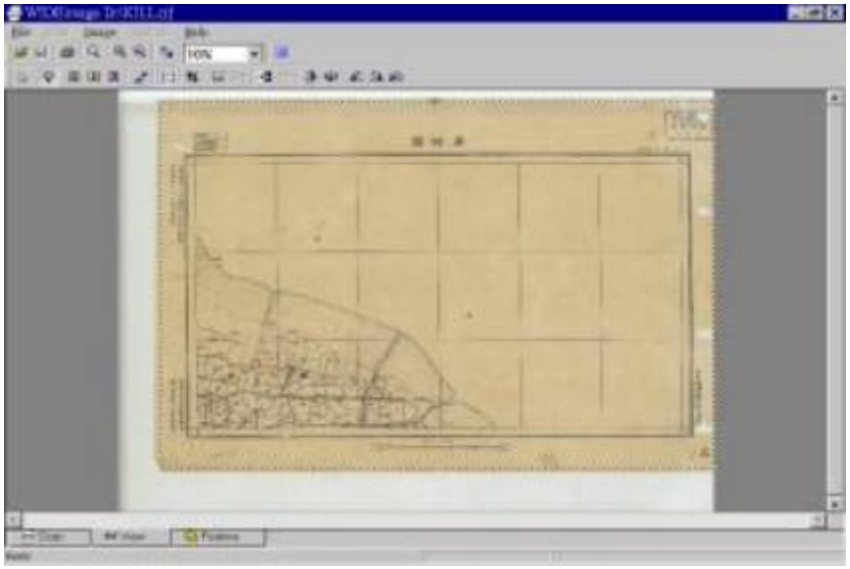


Graph 5: An image is displayed on the monitor gradually.

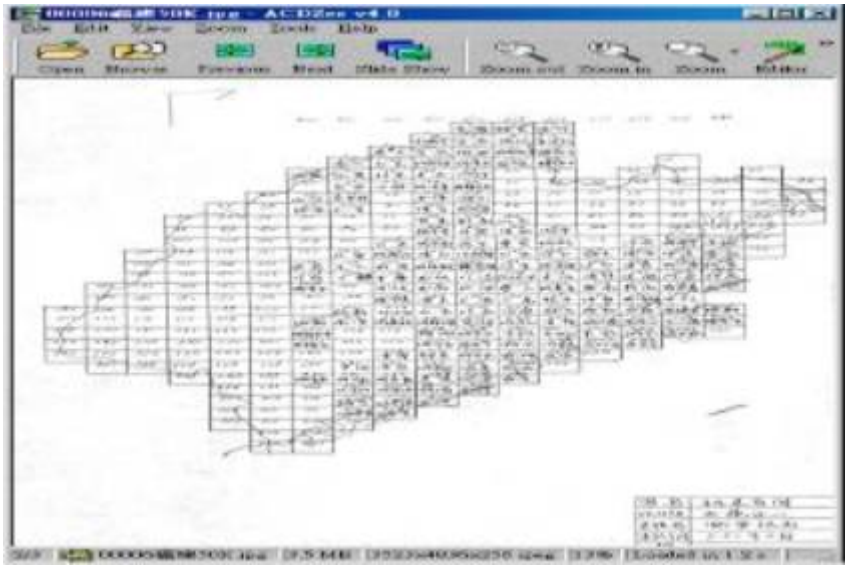
Fill in the status of map preservation：After the scanning procedure, we need to fill in the information of map preservation including the processing and preserving status and the last update date. The requirements are to note the preserving condition and verify if the map can be scanned completely.(Shown in graph 6)

Graph 6: Fill out the form

VI.Check snd edit image Adjusting and inspecting the scanned images are required in order to make sure they can be fit with the original maps, and to remove the blank area(See graph 7). Finally , we have to confirm that the scanned images cover all the maps. (Shown on graph 8)

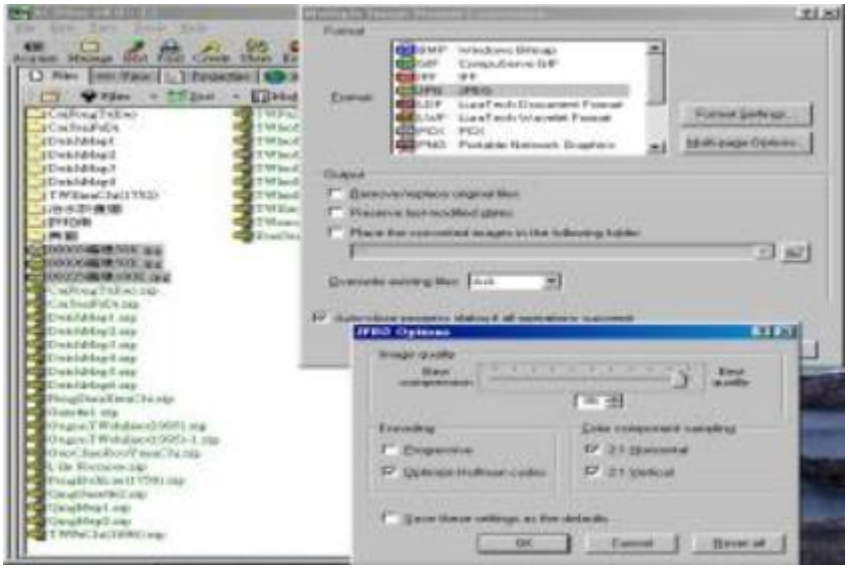


Graph 7: Remove the blank area of the image.



Graph 8: Adjust and inspect a scanned image, and confirm the coverage of a map.

VII. Convert: Convert scanned images to Jpeg and Gif format images through batch compressing with image processing software. (See graph 9)

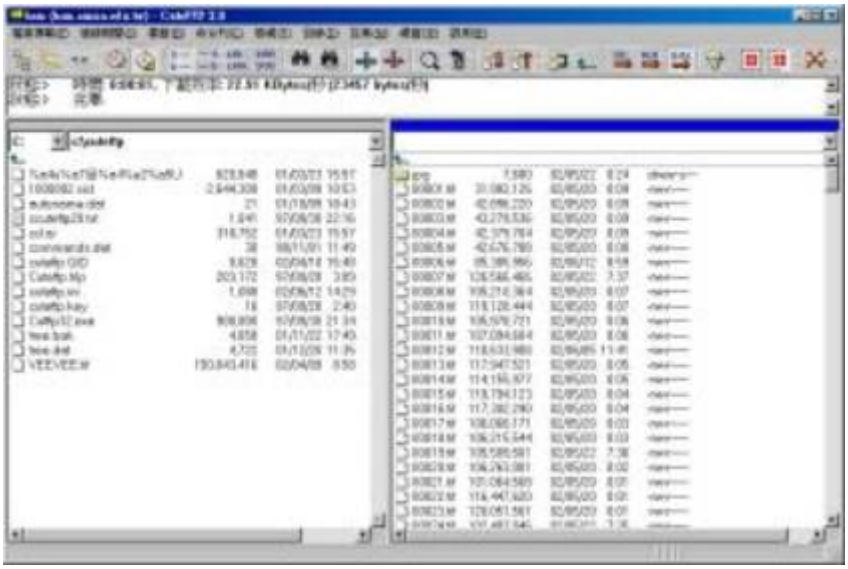


Graph 9: Using a software to convert batch of files

VIII. Compress: Compress scanned images into SID format files through an image compressing software. (See graph 10)

Graph 10: Compress images into SID format files.

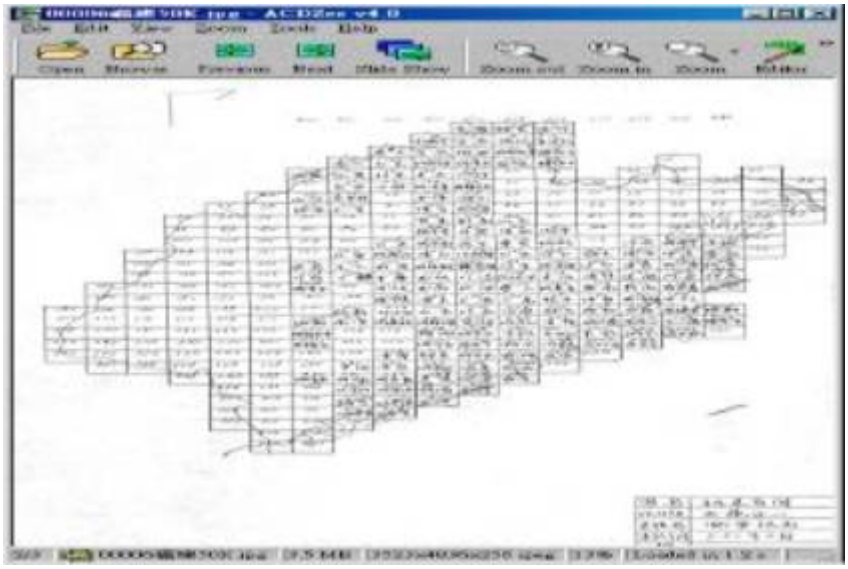
VIIII Save and Backup: Upload the scanned images to the storages for permanent preservation. Besides, burn and store these images to DVD-R media. (See graph 11)



Graph 11: Upload and store images as a backup

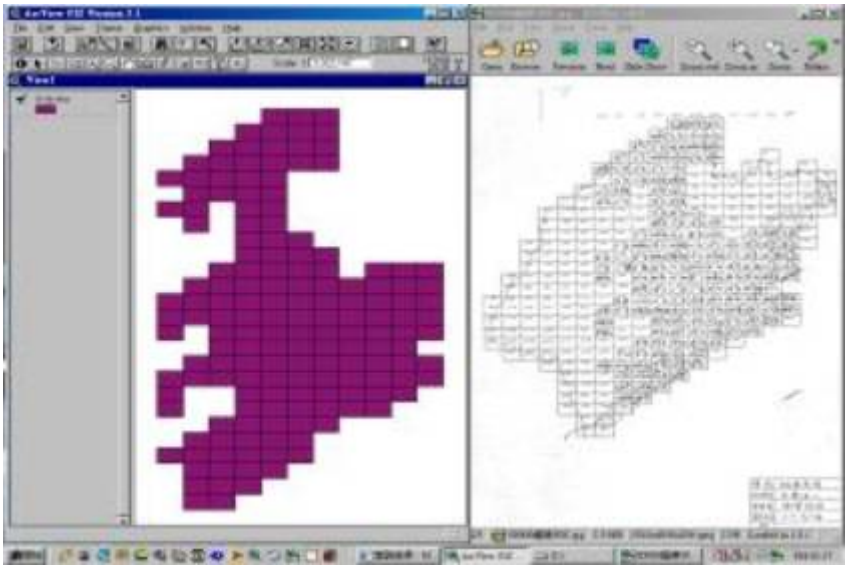
X. Record metadata :Check the volumes of the aerial films, inspect and record the conditions. After that, we will return the films.

1. Build up the attribute data: Record the relational attributes of the scanned images in the metadata. (See graph 12)



Graph 12: Build up the relational attributes in the metadata.

2. Build up spatial data: Build up the relational spatial data of the scanned images in the metadata. (See graph 13)



Graph 13: Build up relational spatial data.

XI. Pack and return the maps: Pack and return these maps to the original archiving unit.