



**KIOT**

**CAD in pattern making**

**Target group: 3<sup>rd</sup> year GED**

**Chapter three**

**PATTERN DIGITIZING AND GRADING**

**Kombolcha/Ethiopia**

**April , 2020**

# Contents

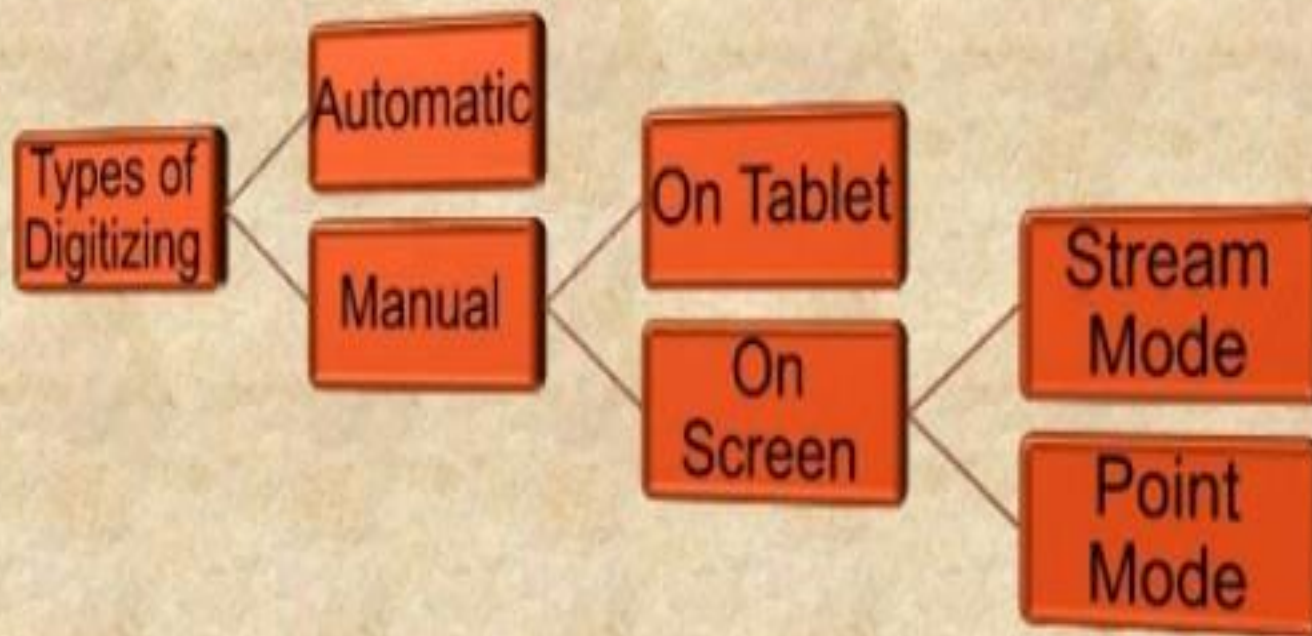
- ▶ What is pattern digitizing
- ▶ Components of digitizer
- ▶ What is pattern grading
- ▶ Purpose of pattern grading
- ▶ Components of grading system
- ▶ Types of pattern grading
- ▶ Procedure of developing a grading system

# Digitizing



- "The process of converting features on a **map** into a **digital format**."
  - "The process of converting **analog information** into a **digital format**."
  - The process of creating a single point feature with an x,y coordinate.
  - The process of converting geographic data either from a hardcopy or a scanned image into **vector data** by tracing the features
- 
- The x,y coordinates of features are automatically recorded and stored as spatial data.

# Types of Digitizing



# Automatic Digitizing

- An automatic process to convert a raster into a vector.
- Mostly using image processing and pattern recognition techniques.



Tuesday, November 11, 2014

# Manual Digitizing

- Manual digitizing method involves two types:

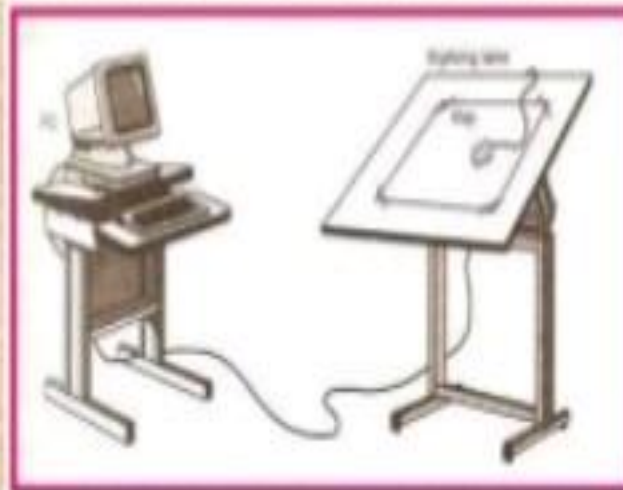
**On Tablet**



**On Screen**

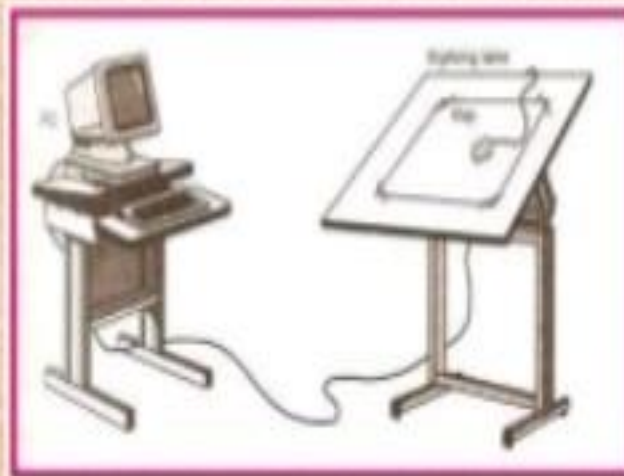
- On Tablet:

- Done by **Digitizer**.
- Operator manually traces all lines from a hard copy or scanned map.
- But, it is more time consuming.
- And level of accuracy is not very good.



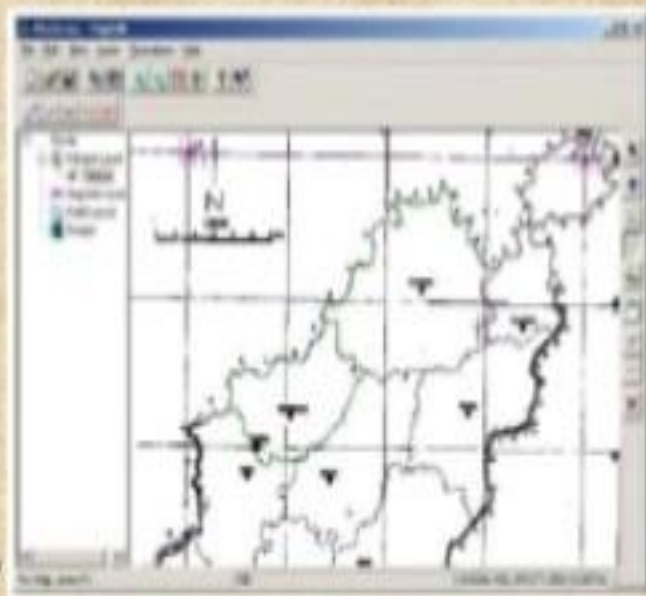
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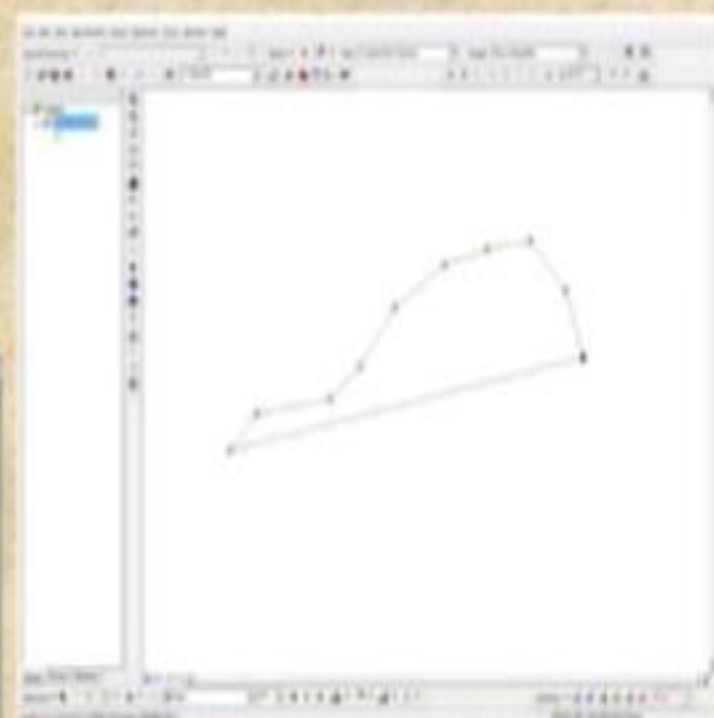
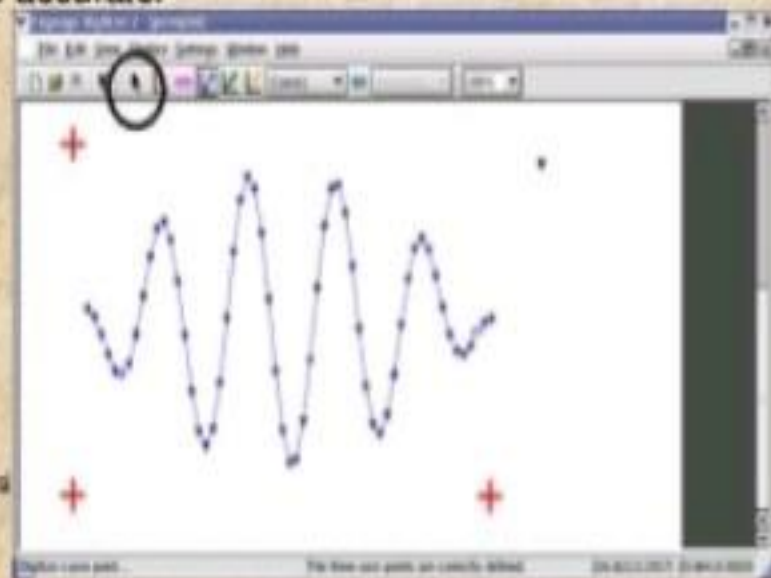
- On Screen:

- Simplest way to create the vectors.
- From computer screen using a mouse or digitizing cursor.



- Point Mode Digitizing:

- Vertices are placed by hand at **desired interval**.
- It is a slower process.
- But less redundancy (repetition).
- And more accurate.



Thank  
You !!