

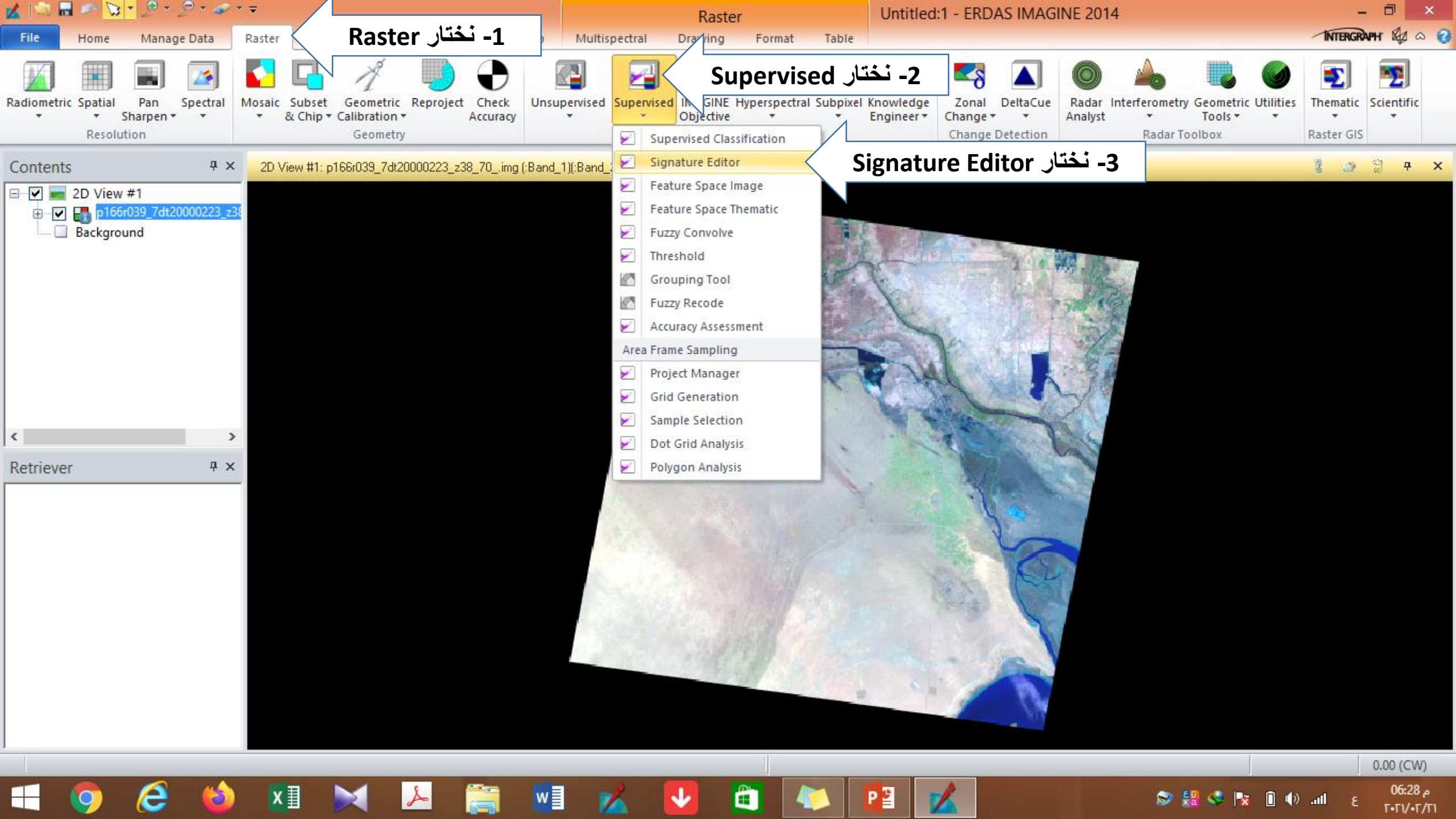
# Supervised Classification

مقرر التحسس النائي العملي (ج ٢١٠ع)  
جامعة البصرة – كلية العلوم – قسم علم الأرض

اعداد

أ. د. علي خالد

م. م. ضحى صالح



-1 نختار Raster

-2 نختار Supervised

-3 نختار Signature Editor

- Supervised Classification
- Signature Editor
- Feature Space Image
- Feature Space Thematic
- Fuzzy Convolve
- Threshold
- Grouping Tool
- Fuzzy Recode
- Accuracy Assessment
- Area Frame Sampling
- Project Manager
- Grid Generation
- Sample Selection
- Dot Grid Analysis
- Polygon Analysis

File Home Manage Data Raster Vector Terrain Toolbox Help Multispectral Drawing Format Table

Radiometric Spatial Pan Spectral Mosaic Subset & Chip Geometric Calibration Reproject Check Accuracy Unsupervised Supervised IMAGINE Objectives Hyperspectral Subpixel Knowledge Engineer Zonal Change DeltaCue Radar Analyst Interferometry Geometric Utilities Thematic Scientific

Resolution Geometry Classification Change Detection Radar Toolbox Raster GIS

Contents

- 2D View #1
  - p166r039\_7dt20000223\_z38
  - Background

2D View #1: p166r039\_7dt20000223\_z38\_70\_img (:Band\_1)(:Band\_2)(:Band\_3)

signature Editor نافذة

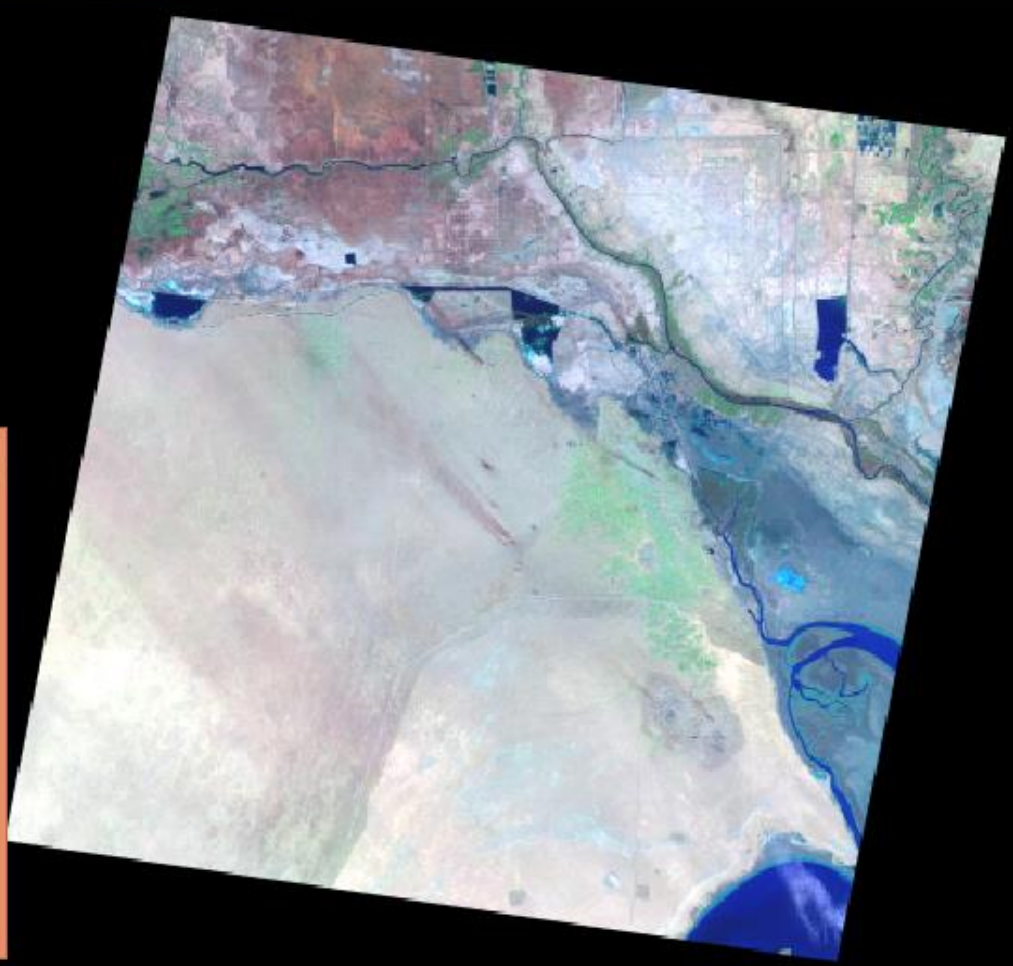
Signature Editor (No File)

File Edit View Evaluate Feature Classify Help

Class # > Signature Name Color Red Green Blue Value Order

Class #	Signature Name	Color	Red	Green	Blue	Value	Order
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The Signature Editor Cellarray



1- نختار Drawing

2- نختار polygon

ثم نقوم برسم  
مربع لأخذ  
البصمة الطيفية

من الضروري تكبير المرئية  
عند أخذ البصمات الطيفية

808311.01, 3324458.18 meters (UTM Zone 38(WGS 84))

0.00 (CW)

06:30 م

٢٠٢١/٠٢/٢١

Contents

- 2D View #1
  - Aoi004288(:Aoi)
  - p166r039\_7dt20000223\_z38
  - Background



تم نضغط على هذه العلامة لإضافة البصمة الطيفية

Signature Editor (No File)

File Edit View Evaluate Feature Classify Help

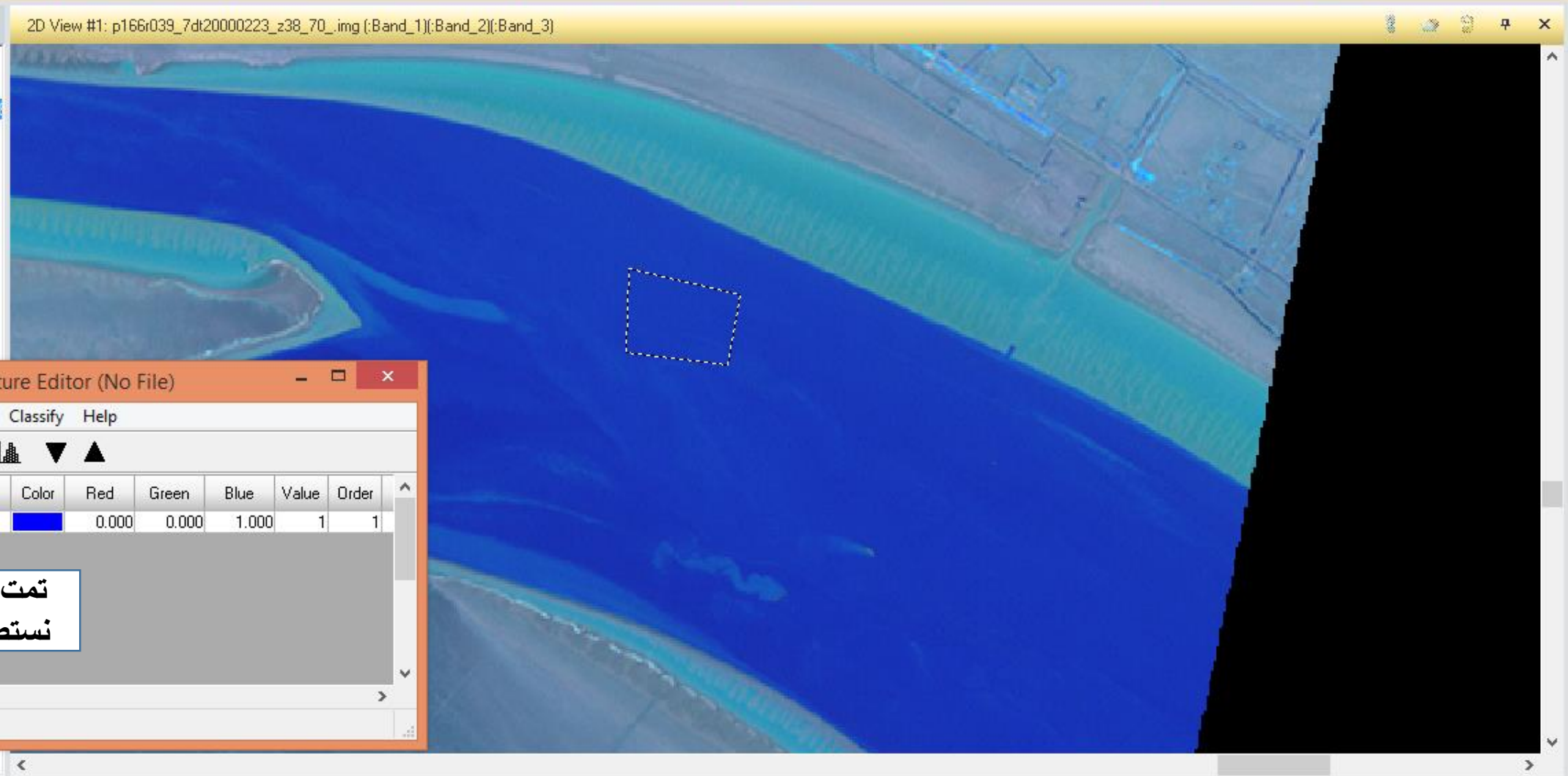
+L

Class #	Signature Name	Color	Red	Green	Blue	Value	Order
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Create New Signature(s) from AOI

Contents

- 2D View #1
  - Aoi004288(:Aoi)
  - p166r039\_7dt20000223\_z38\_70\_img (:Band\_1)(:Band\_2)(:Band\_3)
  - Background



Signature Editor (No File)

File Edit View Evaluate Feature Classify Help

Class # > Signature Name Color Red Green Blue Value Order

Class #	Signature Name	Color	Red	Green	Blue	Value	Order
1	Class 1		0.000	0.000	1.000	1	1

تمت اضافة البصمة الطيفية  
نستطيع تغيير لونها واسمها

Contents

- 2D View #1
  - Aoi004288(:Aoi)
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Signature Editor (No File)

File Edit View Evaluate Feature Classify Help

Class #	Signature Name	Color	Red	Green	Blue	Value	Order
1	water		0.000	0.000	1.000	1	1
2	soil		0.824	0.706	0.549	2	2

The Signature Editor Cellarray

نكرر الخطوات السابقة لاضافة بصمات  
طيفية اخرى

File Home Manage Data Raster Vector Terrain Toolbox Help Drawing Format

Cut Copy Paste Edit

Grow EasyTrace Lock

Select Line Area Modify

Scale Bar Legend North Arrow Map Grid Insert Map Element

Dynamic Elements

Font/Size

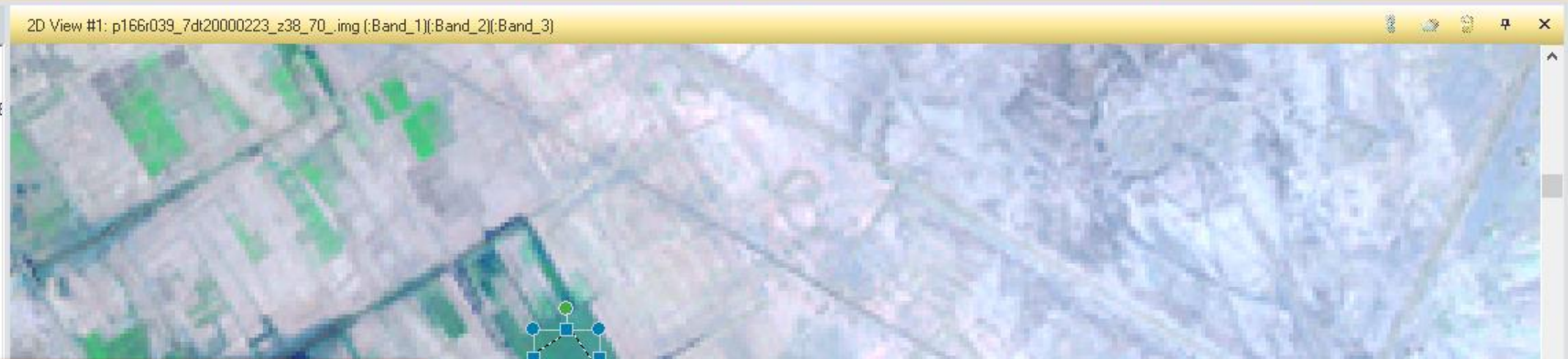
Locking

Styles

Area Fill Line Color Line Style Shape Arrange

Contents

- 2D View #1
  - Aoi004288(:Aoi)
  - p166r039\_7dt20000223\_z38
  - Background



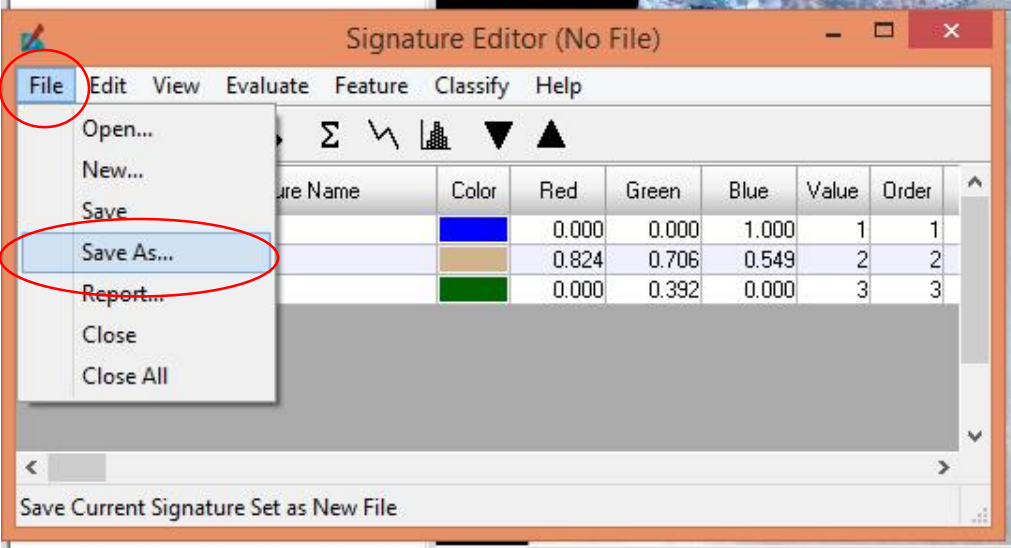
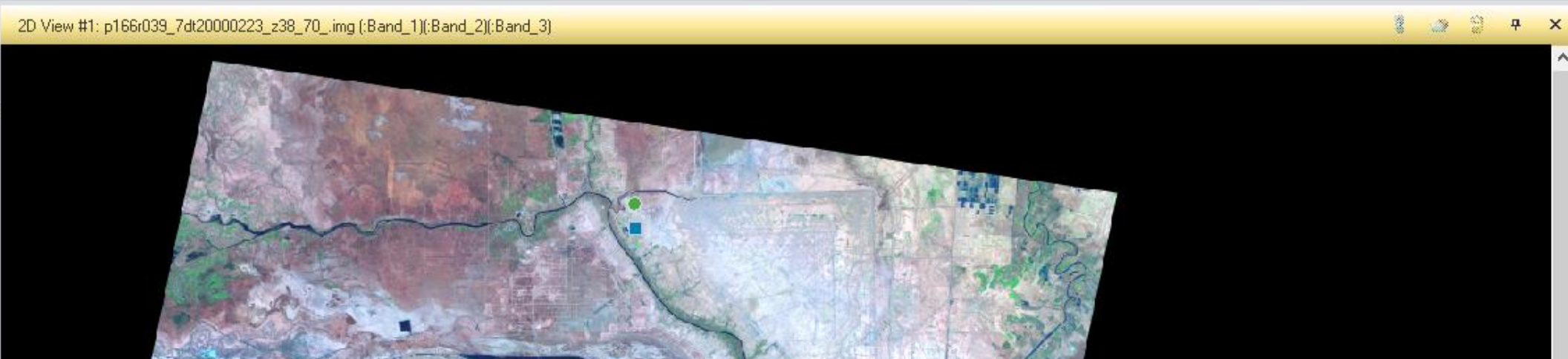
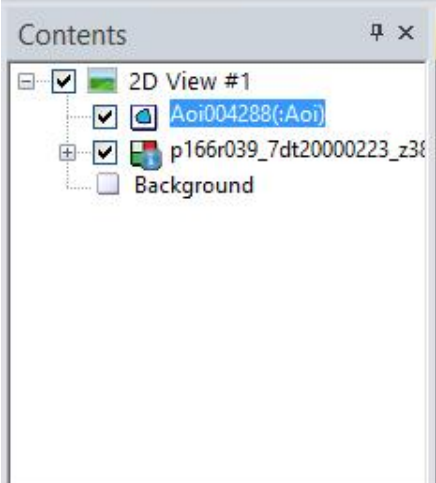
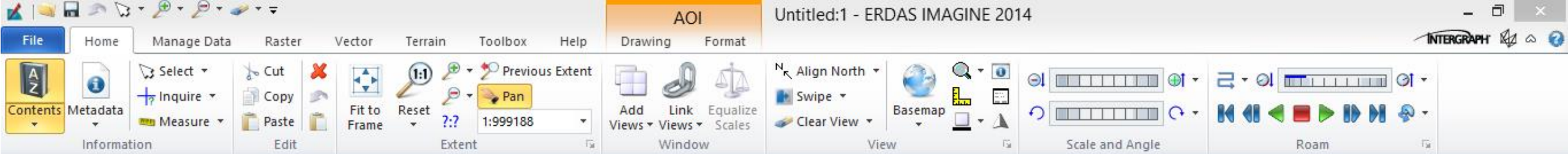
Signature Editor (No File)

File Edit View Evaluate Feature Classify Help

Class #	Signature Name	Color	Red	Green	Blue	Value	Order
1	water		0.000	0.000	1.000	1	1
2	soil		0.824	0.706	0.549	2	2
3	herb		0.000	0.392	0.000	3	3

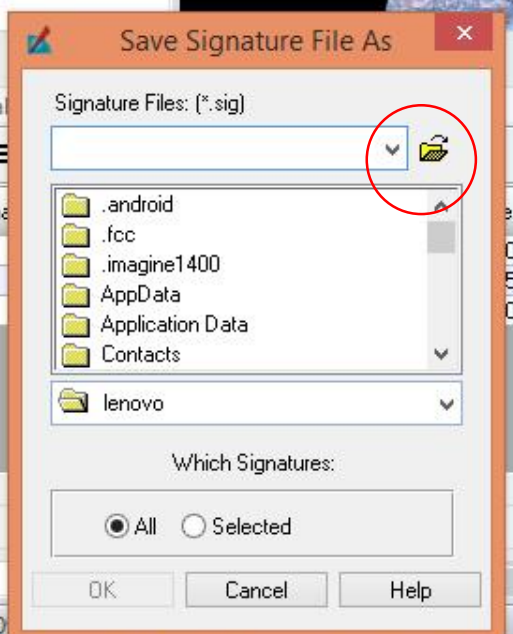
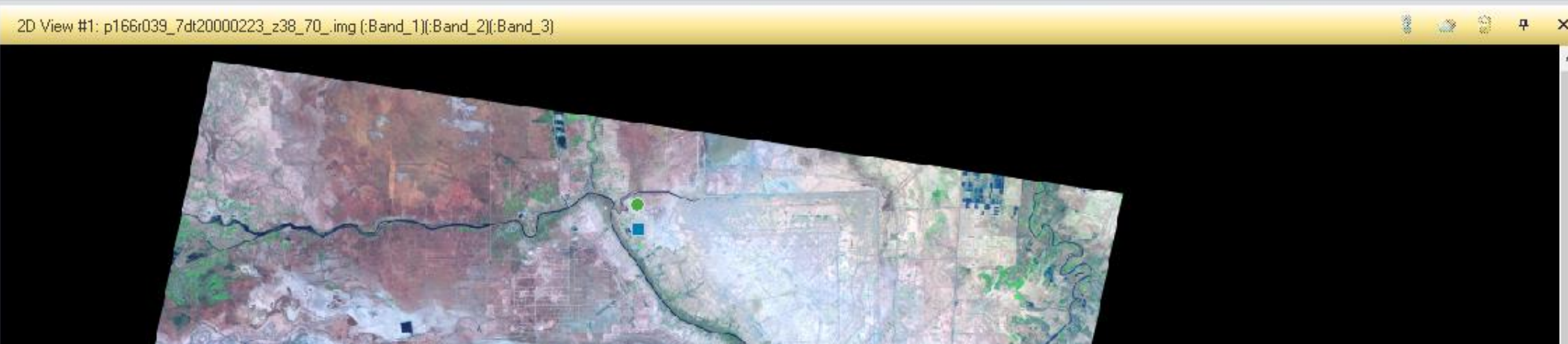
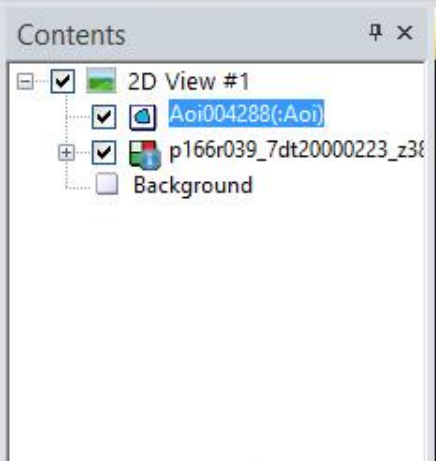
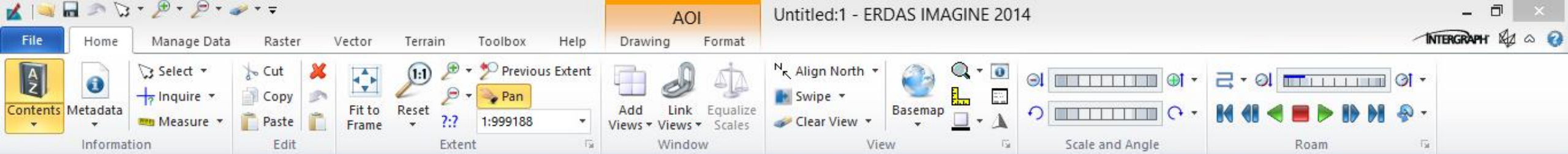
The Signature Editor Cellarray





عند الانتهاء من اضافة البصمات  
الطيفية نقوم بحفظها عن طريق  
الضغط على File ثم Save As





نحدد مكان الحفظ عن طريق اختيار  
الملف الاصفر



Untitled:1 - ERDAS IMAGINE 2014

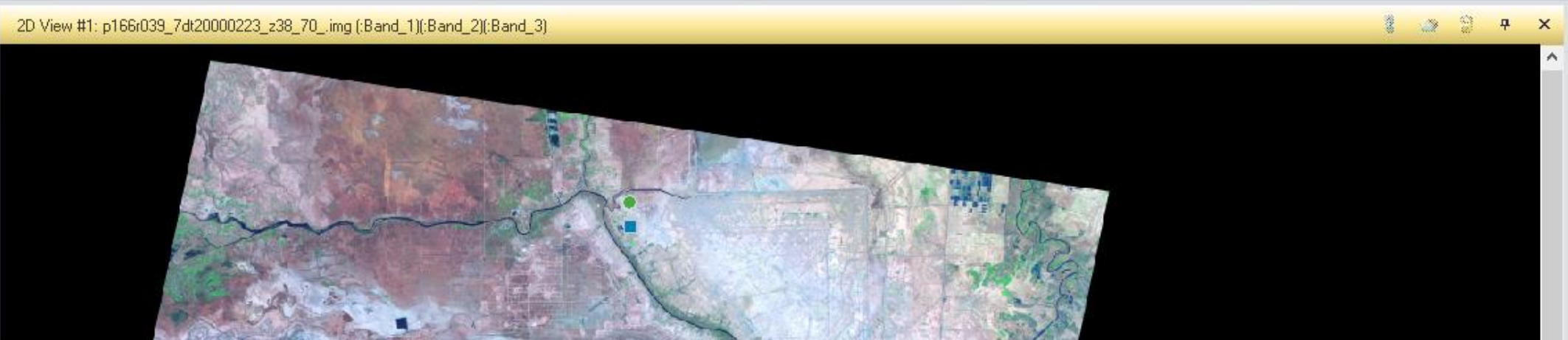
File Home Manage Data Raster Vector Terrain Toolbox Help Drawing Format

Select Inquire Measure Copy Paste Fit to Frame Reset Pan Previous Extent Add Views Link Views Equalize Scales

Align North Swipe Clear View Basemap Scale and Angle Roam

Contents

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  - Background



Save Signature File As

Signature Files: (\*.sig)

data.sig

duha

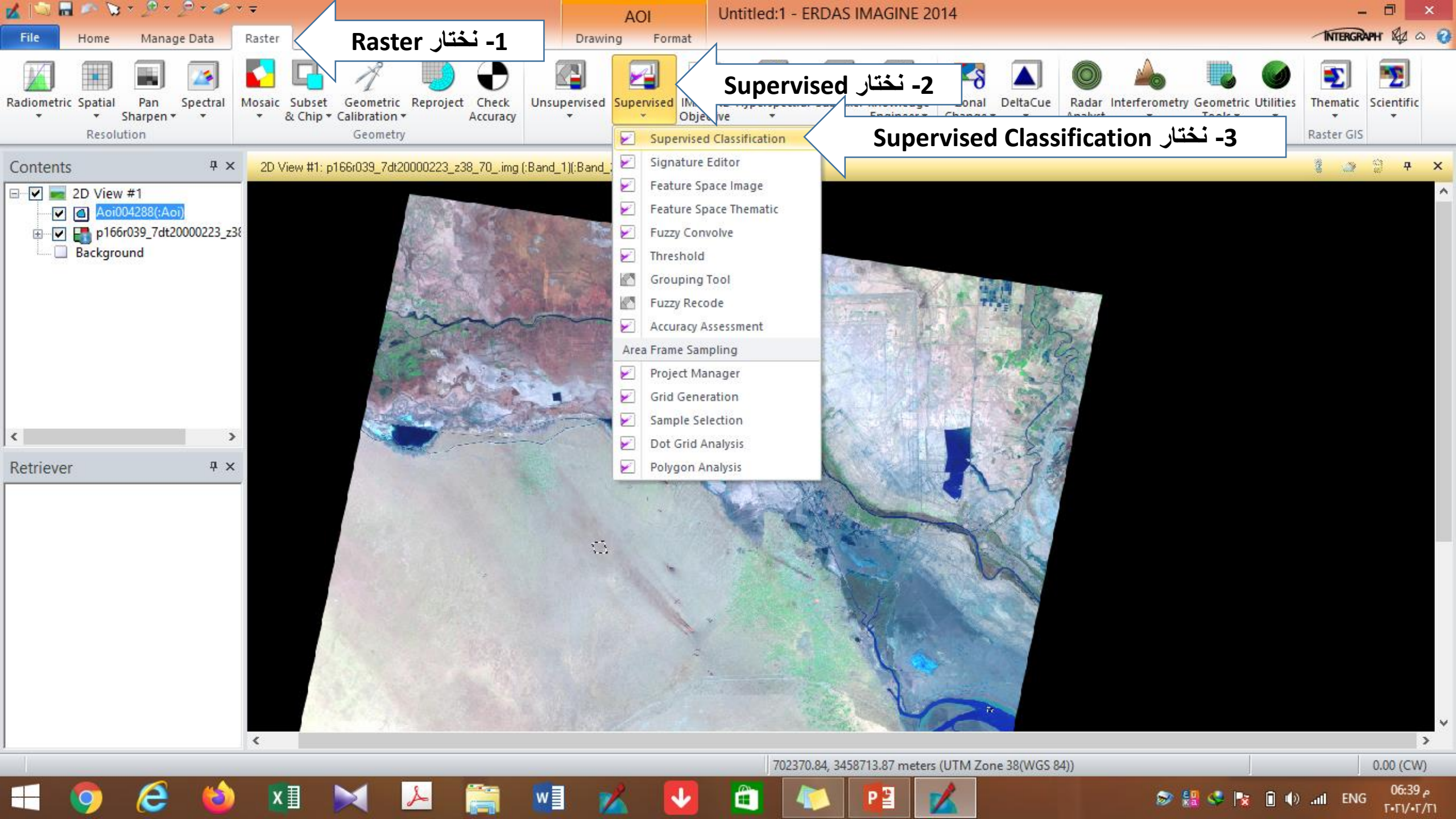
Which Signatures:

All  Selected

OK Cancel Help

Class #	Signature	Value	Order
1	water	000	1
2	soil	549	2
3	herb	000	3

بعد تحديد مكان الحفظ وكتابة اسم معين لحفظ البصمات نضغط OK



Raster نختار -1

Supervised نختار -2

Supervised Classification نختار -3

- Supervised Classification
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- Sample Selection
- Dot Grid Analysis
- Polygon Analysis

702370.84, 3458713.87 meters (UTM Zone 38(WGS 84))

0.00 (CW)

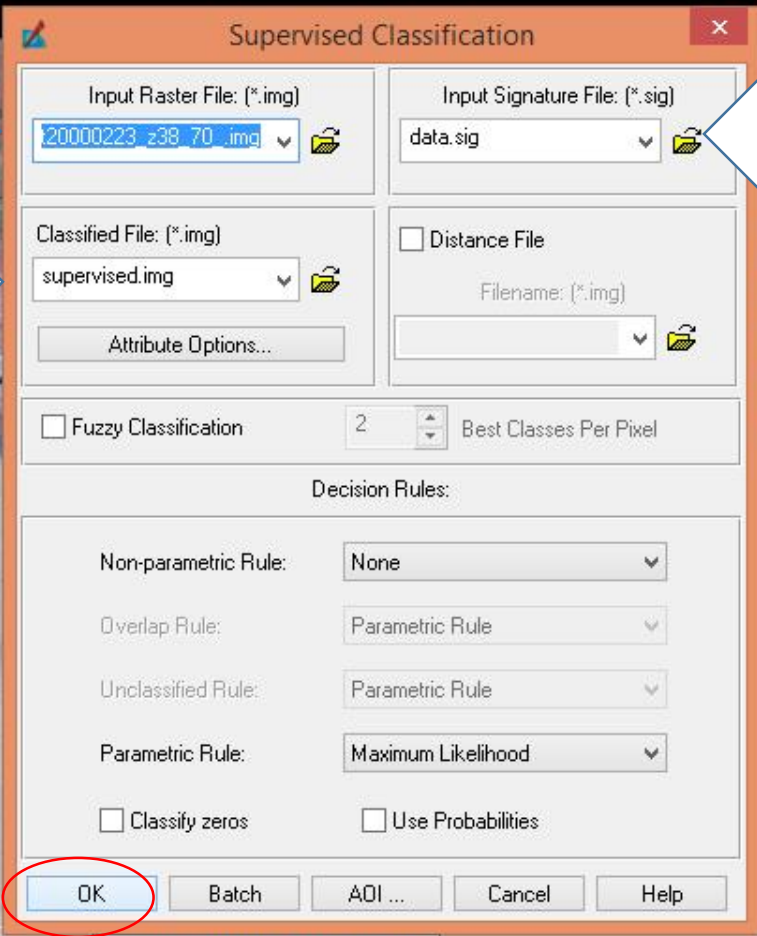
06:39 م  
٢٠٢١/٠٢/٢١

Contents

- 2D View #1
  - Aoi004288(:Aoi)
  - p166r039\_7dt20000223\_z38
  - Background

Retriever

2D View #1: p166r039\_7dt20000223\_z38\_70\_img (:Band\_1)(:Band\_2)(:Band\_3)



Supervised Classification

Input Raster File: (\*.img)  
20000223\_z38\_70\_img

Input Signature File: (\*.sig)  
data.sig

Classified File: (\*.img)  
supervised.img

Attribute Options...

Fuzzy Classification 2 Best Classes Per Pixel

Decision Rules:

Non-parametric Rule: None

Overlap Rule: Parametric Rule

Unclassified Rule: Parametric Rule

Parametric Rule: Maximum Likelihood

Classify zeros  Use Probabilities

OK Batch AOI ... Cancel Help

المدخلات

المخرجات

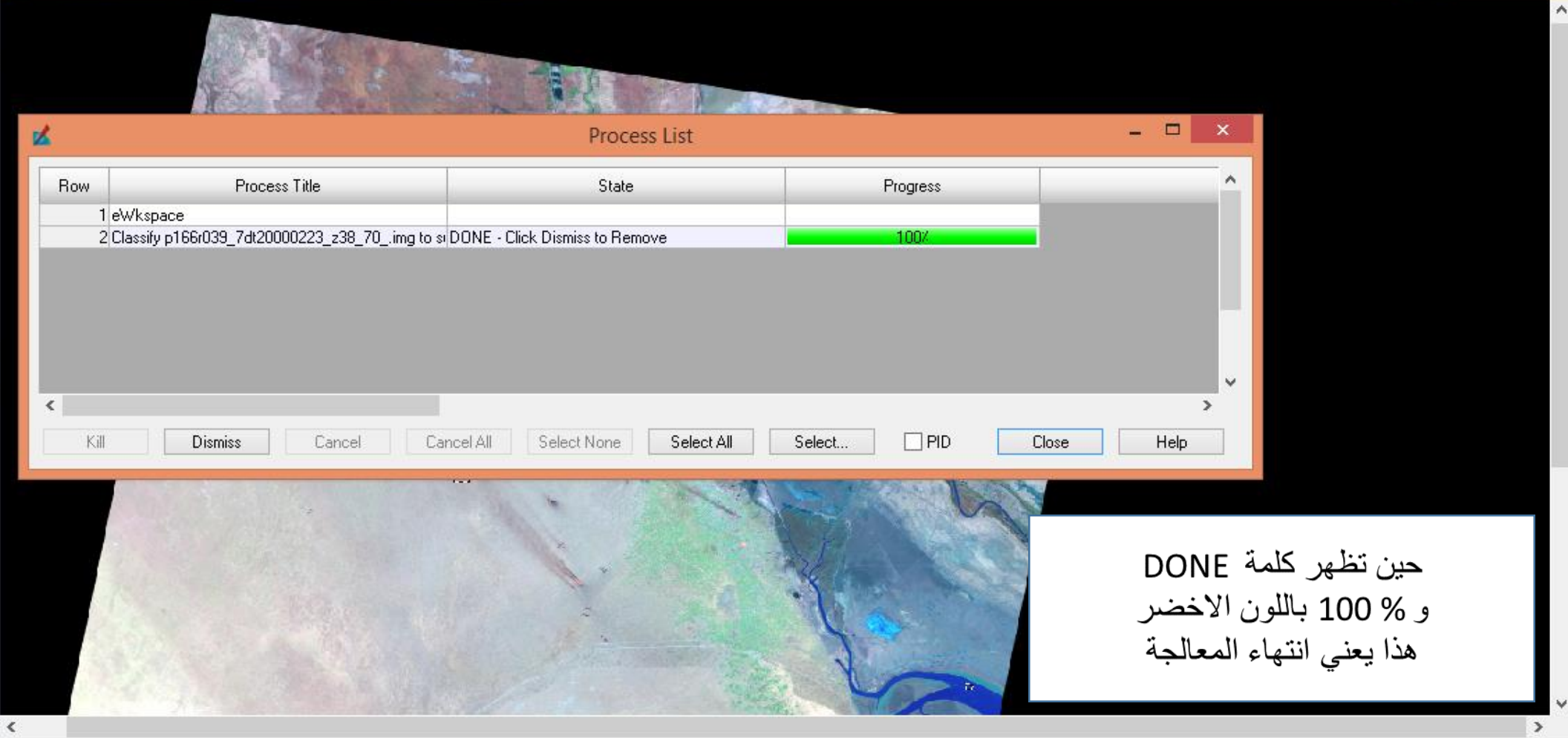
نضيف ملف  
البصمات  
الطيفية الذي  
قمنا بحفظه  
سابقاً

Contents

- 2D View #1
  - Aoi004288(:Aoi)
  - p166r039\_7dt20000223\_z38
  - Background

Retriever

2D View #1: p166r039\_7dt20000223\_z38\_70\_img (:Band\_1)(:Band\_2)(:Band\_3)



### Process List

Row	Process Title	State	Progress
1	e\workspace		
2	Classify p166r039_7dt20000223_z38_70_img to s	DONE - Click Dismiss to Remove	100%

Buttons: Kill, Dismiss, Cancel, Cancel All, Select None, Select All, Select..., PID, Close, Help

حين تظهر كلمة DONE و 100 % باللون الاخضر هذا يعني انتهاء المعالجة

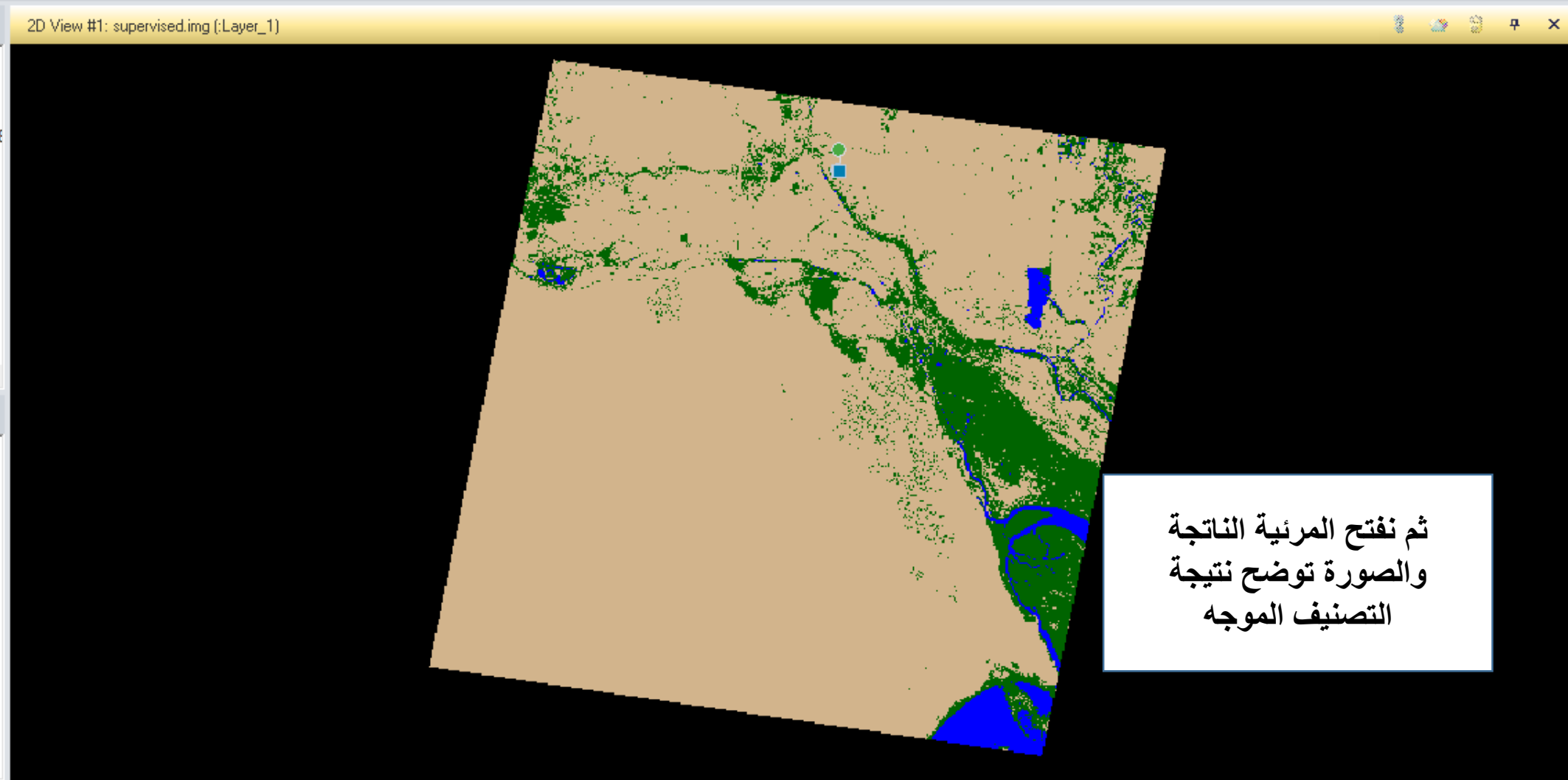
Untitled:1 - ERDAS IMAGINE 2014

File Home Manage Data Raster Vector Terrain Toolbox Help Thematic Drawing Format Table

Contents Metadata Select Inquire Measure Copy Paste Fit to Frame Reset Extent 1:1464756 Add Views Link Views Equalize Scales Align North Swipe Clear View Basemap Scale and Angle Room

Contents

- 2D View #1
  - Aoi004288(:Aoi)
  - supervised.img
  - p166r039\_7dt20000223\_z38
  - Background



ثم نفتح المرئية الناتجة  
والصورة توضح نتيجة  
التصنيف الموجه