# OPK Blend



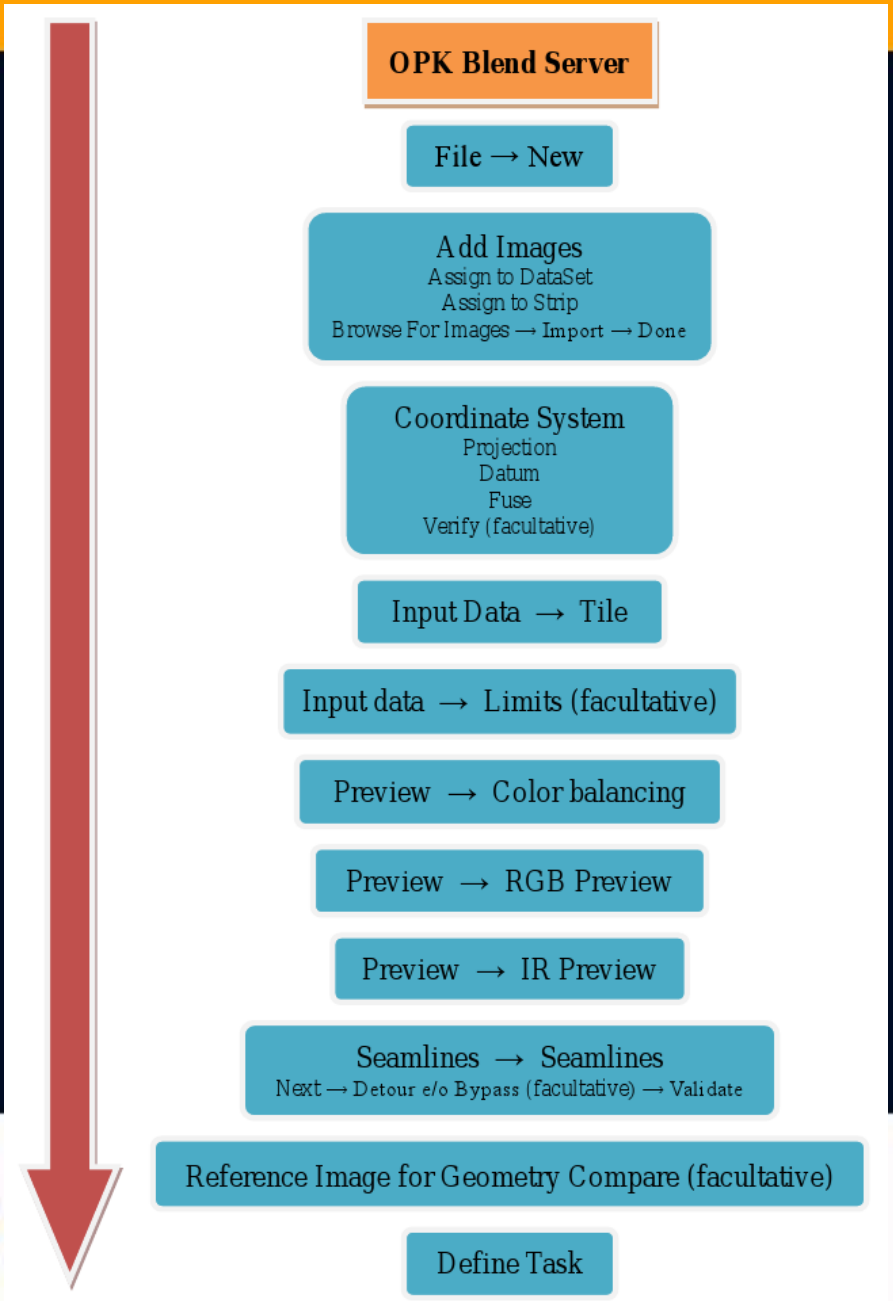
OPK Blend is a tool specifically developed for orthomosaic generation, RGB and IR images color balancing and also intelligent editing and automatic seamlines generation. This package allows user to save time during the mosaicking due to low demand for user intervention and high automation of the calculation, more a way of dividing the entire dataset process among multiple clients in order to parallelize the calculations and save time.

# Main Features: *Blend Server*

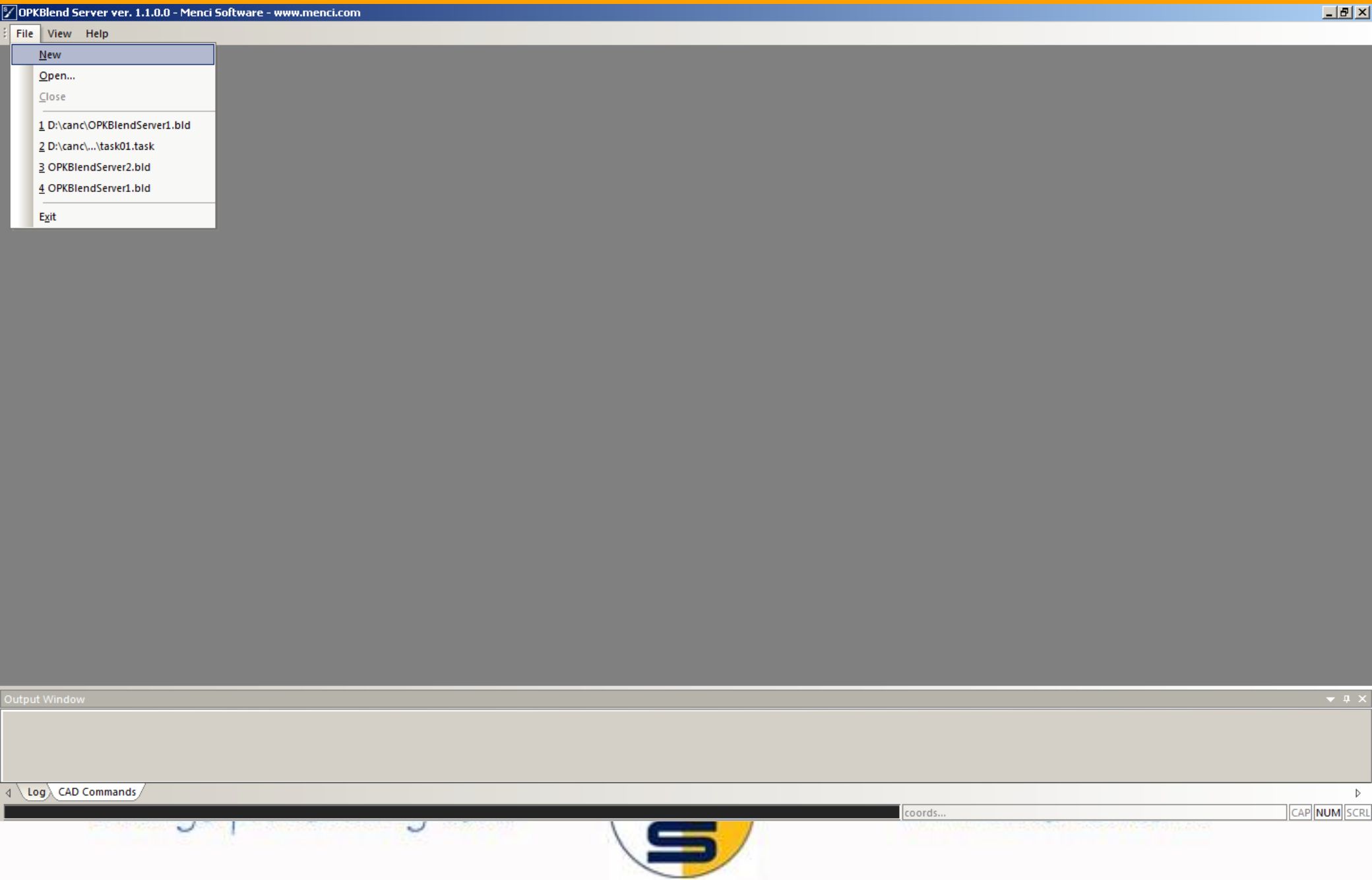
| *Features* | |
|---|---|
| Import and process orthophoto | NO limits |
| Coordinate system editor | ✓ |
| Import Tile | ✓ |
| Import Limits | ✓ |
| Multi-channel images handling: RGB+IR | ✓ |
| Automatic orthophoto RGB colorimetric balancing | ✓ |
| Automatic orthophoto IR radiometric balancing | ✓ |
| Seamlines automatic generation | ✓ |
| Seamlines manual correction | ✓ |
| Automatic geometry compare with previus ortho-mosaic | ✓ |

# Features and Workflow: *Blend Server*

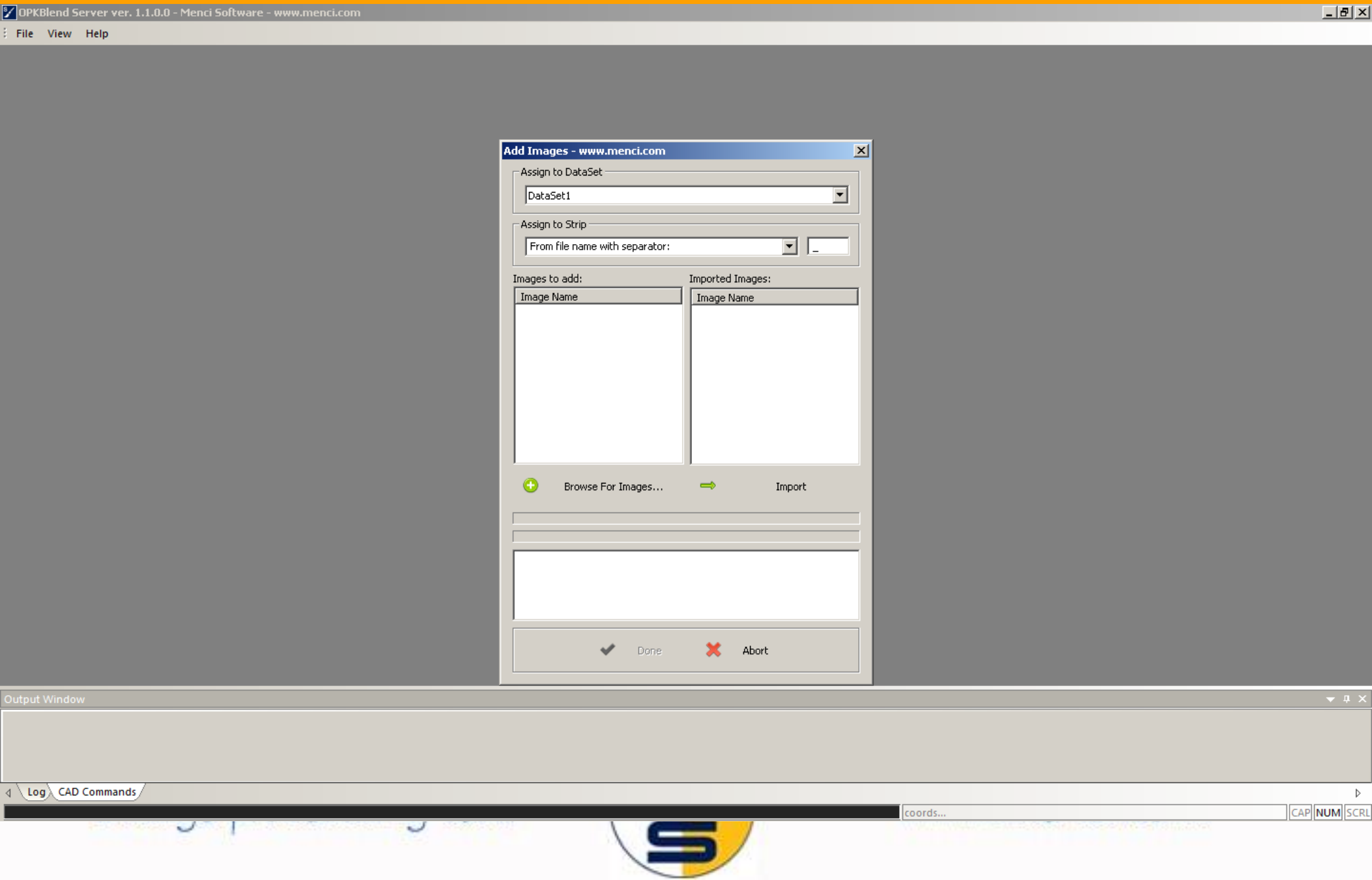
- No limits to import and elaboration orthophoto
- Automatic data saved
- Automatic report generation
- Single-DataSet or multi-DataSet elaboration
- Activate/Deactivate orthophoto
- Multi-channel orthophoto handling (RGB + IR)
- Coordinate projection editor
  - * Projectum
  - * Datum
  - * Fuse
- Tile importation
- Limits importation
- Orthophoto, Tile or Task visualization
- Orthophoto, Tile and Limits activate/deactivate visualization
- Custom orthophoto color balancing
  - * Color Propagation
  - * Template on Standard Reference Dataset
  - * Template on Custom Dataset
- IR radiometric balancing
- Color balancing RGB preview
- Radiometric balancing IR preview
- Automatic seamlines generation
- Advanced routing of seamlines generation
- Seamlines manual editing
  - * Point to point
  - * Detour
  - * ByPass
- Automatic generation of "Map of deviation"
- Multi Task definition process
- Log visualization
- Shortcut and/or command line input
- Activate/Deactivate Tile
- Orthophoto viewer
- Custom define Task to process
  - * All
  - * Selection



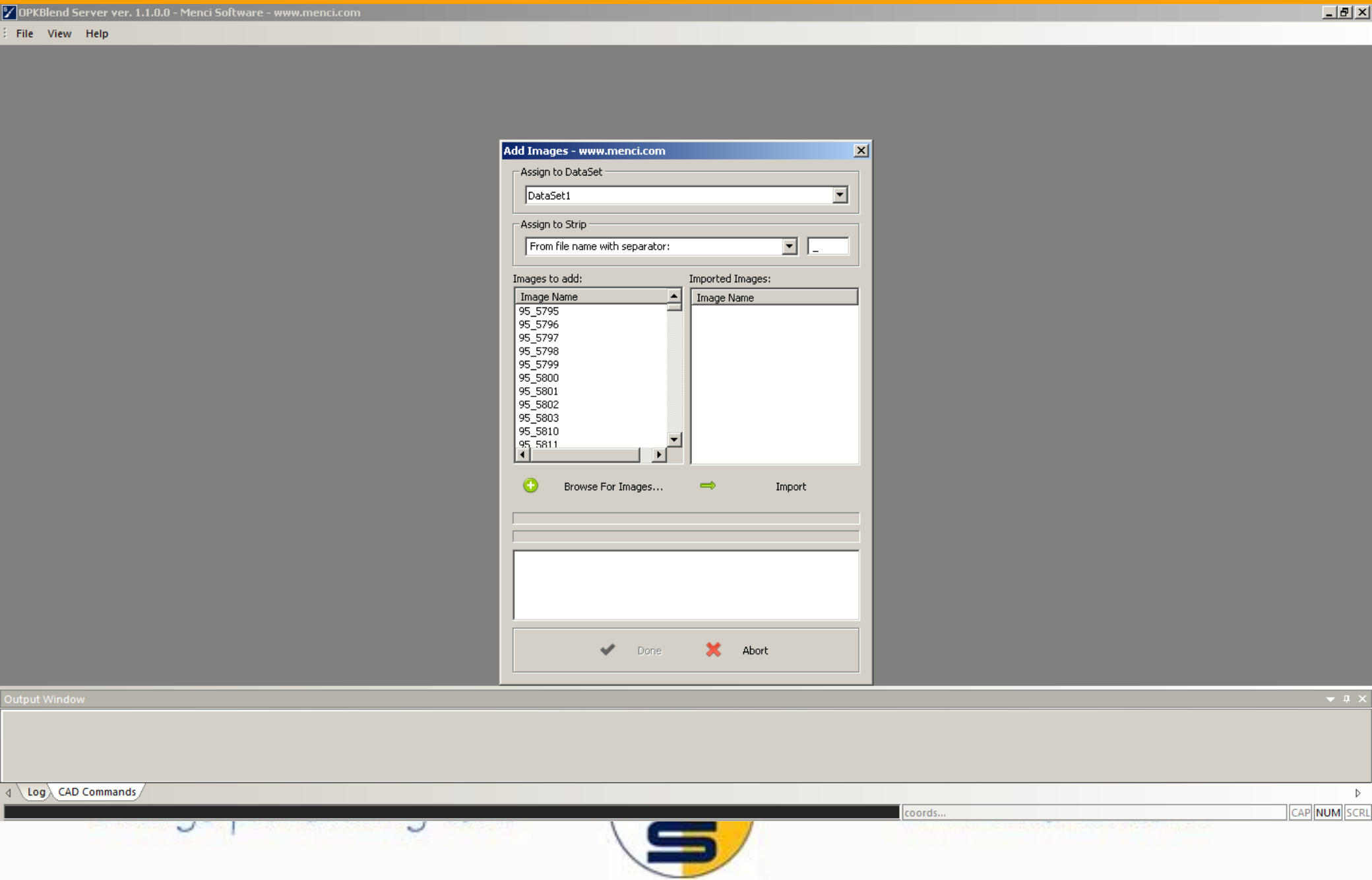
# Main Interface



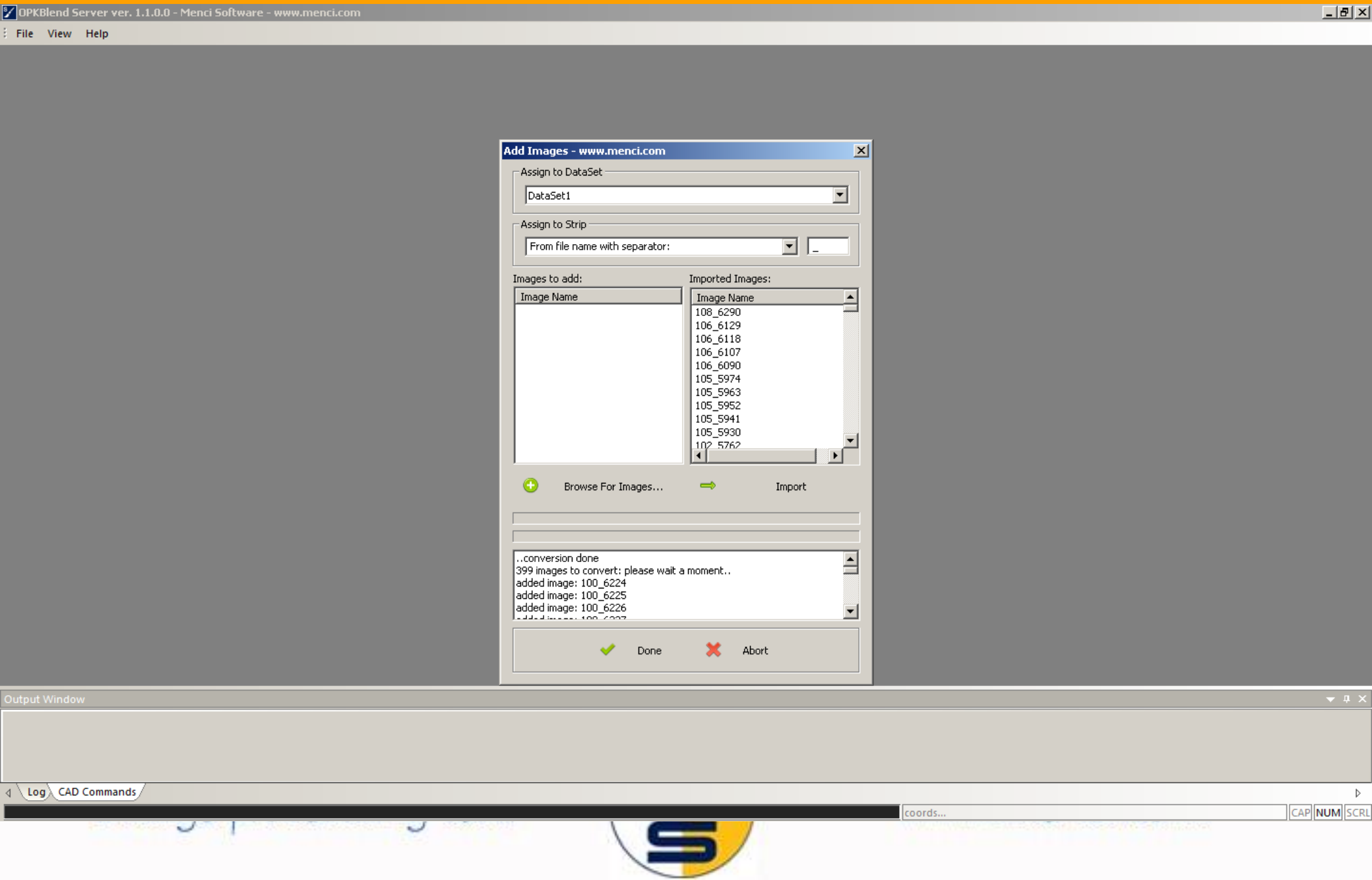
# Create new project: importing images 1/3



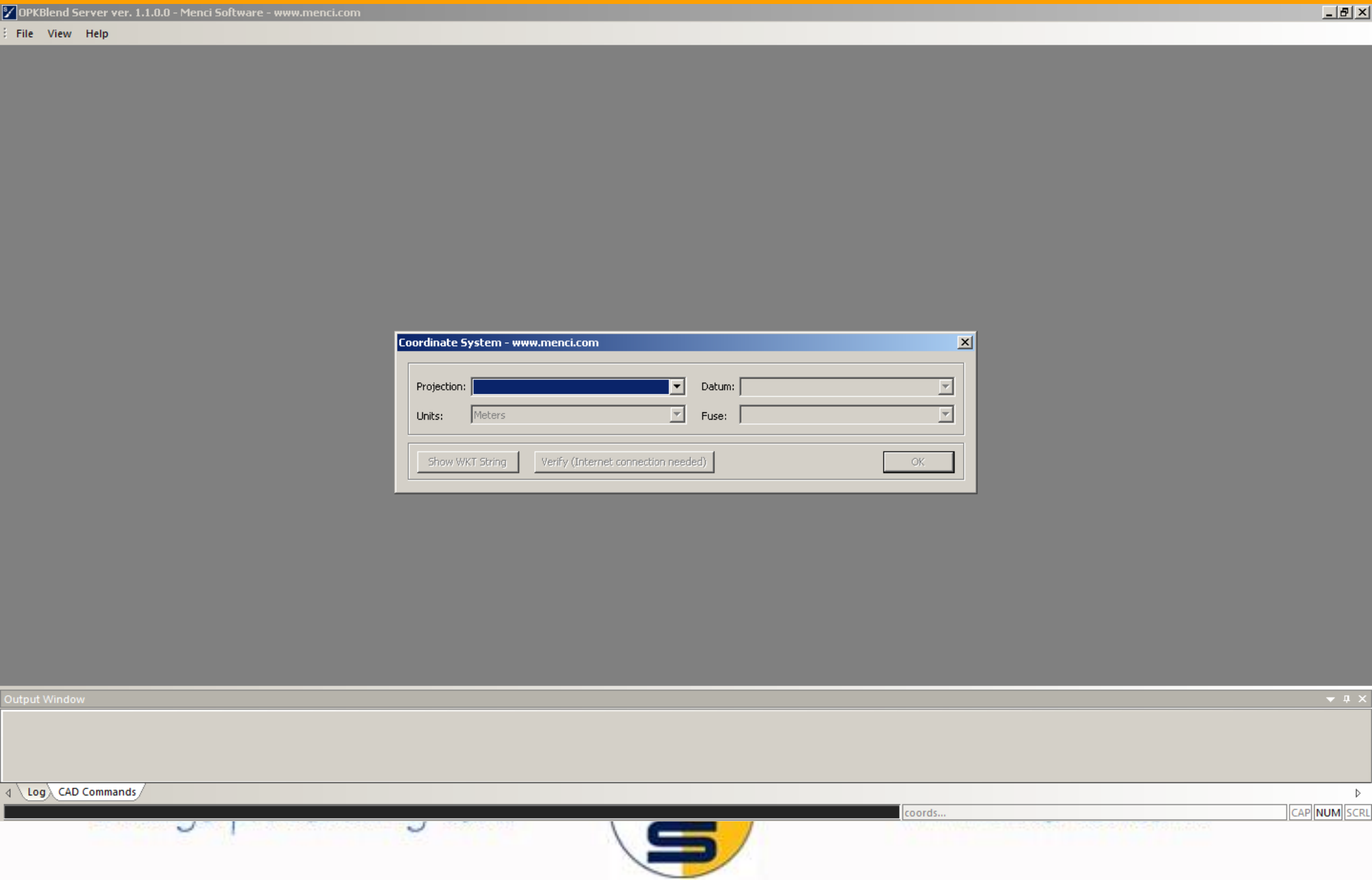
# Create new project: importing images 2/3



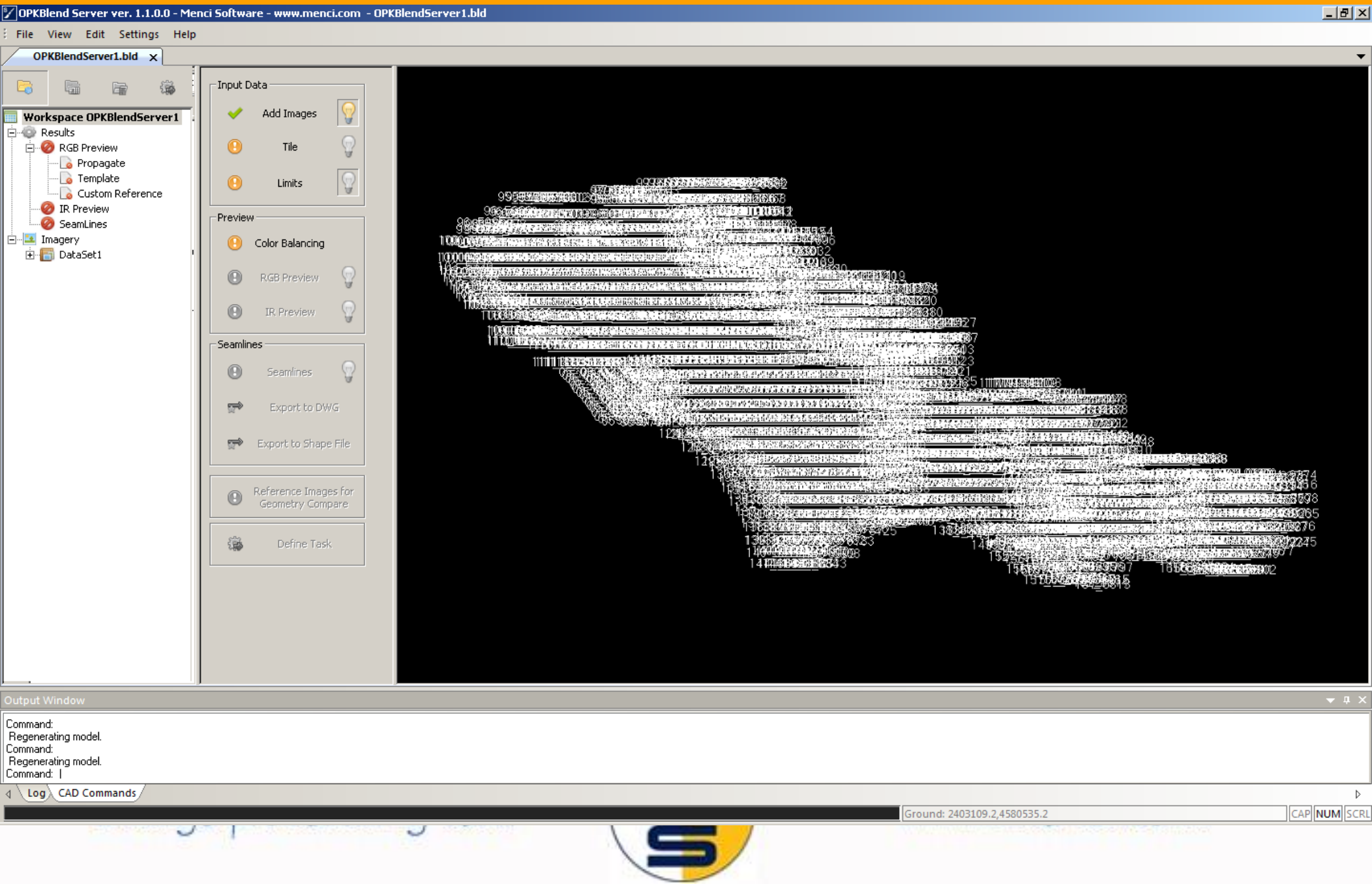
# Create new project: importing images 3/3



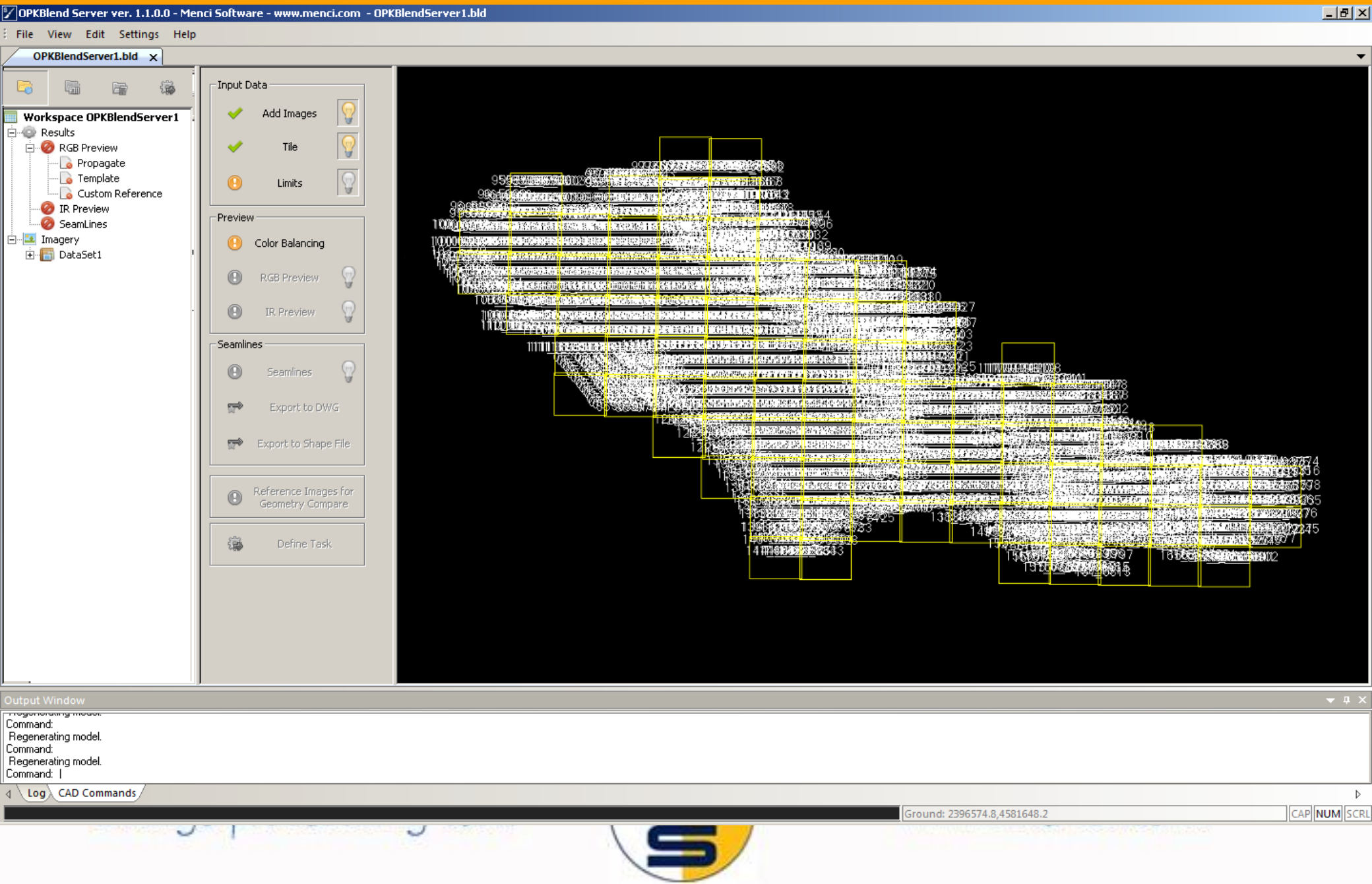
# Coordinate System selection



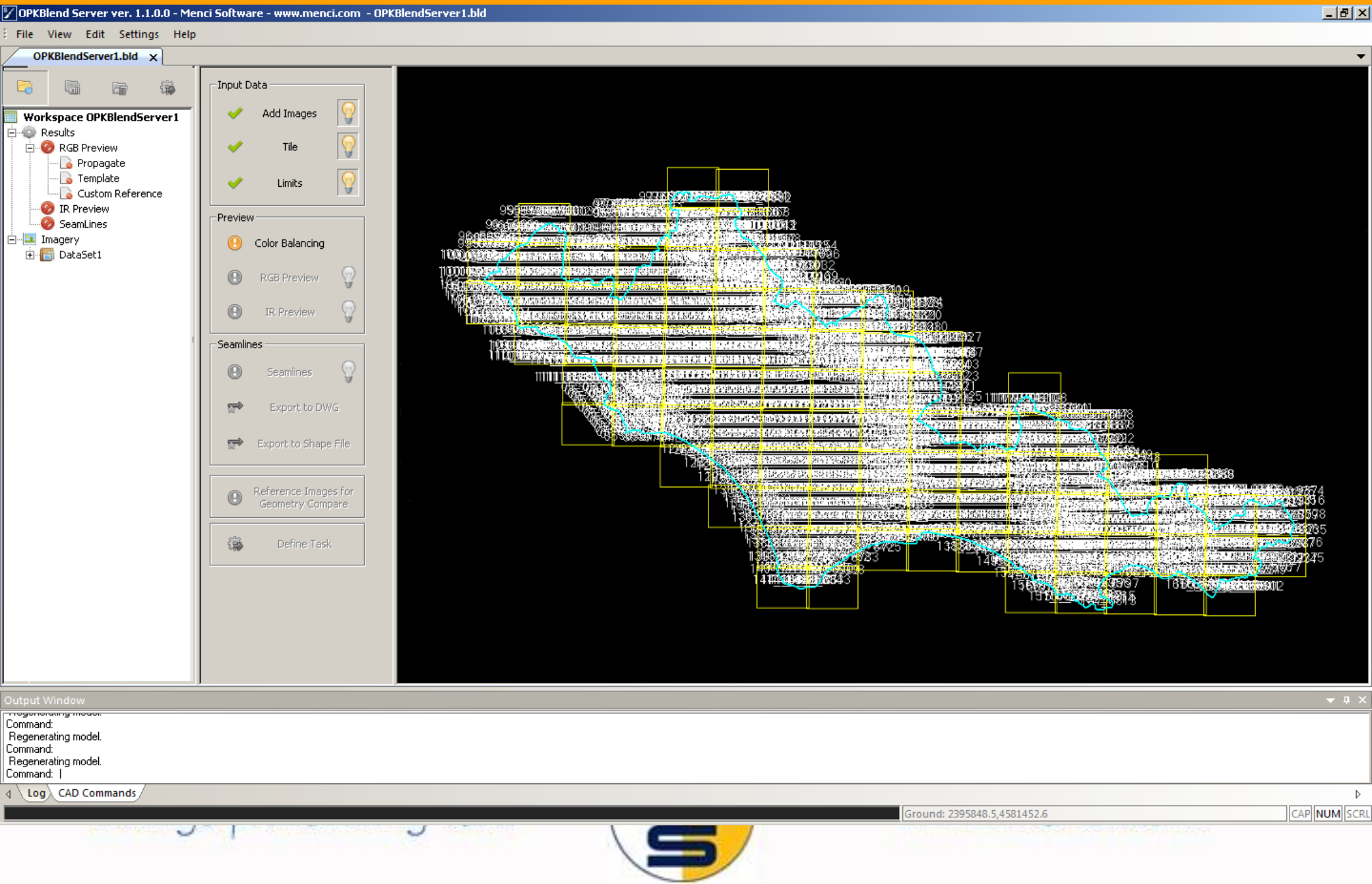
# Images importation



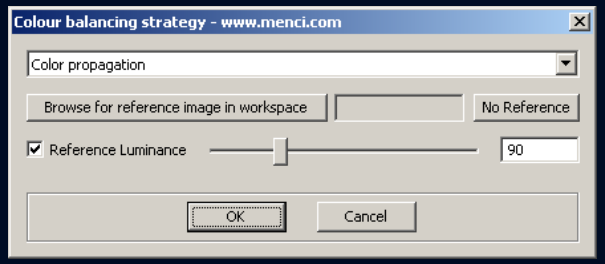
# Tile importation



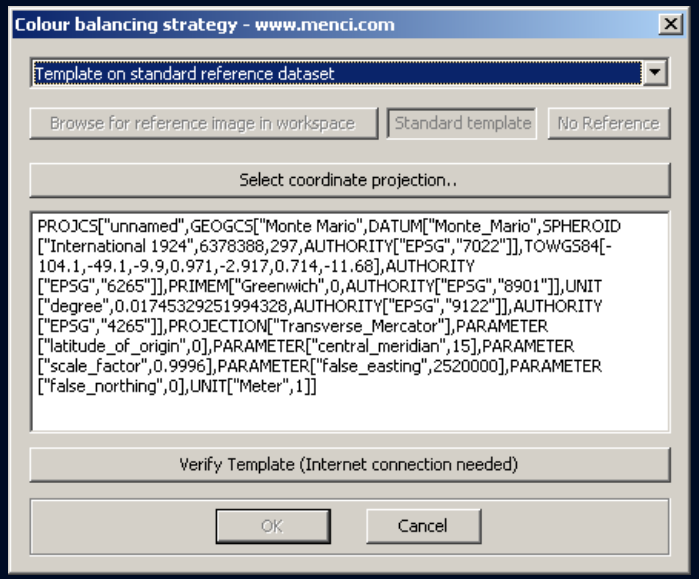
# Limits importation



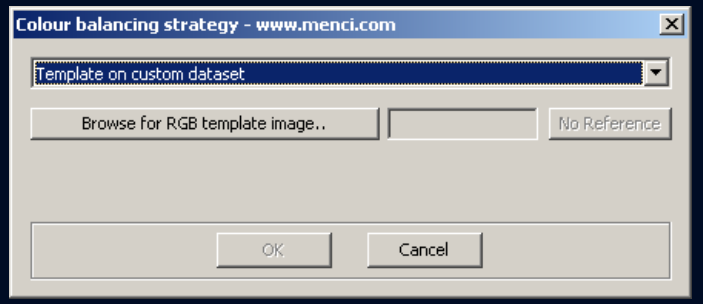
# Color balancing strategy




**Color propagation:**
using this option user can select a brightness level which make the color balance, or select a reference image among those in "Dataset" and make the color balance of the latter. Also for the latter option is possible to vary the brightness.

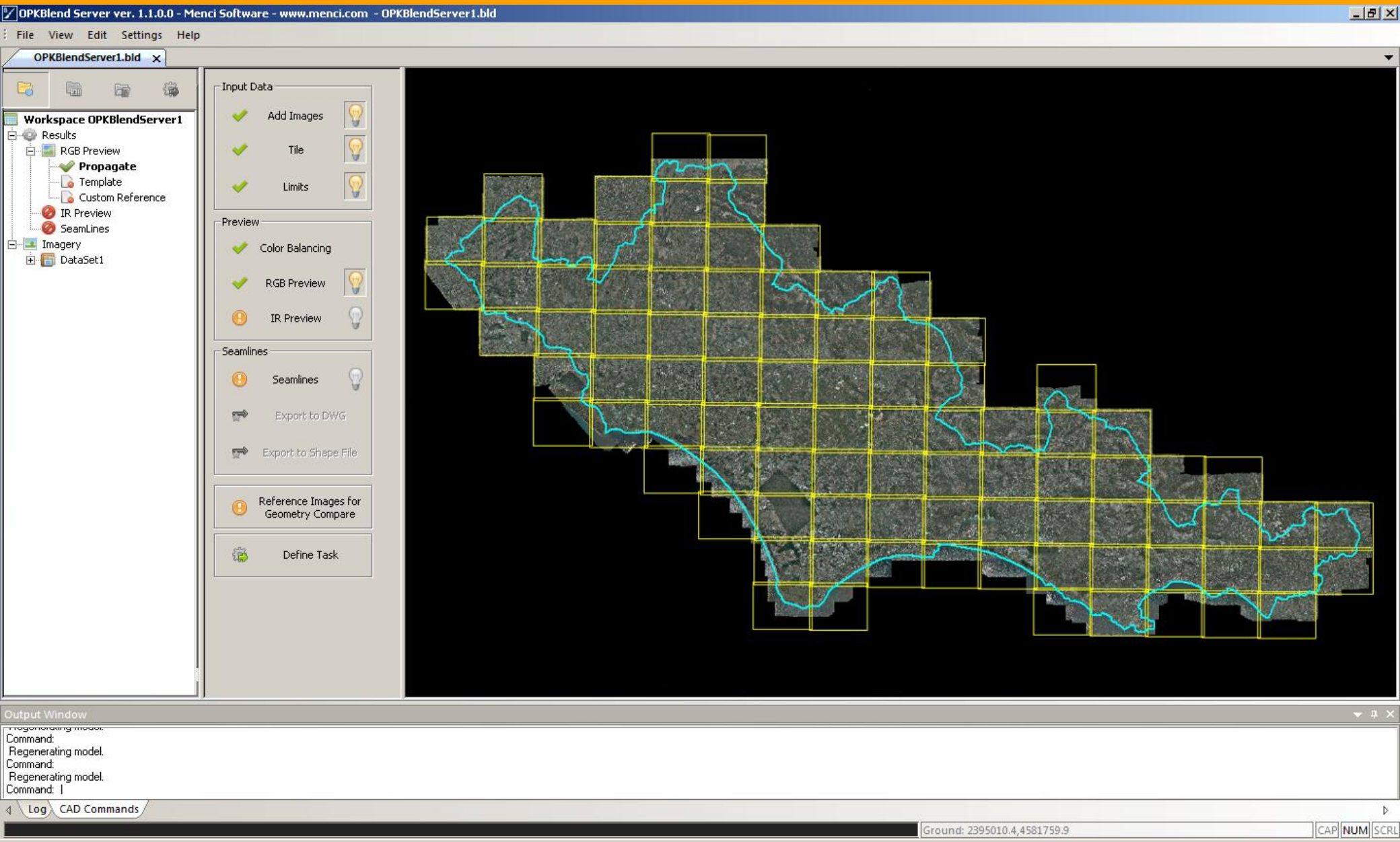



**Template on standard reference dataset:**
with this algorithm user can select a "standard template" under which the software carries out the color balance. This option requires an Internet connection to confirm the accuracy of the coordinates chosen.

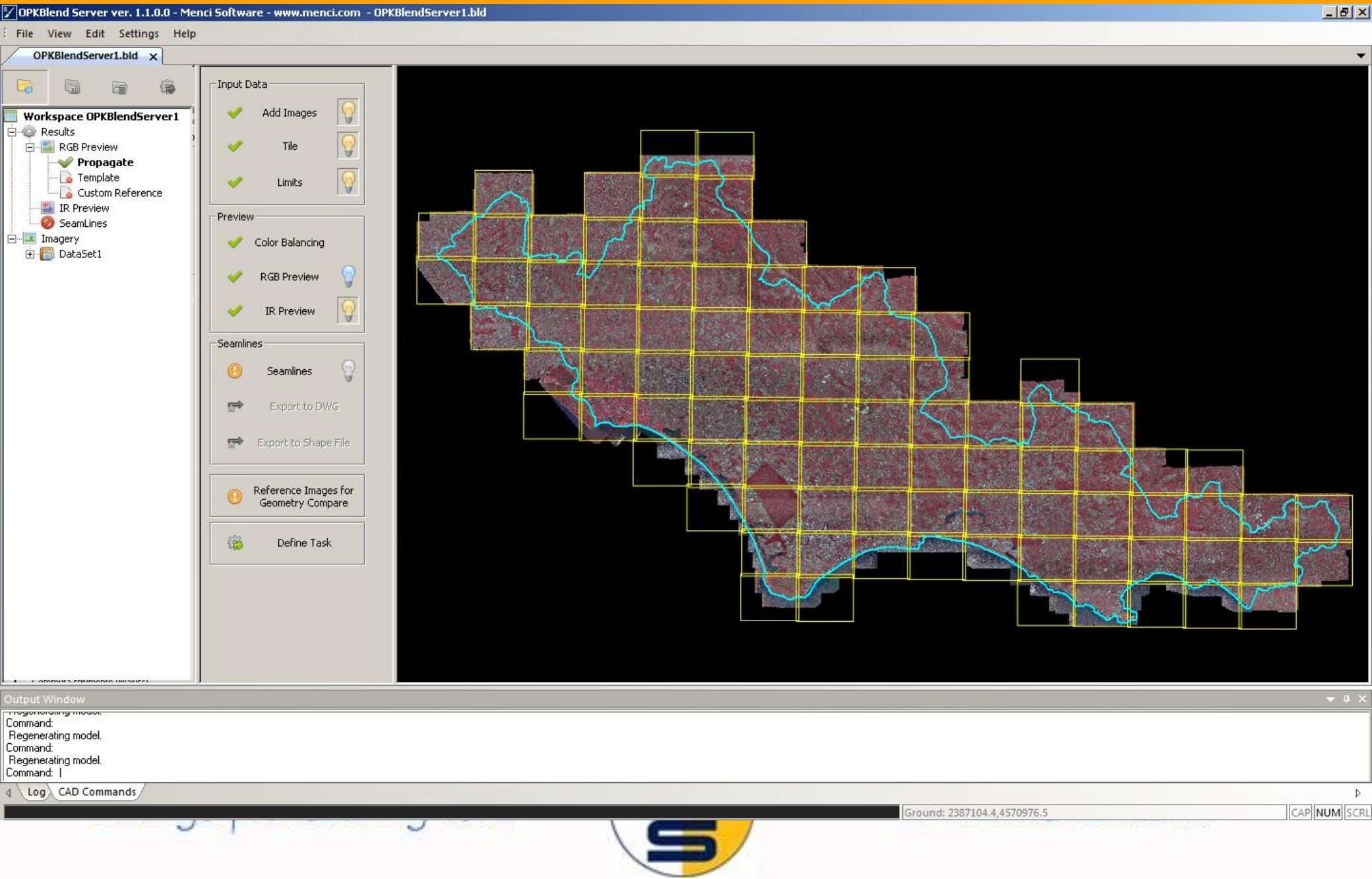



**Template on custom dataset:**
using this template user can select an image (of the same geographical area) of which consider optimum color balance, software will then perform the color balancing based on this image.

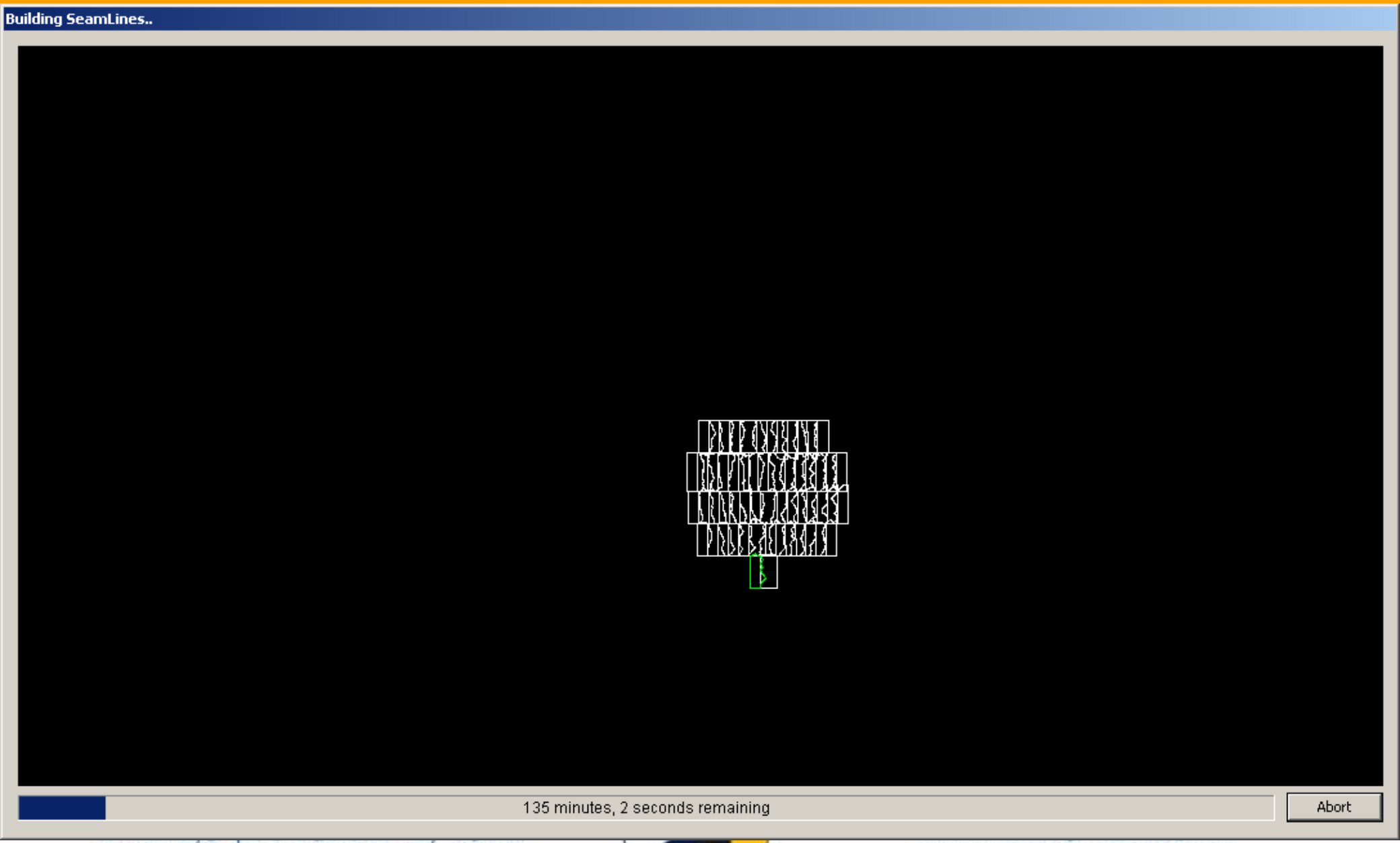
# RGB color balancing preview



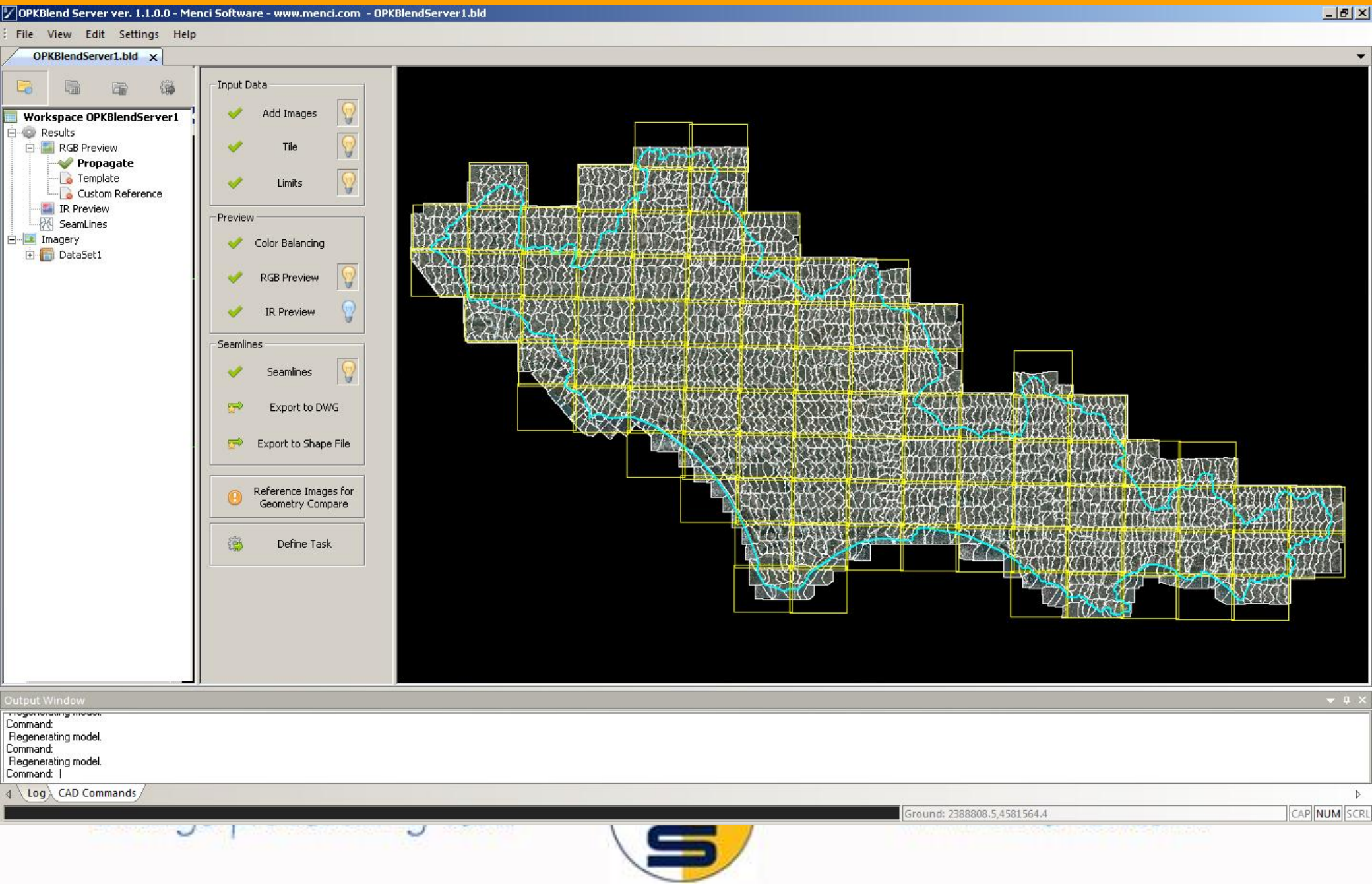
# IR radiometric balancing preview



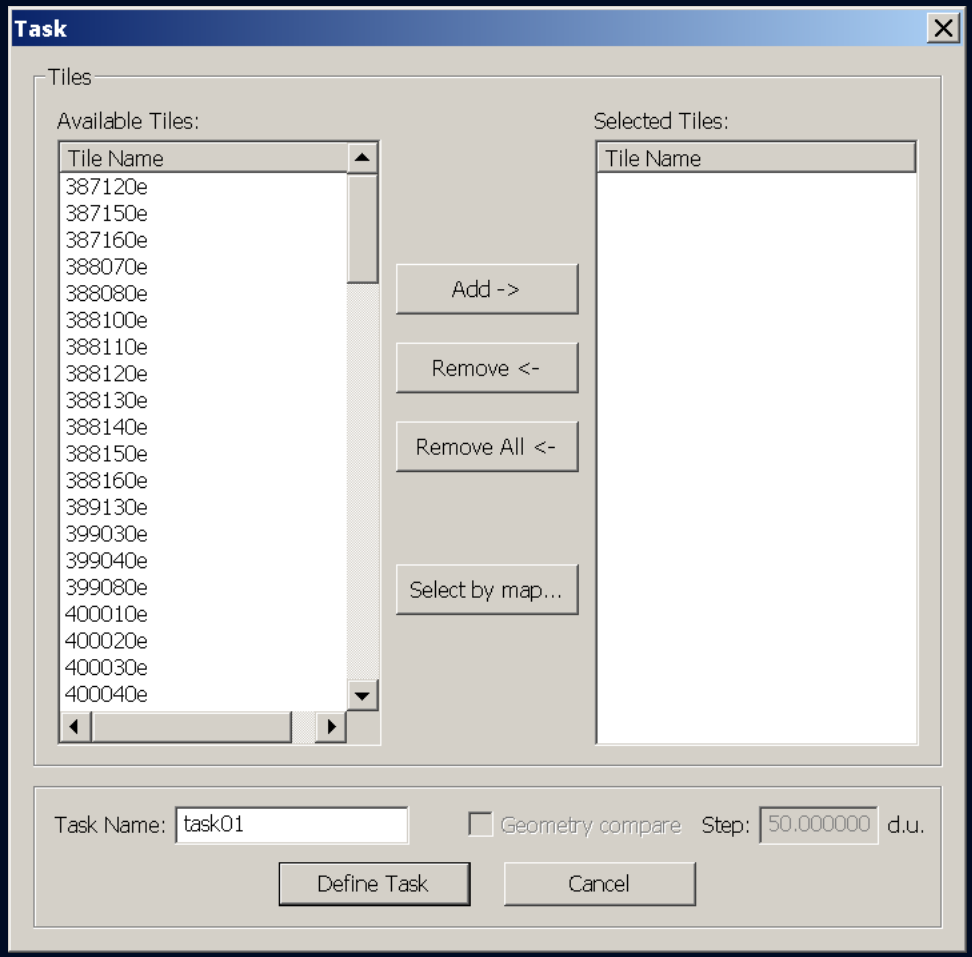
# Automatic Seamlines generation

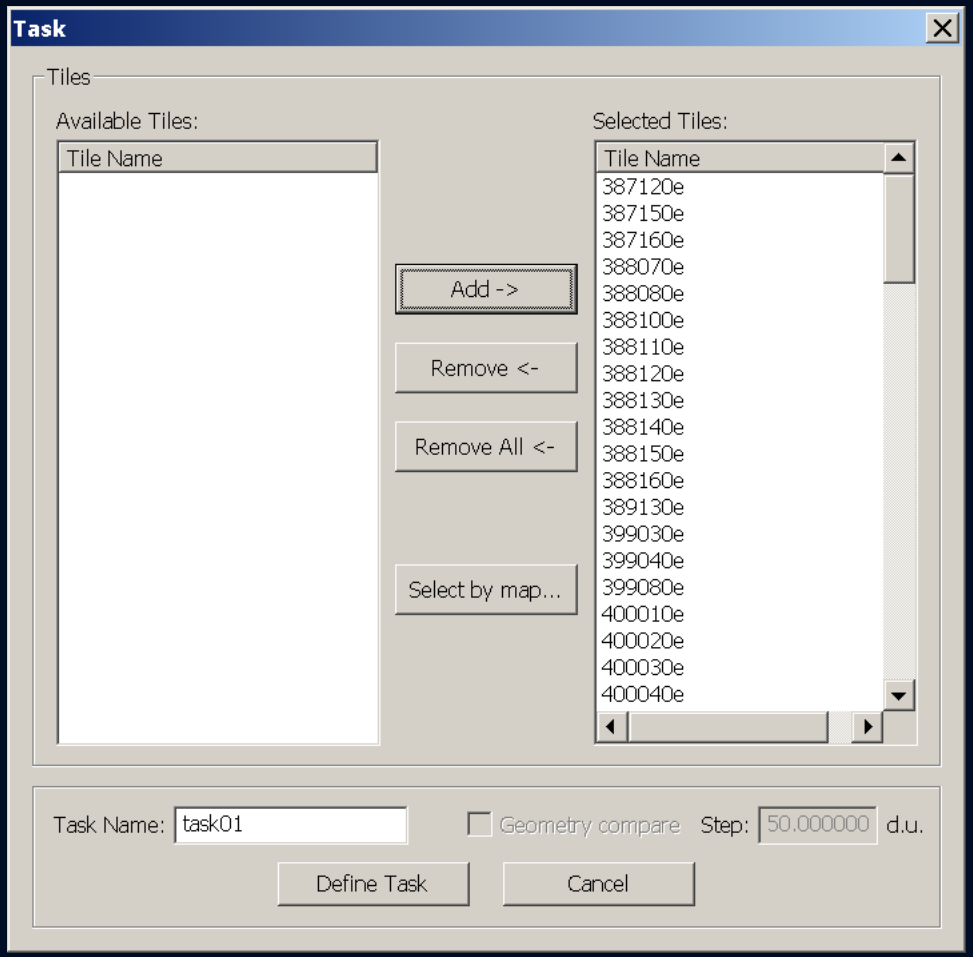


# Seamlines generation: result



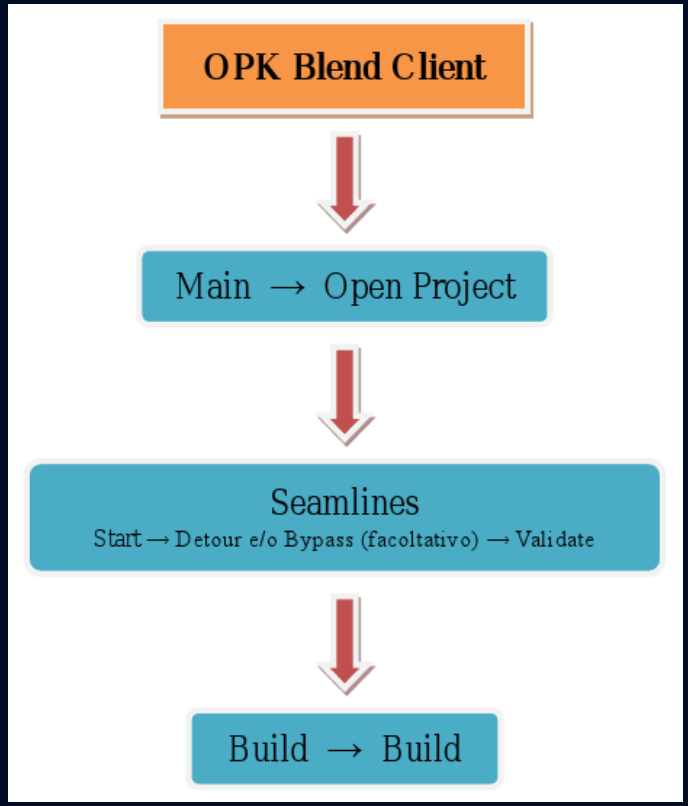
# Task definition



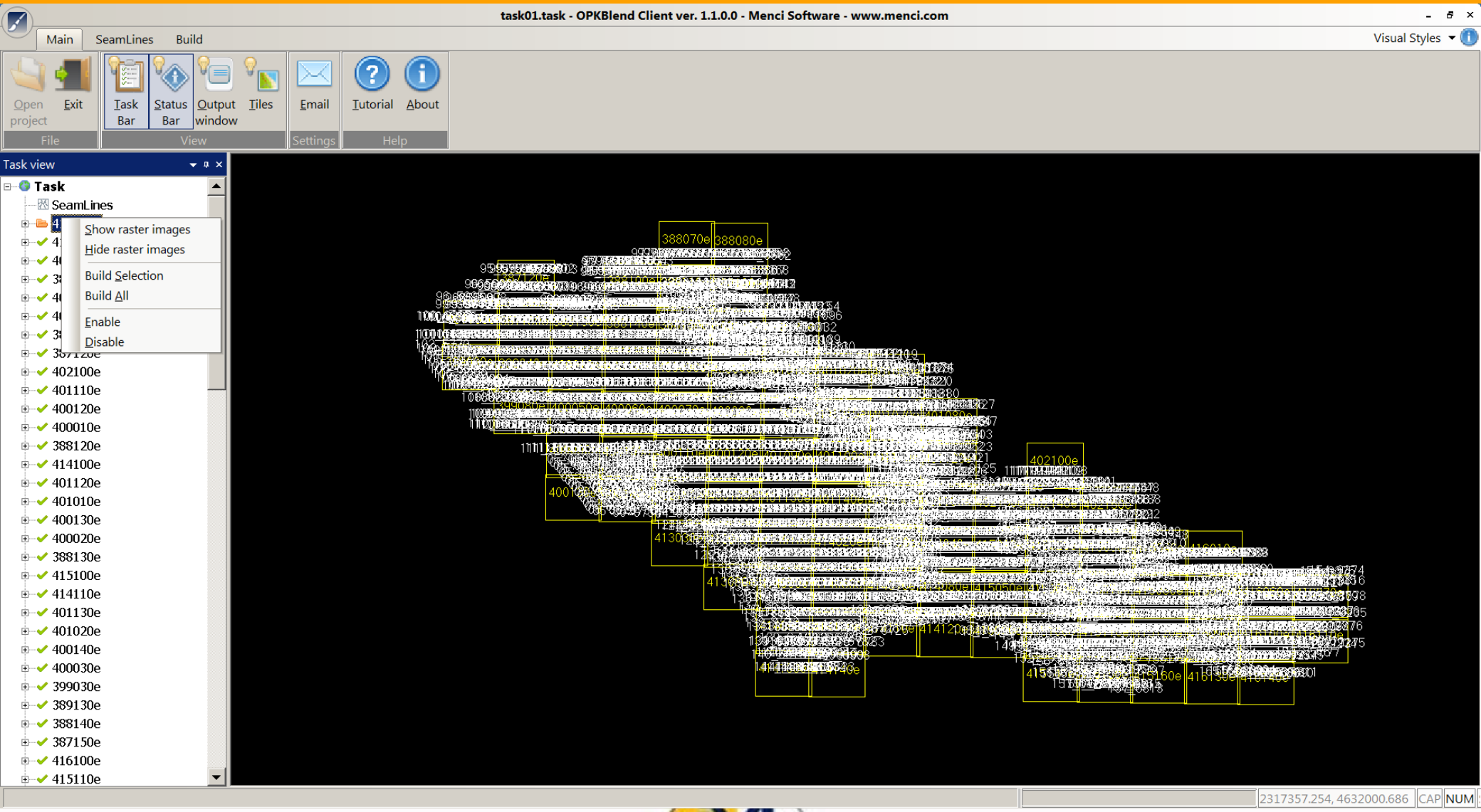



# Main Features: *Blend Client*

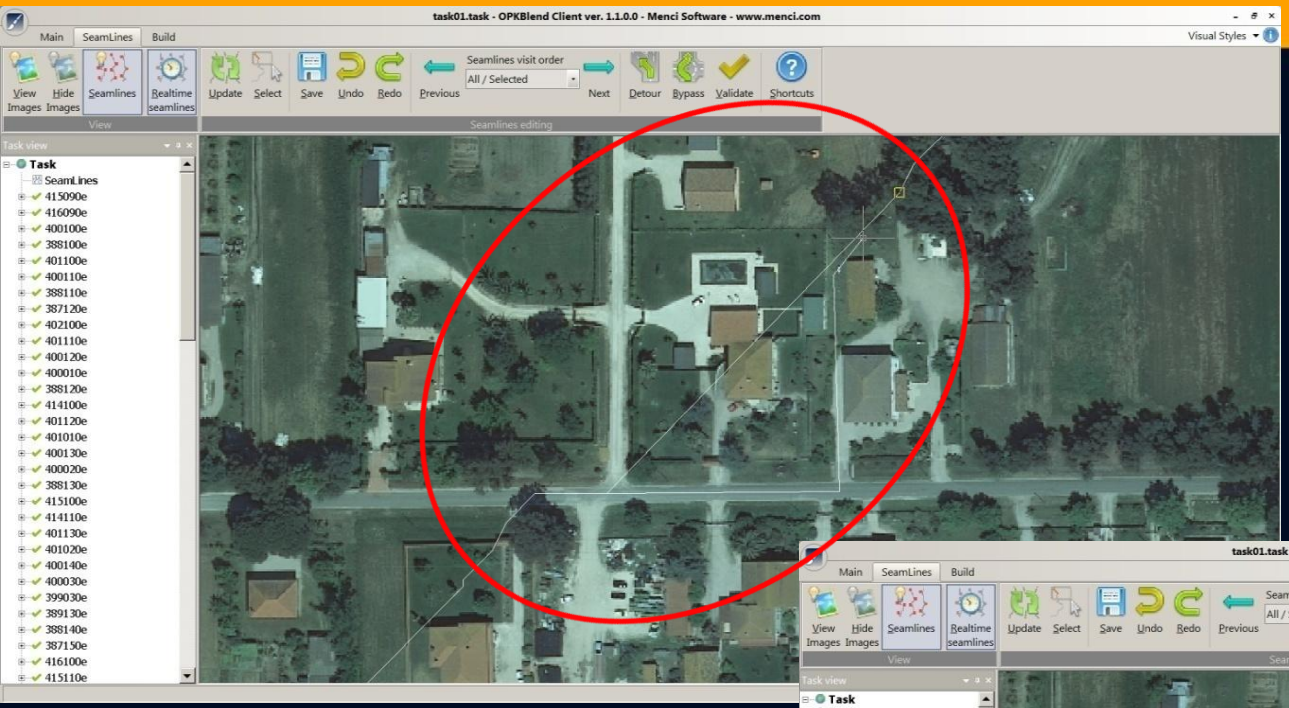
| *Caratteristiche Principali* | |
|---|---|
| **Import and process orthophoto** | No limits |
| **LAN network split process elaboration** | ✓ |
| **Dinamic update seamlines editing status** | ✓ |
| **Seamlines graphic editor** | ✓ |
| **Multiple seamlines editor strategy** | ✓ |
| **Customizing display settings** | ✓ |
| **Activate/Deactivate Tile** | ✓ |
| **Report** | ✓ |

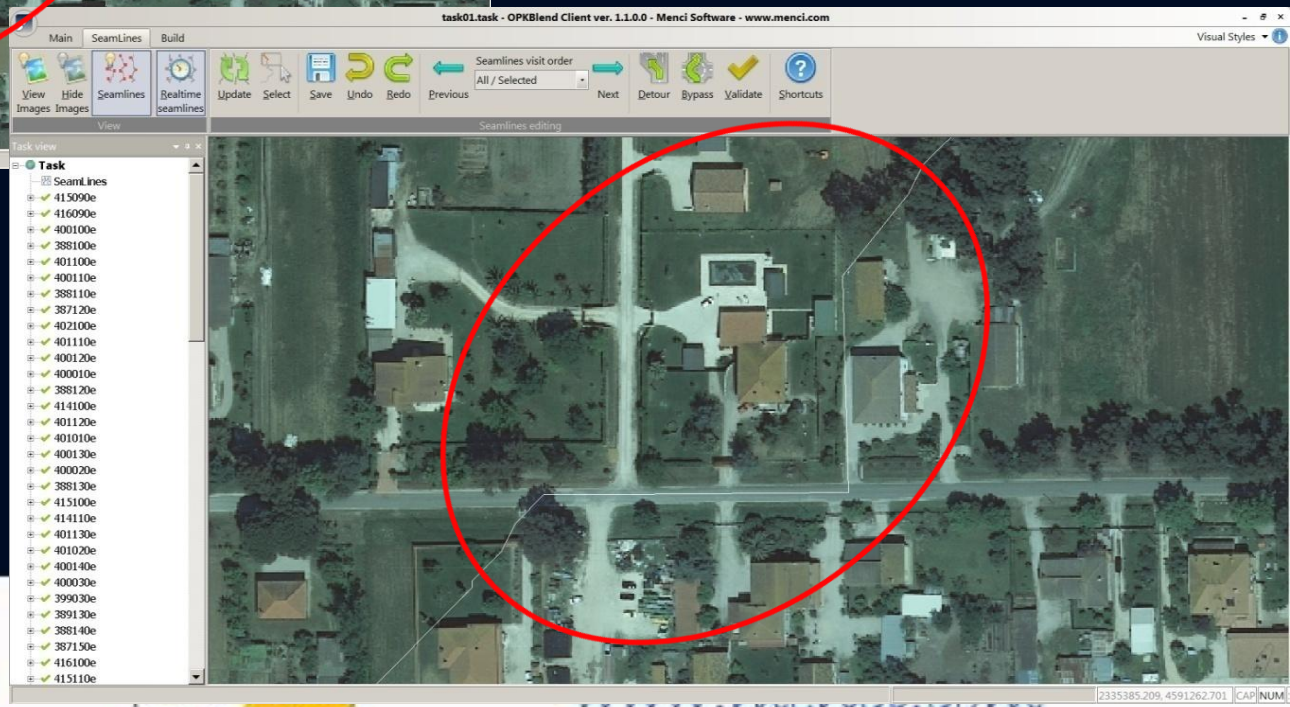


# Main interface: open project (Task)



# Seamlines editing: Detour option

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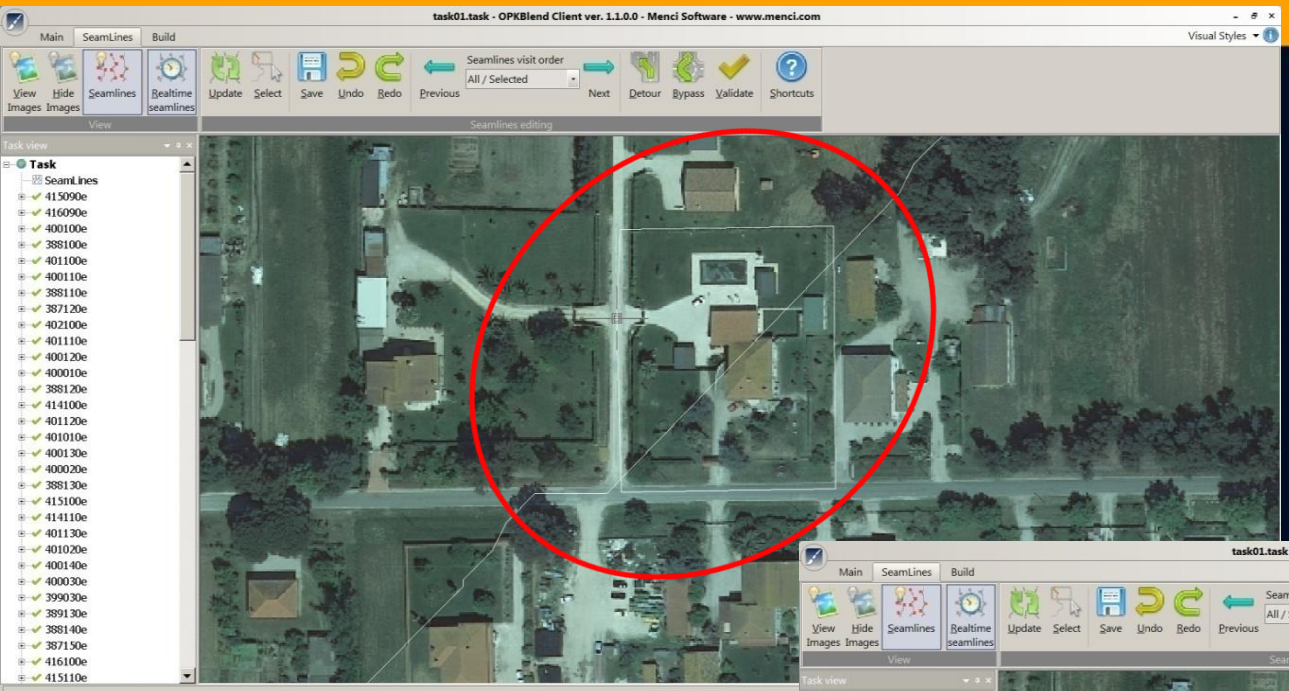
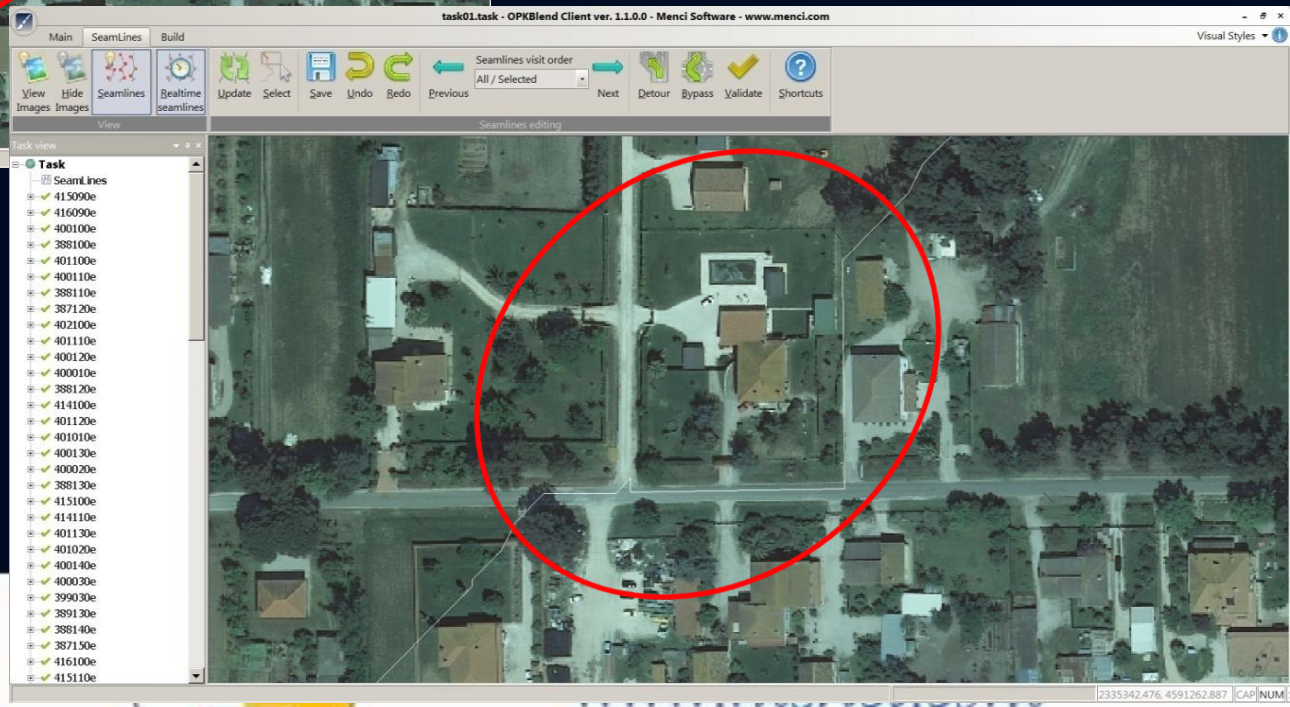
# Seamlines editing: Bypass option

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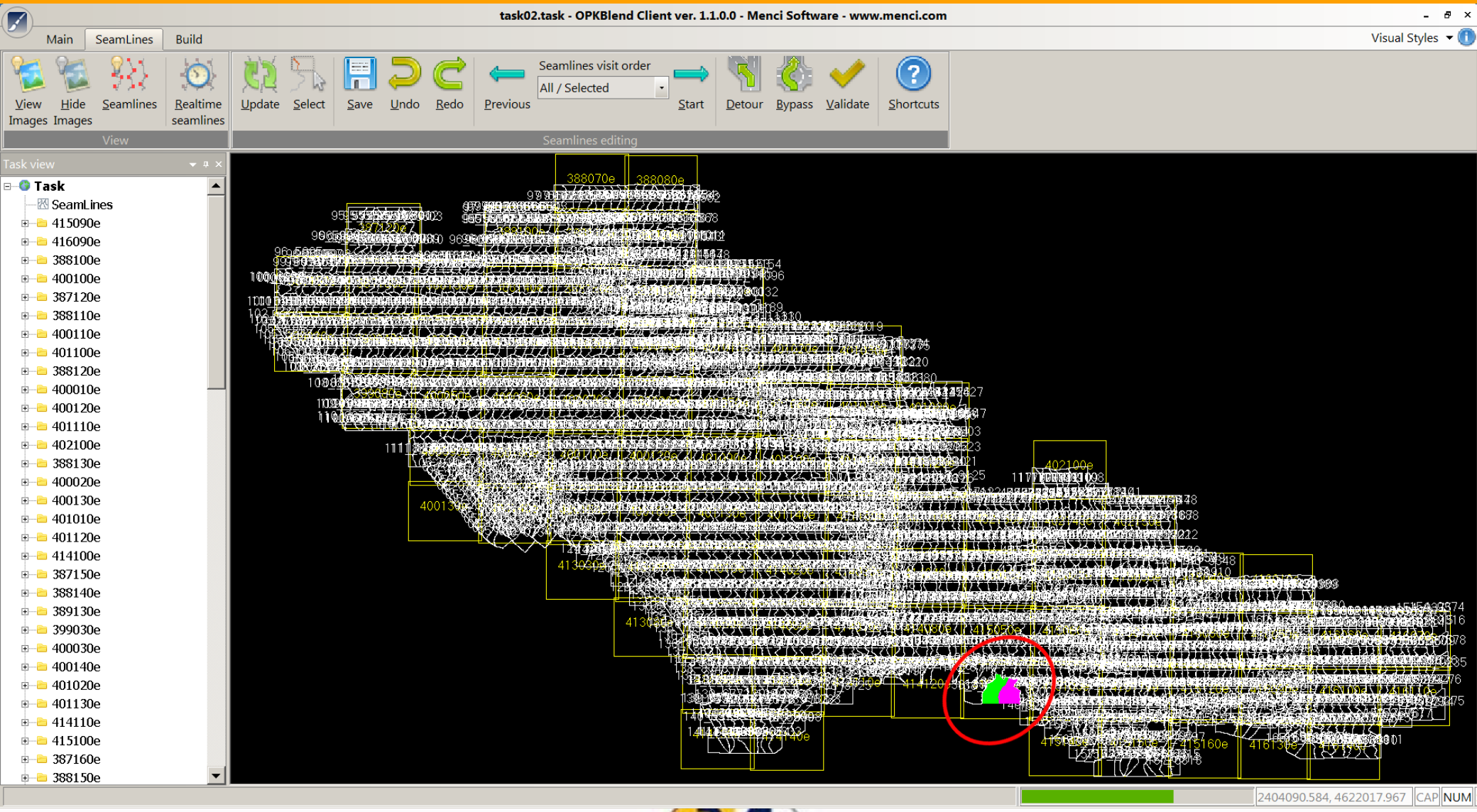
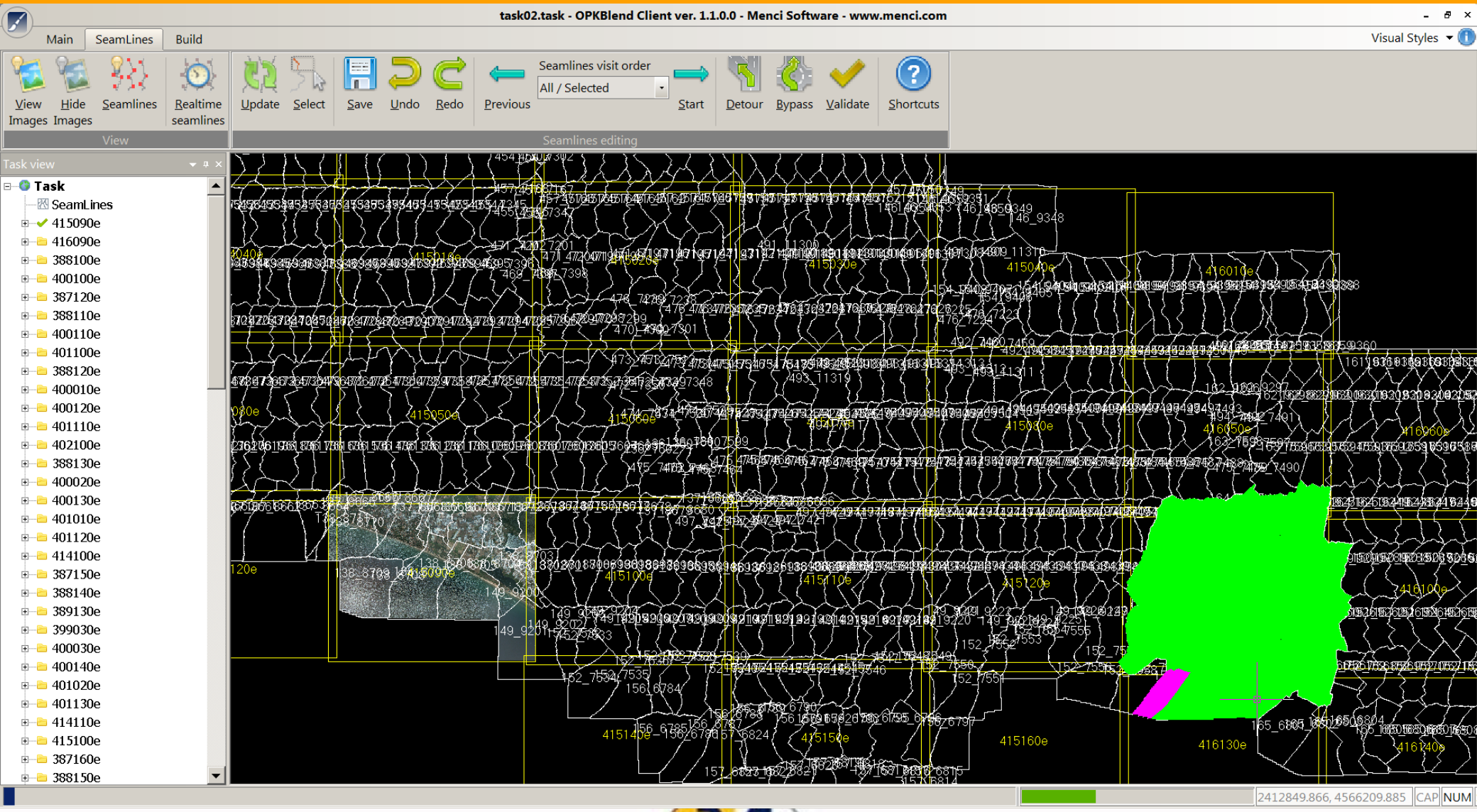
# Orthomosaic generation: 1/3

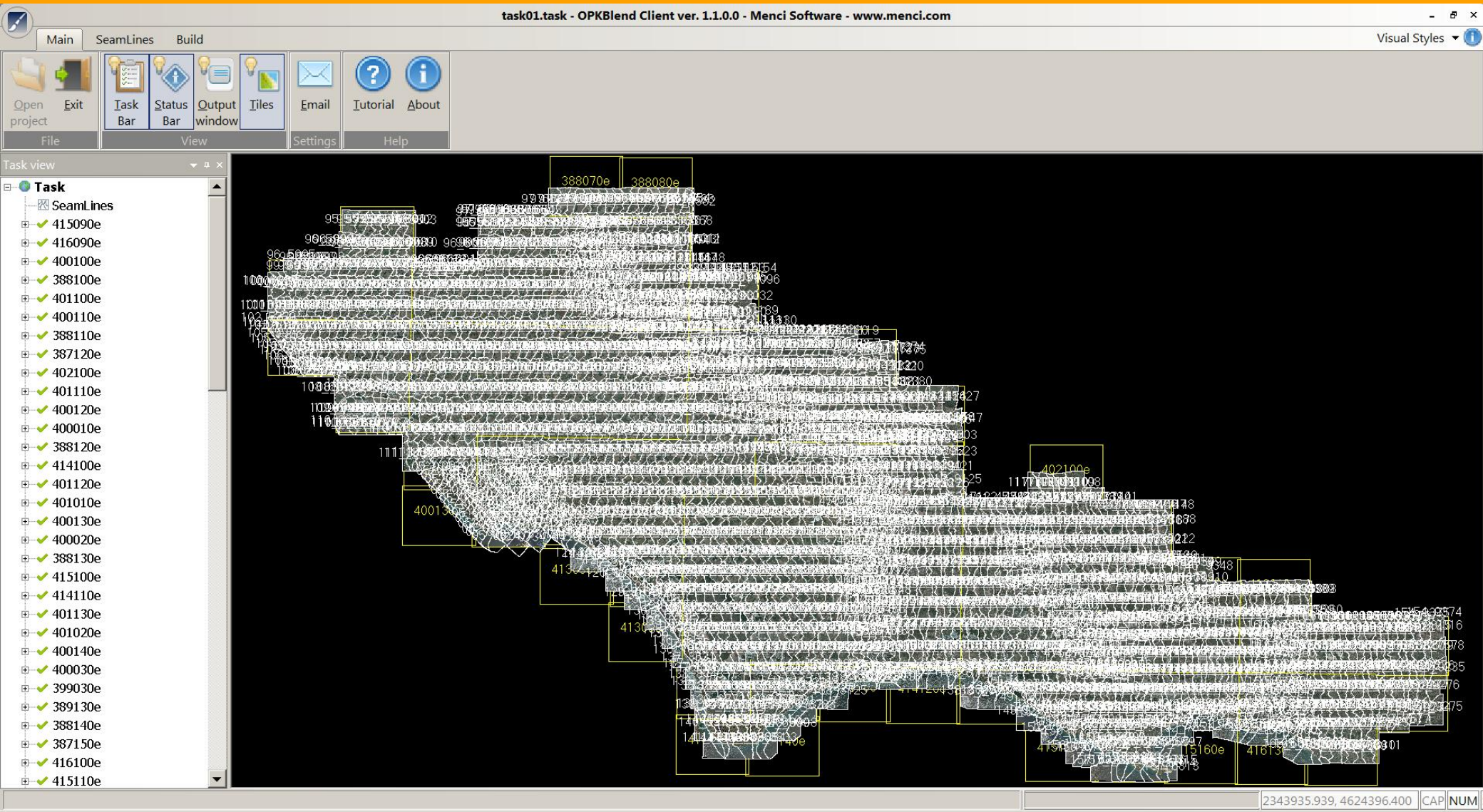


# Orthomosaic generation: 2/3

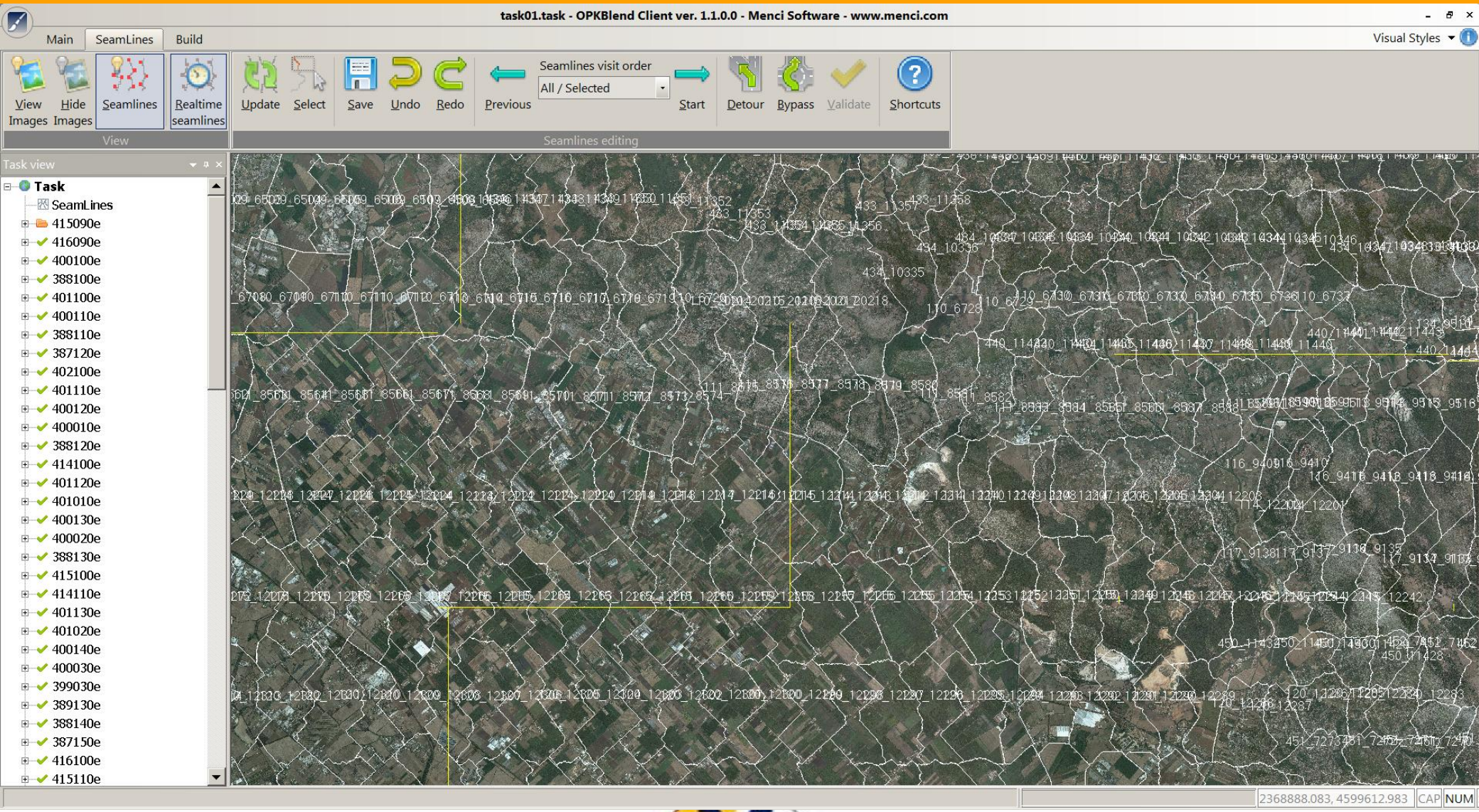
# Orthomosaic generation: 3/3



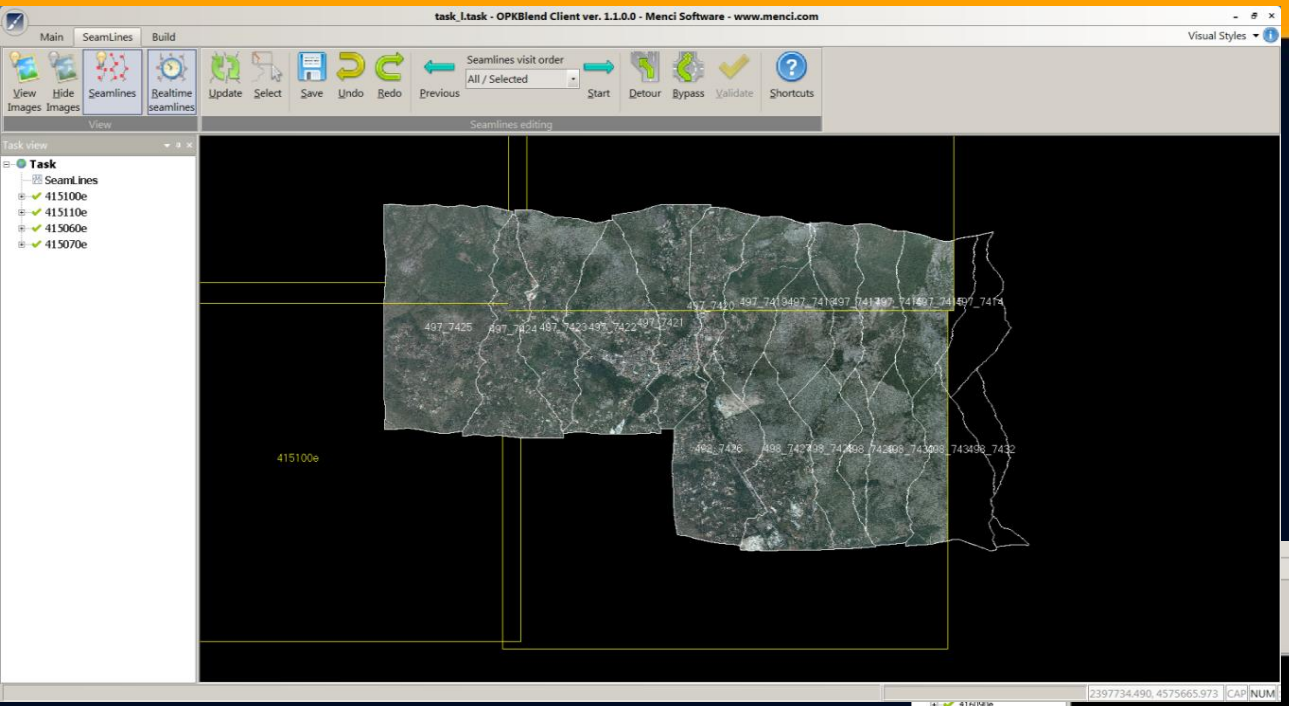
# Orthomosaic generation: reult 1/2



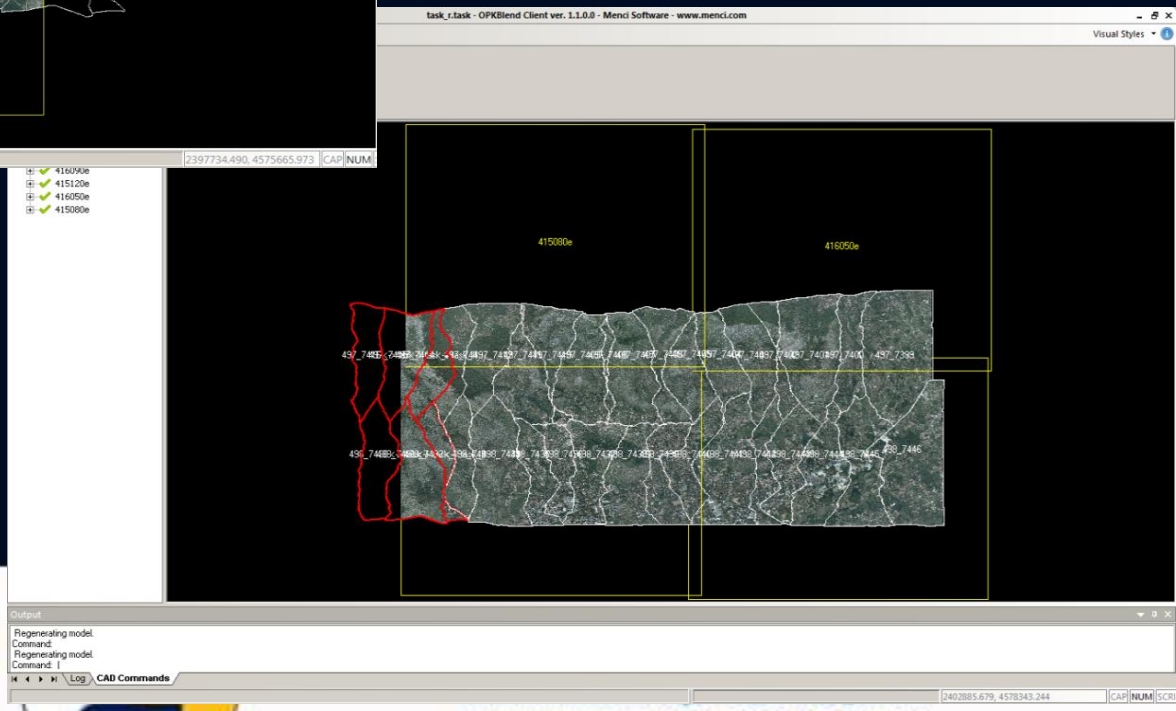
# Orthomosaic generation: reult 2/2



# LAN network project management




OPK Blend can handle the seamlines editing and Tile processing among multiple users in local network.




In the images we refer for simplicity to a project whose production has been divided into only two distinct Task: Task-r and Task-l are assigned to two different PCs. The division, however, can be made with any number of PCs.

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