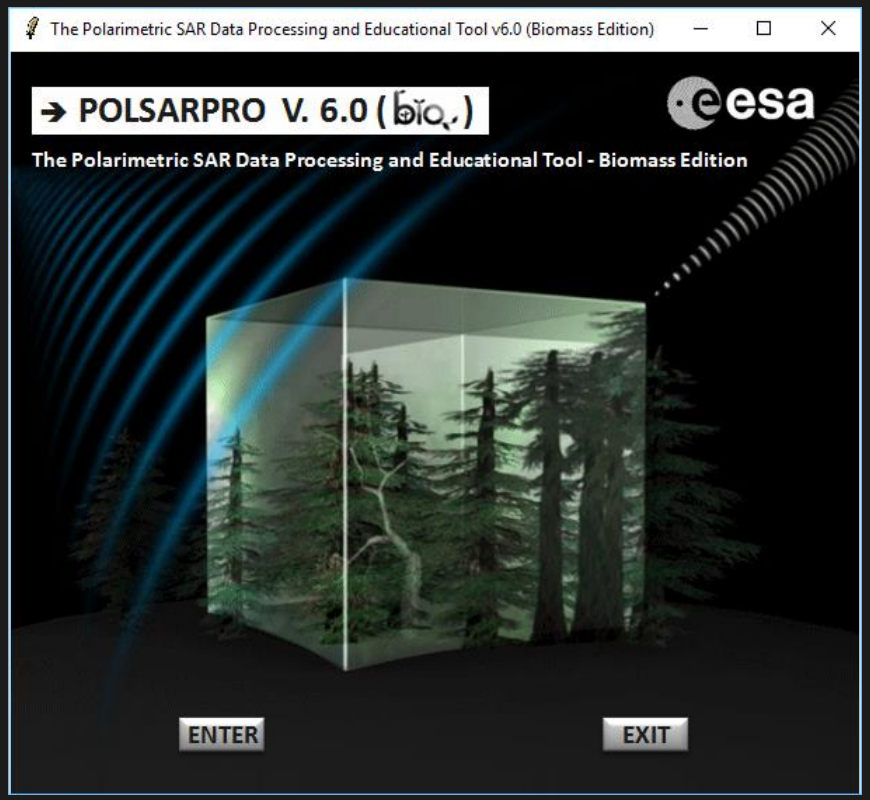
POLSARPRO

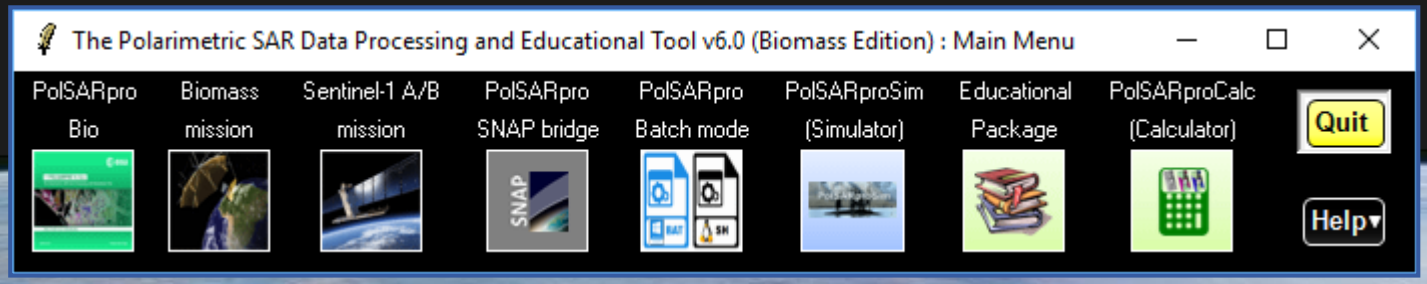
PRESENTS

PolSARpro v6.0 (Biomass Edition)

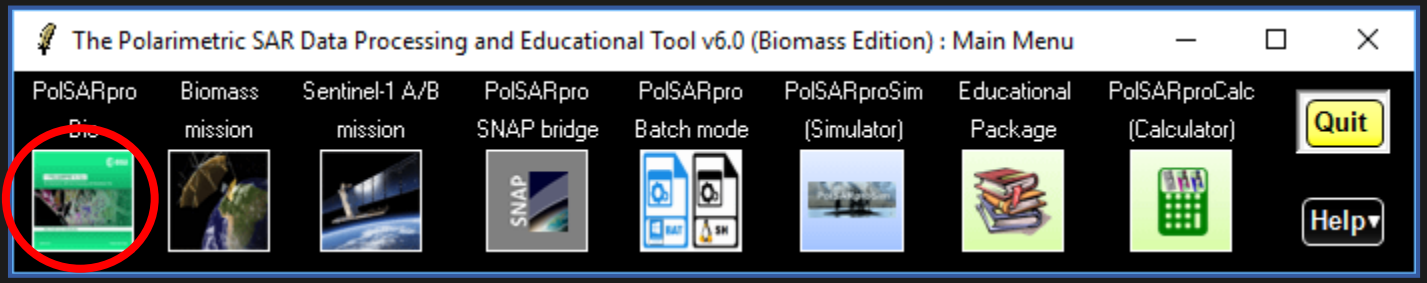
EXPLORE THE G.U.I

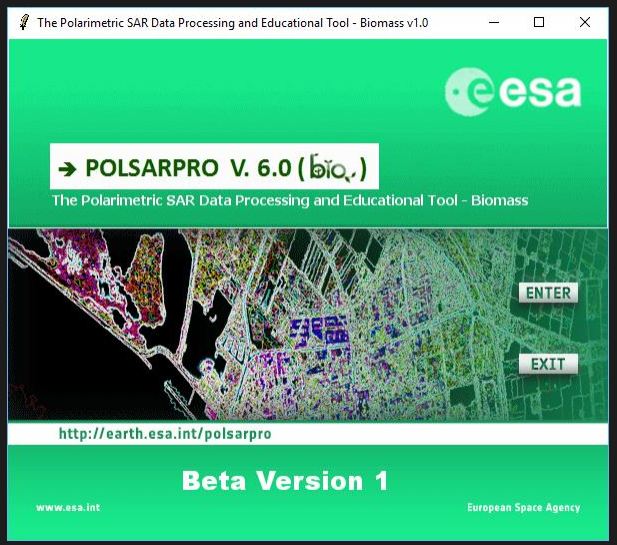


ENTRY SCREEN

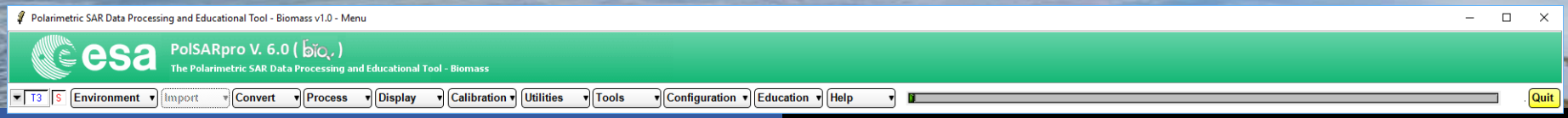


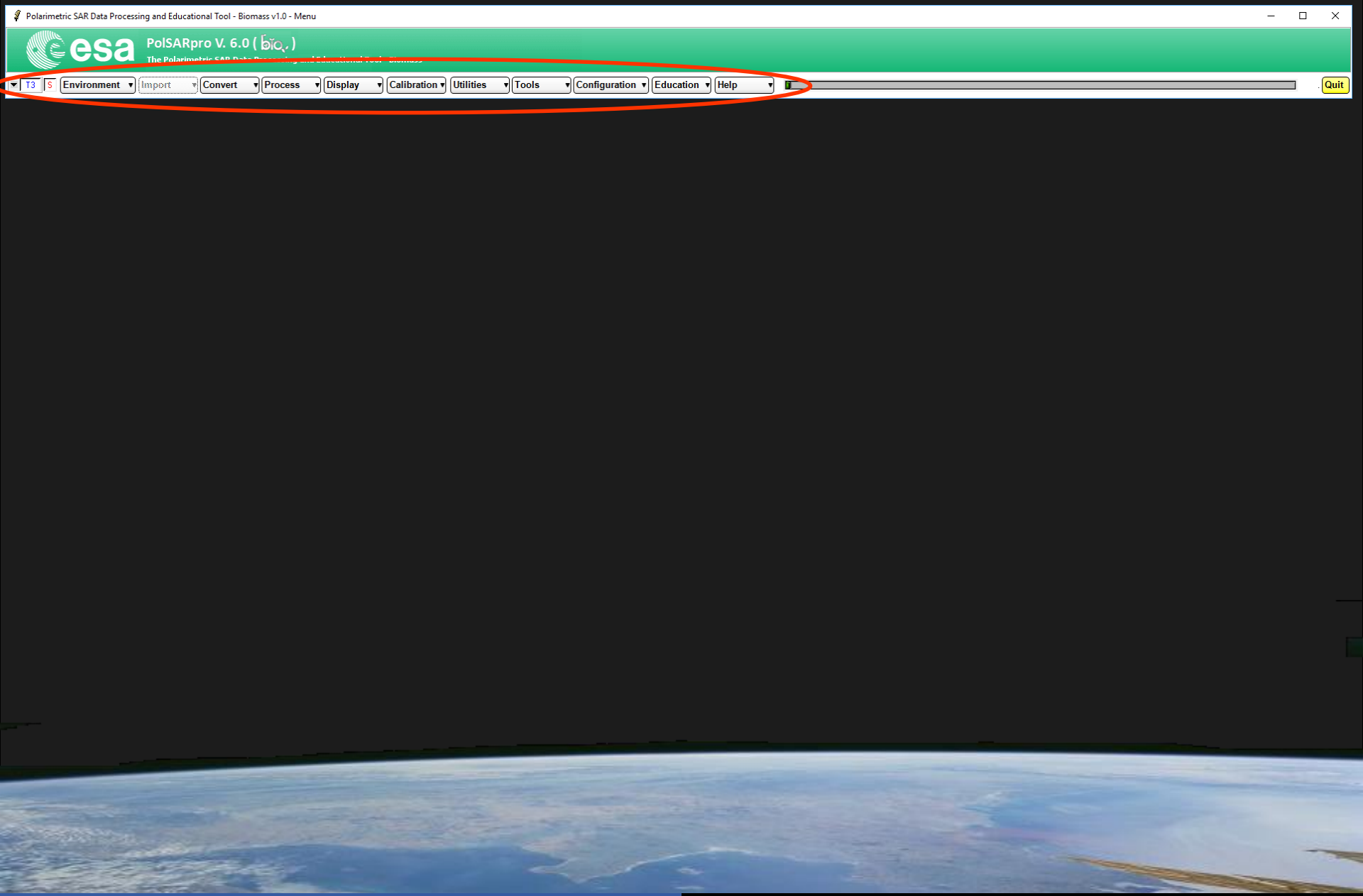
MAIN WINDOW

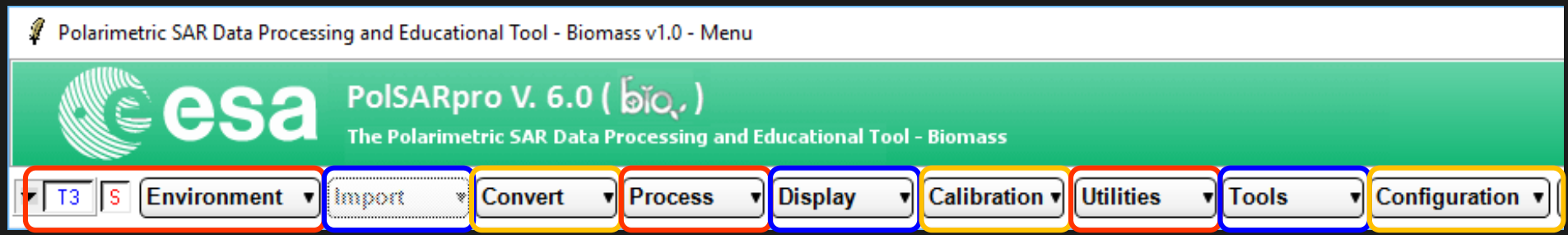




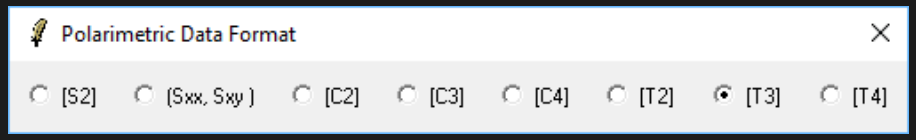
PolSARpro v6.0 (Biomass Edition) SOFTWARE



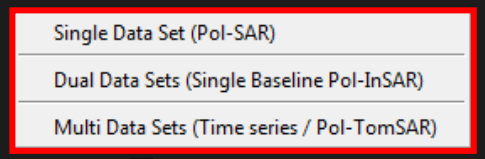


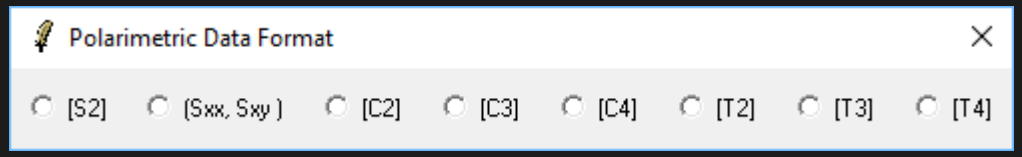


Polarimetric Data Format



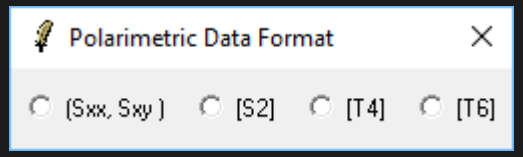
DataSet Type





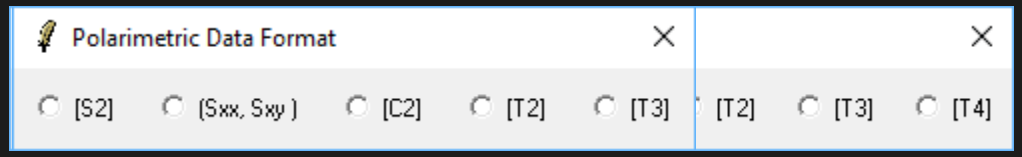
Active Data Format

- **S : Single polarimetric data set (PolSAR mode)**
  - **[S2] : (2x2) complex Sinclair matrix**
  - **(Sxx, Sxy) : (2x1) dual-pol complex vector**
  - **[C2] : (2x2) dual-pol covariance [C2] matrix**
  - **[C3] : (3x3) full-pol covariance [C3] matrix**
  - **[C4] : (4x4) full-pol covariance [C4] matrix**
  - **[T2] : (2x2) dual-pol coherency [T2] matrix**
  - **[T3] : (3x3) full-pol coherency [T3] matrix**
  - **[T4] : (4x4) full-pol coherency [T4] matrix**



Active Data Format

- **D : Dual polarimetric data sets (Single Baseline – Pol-InSAR mode)**
  - **[S2] : (2x2) complex Sinclair matrix (Master / Slave)**
  - **(Sxx, Sxy) : (2x1) dual-pol complex vector (Master / Slave)**
  - **[T4] : (4x4) dual-pol coherency [T4] matrix (Master + Slave)**
  - **[T6] : (6x6) full-pol coherency [T6] matrix (master + Slave)**

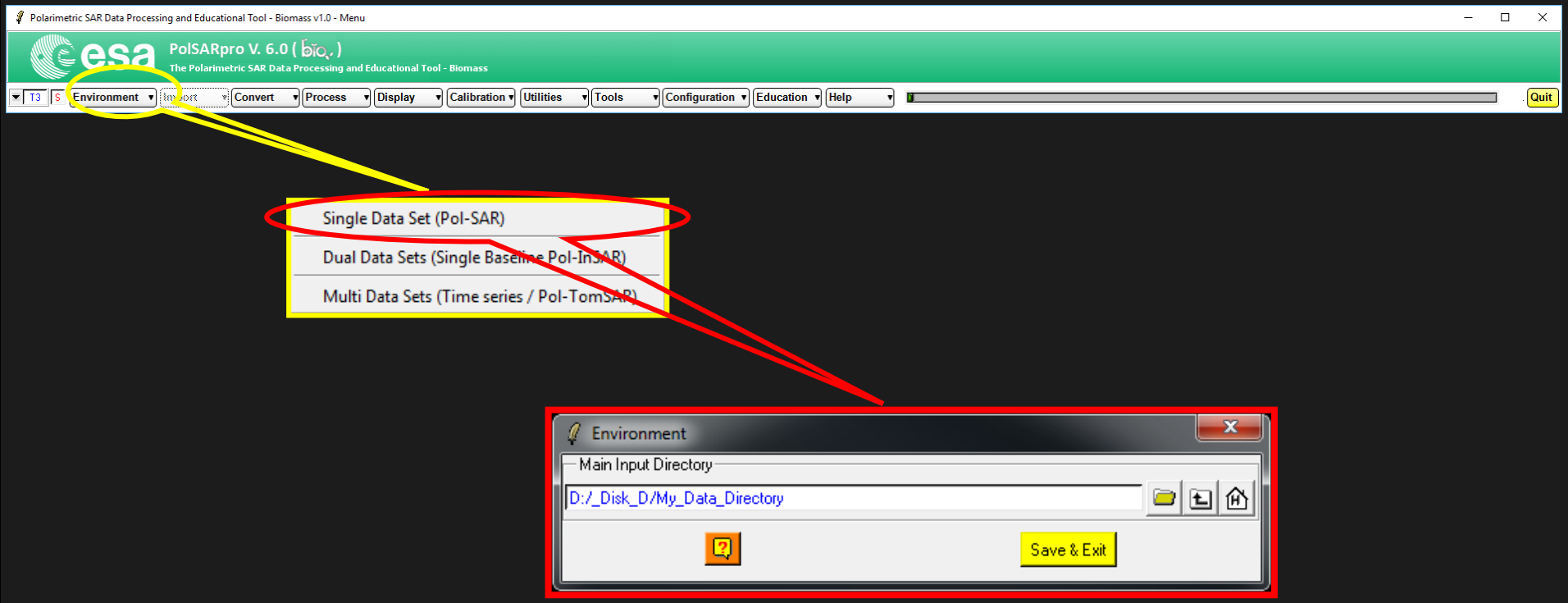


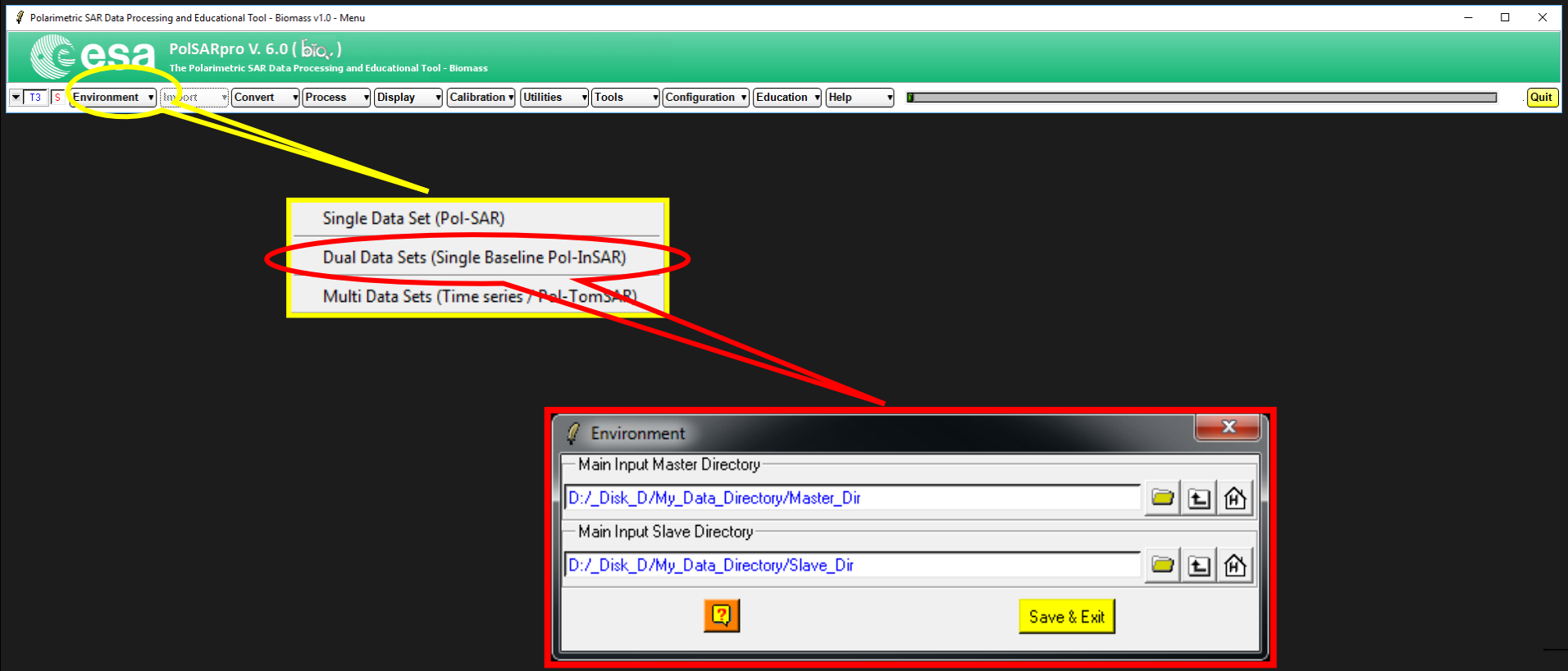
Active Data Format

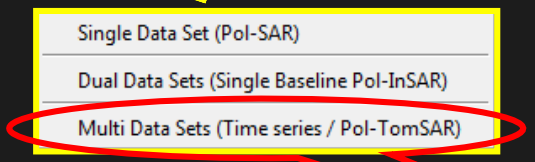
- **M : Multi polarimetric data sets (Time series – Pol-TimeSAR mode**
  Tomography – Pol-TomoSAR mode)
  - **[S2] : (2x2) complex Sinclair matrix**
  - **(Sxx, Sxy) : (2x1) dual-pol complex vector**
  - **[C2] : (2x2) dual-pol covariance [C2] matrix**
  - **[T3] : (3x3) full-pol coherency [T3] matrix**

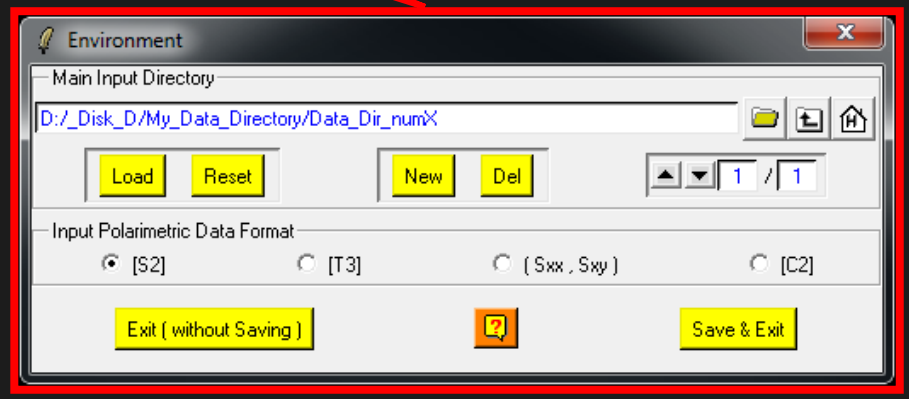
Active Program

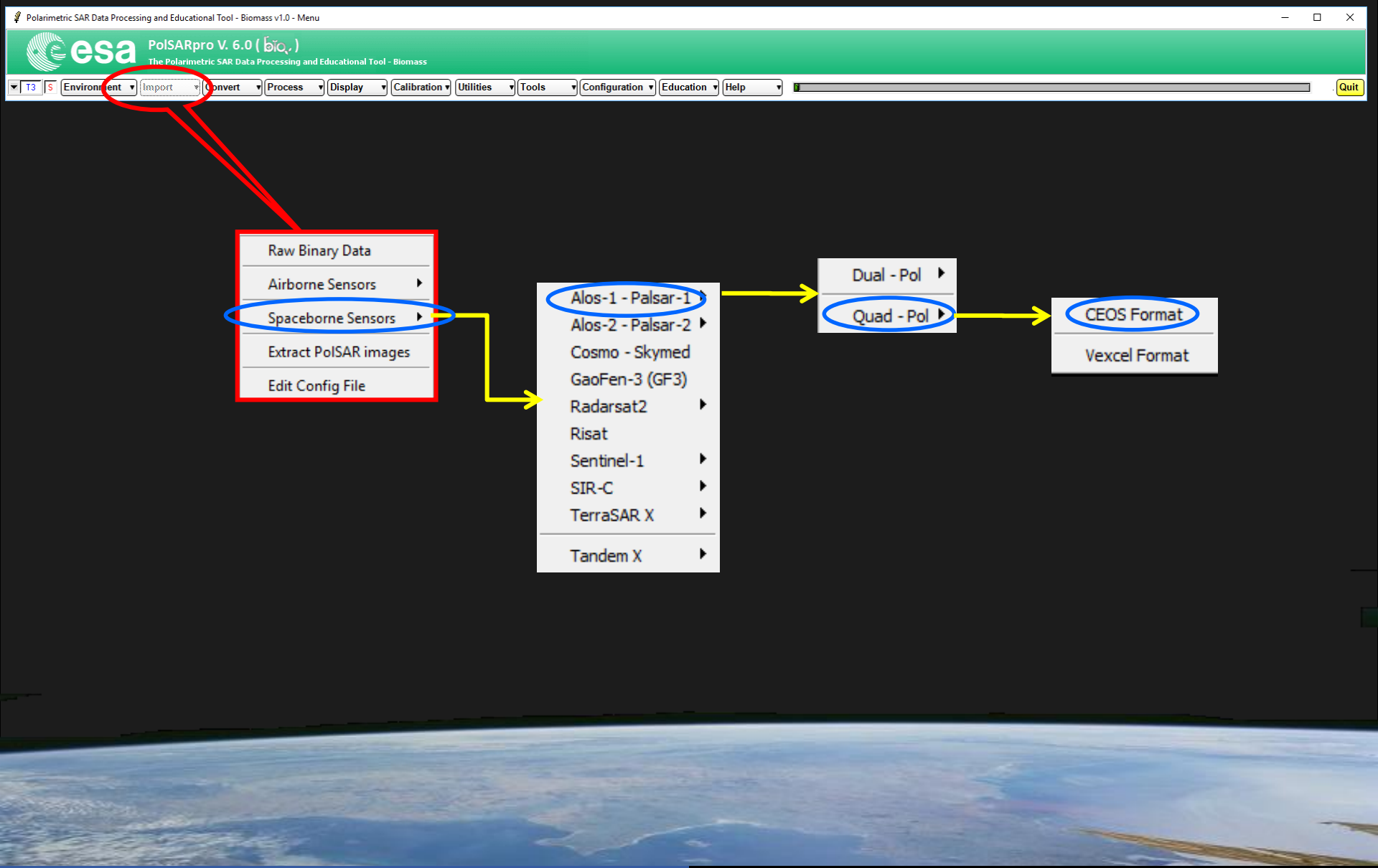
- **S : Single polarimetric data set (PolSAR mode)**
- **D : Dual polarimetric data sets (Single Baseline – Pol-InSAR mode)**
- **M : Multi polarimetric data sets (Time series – Pol-TimeSAR mode**
  Tomography – Pol-TomoSAR mode)

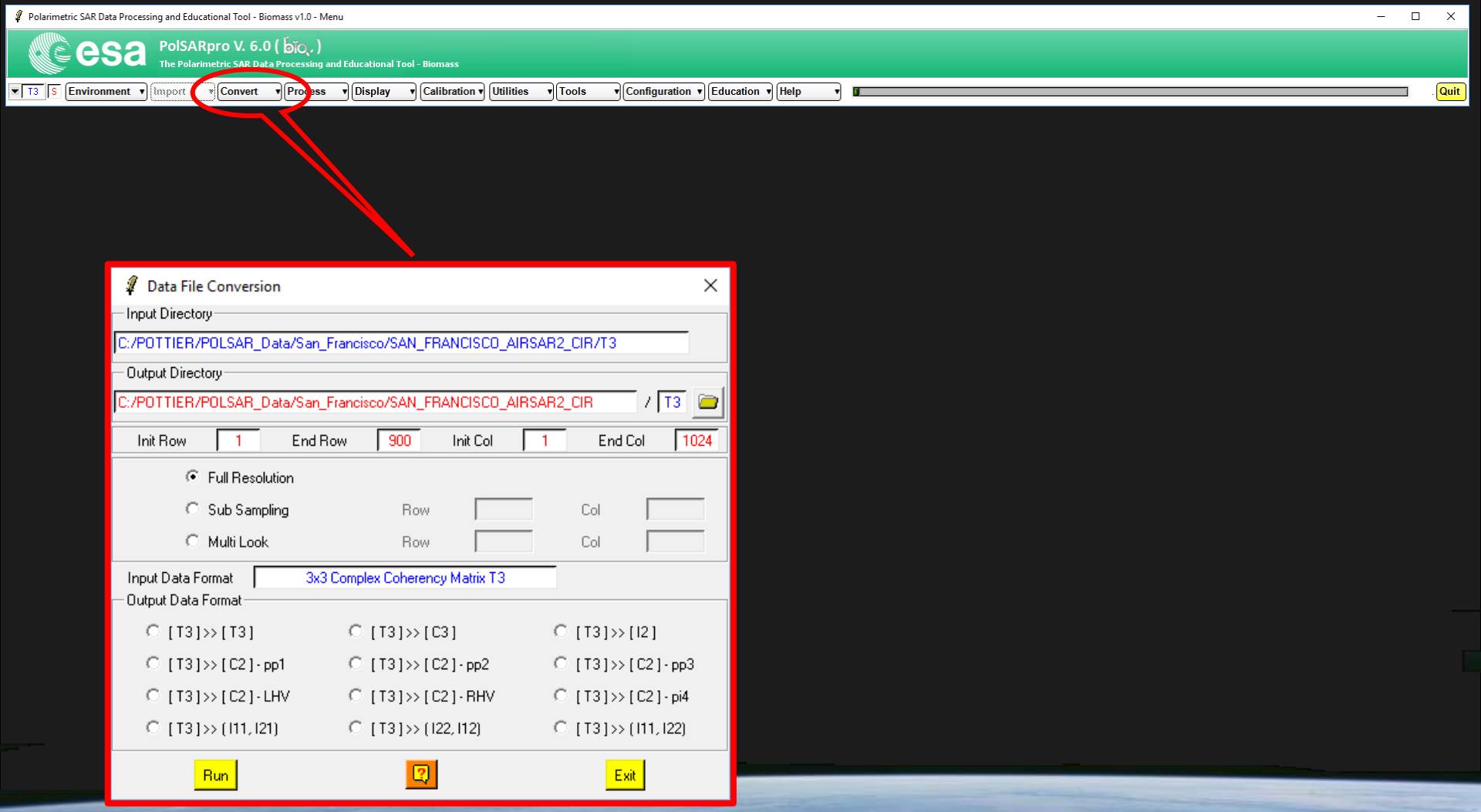


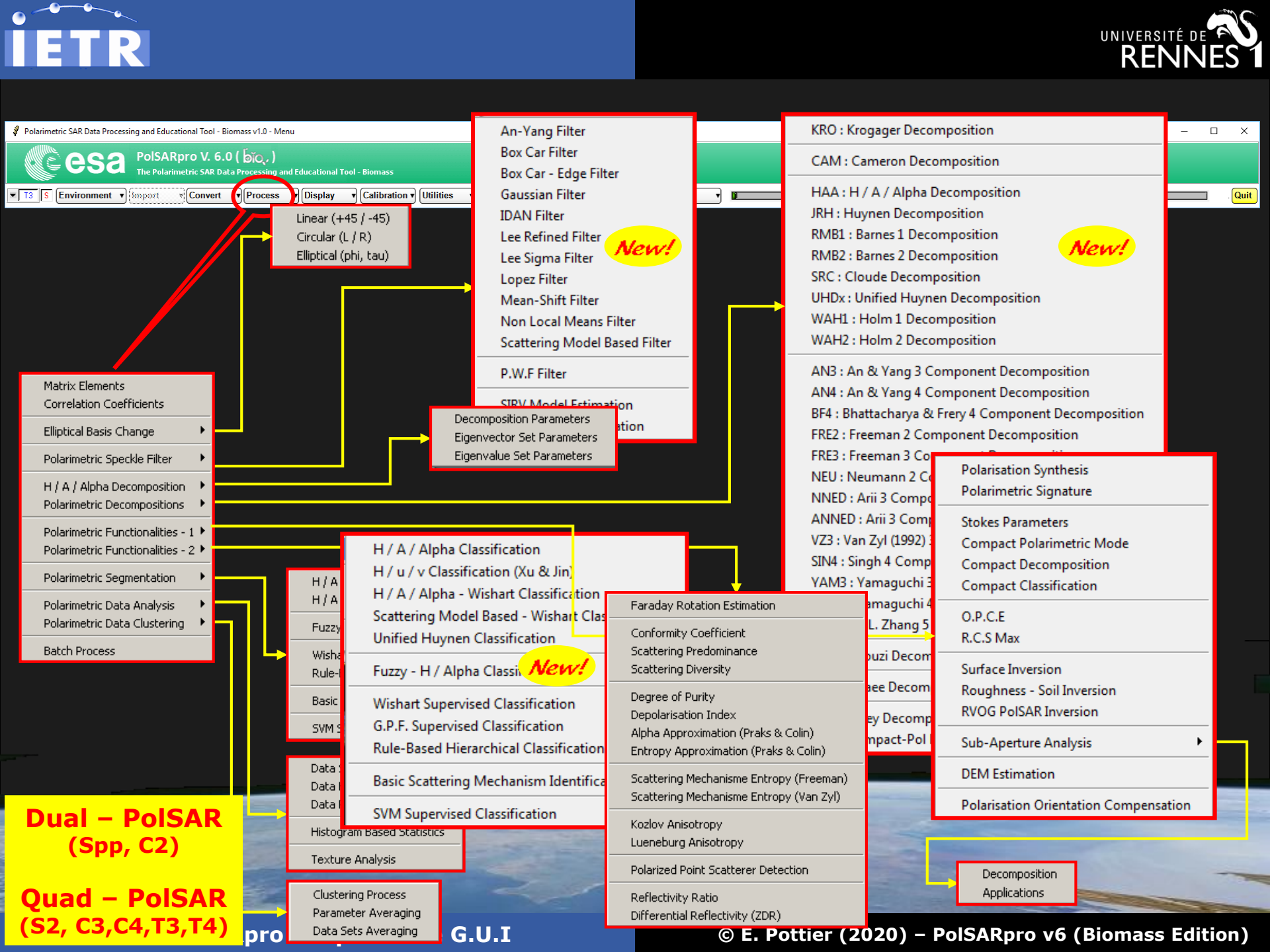








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The Polarimetric SAR Data Processing and Educational Tool - Biomass
Environment
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Box Car Filter
Box Car - Edge Filter
Gaussian Filter
IDAN Filter
Lee Refined Filter
Lee Sigma Filter
Lopez Filter
Mean-Shift Filter
Non Local Means Filter
Scattering Model Based Filter
P.W.F Filter
New!
Decomposition Parameters
Eigenvector Set Parameters
Eigenvalue Set Parameters
KRO : Krogager Decomposition
CAM : Cameron Decomposition
HAA : H / A / Alpha Decomposition
JRH : Huynen Decomposition
RMB1 : Barnes 1 Decomposition
RMB2 : Barnes 2 Decomposition
SRC : Cloude Decomposition
UHDx : Unified Huynen Decomposition
WAH1 : Holm 1 Decomposition
WAH2 : Holm 2 Decomposition
AN3 : An & Yang 3 Component Decomposition
AN4 : An & Yang 4 Component Decomposition
BF4 : Bhattacharya & Frery 4 Component Decomposition
FRE2 : Freeman 2 Component Decomposition
New!
Matrix Elements
Correlation Coefficients
Elliptical Basis Change
Polarimetric Speckle Filter
H / A / Alpha Decomposition
Polarimetric Decompositions
Polarimetric Functionalities - 1
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Polarimetric Segmentation
Polarimetric Data Analysis
Polarimetric Data Clustering
Batch Process
H / A / Alpha Classification
H / u / v Classification (Xu & Jin)
H / A / Alpha - Wishart Classification
Scattering Model Based - Wishart Cla
Unified Huynen Classification
Fuzzy - H / Alpha Classi
New!
Wishart Supervised Classification
G.P.F. Supervised Classification
Rule-Based Hierarchical Classification
Basic Scattering Mechanism Identifica
SVM Supervised Classification
Faraday Rotation Estimation
Conformity Coefficient
Scattering Predominance
Scattering Diversity
Degree of Purity
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Alpha Approximation (Praks & Colin)
Entropy Approximation (Praks & Colin)
Scattering Mechanisme Entropy (Freeman)
Scattering Mechanisme Entropy (Van Zyl)
Kozlov Anisotropy
Lueneburg Anisotropy
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Differential Reflectivity (ZDR)
Polarisation Synthesis
Polarimetric Signature
Stokes Parameters
Compact Polarimetric Mode
Compact Decomposition
Compact Classification
O.P.C.E
R.C.S Max
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Roughness - Soil Inversion
RVOG PolSAR Inversion
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DEM Estimation
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Data Sets Averaging
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Dual – PolSAR
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Quad – PolSAR
(S2, C3,C4,T3,T4)
G.U.I
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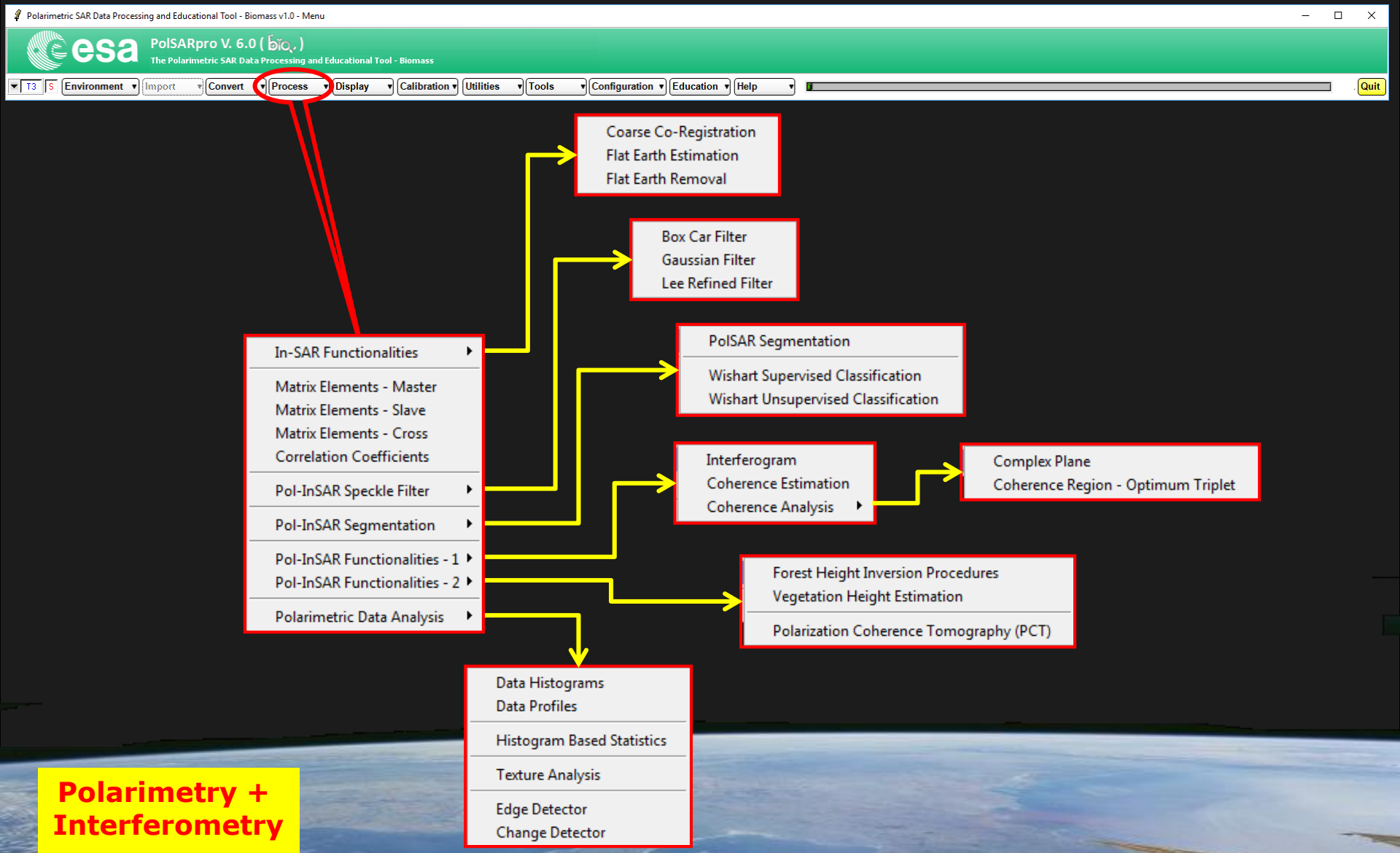

Polarimetry + Interferometry

Pol-InSAR

Coarse Co-Registration
Matrix Elements
Polarimetric Speckle Filter
H / A / Alpha Decomposition
Polarimetric Segmentation
Polarimetric Functionalities
Polarimetric Tomography
Multi-Datasets Analysis

Box Car Filter
C. Lopez Filter
Gaussian Filter
IDAN Filter
J.S. Lee Refined Filter
J.S. Lee Sigma Filter

Decomposition Parameters
Eigenvector Set Parameters
Eigenvalue Set Parameters

H / A / Alpha Classification
H / A / Alpha - Wishart Classification
Wishart Supervised Classification

Avg / Std / CV
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Animated GIF

Faraday Rotation Estimation
Conformity Coefficient
Scattering Predominance
Scattering Diversity
Degree of Purity
Depolarisation Index
Alpha Approximation (Praks & Colin)
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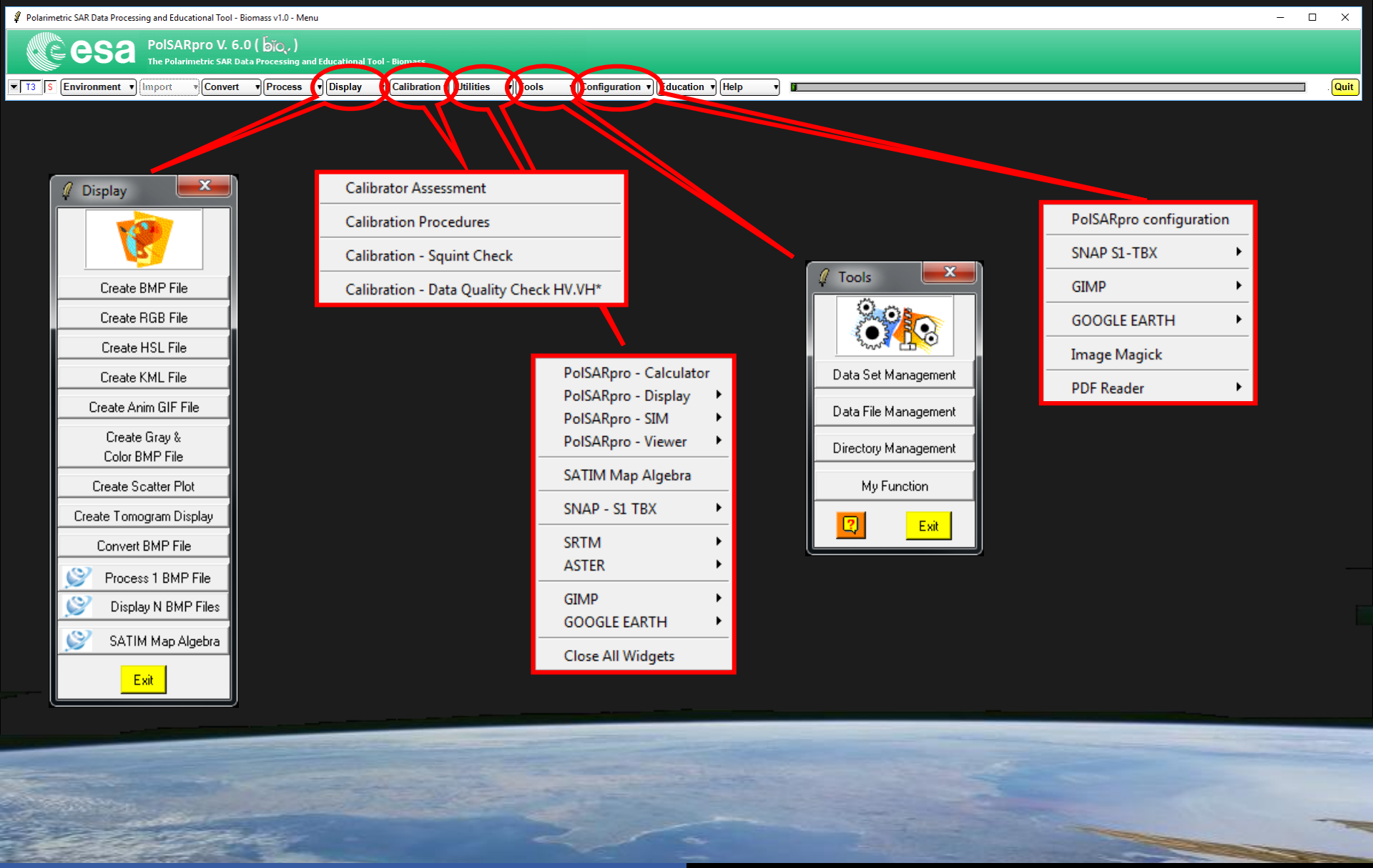
Scattering Mechanisme Entropy (Freeman)
Scattering Mechanisme Entropy (Van Zyl)
Kozlov Anisotropy
Lueneburg Anisotropy
Polarized Point Scatterer Detection
Reflectivity Ratio
Differential Reflectivity (ZDR)

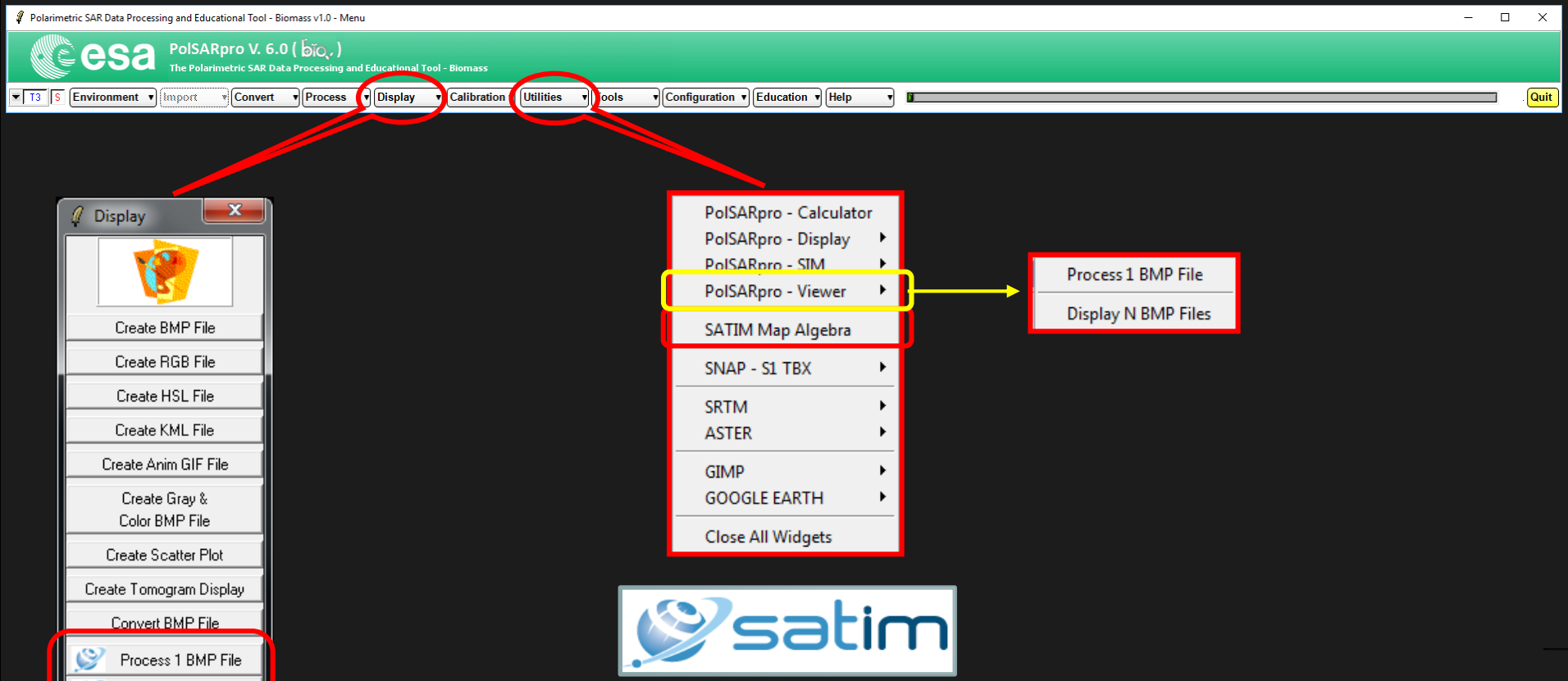
Polarimetry + Time series

Pol-TimeSAR

Polarimetry + Tomography

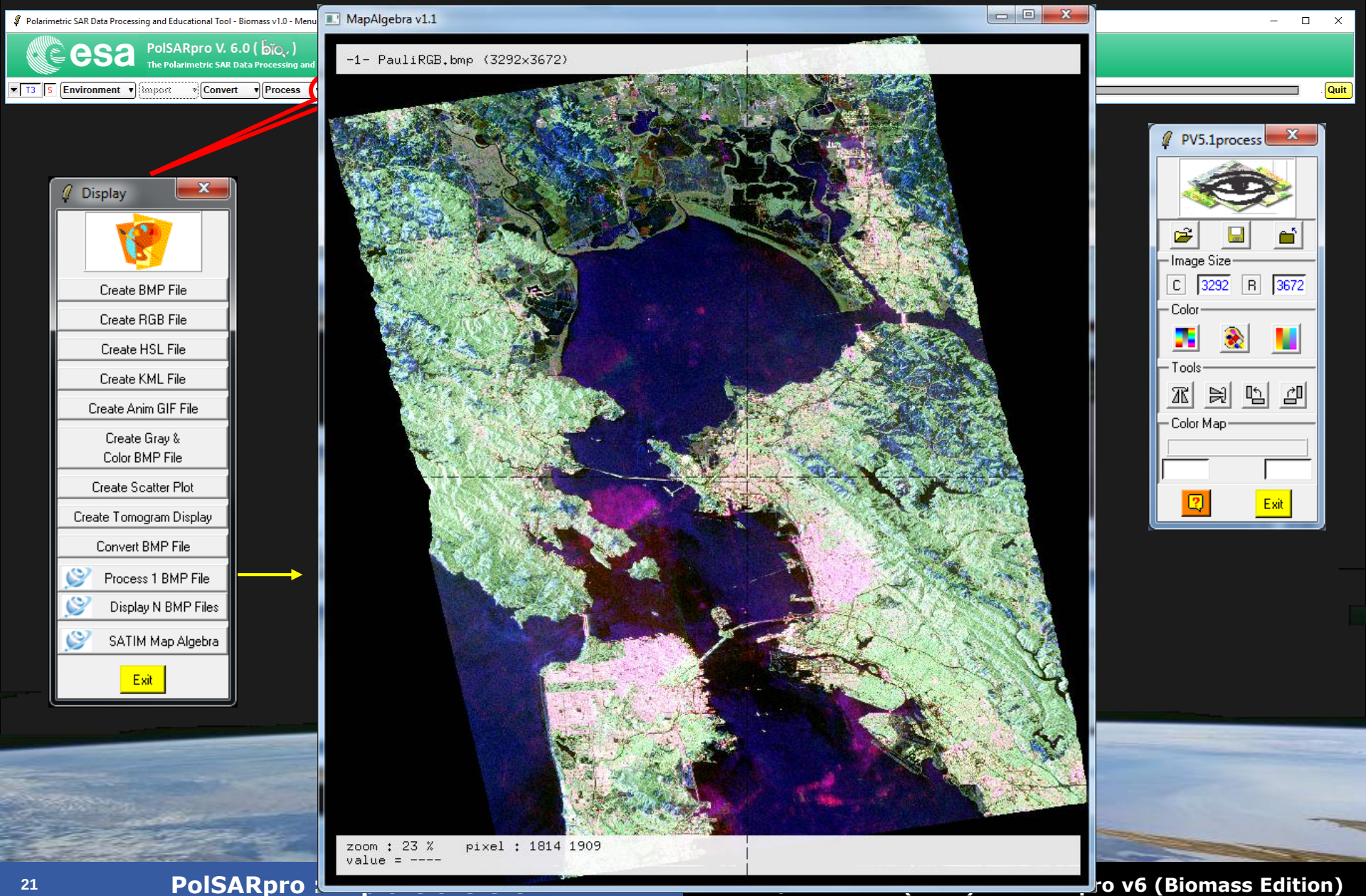
Pol-TomoSAR





A new tool (*Map Algebra*) for visualization and simple processing of the PolSARpro results

Based on the OpenGL technology : open and process large image (20000 x 20000)


Polarimetric SAR Data Processing and Educational Tool - Biomass v1.0 - Menu
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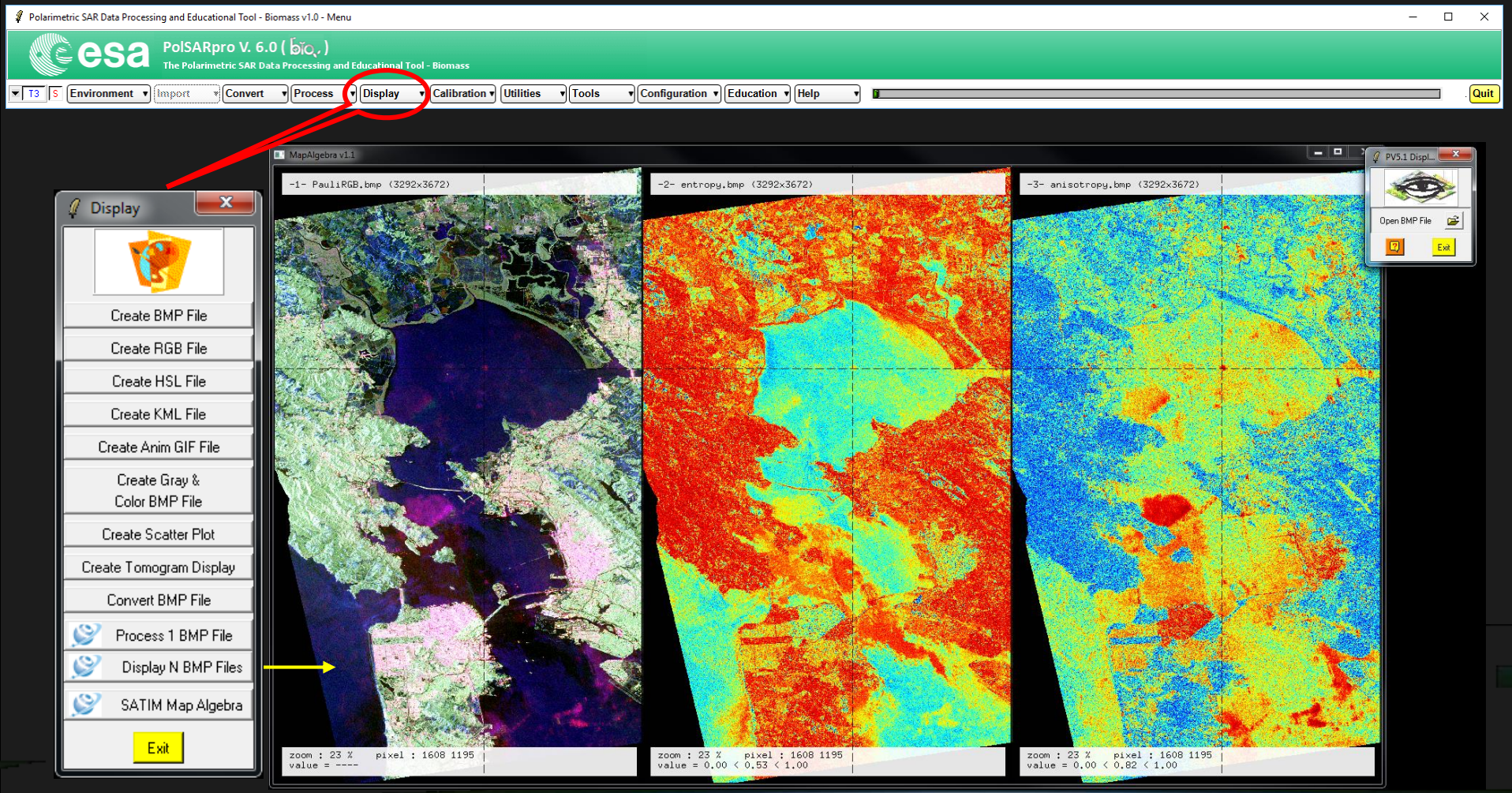
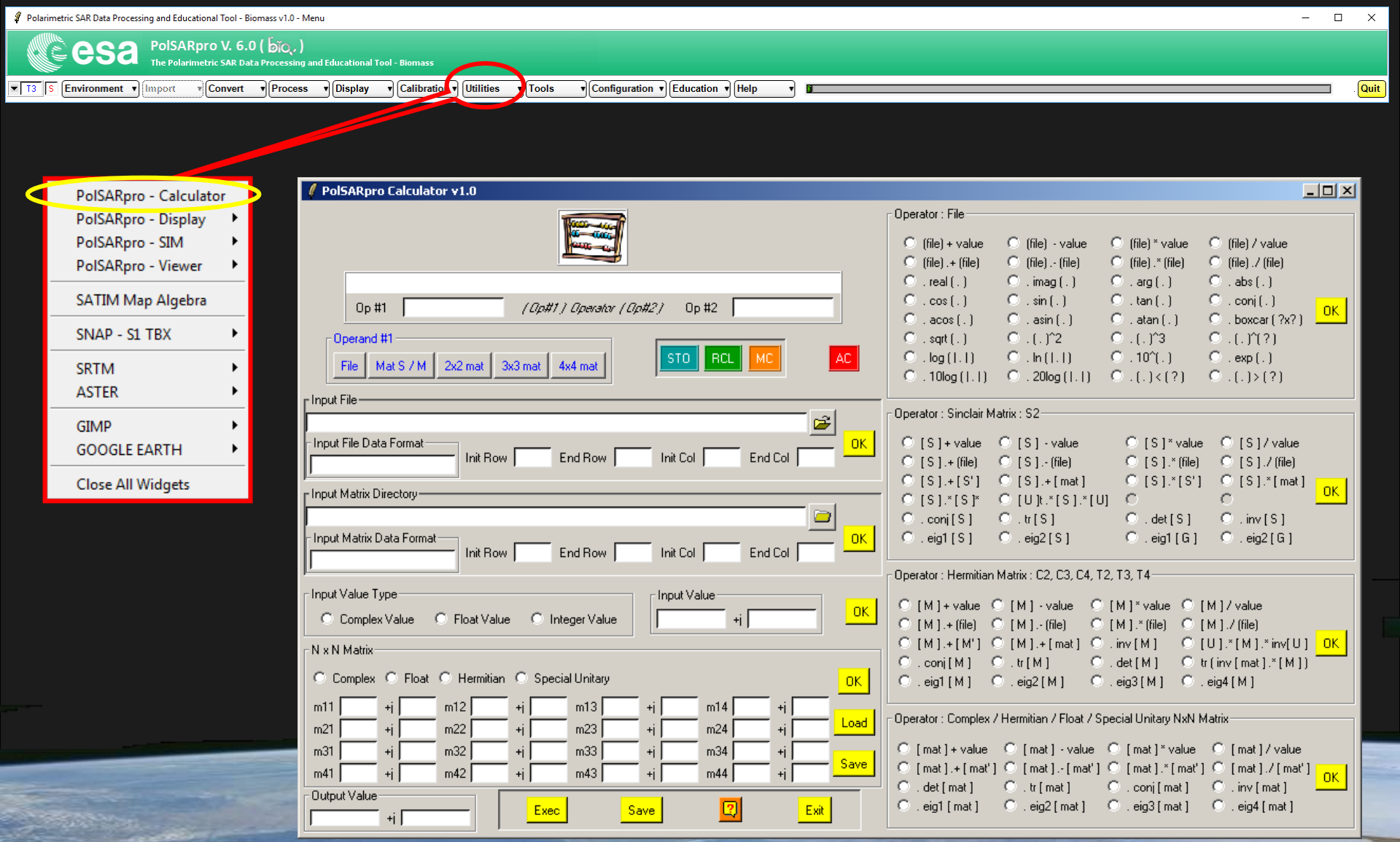
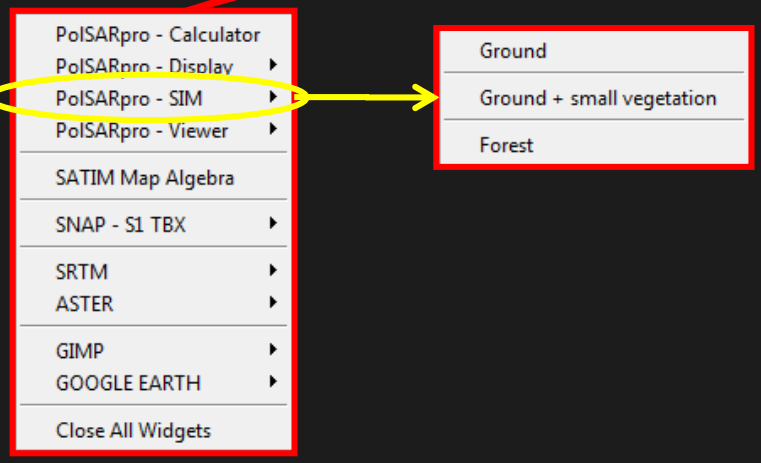
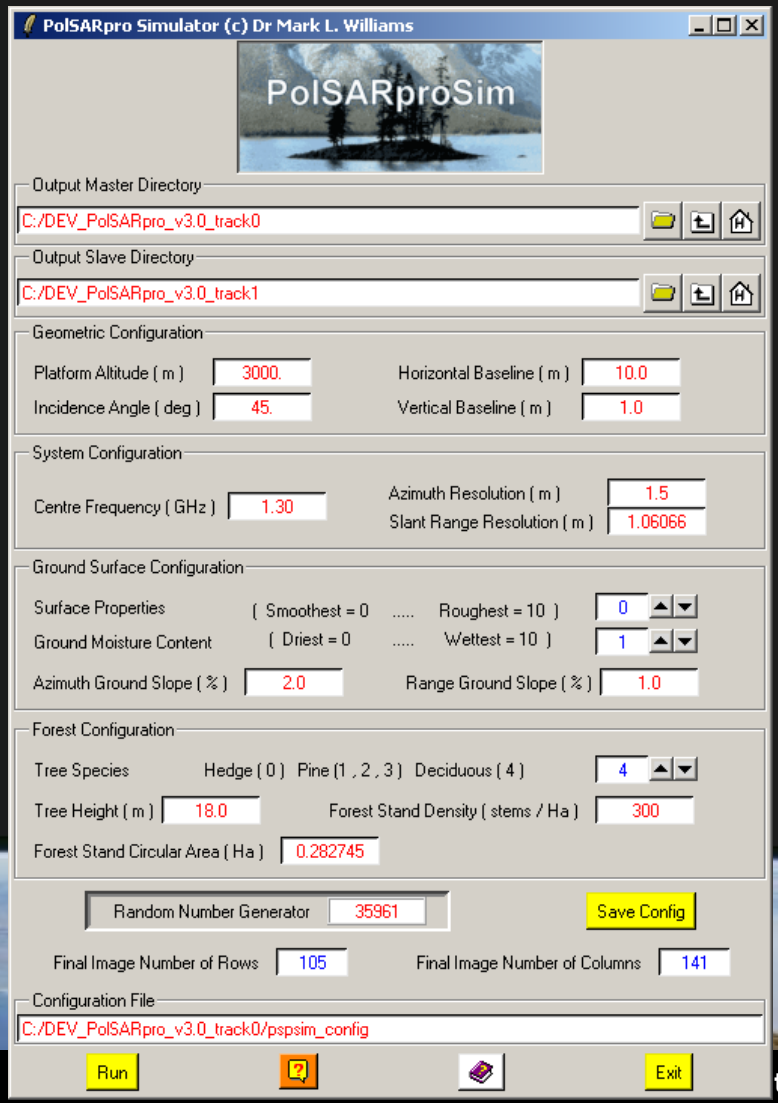
Create Anim GIF File
Create Gray & Color BMP File
Create Scatter Plot
Create Tomogram Display
Convert BMP File
Process 1 BMP File
Display N BMP Files
SATIM Map Algebra
Exit
MapAlgebra v1.1
-1- PauliRGB.bmp (3292x3672)
zoom : 23 %
pixel : 1814 1909
value = ----
PV5.1process
Image Size
C
3292
R
3672
Color
Tools
Color Map
Exit



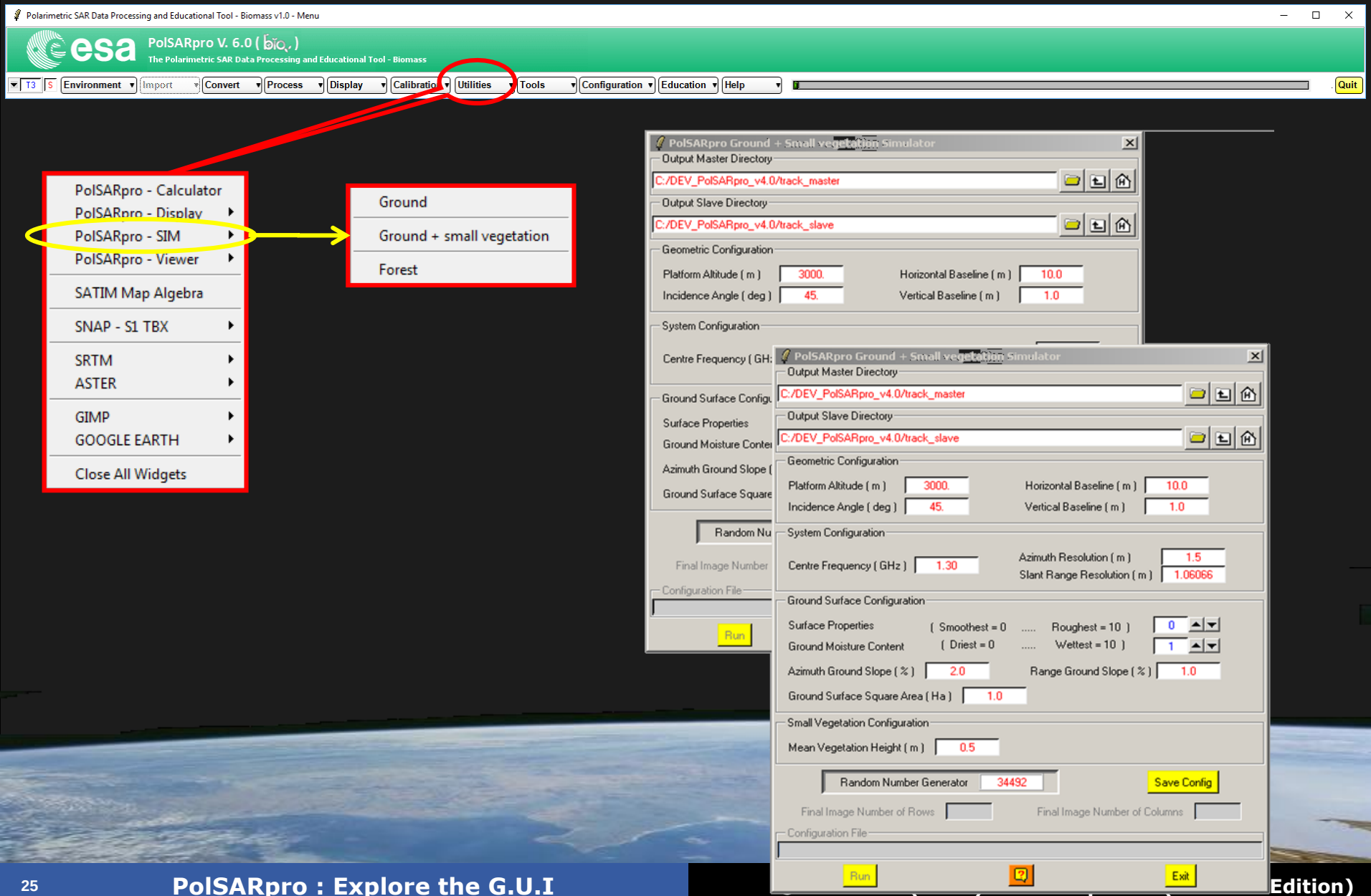
Display N BMP Images



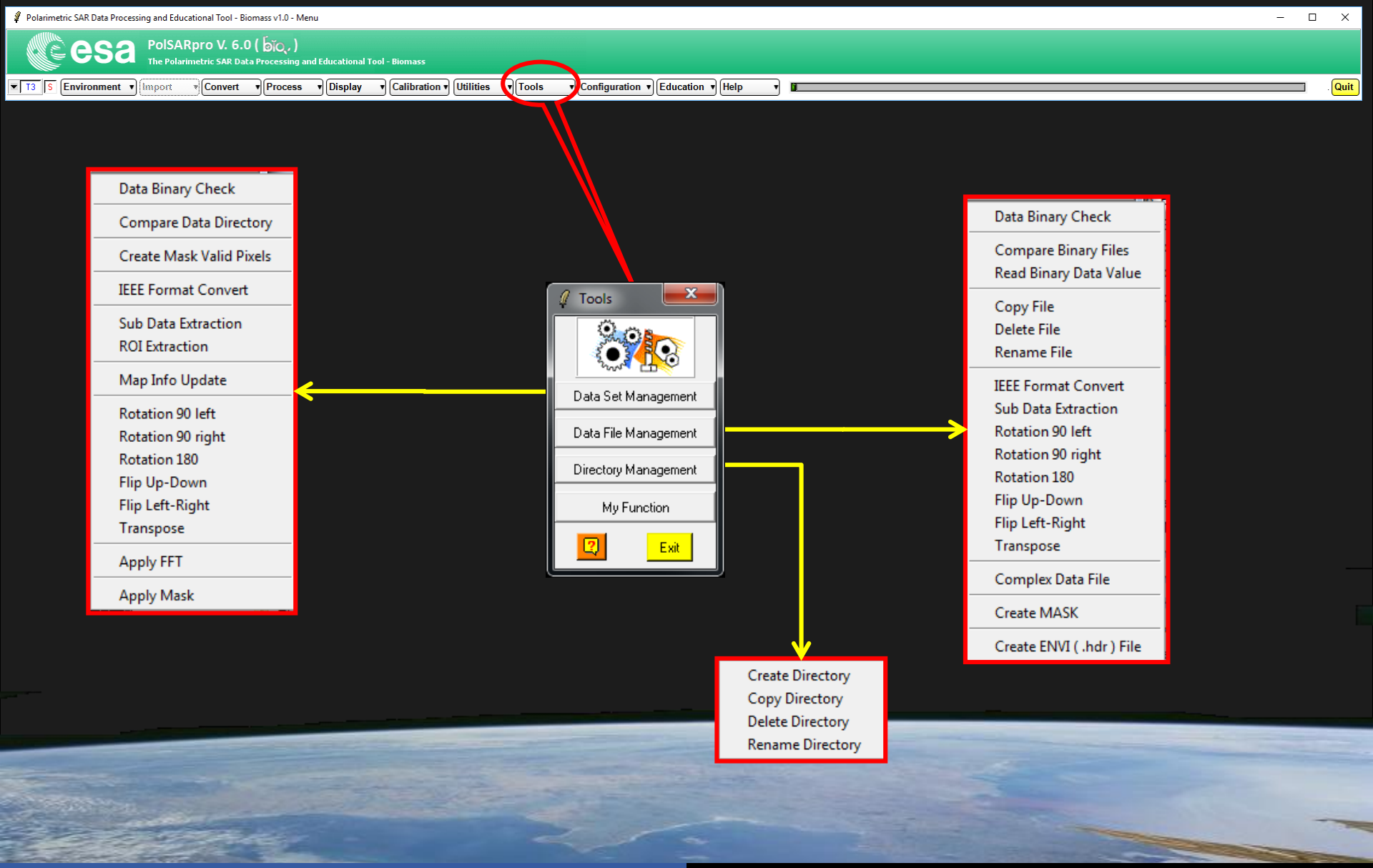


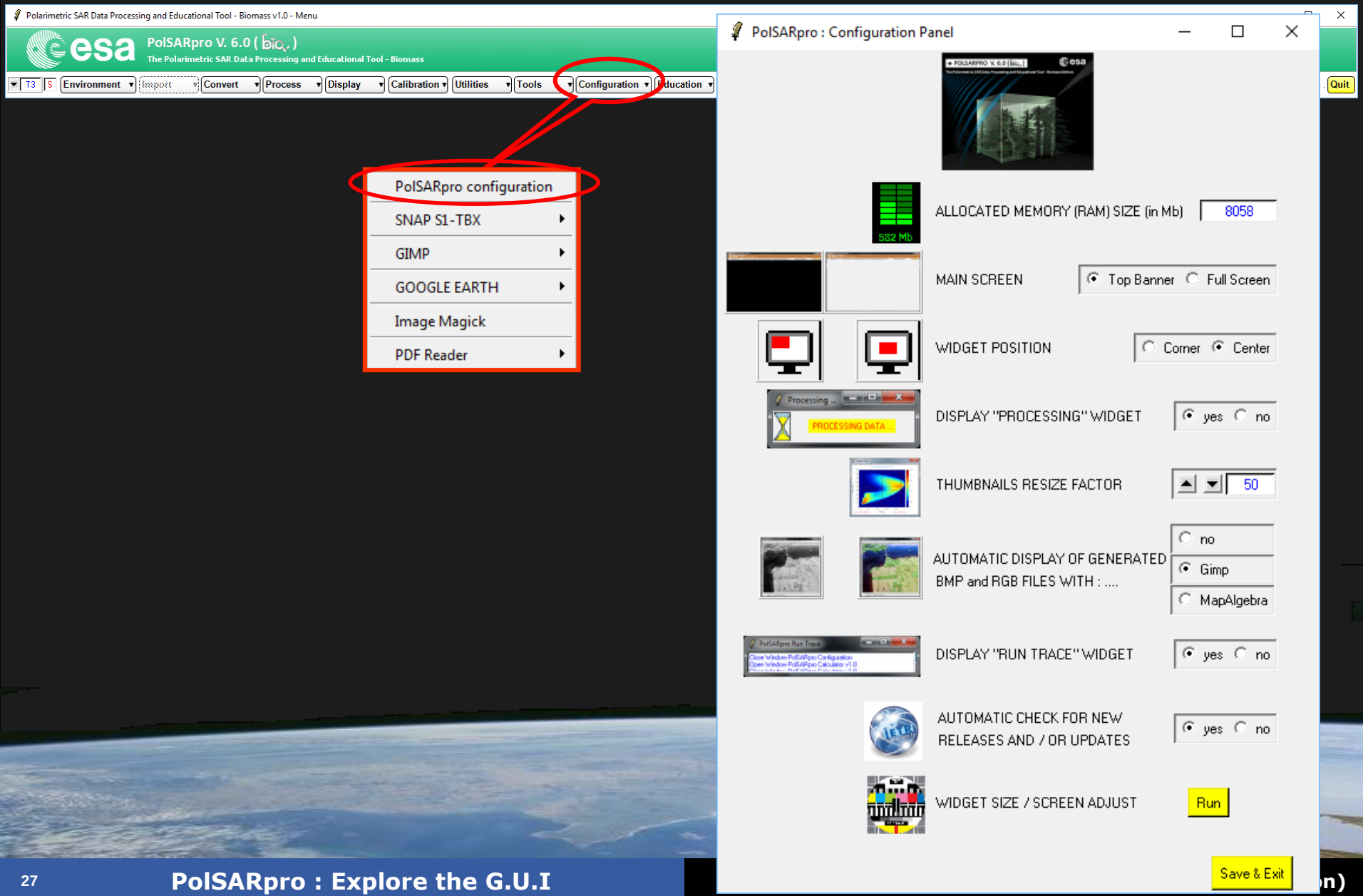


PolSARproSim is a rapid, coherent, fully polarimetric and interferometric SAR simulation of forest.



PolSARpro : Explore the G.U.I





PolSARpro : Explore the G.U.I

Questions ?