

Data Convert

Data File Conversion

Input Directory:

Output Directory: /

Init Row: End Row: Init Col: End Col:

☐ Symmetrisation (S12 = S21)

☒ Full Resolution
☐ Sub Sampling Row: Col:
☐ Multi Look Row: Col:

Input Data Format:

Output Data Format:

<input type="radio"/> [S2] >> [S2]	<input type="radio"/> [S2] >> [I2]	
<input type="radio"/> [S2] >> [s11, s21]	<input type="radio"/> [S2] >> [s22, s12]	<input type="radio"/> [S2] >> [s11, s22]
<input type="radio"/> [S2] >> [L - HV]	<input checked="" type="radio"/> [S2] >> [R - HV]	<input type="radio"/> [S2] >> [pi4]
<input type="radio"/> [S2] >> [I11, I21]	<input type="radio"/> [S2] >> [I22, I12]	<input type="radio"/> [S2] >> [I11, I22]
<input type="radio"/> [S2] >> [C2] - pp1	<input type="radio"/> [S2] >> [C2] - pp2	<input type="radio"/> [S2] >> [C2] - pp3
<input type="radio"/> [S2] >> [C2] - LHV	<input type="radio"/> [S2] >> [C2] - RHV	<input type="radio"/> [S2] >> [C2] - pi4
<input type="radio"/> [S2] >> [C3]	<input type="radio"/> [S2] >> [C4]	
<input type="radio"/> [S2] >> [T3]	<input type="radio"/> [S2] >> [T4]	

Data File Conversion

Input Directory

Output Directory
 /

Init Row End Row Init Col End Col

☐ Full Resolution
☐ Sub Sampling Row Col
☐ Multi Look Row Col

Input Data Format

Output Data Format

☐ [SPP] >> [SPP] ☐ [SPP] >> [IPP] ☐ [SPP] >> [C2]
☐ [IPP] >> [IPP] ☐ [C2] >> [C2]

Data File Conversion

Input Directory

Output Directory
 /


Init Row End Row Init Col End Col

☒ Full Resolution
☐ Sub Sampling Row Col
☐ Multi Look Row Col


Input Data Format

Output Data Format

☐ [C3] >> [T3] ☐ [C3] >> [C3] ☐ [C3] >> [I2]
☐ [C3] >> [C2] - pp1 ☐ [C3] >> [C2] - pp2 ☐ [C3] >> [C2] - pp3
☐ [C3] >> [C2] - LHV ☐ [C3] >> [C2] - RHV ☐ [C3] >> [C2] - pi4
☐ [C3] >> [I11, I21] ☐ [C3] >> [I22, I12] ☐ [C3] >> [I11, I22]


Data File Conversion
✕

Input Directory

Output Directory
 / C4 

Init Row End Row Init Col End Col

☐ Symmetrisation (S12 = S21)

☐ Full Resolution

☐ Sub Sampling Row Col

☐ Multi Look Row Col

Input Data Format

Output Data Format

☐ [C4] >> [T3] ☐ [C4] >> [T4]


☐ [C4] >> [C3] ☐ [C4] >> [C4]

☐ [C4] >> [C2] - pp1 ☐ [C4] >> [C2] - pp2 ☐ [C4] >> [C2] - pp3

☐ [C4] >> [C2] - LHV ☐ [C4] >> [C2] - RHV ☐ [C4] >> [C2] - pi4

☐ [C4] >> [I11, I21] ☐ [C4] >> [I22, I12] ☐ [C4] >> [I11, I22]


☐ [C4] >> [I2]


Data File Conversion
✕

Input Directory

D:/My_Data_Directory/T3

Output Directory

D:/My_Data_Directory / T3 

Init Row

1

End Row

1544

Init Col

1

End Col

928

☐ Full Resolution

☐ Sub Sampling

Row

Col

☐ Multi Look

Row

Col

Input Data Format

3x3 Complex Coherency Matrix T3

Output Data Format


☐ [T3] >> [T3]
☐ [T3] >> [C3]
☐ [T3] >> [I2]

☐ [T3] >> [C2] - pp1
☐ [T3] >> [C2] - pp2
☐ [T3] >> [C2] - pp3

☐ [T3] >> [C2] - LHV
☐ [T3] >> [C2] - RHV
☐ [T3] >> [C2] - pi4

☐ [T3] >> [I11, I21]
☐ [T3] >> [I22, I12]
☐ [T3] >> [I11, I22]

Run



Exit

Description:

This Application is used to convert raw binary data from a standard polarimetric format ((**Sxx**, **Sxy**), (**Ixx**, **Ixy**), [**S2**], [**T3**], [**T4**], [**C2**], [**C3**], [**C4**]) to another one. It is possible to extract the full image or a sub-part of it, and to apply or not a sub-sampling or multilooking operation.

Comments:

Parameters written in Red can be modified directly by the user from the keyboard.

Input/Output Arguments:

Input Directory	Indicates the location of the considered Main Directory (MD) containing the data files to be converted.
Output Directory	Indicates the location of the converted data output directory.

Output Image Number of Rows/Columns:

The output image numbers of rows and columns are initialised to the input data set dimensions.

Users wishing to process a sub-part of the initial image can modify the **Init** and **End**

values of the converted images rows and columns.

Note: init and end values have to remain within the range defined by the input image dimensions.

Processing Parameters:

Full Resolution This corresponds to a one-to-one conversion without applying any data averaging.

The extracted raw binary data has the same size than the source raw binary data.

Sub Sampling This selection offers the possibility to perform a sub-sampling operation during the conversion of the polarimetric data files.

Multi Look This selection offers the possibility to perform an incoherent multilooking operation during the conversion of the polarimetric data files.

Output Data Format:

According to the input data format, indicated in the widget, different compatible output data formats are proposed according the following table:

Processing Input Data Format	Full Resolution Sub Sampling	Multi Look
(2x2) Sinclair matrix [S2]	[S2], [T3], [T4], [C3], [C4], (Sxx, Sxy), (Ixx, Ixy) Compact Pol : (L-HV), (R- HV), (pi4)	[T3], [T4], [C2], [C3], [C4], (Ixx, Ixy) Compact Pol : [C2]
(3x3) Coherency matrix [T3]	[T3], [C3] Compact Pol : [C2]	[T3], [C3] Compact Pol : [C2]
(4x4) Coherency matrix [T4]	[T3], [T4], [C3], [C4] Compact Pol : [C2]	[T3], [T4], [C3], [C4] Compact Pol : [C2]
(2x2) Covariance matrix [C2]	[C2] Compact Pol : [C2]	[C2] Compact Pol : [C2]
(3x3) Covariance matrix [C3]	[T3], [C3] Compact Pol : [C2]	[T3], [C3] Compact Pol : [C2]
(4x4) Covariance matrix [C4]	[T3], [T4], [C3], [C4] Compact Pol : [C2]	[T3], [T4], [C3], [C4] Compact Pol : [C2]
Dual Polarimetric Elements (Sxx, Sxy)	(Sxx, Sxy), (Ixx, Ixy), [C2]	(Ixx, Ixy), [C2]
Intensities (Ixx, Ixy)	(Ixx, Ixy)	(Ixx, Ixy)

By ticking the appropriate box, users may indicate PolSARpro to toggle between these binary data formats before converting the polarimetric data files.

Note: In order to have a complete description of the different polarimetric standard data formats compatible, open the help file *Standard Data Format* in the PolSARpro Main Menu
