

The following 19 files are included in the downloadable zip-file (n_vector_library_Matlab.zip):

#	Filename	Content
<i>Convert between lat/long and n-vector:</i>		
1.	lat_long2n_E.m	Converts latitude and longitude to n -vector
2.	n_E2lat_long.m	Converts n -vector to latitude and longitude
<i>Convert between delta and n-vectors:</i>		
3.	n_EA_E_and_n_EB_E2p_AB_E.m	From two positions A and B , finds the delta position
4.	n_EA_E_and_p_AB_E2n_EB_E.m	From position A and delta, finds position B
<i>Convert between n-vector and ECEF vector:</i>		
5.	n_EB_E2p_EB_E.m	Converts n -vector to position vector in meters
6.	p_EB_E2n_EB_E.m	Converts position vector in meters to n -vector
<i>Convert between n-vector and rotation matrix:</i>		
7.	R_EN2n_E.m	Finds n -vector from
8.	n_E2R_EN.m	Finds from n -vector
9.	R_EL2n_E.m	Finds n -vector from
10.	n_E_and_wa2R_EL.m	Finds from n -vector and wander azimuth angle
<i>Convert between Euler angles and rotation matrix:</i>		
11.	xyz2R.m	Creates a rotation matrix from 3 angles about new axes in the xyz order
12.	R2xyz.m	Three angles about new axes in the xyz order are found from a rotation matrix
13.	zyx2R.m	Creates a rotation matrix from 3 angles about new axes in the zyx order (e.g. yaw-pitch-roll)
14.	R2zyx.m	Three angles about new axes in the zyx order (e.g. yaw-pitch-roll) are found from a rotation matrix
<i>Miscellaneous simple utilities:</i>		
15.	unit.m	Makes input vector unit length (i.e. norm=1)
16.	rad.m	Converts angle in degrees to radians
17.	deg.m	Converts angle in radians to degrees
18.	R_Ee.m	Selects axes of the coordinate frame E
<i>Solutions to the 10 examples:</i>		
19.	examples.m	Contains solutions to the 10 examples given here