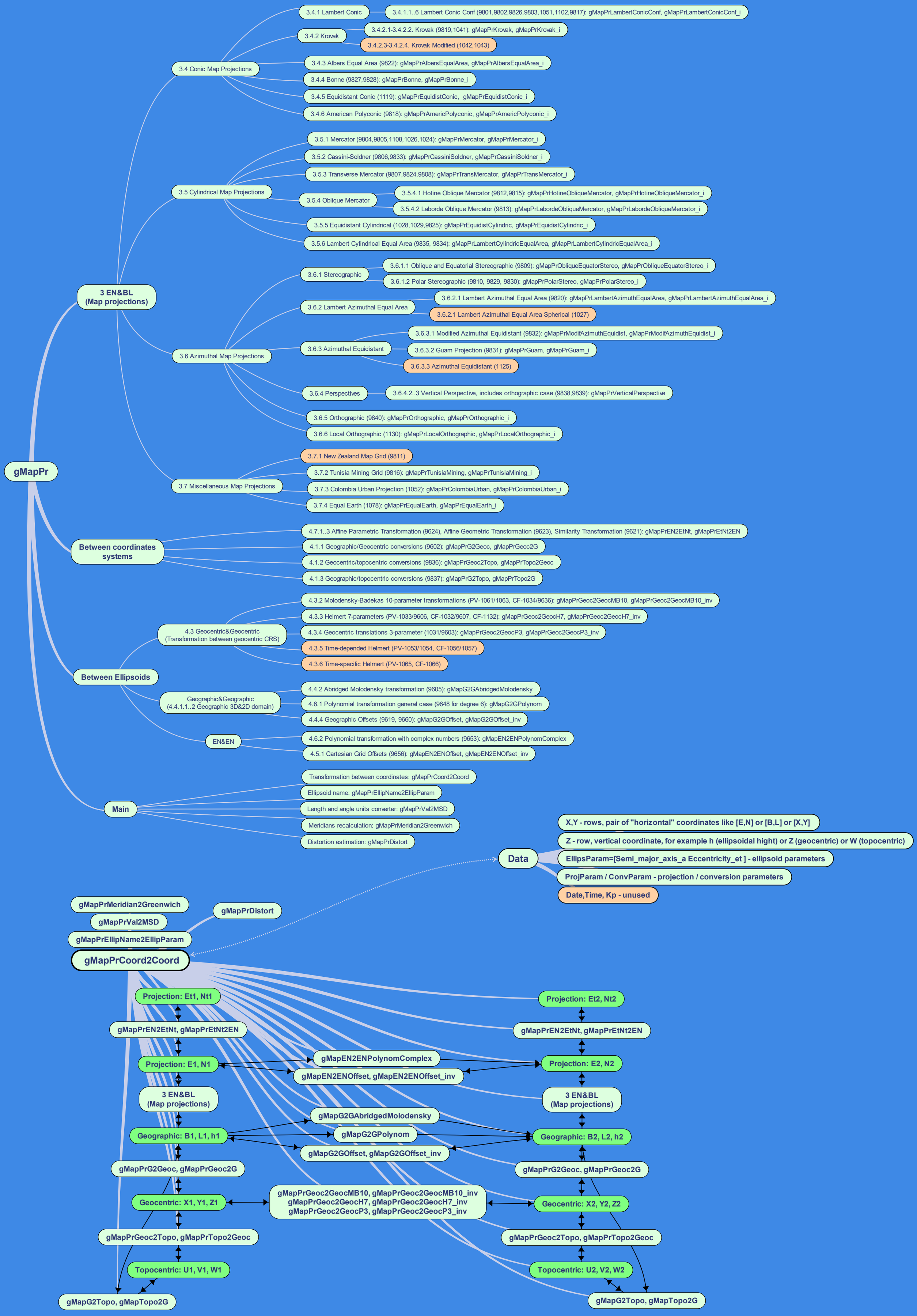
gMapPr
3 EN&BL (Map projections)
3.4 Conic Map Projections
3.4.1 Lambert Conic
3.4.1.1..6 Lambert Conic Conf (9801,9802,9826,9803,1051,1102,9817): gMapPrLambertConicConf, gMapPrLambertConicConf_i
3.4.2 Krovak
3.4.2.1-3.4.2.2. Krovak (9819,1041): gMapPrKrovak, gMapPrKrovak_i
3.4.2.3-3.4.2.4. Krovak Modified (1042,1043)
3.4.3 Albers Equal Area (9822): gMapPrAlbersEqualArea, gMapPrAlbersEqualArea_i
3.4.4 Bonne (9827,9828): gMapPrBonne, gMapPrBonne_i
3.4.5 Equidistant Conic (1119): gMapPrEquidistConic, gMapPrEquidistConic_i
3.4.6 American Polyconic (9818): gMapPrAmericPolyconic, gMapPrAmericPolyconic_i
3.5 Cylindrical Map Projections
3.5.1 Mercator (9804,9805,1108,1026,1024): gMapPrMercator, gMapPrMercator_i
3.5.2 Cassini-Soldner (9806,9833): gMapPrCassiniSoldner, gMapPrCassiniSoldner_i
3.5.3 Transverse Mercator (9807,9824,9808): gMapPrTransMercator, gMapPrTransMercator_i
3.5.4 Oblique Mercator
3.5.4.1 Hotine Oblique Mercator (9812,9815): gMapPrHotineObliqueMercator, gMapPrHotineObliqueMercator_i
3.5.4.2 Laborde Oblique Mercator (9813): gMapPrLabordeObliqueMercator, gMapPrLabordeObliqueMercator_i
3.5.5 Equidistant Cylindrical (1028,1029,9825): gMapPrEquidistCylindric, gMapPrEquidistCylindric_i
3.5.6 Lambert Cylindrical Equal Area (9835, 9834): gMapPrLambertCylindricEqualArea, gMapPrLambertCylindricEqualArea_i
3.6 Azimuthal Map Projections
3.6.1 Stereographic
3.6.1.1 Oblique and Equatorial Stereographic (9809): gMapPrObliqueEquatorStereo, gMapPrObliqueEquatorStereo_i
3.6.1.2 Polar Stereographic (9810, 9829, 9830): gMapPrPolarStereo, gMapPrPolarStereo_i
3.6.2 Lambert Azimuthal Equal Area
3.6.2.1 Lambert Azimuthal Equal Area (9820): gMapPrLambertAzimuthEqualArea, gMapPrLambertAzimuthEqualArea_i
3.6.2.1 Lambert Azimuthal Equal Area Spherical (1027)
3.6.3 Azimuthal Equidistant
3.6.3.1 Modified Azimuthal Equidistant (9832): gMapPrModifAzimuthEquidist, gMapPrModifAzimuthEquidist_i
3.6.3.2 Guam Projection (9831): gMapPrGuam, gMapPrGuam_i
3.6.3.3 Azimuthal Equidistant (1125)
3.6.4 Perspectives
3.6.4.2..3 Vertical Perspective, includes orthographic case (9838,9839): gMapPrVerticalPerspective
3.6.5 Orthographic (9840): gMapPrOrthographic, gMapPrOrthographic_i
3.6.6 Local Orthographic (1130): gMapPrLocalOrthographic, gMapPrLocalOrthographic_i
3.7 Miscellaneous Map Projections
3.7.1 New Zealand Map Grid (9811)
3.7.2 Tunisia Mining Grid (9816): gMapPrTunisiaMining, gMapPrTunisiaMining_i
3.7.3 Colombia Urban Projection (1052): gMapPrColombiaUrban, gMapPrColombiaUrban_i
3.7.4 Equal Earth (1078): gMapPrEqualEarth, gMapPrEqualEarth_i
Between coordinates systems
4.7.1..3 Affine Parametric Transformation (9624), Affine Geometric Transformation (9623), Similarity Transformation (9621): gMapPrEN2EtNt, gMapPrEtNt2EN
4.1.1 Geographic/Geocentric conversions (9602): gMapPrG2Geoc, gMapPrGeoc2G
4.1.2 Geocentric/topocentric conversions (9836): gMapPrGeoc2Topo, gMapPrTopo2Geoc
4.1.3 Geographic/topocentric conversions (9837): gMapPrG2Topo, gMapPrTopo2G
Between Ellipsoids
4.3 Geocentric&Geocentric (Transformation between geocentric CRS)
4.3.2 Molodensky-Badekas 10-parameter transformations (PV-1061/1063, CF-1034/9636): gMapPrGeoc2GeocMB10, gMapPrGeoc2GeocMB10_inv
4.3.3 Helmert 7-parameters (PV-1033/9606, CF-1032/9607, CF-1132): gMapPrGeoc2GeocH7, gMapPrGeoc2GeocH7_inv
4.3.4 Geocentric translations 3-parameter (1031/9603): gMapPrGeoc2GeocP3, gMapPrGeoc2GeocP3_inv
4.3.5 Time-depended Helmert (PV-1053/1054, CF-1056/1057)
4.3.6 Time-specific Helmert (PV-1065, CF-1066)
Geographic&Geographic (4.4.1.1..2 Geographic 3D&2D domain)
4.4.2 Abridged Molodensky transformation (9605): gMapG2GAbridgedMolodensky
4.6.1 Polynomial transformation general case (9648 for degree 6): gMapG2GPolynom
4.4.4 Geographic Offsets (9619, 9660): gMapG2GOffset, gMapG2GOffset_inv
EN&EN
4.6.2 Polynomial transformation with complex numbers (9653): gMapEN2ENPolynomComplex
4.5.1 Cartesian Grid Offsets (9656): gMapEN2ENOffset, gMapEN2ENOffset_inv
Main
Transformation between coordinates: gMapPrCoord2Coord
Ellipsoid name: gMapPrEllipName2EllipParam
Length and angle units converter: gMapPrVal2MSD
Meridians recalculation: gMapPrMeridian2Greenwich
Distortion estimation: gMapPrDistort
Data
X,Y - rows, pair of "horizontal" coordinates like [E,N] or [B,L] or [X,Y]
Z - row, vertical coordinate, for example h (ellipsoidal hight) or Z (geocentric) or W (topocentric)
EllipsParam=[Semi_major_axis_a Eccentricity_et ] - ellipsoid parameters
ProjParam / ConvParam - projection / conversion parameters
Date,Time, Kp - unused
gMapPrMeridian2Greenwich
gMapPrVal2MSD
gMapPrDistort
gMapPrEllipName2EllipParam
gMapPrCoord2Coord
Projection: Et1, Nt1
gMapPrEN2EtNt, gMapPrEtNt2EN
Projection: E1, N1
3 EN&BL (Map projections)
Geographic: B1, L1, h1
gMapPrG2Geoc, gMapPrGeoc2G
Geocentric: X1, Y1, Z1
gMapPrGeoc2Topo, gMapPrTopo2Geoc
Topocentric: U1, V1, W1
gMapG2Topo, gMapTopo2G
gMapEN2ENPolynomComplex
gMapEN2ENOffset, gMapEN2ENOffset_inv
gMapG2GAbridgedMolodensky
gMapG2GPolynom
gMapG2GOffset, gMapG2GOffset_inv
gMapPrGeoc2GeocMB10, gMapPrGeoc2GeocMB10_inv
gMapPrGeoc2GeocH7, gMapPrGeoc2GeocH7_inv
gMapPrGeoc2GeocP3, gMapPrGeoc2GeocP3_inv
Projection: Et2, Nt2
gMapPrEN2EtNt, gMapPrEtNt2EN
Projection: E2, N2
3 EN&BL (Map projections)
Geographic: B2, L2, h2
gMapPrG2Geoc, gMapPrGeoc2G
Geocentric: X2, Y2, Z2
gMapPrGeoc2Topo, gMapPrTopo2Geoc
Topocentric: U2, V2, W2
gMapG2Topo, gMapTopo2G