

ISO Geodetic Registry

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|---------------------------|---|--|
| <i>Item class</i> | Transformation | |
| <i>Name</i> | ITRF2000 to GDA94 [GA v1] | |
| <i>Item status</i> | VALID | |
| <i>Identifier</i> | 495 | |
| <i>Information source</i> | <i>Title</i> | International Terrestrial Reference Frame (ITRF) to GDA94 Coordinate Transformations |
| | <i>Author</i> | J. Dawson, J. Steed |
| | <i>Publisher</i> | Geoscience Australia |
| | <i>Publication date</i> | 2004-03-01 |
| | <i>Edition date</i> | |
| <i>Data source</i> | ISO Geodetic Registry | |
| <i>Remarks</i> | Implemented 2001. Replaced by Dawson and Woods transformation of 2010, ITRF2000 to GDA94 [GA v2]. | |
| <i>Operation version</i> | GA v1 | |
| <i>Scope</i> | Spatial referencing | |
| <i>Operation accuracy</i> | 0.1 m | |
| <i>Source CRS</i> | ITRF2000 - XYZ | |
| <i>Target CRS</i> | GDA94 - XYZ | |
| <i>Operation method</i> | Time-Dependent Coordinate Frame Transformation (geocentric Cartesian domain) | |

Extent

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|--------------------------------|--|--------|
| <i>Description</i> | Australia - onshore and offshore - mainland, Tasmania, Lord Howe Island, Norfolk Island, Macquarie Island. Christmas Island - onshore and offshore. Cocos (Keeling) Islands - onshore and offshore. | |
| <i>Geographic Bounding Box</i> | <i>West-bound longitude</i> | 93.41 |
| | <i>North-bound latitude</i> | -8.47 |
| | <i>East-bound longitude</i> | 173.4 |
| | <i>South-bound latitude</i> | -60.56 |

Operation parameter values

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|---|-------------------------------------|
| <i>X-axis translation</i> | -0.0761 metre |
| <i>Y-axis translation</i> | -0.0101 metre |
| <i>Z-axis translation</i> | 0.0444 metre |
| <i>X-axis rotation</i> | 0.008765 arc-second |
| <i>Y-axis rotation</i> | 0.009361 arc-second |
| <i>Z-axis rotation</i> | 0.009325 arc-second |
| <i>Scale difference</i> | 0.007935 parts per million |
| <i>Rate of change of X-axis translation</i> | 0.011 metre per year |
| <i>Rate of change of Y-axis translation</i> | -0.0045 metre per year |
| <i>Rate of change of Z-axis translation</i> | -0.0174 metre per year |
| <i>Rate of change of X-axis rotation</i> | 0.001034 arc-second per year |
| <i>Rate of change of Y-axis rotation</i> | 6.71E-4 arc-second per year |
| <i>Rate of change of Z-axis rotation</i> | 0.001039 arc-second per year |
| <i>Rate of change of scale difference</i> | -5.38E-4 parts per million per year |

Time reference

2000.0 year

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|--------------------|--|
| <i>Item class</i> | OperationMethod |
| <i>Name</i> | Time-Dependent Coordinate Frame Transformation (geocentric Cartesian domain) |
| <i>Item status</i> | VALID |
| <i>Identifier</i> | 94 |
| <i>Alias</i> | Time-Dependent 7-Parameter Transformation |
| <i>Alias</i> | 14-Parameter Transformation |
| <i>Alias</i> | Time-Dependent Coordinate Frame Transformation |
| <i>Data source</i> | ISO Geodetic Registry |
| <i>Remarks</i> | Note the analogy with the Time-dependent Position Vector Transformation but beware of the differences! The Position Vector Transformation convention is used by IAG. |
| <i>Formula</i> | Geomatics Guidance Note No 7, part 2: Coordinate Conversions and Transformations including Formulas |

Operation parameters

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|---|
| <i>X-axis translation</i> |
| <i>Y-axis translation</i> |
| <i>Z-axis translation</i> |
| <i>X-axis rotation</i> |
| <i>Y-axis rotation</i> |
| <i>Z-axis rotation</i> |
| <i>Scale difference</i> |
| <i>Rate of change of X-axis translation</i> |
| <i>Rate of change of Y-axis translation</i> |
| <i>Rate of change of Z-axis translation</i> |
| <i>Rate of change of X-axis rotation</i> |
| <i>Rate of change of Y-axis rotation</i> |
| <i>Rate of change of Z-axis rotation</i> |
| <i>Rate of change of scale difference</i> |
| <i>Time reference</i> |