

# ISO Geodetic Registry

|                           |   |  |
|---------------------------|---|--|
| <i>Item class</i>         | Transformation  |  |
| <i>Name</i>               | <b>AGD84 to GDA94 [GA v1]</b>                                 |  |
| <i>Item status</i>        | VALID   |  |
| <i>Identifier</i>         | 695   |  |
| <i>Information source</i> | <i>Title</i>  | Geocentric Datum of Australia Technical Manual Version 2.4                                 |
|                           | <i>Author</i>   | Permanent Committee on Geodesy of the Intergovernmental Committee on Surveying and Mapping |
|                           | <i>Publisher</i>  | Intergovernmental Committee on Surveying and Mapping                                       |
|                           | <i>Publication date</i>                                       | 2014-12-02   |
|                           | <i>Edition date</i>   |  |
| <i>Data source</i>        | ISO Geodetic Registry   |  |
| <i>Remarks</i>            | Defined at epoch 1994.0.                                      |  |
| <i>Operation version</i>  | GA v2   |  |
| <i>Scope</i>              | Spatial referencing   |  |
| <i>Operation accuracy</i> | 1.0 m   |  |
| <i>Source CRS</i>         | AGD84 - LatLonEHt   |  |
| <i>Target CRS</i>         | GDA94 - LatLonEHt   |  |
| <i>Operation method</i>   | Coordinate Frame Transformation (geocentric Cartesian domain) |  |

## Extent

|                                |  |       |
|--------------------------------|--|-------|
| <i>Description</i>             | <b>Australia - onshore and offshore.</b> |       |
| <i>Geographic Bounding Box</i> | <i>West-bound longitude</i>              | 111.0 |
|                                | <i>North-bound latitude</i>              | -8.0  |
|                                | <i>East-bound longitude</i>              | 157.5 |
|                                | <i>South-bound latitude</i>              | -45.0 |

## Operation parameter values

|                           |                          |
|---------------------------|--------------------------|
| <i>X-axis translation</i> | -117.763 metre           |
| <i>Y-axis translation</i> | -51.51 metre             |
| <i>Z-axis translation</i> | 139.061 metre            |
| <i>X-axis rotation</i>    | -0.292 arc-second        |
| <i>Y-axis rotation</i>    | -0.443 arc-second        |
| <i>Z-axis rotation</i>    | -0.277 arc-second        |
| <i>Scale difference</i>   | -0.191 parts per million |

# ISO Geodetic Registry

|                    |   |
|--------------------|---|
| <i>Item class</i>  | OperationMethod   |
| <i>Name</i>        | <b>Coordinate Frame Transformation (geocentric Cartesian domain)</b>  |
| <i>Item status</i> | VALID   |
| <i>Identifier</i>  | 74  |
| <i>Alias</i>       | Coordinate Frame Transformation   |
| <i>Alias</i>       | 7-Parameter Transformation  |
| <i>Alias</i>       | Bursa-Wolf Transformation   |
| <i>Data source</i> | ISO Geodetic Registry   |
| <i>Remarks</i>     | This method is a specific case of the Molodensky-Badekas (CF) method in which the evaluation point is at the geocentre with coordinate values of zero. Note the analogy with the Position Vector transformation method but beware of the differences! |
| <i>Formula</i>     | Geomatics Guidance Note No 7, part 2: Coordinate Conversions and Transformations including Formulas   |

## Operation parameters

|                           |
|---------------------------|
| <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>   |