|  |  |  |
| --- | --- | --- |
| **GDS Entity** | **CIF Entity** | **Comments** |
| Boundary | Polygon | Maps Directly |
| Path | Wire | Endpoint compensation so that the CIF wire will appear to be the same length as the GDSII path. Option: user can tell GDS2CIF to create a CIF polygon from a GDSII path |
| Polygon | The user can optionally have GDSII paths converted to polygons in CIF |
| Box | The user can optionally have GDSII paths (with 2 vertices) converted to CIF BOX (requested by UC Berkeley) |
| Structure | Symbol | Only 8 characters allowed in CIF vs 32 in GDSII. The program will hash the GDSII structure name to get a unique CIF name as needed. |
| SREF | Symbol Insertion | CIF only allows symbols to be inserted at MAG=1 and without rotation. If a GDSII SREF has a MAG not equal to 1 or uses rotation the program will flatten the SREF. |
| AREF | Stepped | CIF has no AREF. GDS2CIF inserts each structure individually |
| Text | Wires or Text | GDS2CIF can traslate Text from GDSII to CIF, or it can take the GDSII string of text and strokes out the text using CIF wires. User can define each of the GDSII font heights |
| Layers | Layers | GDS2CIF supports up to 256 layers (GDSII extended or Release 7) |
| Datatype | None | No equivalent of datatype in CIF |
| Units | Units | CIF only supports units of microns. GDS2CIF scales the GDSII data appropriately |
| Resolution | Fixed | CIF only supports 0.01um database units. GDS2CIF converts the GDSII units and resolution to 0.01um. |