CEIP Data Definitions

# Nest Data

|  |  |  |
| --- | --- | --- |
| Field | Description | Comments |
| ixJobSummary | Record Index of job containing this nest |  |
| cTimesCut | The number of times the nest will be cut |  |
| fOutput | Has the nest been output? |  |
| cParts | Total number of parts nested |  |
| cSafeZones | Number of safe zones used on the nest |  |
| ixPlateType | Type of plate used |  |
| dNestingTime | Total time spent auto-nesting |  |
| fStrategies | Auto-nesting strategies used |  |
| cMaxTorches | Maximum number of torches on nest |  |
| dMaxTorchSpacing | Maximum torch spacing used on nest |  |
| dLength | Sheet length |  |
| dWidth | Sheet width |  |
| dArea | Sheet area |  |
| ixMaterial | Record index of material used |  |
| dLengthUsed | Length of plate used by nested parts |  |
| dWidthUsed | Width of plate used by nested parts |  |
| dCropUtil | Nested utilization of parts inside of crop (if one exists) | Nested part area / (sheet area – area of remnants saved from nest) |
| dPartArea | Total area of nested parts |  |
| dTrueArea | Plate area used by nested parts | True area of sheet. For skeletons, this excludes the area of the cutouts. |

# Part Data

|  |  |  |
| --- | --- | --- |
| Field | Description | Comments |
| ixPart | Part record index |  |
| ixJobSummary | Record Index of job containing this part |  |
| dLength | Part length |  |
| dWidth | Part width |  |
| dArea | Part true area | Area of exterior profile – area of cutouts |
| cRequired | Number of parts required | For the entire job |
| cNested | Number of parts nested | For the entire job |
| ixMaterial | Record index of material used |  |
| fExtShape | Shape of the exterior profile | About 50 known shapes |
| dExtArea | Area of the exterior profile |  |
| dExtBoundaryDist | The maximum distance of any point inside the profile to the nearest point on the exterior profile | Uses a distance transform with distance measured at 45 degree increments |
| dExtContainedDist | The maximum unbroken distance between any two points on the exterior profile | The line between the two points doesn’t intersect the profile anywhere else |
| dLgIntArea | Area of the largest interior profile |  |
| dLgIntBoundaryDist | The maximum distance of any point inside the profile to the nearest point on the interior profile | Uses a distance transform with distance measured at 45 degree increments |
| dLgIntContainedDist | The maximum unbroken distance between any two points on the interior profile | The line between the two points doesn’t intersect the profile anywhere else |
| dLgExtConArea | Area of the largest concavity |  |
| dLgExtConBoundaryDist | The maximum distance of any point inside the concavity to the nearest point on the concavity | Uses a distance transform with distance measured at 45 degree increments |
| dLgExtConContainedDist | The maximum unbroken distance between any two points on the concavity contour | The line between the two points doesn’t intersect the profile anywhere else |

# Questions