

Radnest

ADVANCED IRREGULAR-SHAPED PARTS NESTING FOR PUNCHING, PROFILING AND COMBINATION MACHINES

Radnest is a highly efficient nesting package that enhances either Radpunch or Radprofile.

Incorporating fully generalised nesting that analyses the true shape of components, Radnest can dramatically increase sheet utilisation and deliver substantial material cost savings.

Radnest may be integrated with your existing manufacturing systems such as MRP, through simple, open interfaces based on XML.

Radnest benefits:

- Reduced material costs.
- Increased automation.
- Re-nest for different machines.
- Reduced lead times.
- Reduced setup times.
- Flexible manufacturing with reduced work in progress.
- Integration with MRP.
- Flexible reporting.
- An integrated component of **Radan 03**.

The most powerful sheet metal software in the world

 **RADAN** 

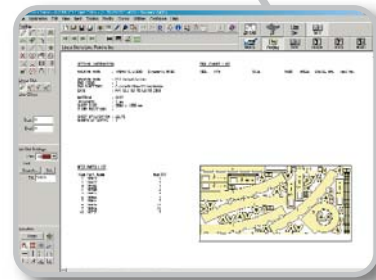
Radnest

High level automation:

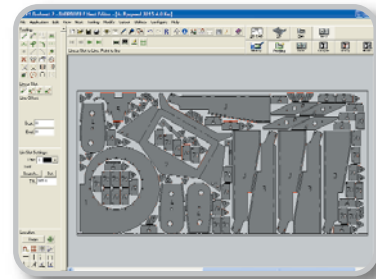
- Radnest co-ordinates the cutting sequence and post processing operations to produce programs automatically.
- Parts can be tooled appropriately at different orientations and removed from the nest e.g. by a part pick operation.
- Enables switching production between machines.

Highly efficient nesting:

- High performance nesting algorithm analyses true shape of parts to be nested and fits as many parts as possible onto the sheet.
- Adjustable nesting processing time.
- Whilst allowing maximum use of material, minimum bridge maintained between parts to ensure sheet strength.



Advanced profile nesting



Highly efficient nesting

Manufacturing orientated nesting

The nesting process in Radnest is far more advanced than simply fitting shapes onto a rectangular sheet. Radnest also takes into account the manufacturing requirements of the machine tool.

For example, when Radnest is used with Radpunch, the tooling for each part is compared against the available stations in the turret or tool changer. This may restrict the orientations at which a part may be placed or mean that a different part is selected for the current nest. It is extremely important that the nest produced does not exceed the tooling

capacity of the machine tool, as this would result in a program that could not be run. Many other nesting systems merely nest geometric shapes and do not take such engineering considerations into account.

When used with Radprofile, Radnest can produce nests that use common line cuts between adjacent parts to reduce cycle time and increase material utilisation. Alternatively, parts may be nested with a bridge of material between parts. Part and scrap removal order is calculated automatically.

To improve material handling of nest skeletons that remain when profiled parts have been removed, Radnest includes the option to scrap the remaining sheet automatically, by cutting it into rectangular pieces of pre-determined size. This allows the skeleton to be handled easily and safely.

Radnest may be configured to operate automatically, and when linked with an existing MRP system, can become a key component of an automated manufacturing system.

Radan provides unrivalled after-sales service, including:

- Direct PC-PC support.
- Training at customers site or Radan's offices.
- Consultancy & customisation.
- Affordable software maintenance.
- Competitive upgrade policy.

RADAN (UK)

Radan Computational Ltd, Head Office, Granville Road, Bath BA1 9BE
T +44 1225 320320, F +44 1225 320311, E sales@uk.radan.com

RADAN (USA)

Radan CIM Inc. 1100 Quail Street, Suite 204, Newport Beach, CA 92660, USA
T +1 800 875 7232, F +1 949 261 7704, E sales@radancim.com