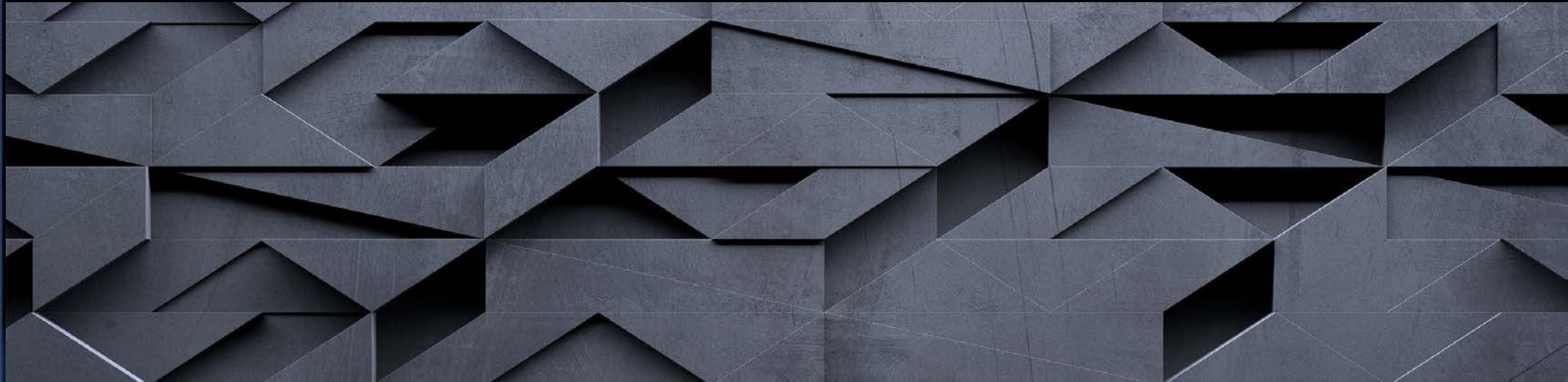


 The power of nesting...

CAD/CAM Nesting software | NC PostProcessor software

SOFTONE-NEST



ONESoft Systems

Calomfirescu 182

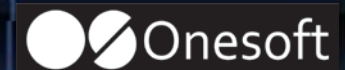
Drobeta Turnu Severin

Romania

Phone: +40741016071

Mail: office@onesoft.ro

Web: www.onesoft.ro



The power of nesting...



SoftONE-NEST

Designed for:

- Shipyards;
- Ship design;
- Sheet metal;

Automatic parts import from:

- Standard DXF;
- Aveva Marine;
- Smart Marine 3D;
- Nupas Cadmatic.
- SD Software for Rhinoceros 3D

Steel cutting technologies:

- Plasma
- Laser
- Water Jet
- Oxy Fuel

NC Postprocessor :

- ESSI
- ISO / G-CODE

ONESoft Systems

Calomfirescu 182

Drobeta Turnu Severin

Romania

Mail: office@onesoft.ro

Web: www.onesoft.ro



Main features

- **Automatic** or manual nesting;
- **True shape nesting**;
- **Part In Part nesting**; **Group parts nesting** / **Array nesting**;
- Drag and drop parts ;
- Smart **“Bump”** functions (including around lead-in) ;
- Automatically lead in/out;
- Collision control;
- **Automatically update parts** when changing geometry;
- Move, rotate and part alignment functions;
- Smart **Automatic Bridges** nesting functions;
- **“Real time”** counting of nested parts;
- Automatically generation of production nesting sketches
- Nesting jobs **DXF exports** with **parts geometries as polylines**;
- Parts/plates inventory;
- Advanced **NC post processor**; **ESSI & EIA (G-Code)**;
- Automatic NC toolpath generation and optimization;

- Automatic and manual lead-in/out features;
- Automatically **update nest with parts revisions**;
- Automatic productions sketches generation / Detailed Reports & BOM;
- Integrate s advanced NC **post processor** for fastest generation of NC files;
- Support the industry standards **ESSI & EIA (G-Code)**;
- Support a wide range of cutting machines, including ESAB, Koike, Messer;
- Support **multi-torches** machines option;
- Cutting, Marking, Labeling and the latest **Bevel & NC** technology supported;
- Export nesting plates parts as **DXF polylines on different layers according with machine processes** for future direct NC post processing by CNC machine software;
- User customizable post processors;
- Multilanguage support;

ONESoft Systems

Calomfirescu 182

Drobeta Turnu Severin

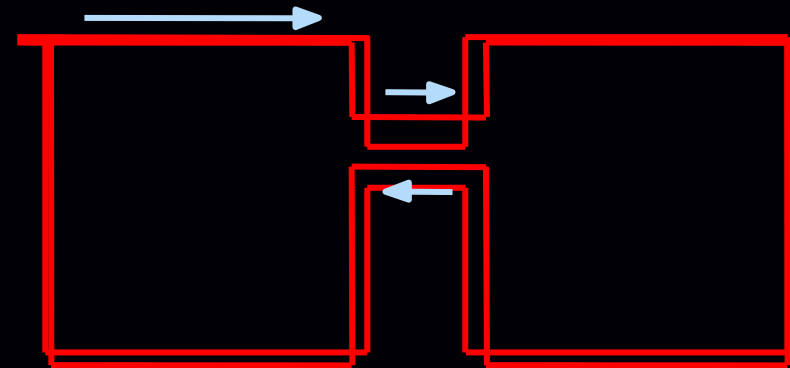
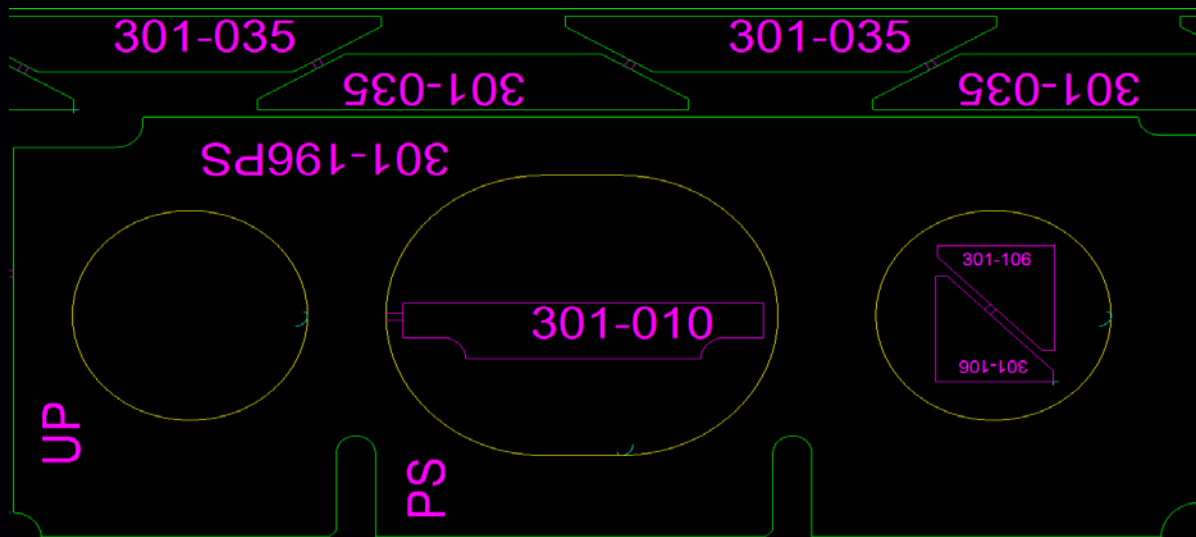
Romania

Mail: office@onesoft.ro

Web: www.onesoft.ro

SoftONE-NEST

Bridge cutting



Cutting bridges between parts,
“One click” bridge function; Automatic bridges function is available.

ONESoft Systems

Calomfirescu 182

Drobeta Turnu Severin

Romania

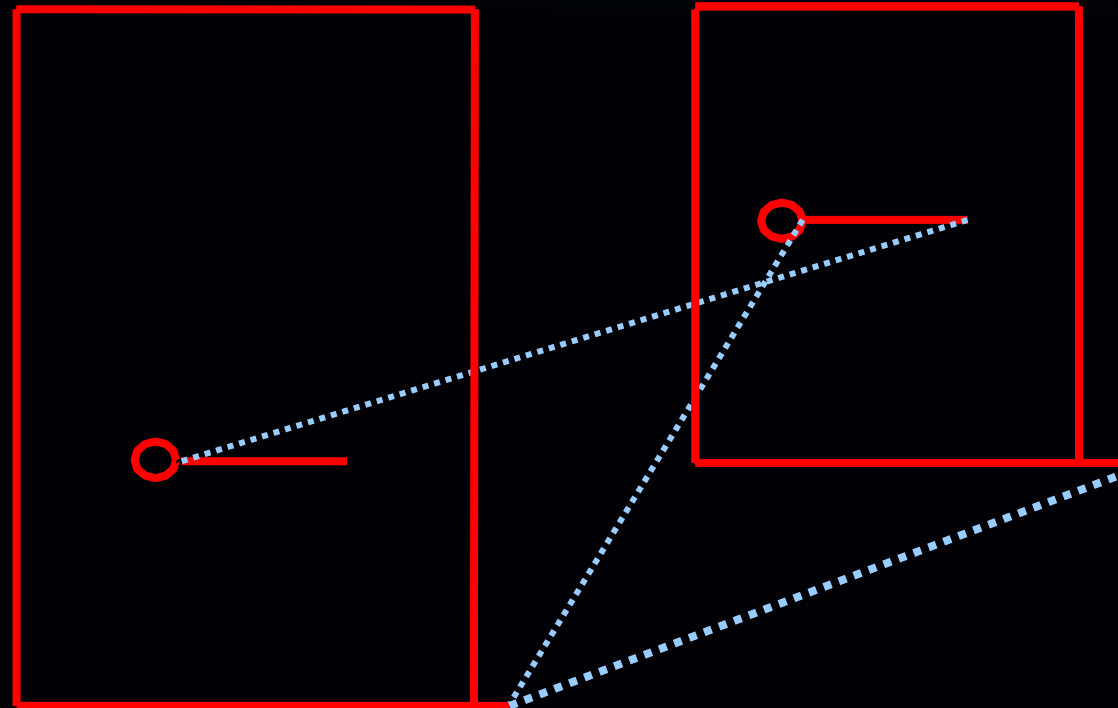
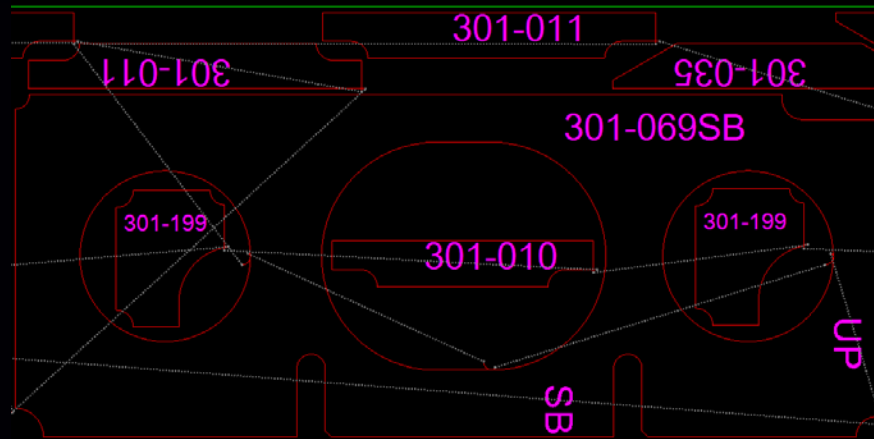
Mail: office@onesoft.ro

Web: www.onesoft.ro



SoftONE-NEST

Hole piercing



Hole piercing first,

Mainly used for thick material (oxy-fuel) and for plasma cutting. For example, all the piercing can be done by using an “old” nozzle in advance. For the remaining cutting a new nozzle will be used.

ONESoft Systems

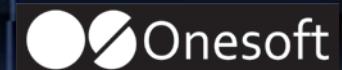
Calomfirescu 182

Drobeta Turnu Severin

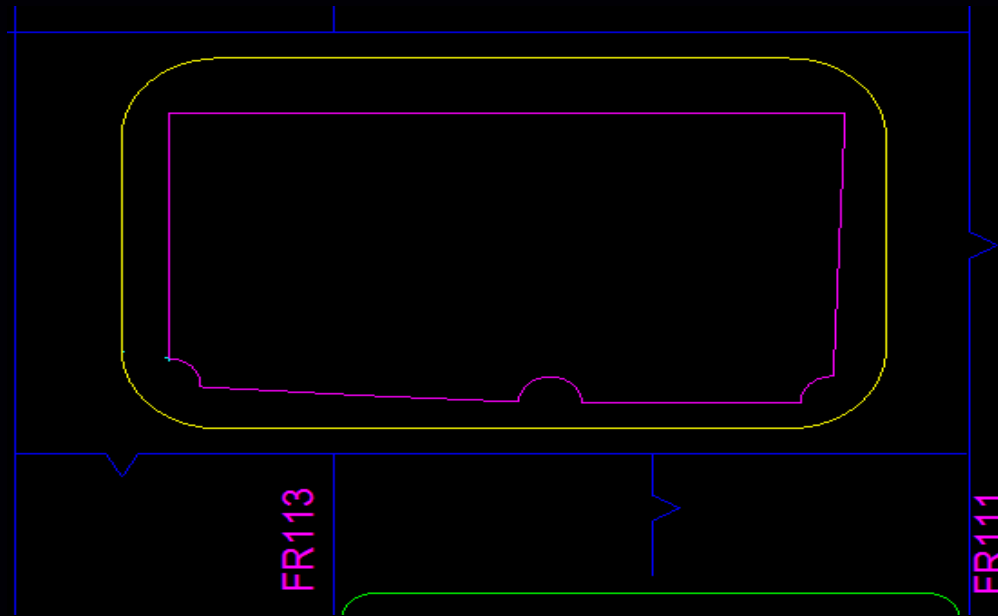
Romania

Mail: office@onesoft.ro

Web: www.onesoft.ro



Part in part...



Part in Part nesting,

Automatically recognize the parts placed inside holes of other parts. Automatically assigning the machine processes ordering by the post processor.

ONESoft Systems

Calomfirescu 182

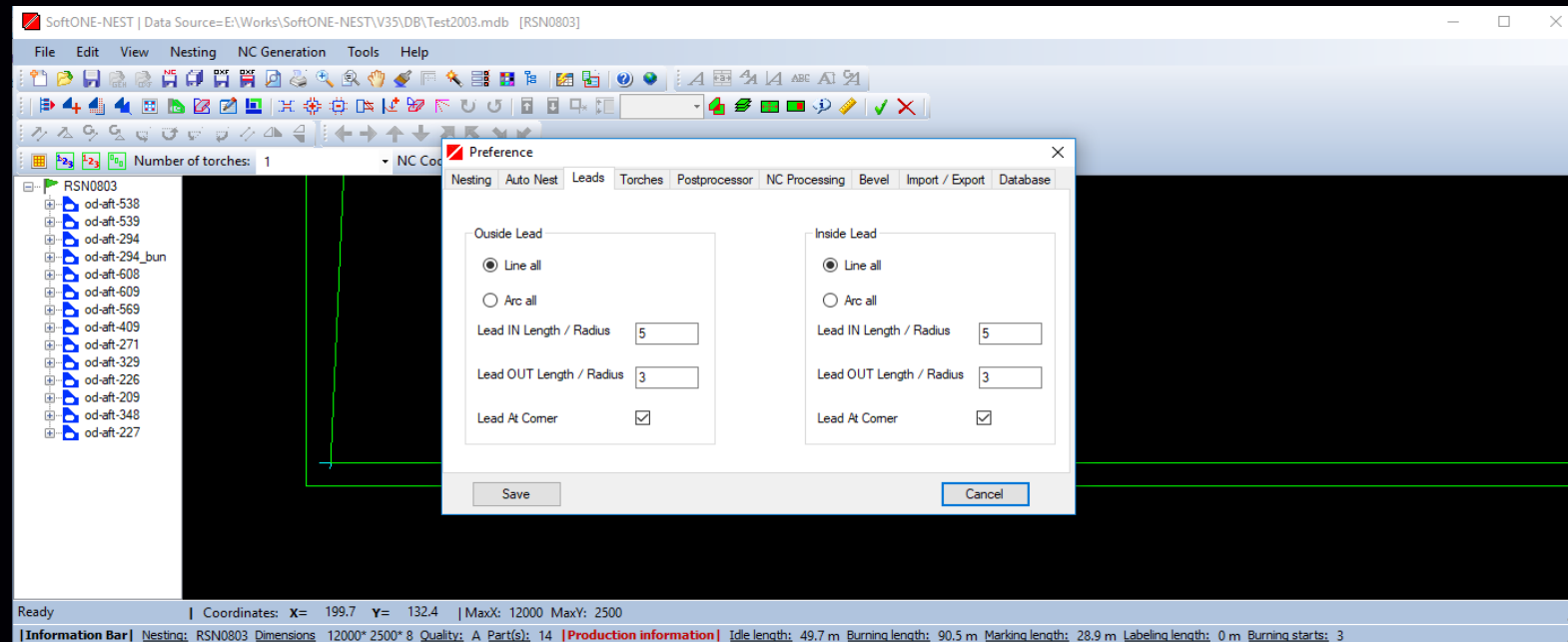
Drobeta Turnu Severin

Romania

Mail: office@onesoft.ro

Web: www.onesoft.ro

Leads...



Automatically add leads IN/OUT positions for outer, inner and marking contours

ONESoft Systems

Calomfirescu 182

Drobeta Turnu Severin

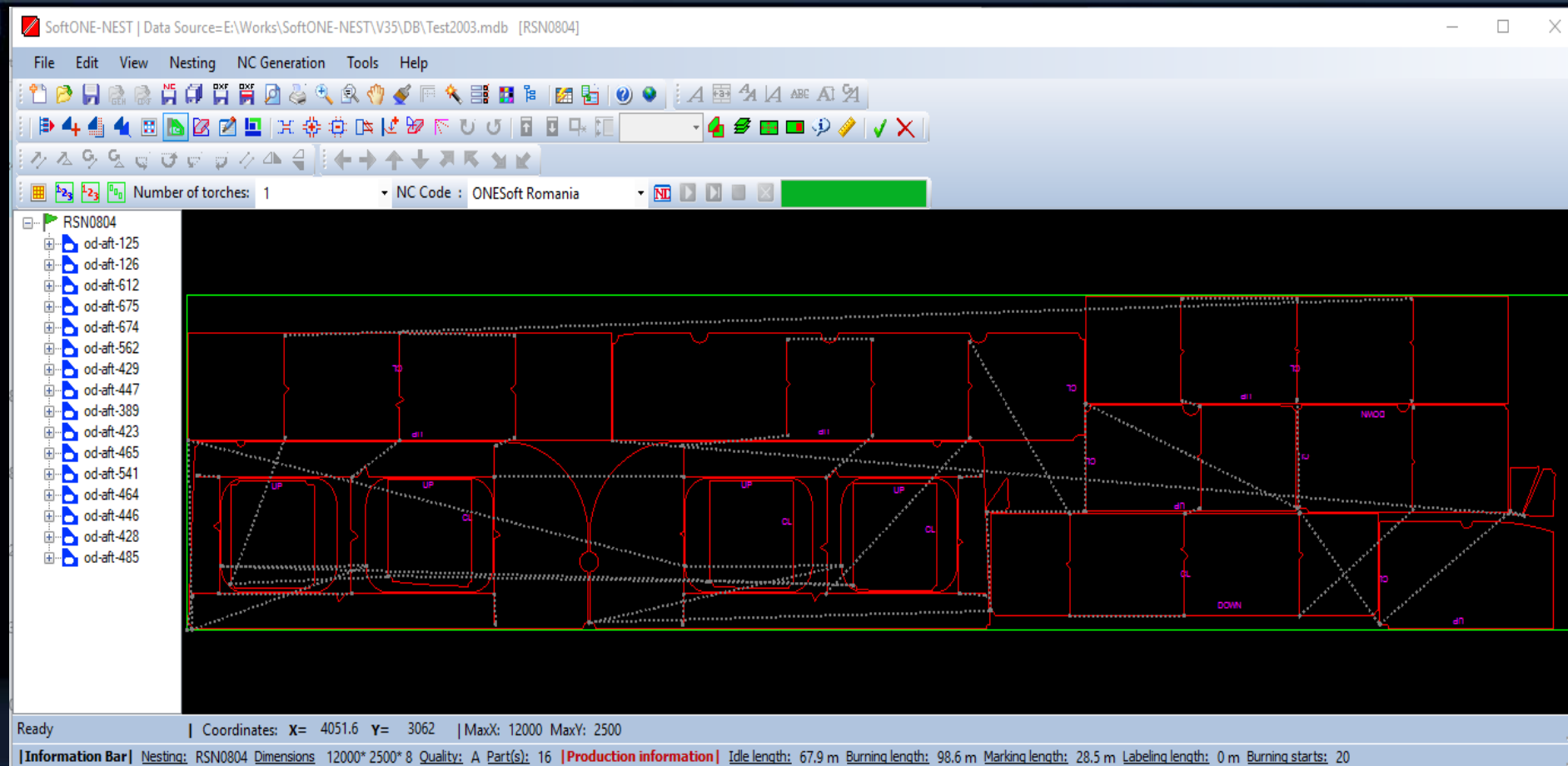
Romania

E-mail: office@onesoft.ro

Web: www.onesoft.ro

SoftONE-NEST

The power of nesting...



ONESoft Systems

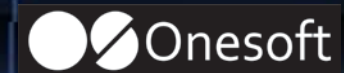
Calomfirescu 182

Drobeta Turnu Severin

Romania

Mail: office@onesoft.ro

Web: www.onesoft.ro





Flexible postprocessor

The power of nesting...

NC codes :

- ESSI
- ISO / G-CODE

Processes:

- Cutting
- Marking
- Labeling
- Bevel
- Drilling

External Postprocessors
are easy to integrate

ONESoft Systems

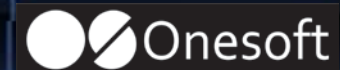
Calomfirescu 182

Drobeta Turnu Severin

Romania

Mail: office@onesoft.ro

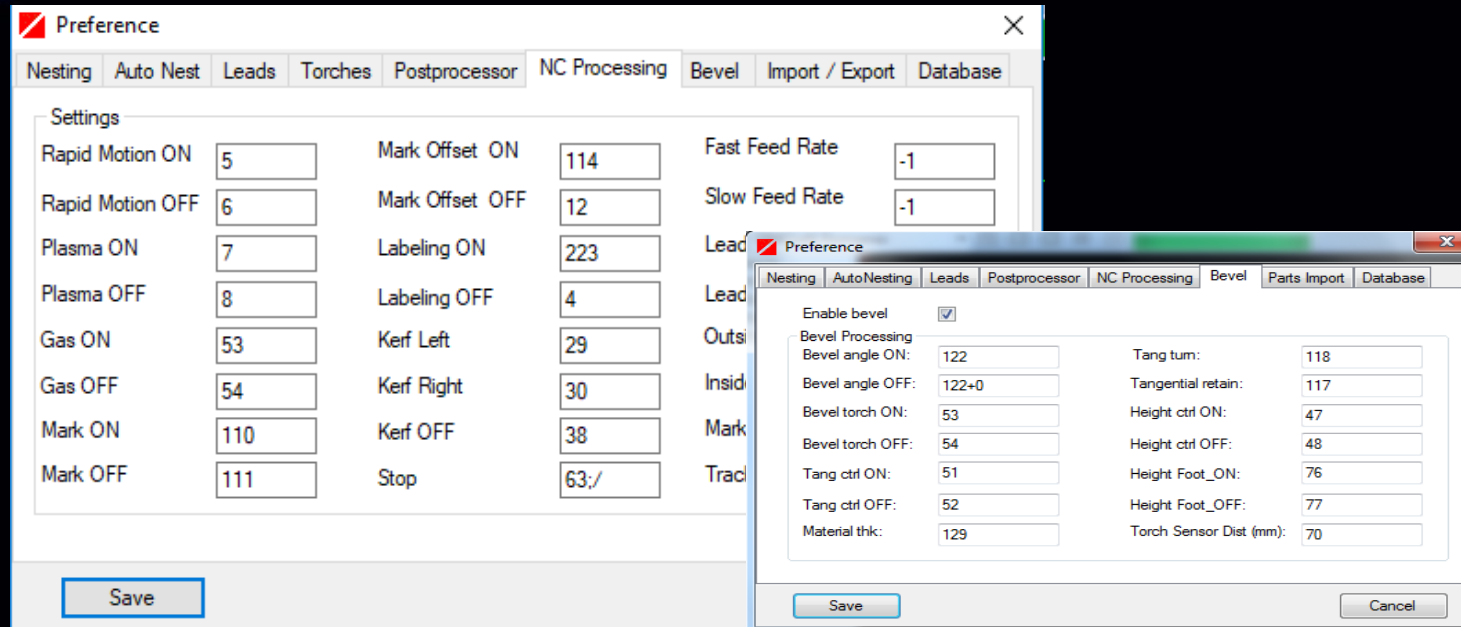
Web: www.onesoft.ro





Flexible postprocessor

The power of nesting...



- Support the industry standards ESSI & EIA (G-Code);
- Supporting a wide range of cutting machines, including ESAB, Koike, Messer;
- Latest Bevel & Labelling technology supported.
- Customized postprocessor development

Easy configuration and assignment of any new NC code. . .

ONESoft Systems

Calomfirescu 182

Drobeta Turnu Severin

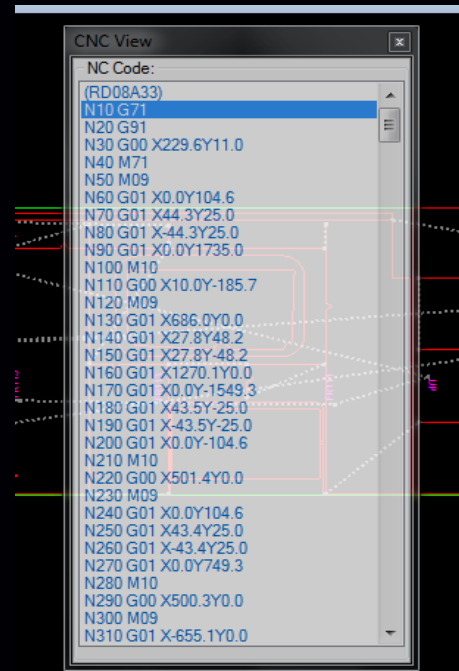
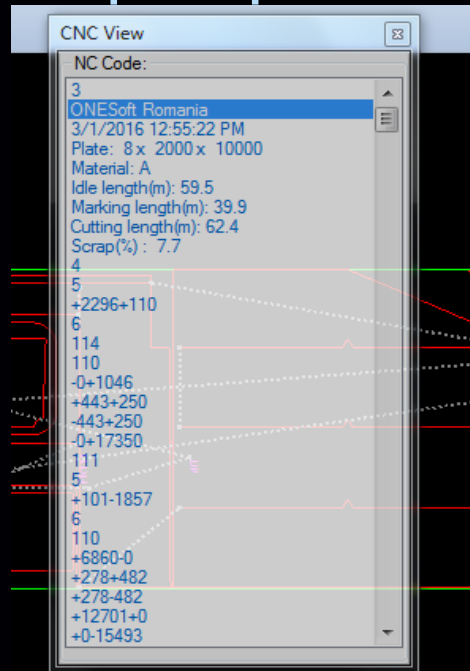
Romania

Mail: office@onesoft.ro

Web: www.onesoft.ro



Flexible postprocessor



Support the industry standard ESSI and ISO/G-Code.

ONESoft Systems

Calomfirescu 182

Drobeta Turnu Severin

Romania

Mail: office@onesoft.ro

Web: www.onesoft.ro





The power of nesting...

Management of parts and plates

Plates database inventory

Parts database inventory

Parts ordering

Rest plates database



ONESoft Systems

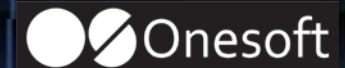
Calomfirescu 182

Drobeta Turnu Severin

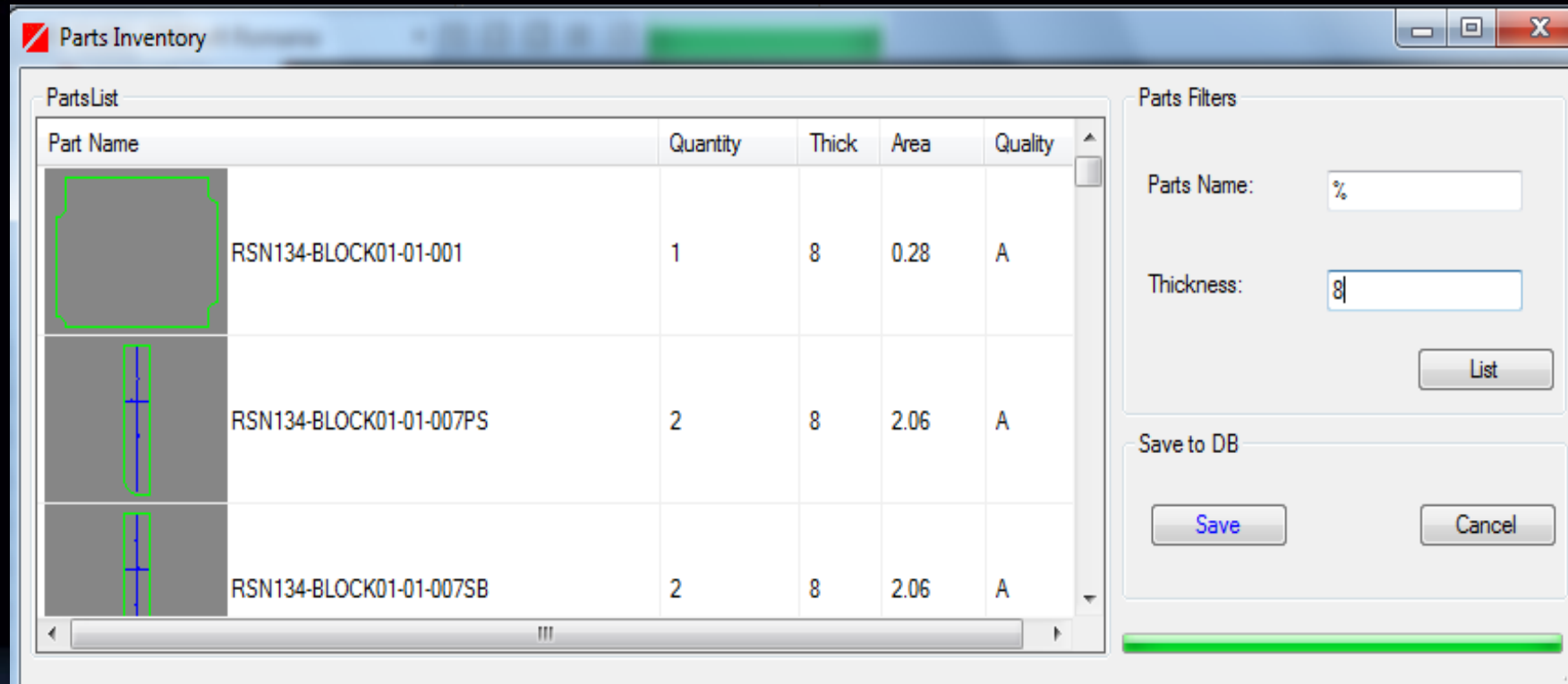
Romania

Mail: office@onesoft.ro

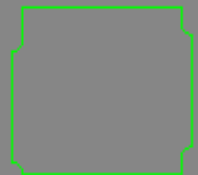
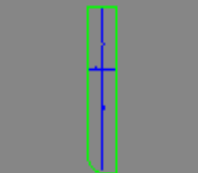
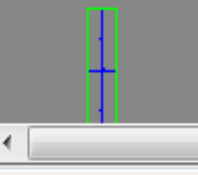
Web: www.onesoft.ro



Parts inventory database



The screenshot shows a software window titled "Parts Inventory". It contains a table with the following data:

Part Name	Quantity	Thick	Area	Quality
 RSN134-BLOCK01-01-001	1	8	0.28	A
 RSN134-BLOCK01-01-007PS	2	8	2.06	A
 RSN134-BLOCK01-01-007SB	2	8	2.06	A

On the right side of the window, there are "Parts Filters" and "Save to DB" sections. The "Parts Filters" section includes:

- Parts Name:
- Thickness:
- List button

The "Save to DB" section includes:

- Save button
- Cancel button

ONESoft Systems

Calomfirescu 182

Drobeta Turnu Severin

Romania

Mail: office@onesoft.ro

Web: www.onesoft.ro



Plates inventory database

Plate Inventory

Name	Length	Width	Thi...	Material	Sides P...	Stock	Used pl...	Reserved	Area	Weight	Date	ID	Parent	Type ^
Plate 6000x2500x10	6000	2500	10	A		9	1	0	15	1177.5	12/14/2015	17	0	0
Plate 12000x2500x8	12000	2500	8	A		1	3	0	30	1884	12/15/2015	21	0	0
Plate 12000x2500x5	12000	2500	5	A		0	0	0	30	1177.5	9/24/2018	22	0	2
Plate 12000x2000x9	12000	2000	9	A	1	2	0	0	24	1695.6	9/25/2018	23	0	1
Plate 2500x2000x10	2500	2000	10	A	1	0	0	0	5	392.5	9/25/2018	24	0	0
Plate test	12000	2500	10	A	0	2	0	0	30	2355	9/26/2018	25	0	0
ATEST2R1	3865	1137	10	A	0	1	0	0	4.4	345.4	10/4/2018	61	129	1
RSN0808R1	2098	2386	8	A	0	1	0	0	5	314	10/10/2018	62	9	1
ATEST6R1	7799	2468	10	A	0	1	0	0	19.2	1507.2	2/19/2019	63	71	1
ATEST6R2	4172	730	10	A	0	1	0	0	3	235.5	2/19/2019	64	71	1

Plate Definition

Name: ATEST6R2
 Type: Rest
 Length: 4172
 Width: 730
 Thickness: 10


Properties

Materials: A
 Stock: 1
 Sides Painted: 0
 Reserved: 0
 Date: Tuesday, February 19, 2019

DBInformation

Plate: 64
 Parent: 71
 Area: 3
 Weight: 235.5

Preview



ONESoft Systems

Calomfirescu 182

Drobeta Turnu Severin

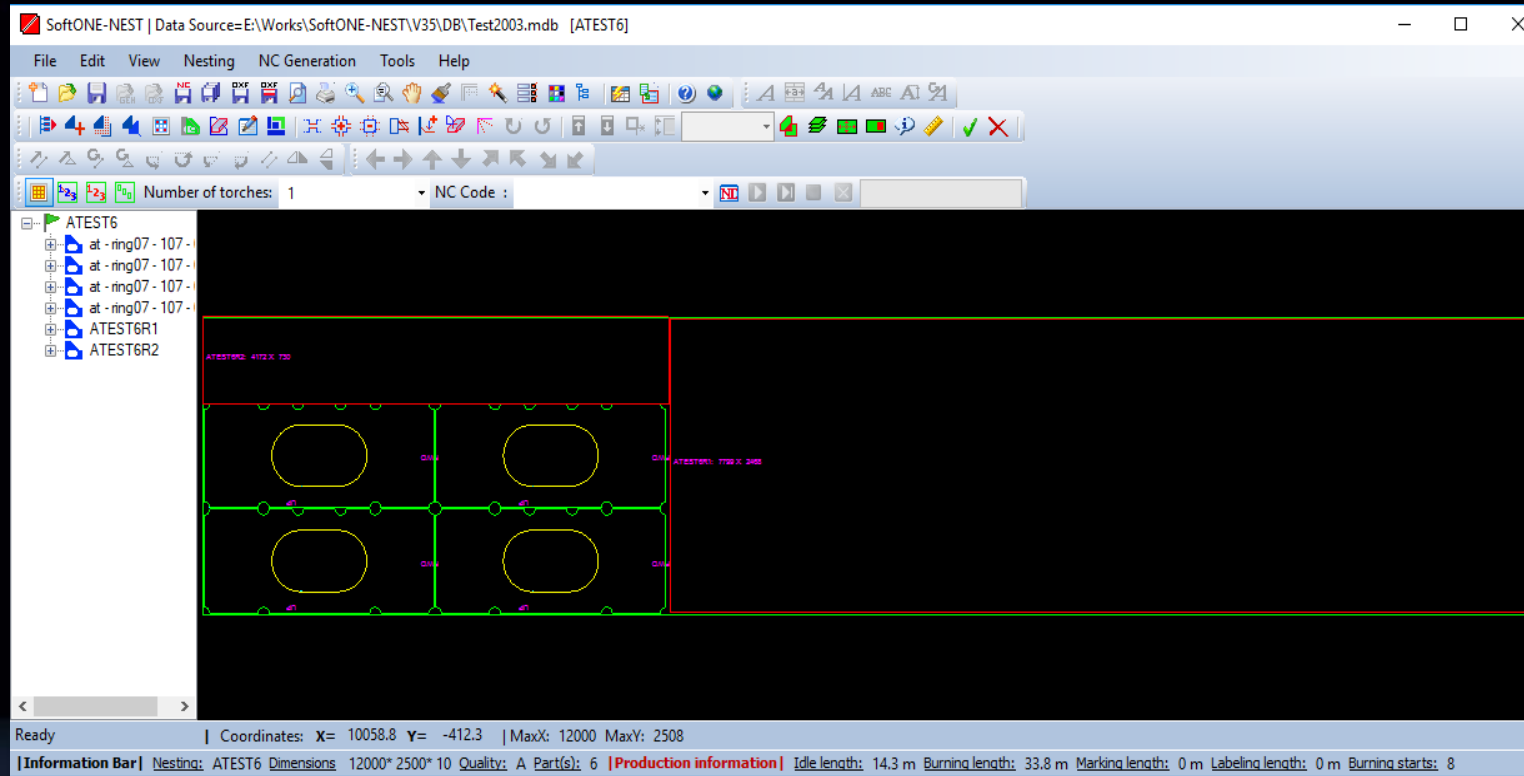
Romania

Mail: office@onesoft.ro

Web: www.onesoft.ro



Rest plates



- Create and store rests in inventory database
- Generate detailed reports.

ONESoft Systems

Calomfirescu 182

Drobeta Turnu Severin

Romania

Mail: office@onesoft.ro

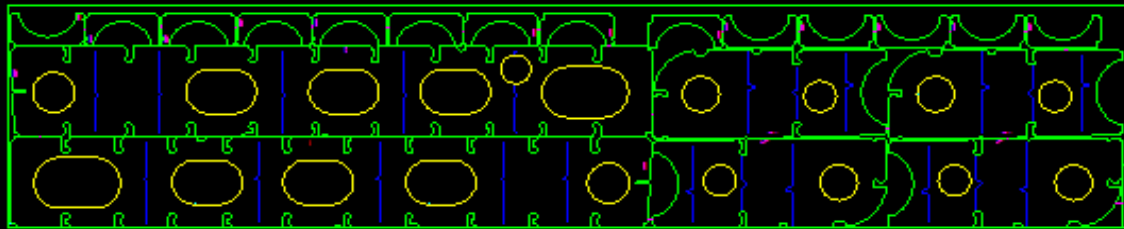
Web: www.onesoft.ro



SoftONE-NEST

The power of nesting...

“Real time” counting of nested parts when nest...



Preview	Quantity
	1
	0
	0
	-1

- Flexible “Drag & drop” or “double click” methods are used;
- Highlight the “status” of nested part in the “Parts explorer” list; Number of remaining parts to nest is shown;



ONESoft Systems

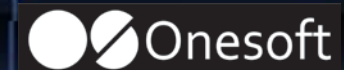
Calomfirescu 182

Drobeta Turnu Severin

Romania

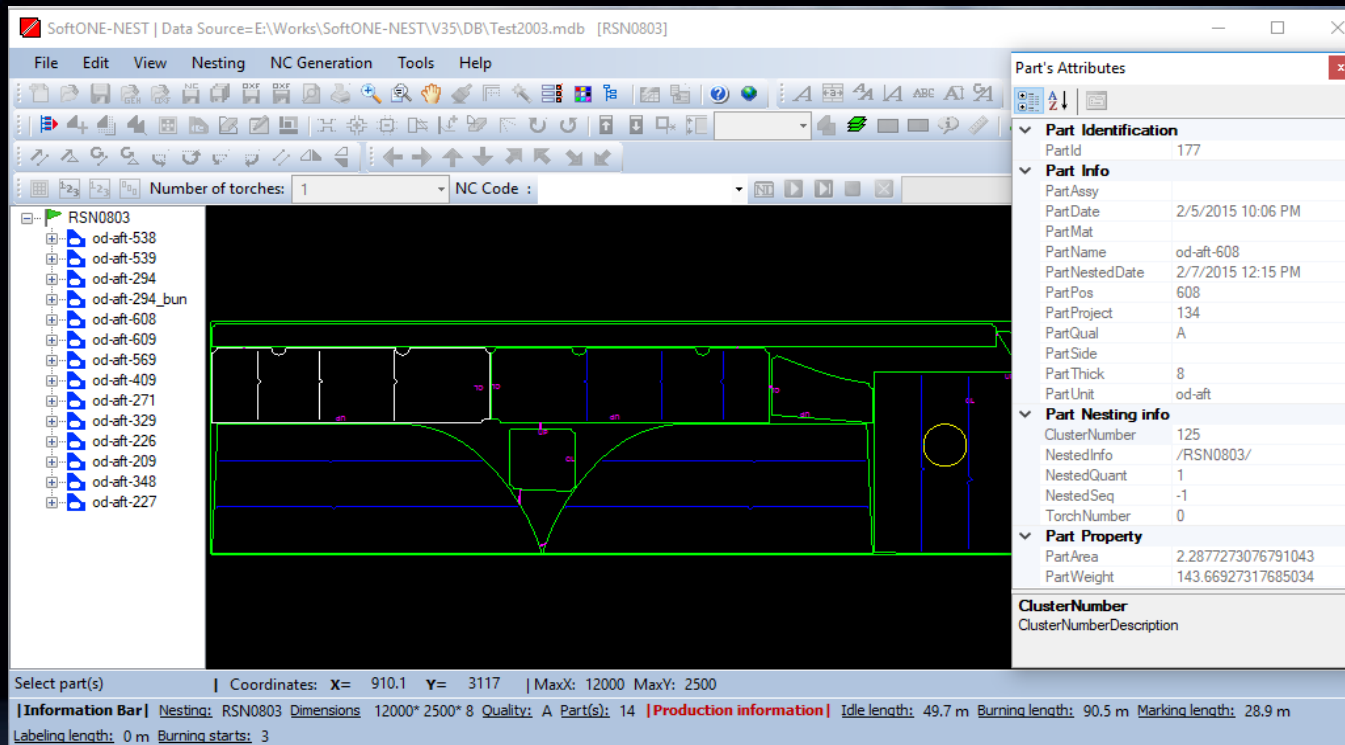
Mail: office@onesoft.ro

Web: www.onesoft.ro



Parts identification

The power of nesting...



The screenshot displays the SoftONE-NEST software interface. The main window shows a nesting layout with various parts outlined in green and blue. A 'Part's Attributes' window is open on the right, displaying detailed information for a selected part. The interface includes a menu bar (File, Edit, View, Nesting, NC Generation, Tools, Help), a toolbar, and a status bar at the bottom.

Part's Attributes	
Part Identification	
PartId	177
Part Info	
PartAssy	
PartDate	2/5/2015 10:06 PM
PartMat	
PartName	od-aft-608
PartNestDate	2/7/2015 12:15 PM
PartPos	608
PartProject	134
PartQual	A
PartSide	
PartThick	8
PartUnit	od-aft
Part Nesting info	
ClusterNumber	125
NestedInfo	/RSN0803/
NestedQuant	1
NestedSeq	-1
TorchNumber	0
Part Property	
PartArea	2.287727307691043
PartWeight	143.66927317685034
ClusterNumber	
ClusterNumberDescription	

Coordinates: X= 910.1 Y= 3117 | MaxX: 12000 MaxY: 2500
Nesting: RSN0803 Dimensions 12000* 2500* 8 Quality: A Part(s): 14 | Production information | Idle length: 49.7 m Burning length: 90.5 m Marking length: 28.9 m
Labeling length: 0 m Burning starts: 3

"Part's attributes" window show detailed part information of any nested part.

- Production information like position number, weight, date, side information are easy to find.
- Nesting jobs where the part is already nested is shown together of how many times the part was nested.

ONESoft Systems

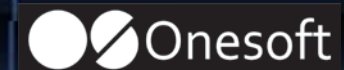
Calomfirescu 182

Drobeta Turnu Severin

Romania

Mail: office@onesoft.ro

Web: www.onesoft.ro



Parts import from different CAD/CAM systems

Automatic parts
import interfaces:

- **Autocad DXF** files;
 - **Aveva Marine** parts gen files;
 - **Rhinoceros DXF** parts from
SD Nautilus Rhino plugin
-
- **Nupas DXF** parts files;
 - **Smart Marine 3D** parts files;

ONESoft Systems

Calomfirescu 182

Drobeta Turnu Severin

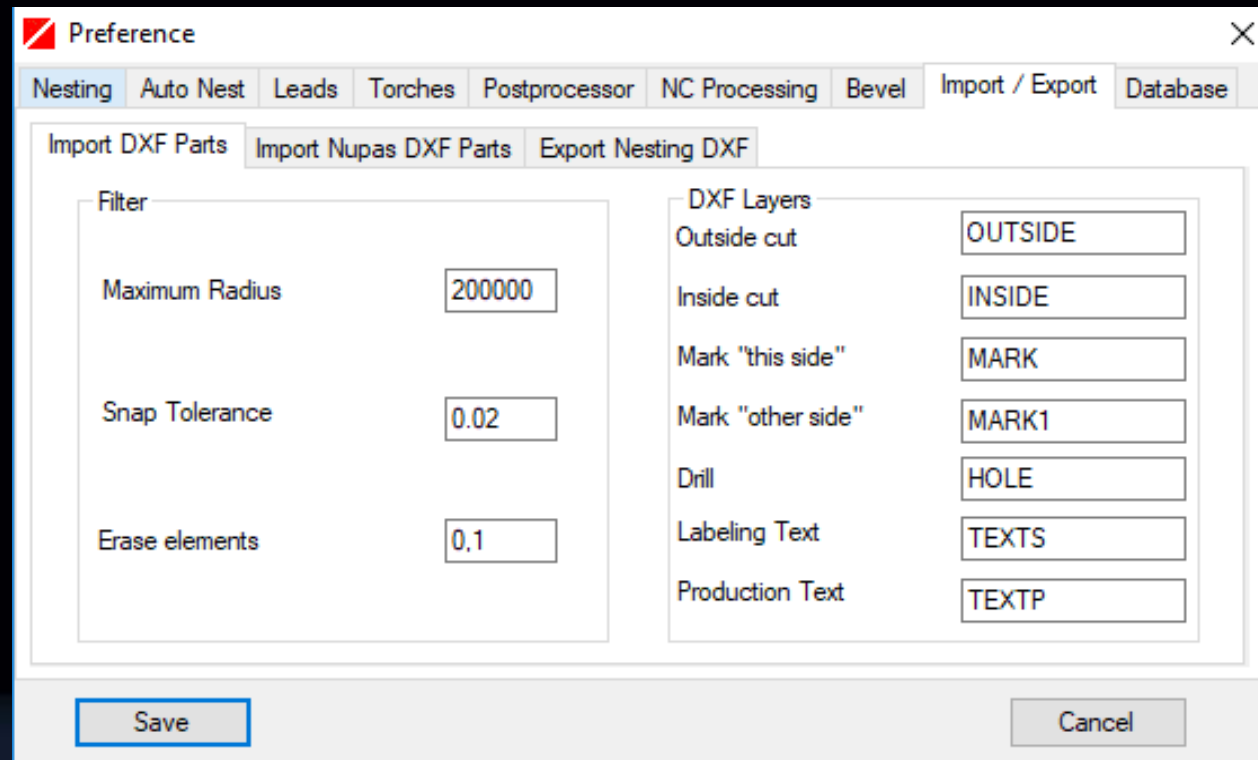
Romania

Mail: office@onesoft.ro

Web: www.onesoft.ro



Parts import interface settings



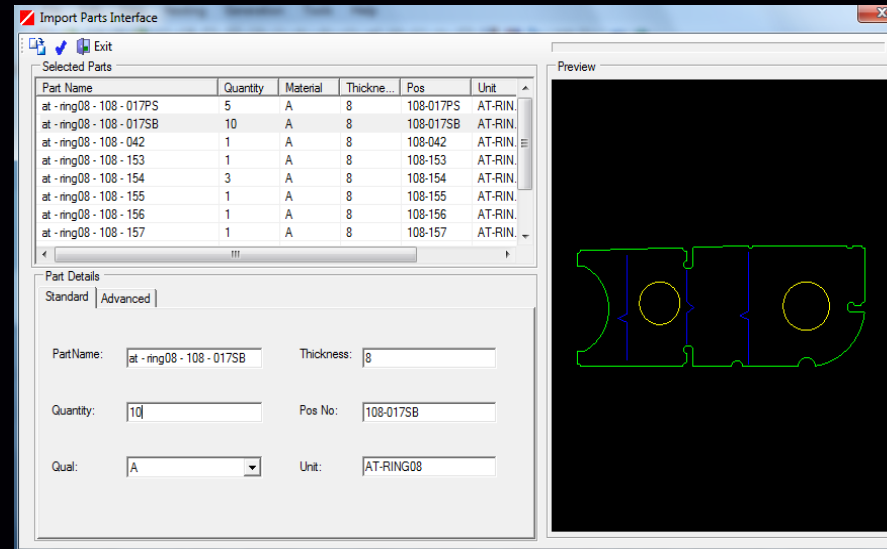
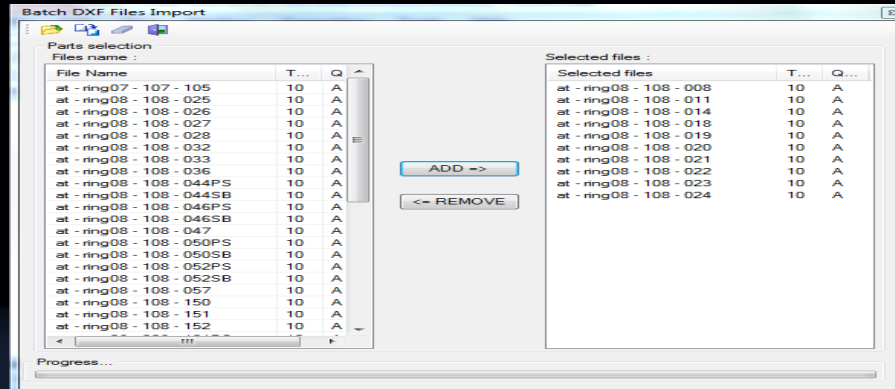
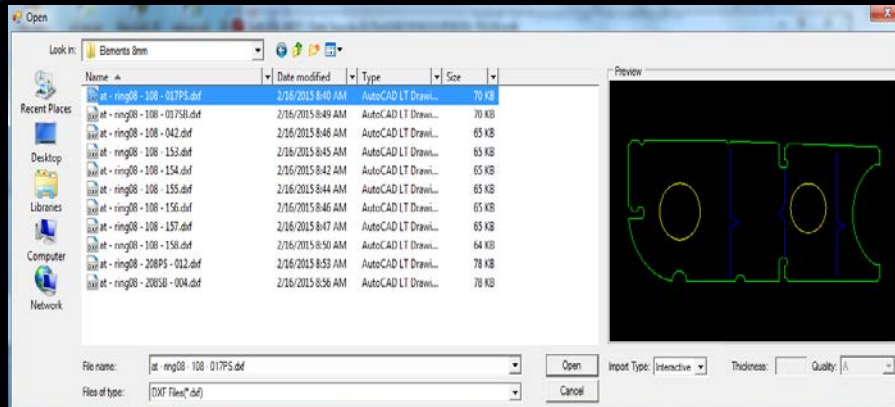
The screenshot shows the 'Preference' dialog box with the 'Import / Export' tab selected. The 'Import DXF Parts' sub-tab is active. The 'Filter' section contains three input fields: 'Maximum Radius' (200000), 'Snap Tolerance' (0.02), and 'Erase elements' (0.1). The 'DXF Layers' section contains six input fields: 'Outside cut' (OUTSIDE), 'Inside cut' (INSIDE), 'Mark "this side"' (MARK), 'Mark "other side"' (MARK1), 'Drill' (HOLE), and 'Labeling Text' (TEXTS). The 'Production Text' field is set to TEXTP. 'Save' and 'Cancel' buttons are at the bottom.

Section	Parameter	Value
Filter	Maximum Radius	200000
	Snap Tolerance	0.02
	Erase elements	0.1
DXF Layers	Outside cut	OUTSIDE
	Inside cut	INSIDE
	Mark "this side"	MARK
	Mark "other side"	MARK1
	Drill	HOLE
	Labeling Text	TEXTS
Production Text	TEXTP	

Automatically import from:

- Autocad DXF files;
 - Aveva Marine parts gen files;
 - Nupas DXF parts files;
 - Smart Marine 3D XML parts files;
-
- Map layers to processes (marking, cutting, labeling)
 - Qualities settings;
 - **Add the bevel & production info according with 3D model;**
 - Enable automatic internal/external contour recognition and error correction during part creation.

Standard DXF Parts import interface: automatic or manual



- Parts Production Information (PPI) are available for modification!
- Part quantities, material properties, pos. no etc. can be specified at import stage.
- DXF "tags" for production information can be used.

ONESoft Systems

Calomfirescu 182

Drobeta Turnu Severin

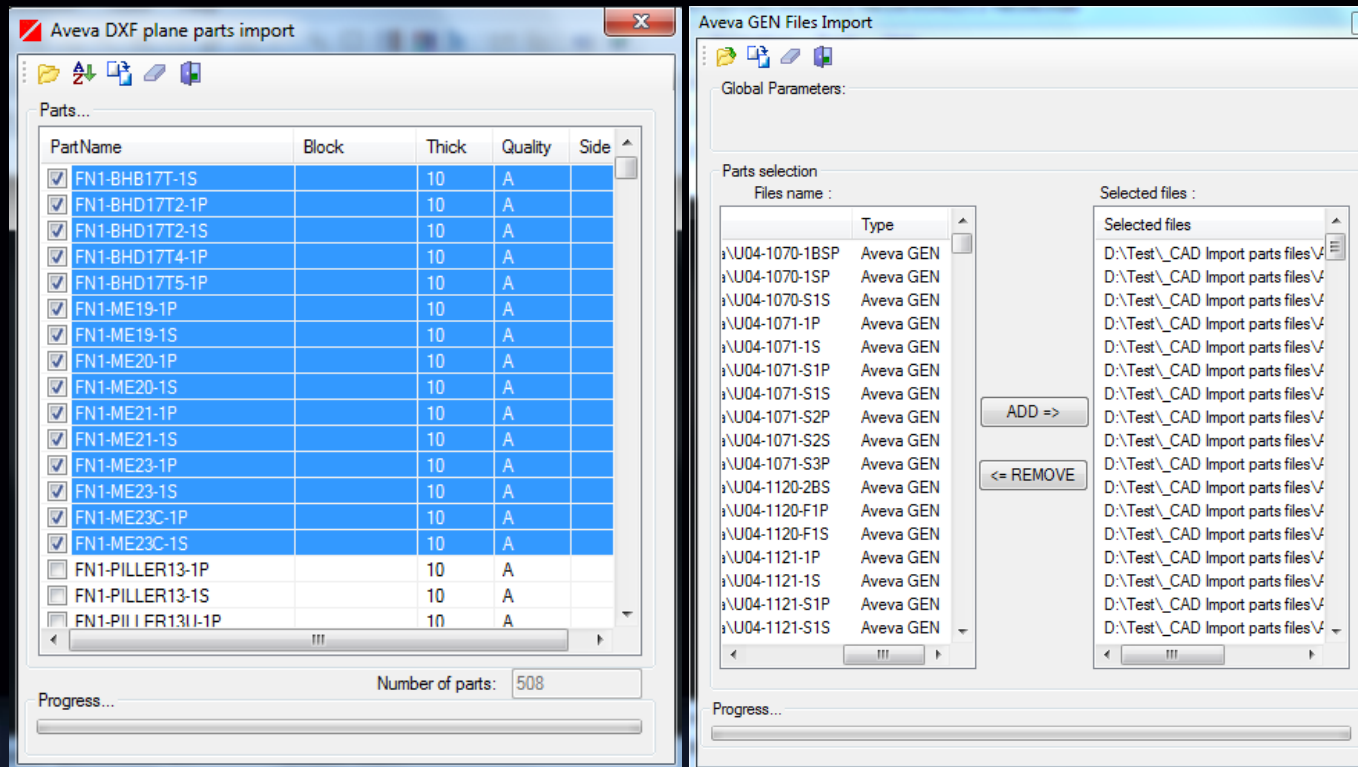
Romania

Mail: office@onesoft.ro

Web: www.onesoft.ro



Aveva Marine Parts import interface



Automatically parts import file types:

- ppanparts dxf files
- Parts "gen" files

- Production information (e.g. position, assembly info) are automatically imported;
- Bevel information automatically added; NC files with bevel instruction supported.

ONESoft Systems

Calomfirescu 182

Drobeta Turnu Severin

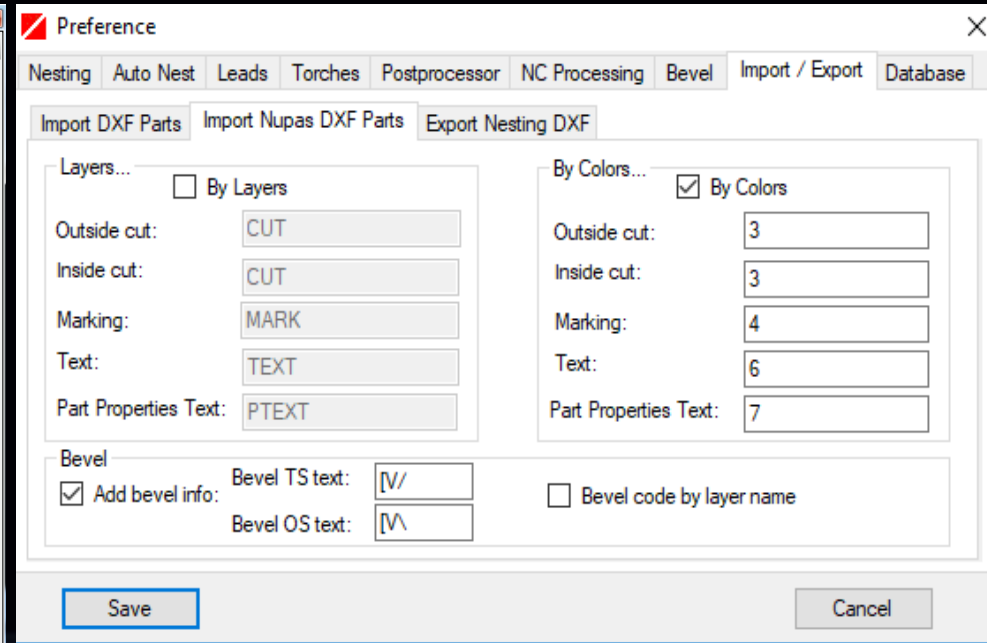
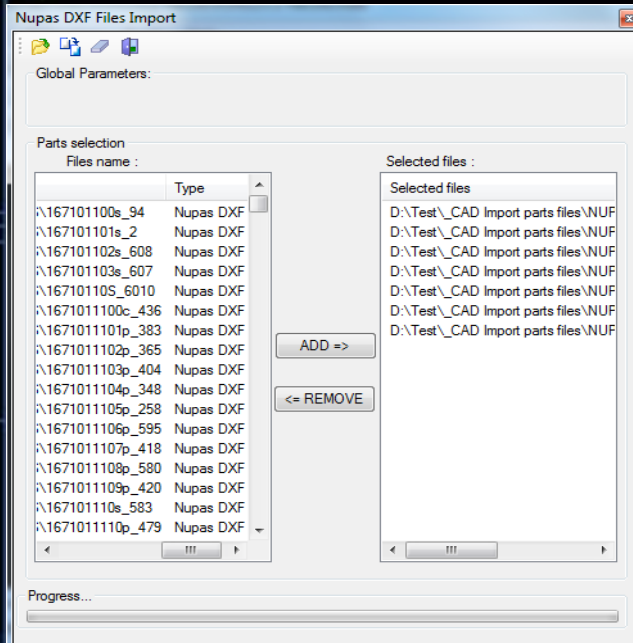
Romania

Mail: office@onesoft.ro

Web: www.onesoft.ro



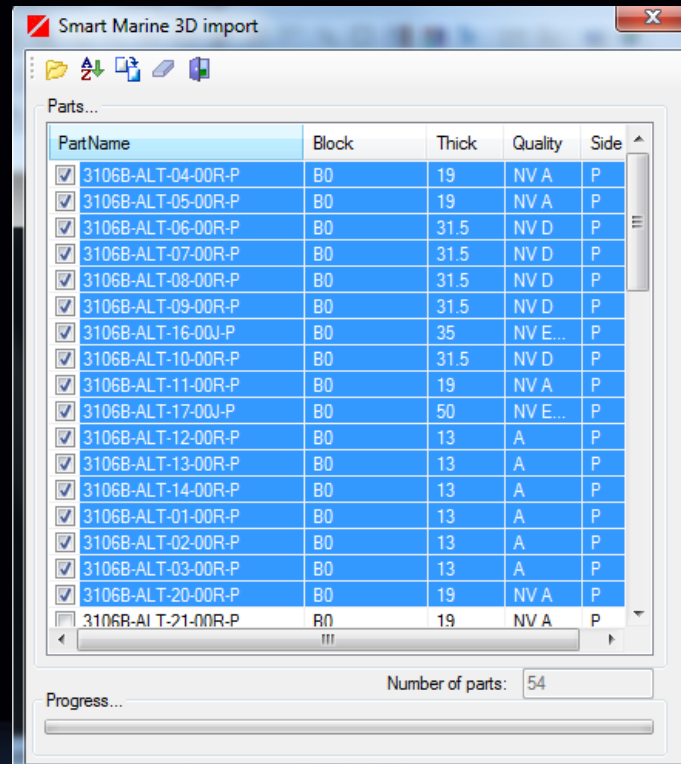
Nupas Cadmatic import interface



- Automatically imports NUPAS DXF parts file into SoftONE-NEST parts database.

- Production information (e.g. position, assembly info) are automatically imported;
- Bevel information automatically added; NC files with bevel instruction supported.

Smart Marine 3D import interface



- Automatically imports SM3D xml parts file into SoftONE-NEST parts database

- Production information (e.g. position, assembly info) are automatically imported;
- Bevel information automatically added; NC files with bevel instruction supported.

ONESoft Systems

Calomfirescu 182

Drobeta Turnu Severin

Romania

Mail: office@onesoft.ro

Web: www.onesoft.ro



FULL production reports; Nesting sketches generation

Automatic production nesting sketch creation

Detailed reports:

- Bill Of Materials
- Part List
- Nesting used plates

Export to other systems like:

- Excel
- Other database for ERP integration

ONESoft Systems

Calomfirescu 182

Drobeta Turnu Severin

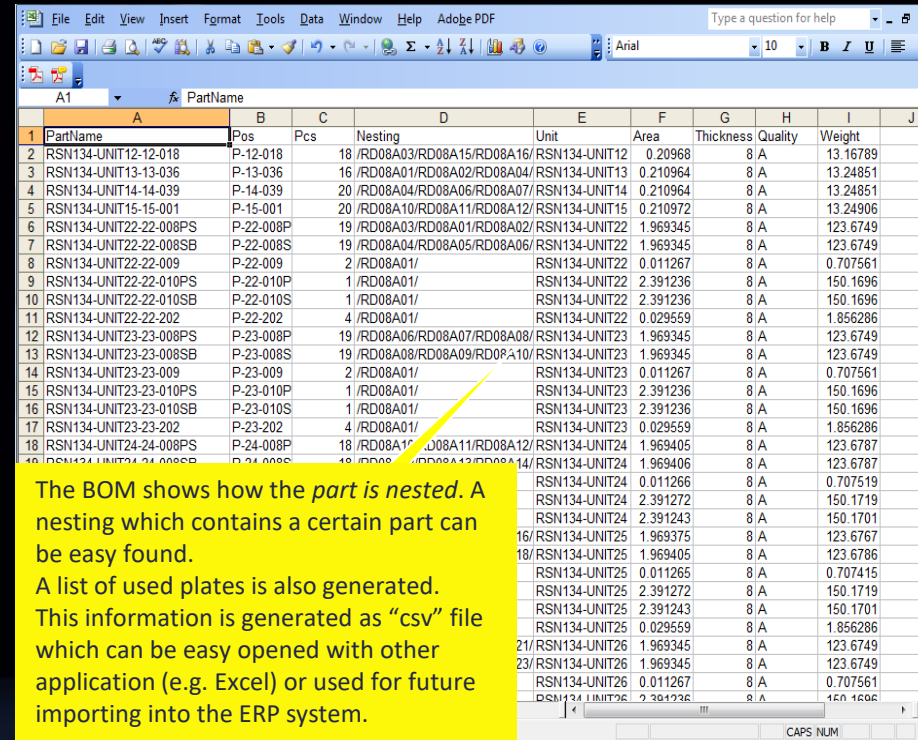
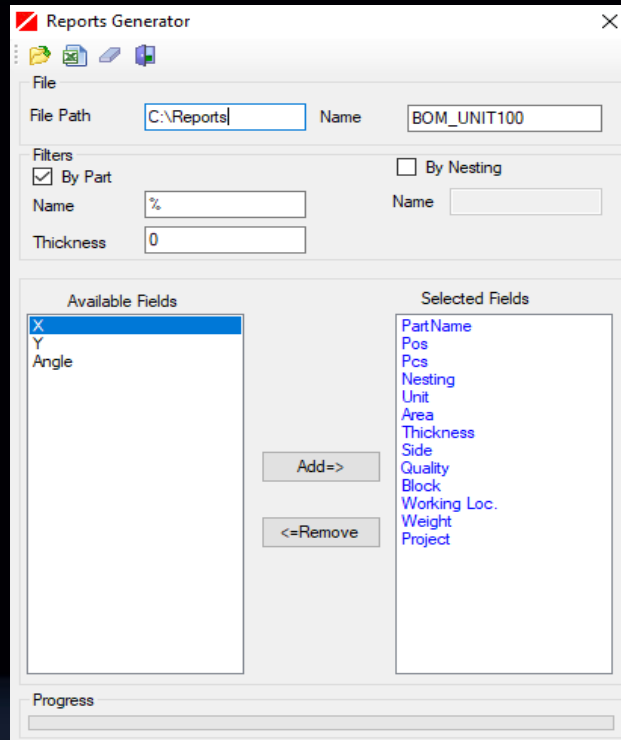
Romania

Mail: office@onesoft.ro

Web: www.onesoft.ro



Bill of Materials, BOM automatic report generation



	A	B	C	D	E	F	G	H	I	J
	PartName	Pos	Pcs	Nesting	Unit	Area	Thickness	Quality	Weight	
1	RSN134-UNIT12-12-018	P-12-018	18	/RD08A03/RD08A15/RD08A16/	RSN134-UNIT12	0.20968	8 A		13.16789	
2	RSN134-UNIT13-13-036	P-13-036	16	/RD08A01/RD08A02/RD08A04/	RSN134-UNIT13	0.210964	8 A		13.24851	
3	RSN134-UNIT14-14-039	P-14-039	20	/RD08A04/RD08A06/RD08A07/	RSN134-UNIT14	0.210964	8 A		13.24851	
4	RSN134-UNIT15-15-001	P-15-001	20	/RD08A10/RD08A11/RD08A12/	RSN134-UNIT15	0.210972	8 A		13.24906	
5	RSN134-UNIT22-22-008PS	P-22-008P	19	/RD08A03/RD08A01/RD08A02/	RSN134-UNIT22	1.969345	8 A		123.6749	
6	RSN134-UNIT22-22-008SB	P-22-008S	19	/RD08A04/RD08A05/RD08A06/	RSN134-UNIT22	1.969345	8 A		123.6749	
7	RSN134-UNIT22-22-009	P-22-009	2	/RD08A01/	RSN134-UNIT22	0.011267	8 A		0.707561	
8	RSN134-UNIT22-22-010PS	P-22-010P	1	/RD08A01/	RSN134-UNIT22	2.391236	8 A		150.1696	
9	RSN134-UNIT22-22-010SB	P-22-010S	1	/RD08A01/	RSN134-UNIT22	2.391236	8 A		150.1696	
10	RSN134-UNIT22-22-202	P-22-202	4	/RD08A01/	RSN134-UNIT22	0.029559	8 A		1.856286	
11	RSN134-UNIT23-23-008PS	P-23-008P	19	/RD08A06/RD08A07/RD08A08/	RSN134-UNIT23	1.969345	8 A		123.6749	
12	RSN134-UNIT23-23-008SB	P-23-008S	19	/RD08A08/RD08A09/RD08A10/	RSN134-UNIT23	1.969345	8 A		123.6749	
13	RSN134-UNIT23-23-009	P-23-009	2	/RD08A01/	RSN134-UNIT23	0.011267	8 A		0.707561	
14	RSN134-UNIT23-23-010PS	P-23-010P	1	/RD08A01/	RSN134-UNIT23	2.391236	8 A		150.1696	
15	RSN134-UNIT23-23-010SB	P-23-010S	1	/RD08A01/	RSN134-UNIT23	2.391236	8 A		150.1696	
16	RSN134-UNIT23-23-202	P-23-202	4	/RD08A01/	RSN134-UNIT23	0.029559	8 A		1.856286	
17	RSN134-UNIT24-24-008PS	P-24-008P	18	/RD08A10/RD08A11/RD08A12/	RSN134-UNIT24	1.969406	8 A		123.6787	
18	RSN134-UNIT24-24-008SB	P-24-008S	18	/RD08A12/RD08A13/RD08A14/	RSN134-UNIT24	1.969406	8 A		123.6787	
19	RSN134-UNIT24		0		RSN134-UNIT24	0.011266	8 A		0.707519	
20	RSN134-UNIT24		0		RSN134-UNIT24	2.391272	8 A		150.1719	
21	RSN134-UNIT24		0		RSN134-UNIT24	2.391243	8 A		150.1701	
22	RSN134-UNIT25		0		RSN134-UNIT25	1.969375	8 A		123.6767	
23	RSN134-UNIT25		0		RSN134-UNIT25	1.969405	8 A		123.6786	
24	RSN134-UNIT25		0		RSN134-UNIT25	0.011265	8 A		0.707415	
25	RSN134-UNIT25		0		RSN134-UNIT25	2.391272	8 A		150.1719	
26	RSN134-UNIT25		0		RSN134-UNIT25	2.391243	8 A		150.1701	
27	RSN134-UNIT25		0		RSN134-UNIT25	0.029559	8 A		1.856286	
28	RSN134-UNIT26		0		RSN134-UNIT26	1.969345	8 A		123.6749	
29	RSN134-UNIT26		0		RSN134-UNIT26	1.969345	8 A		123.6749	
30	RSN134-UNIT26		0		RSN134-UNIT26	0.011267	8 A		0.707561	
31	RSN134-UNIT26		0		RSN134-UNIT26	2.391236	8 A		150.1696	

Detailed reports are generated:

- Bill of Material
- Nested parts file;
- Nested used plates;

Nesting jobs which contain a certain part can be easy found

ONESoft Systems

Calomfirescu 182

Drobeta Turnu Severin

Romania

Mail: office@onesoft.ro

Web: www.onesoft.ro





The power of nesting...

Nesting plates report; customized reports

1	Name	Thickness	Width	Length	Quality	Scrap	Burning Length	Status	Stock
2	RD08A03	8	2000	12000	A	20.1	120488.0	In Production	Stock
3	RD08A15	8	2000	12000	A	20.1	120487.6	In Production	Stock
4	RD08A16	8	2000	12000	A	20.2	120424.3	In Production	Stock
5	RD08A17	8	2000	12000	A	20.2	120781.7	In Production	Stock
6	RD08A18	8	2000	12000	A	20.2	120454.9	In Production	Stock
7	RD08A19	8	2000	12000	A	20.1	120683.5	In Production	Stock
8	RD08A01	8	2000	12000	A	7.2	116467.6	Pending	Stock
9	RD08A02	8	2000	12000	A	10	100053.0	In Production	Stock
10	RD08A04	8	2000	12000	A	20.1	120432.5	In Production	Stock
11	RD08A05	8	2000	12000	A	20.1	120517.1	In Production	Stock
12	RD08A06	8	2000	12000	A	20.1	120406.0	In Production	Stock
13	RD08A07	8	2000	12000	A	20.1	120456.6	In Production	Stock
14	RD08A08	8	2000	12000	A	20.1	120477.1	In Production	Stock
15	RD08A09	8	2000	12000	A	20.1	120399.5	In Production	Stock
16	RD08A10	8	2000	12000	A	20.1	120427.0	In Production	Stock
17	RD08A11	8	2000	12000	A	20.1	120461.9	In Production	Stock
18	RD08A12	8	2000	12000	A	20.1	120694.6	In Production	Stock
19	RD08A13	8	2000	12000	A	20.1	120491.0	In Production	Stock
20	RD08A14	8	2000	12000	A	20.1	120379.6	In Production	Stock
21	RD08A20	8	2000	12000	A	17.8	128577.5	In Production	Stock
22	RD08A21	8	2000	12000	A	11.8	156015.8	In Production	Stock
23	RD08A22	8	2000	12000	A	14.5	148580.0	In Production	Stock
24	RD08A23	8	2000	12000	A	7	187244.9	In Production	Stock
25	RD08A24	8	2000	12000	A	5.5	132062.5	In Production	Stock
26	RD08A25	8	2000	6000	A	5.5	70248.8	In Production	Stock
27	RD08A27	8	1800	11500	A	8.400001	110416.0	In Production	Stock
28	RD08A28	8	1800	11500	A	10.7	193450.9	In Production	Stock
29	RD08A29	8	1800	11500	A	6.8	85122.8	In Production	Stock
30	RD08A26	8	2000	6000	A	7.9	73887.2	In Production	Stock
31	RD08A42	8	2500	12000	A	10.6	108966.9	In Production	Stock
32	RD08A41	8	2500	12000	A	13	97001.6	In Production	Stock

Part Name	Pos	Block	Area(m^2)	Thk	WL	Unit	Side	Qual	Weight (Kg)	Mat
RSN134-UNIT12-12-018	12-018		0.21	8		RSN134-UNIT12		A	13.17	Steel
RSN134-UNIT12-12-009	12-009		30.78	9		RSN134-UNIT12		A	2174.56	Steel
RSN134-UNIT12-12-010	12-010		30.78	9		RSN134-UNIT12		A	2174.56	Steel
RSN134-UNIT12-12-011	12-011		30.78	9		RSN134-UNIT12		A	2174.56	Steel
RSN134-UNIT12-12-012	12-012		29.59	9		RSN134-UNIT12		A	2090.28	Steel
RSN134-UNIT12-12-013PS	12-013PS		4.57	9		RSN134-UNIT12		AH36	322.6	Steel
RSN134-UNIT12-12-013SB	12-013SB		4.57	9		RSN134-UNIT12		AH36	322.6	Steel
RSN134-UNIT12-12-019	12-019		7.06	9		RSN134-UNIT12		AH36	498.51	Steel
RSN134-UNIT12-12-025	12-025		1.6	9		RSN134-UNIT12		AH36	112.96	Steel
RSN134-UNIT12-12-026	12-026		1.35	9		RSN134-UNIT12		AH36	95.51	Steel
RSN134-UNIT12-12-027	12-027		1.6	9		RSN134-UNIT12		AH36	113.01	Steel
RSN134-UNIT12-12-029	12-029		1.35	9		RSN134-UNIT12		AH36	95.55	Steel
RSN134-UNIT12-12-031	12-031		3.93	9		RSN134-UNIT12		AH36	277.33	Steel
RSN134-UNIT12-12-032	12-032		2.02	9		RSN134-UNIT12		AH36	142.51	Steel

ONESoft Systems

Calomfirescu 182

Drobeta Turnu Severin

Romania

Mail: office@onesoft.ro

Web: www.onesoft.ro

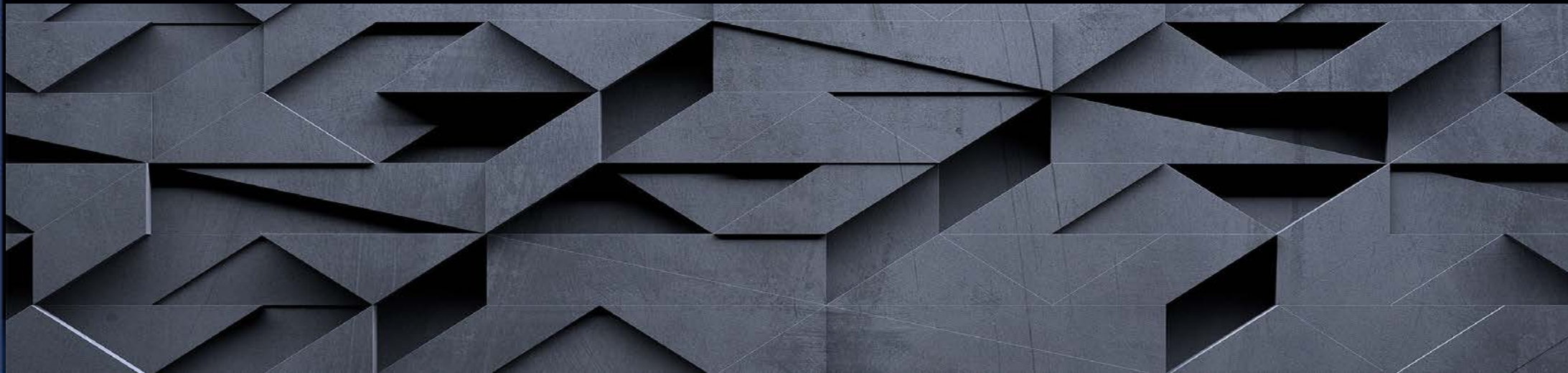




The power of nesting...

CAD/CAM Nesting software | NC PostProcessor software

SOFTONE-NEST



ONESoft Systems

Calomfirescu 182

Drobeta Turnu Severin

Romania

Phone: +40741016071

Mail: office@onesoft.ro

Web: www.onesoft.ro

