B-Ship+
CAD/CAM system
for shipbuilding and machinery

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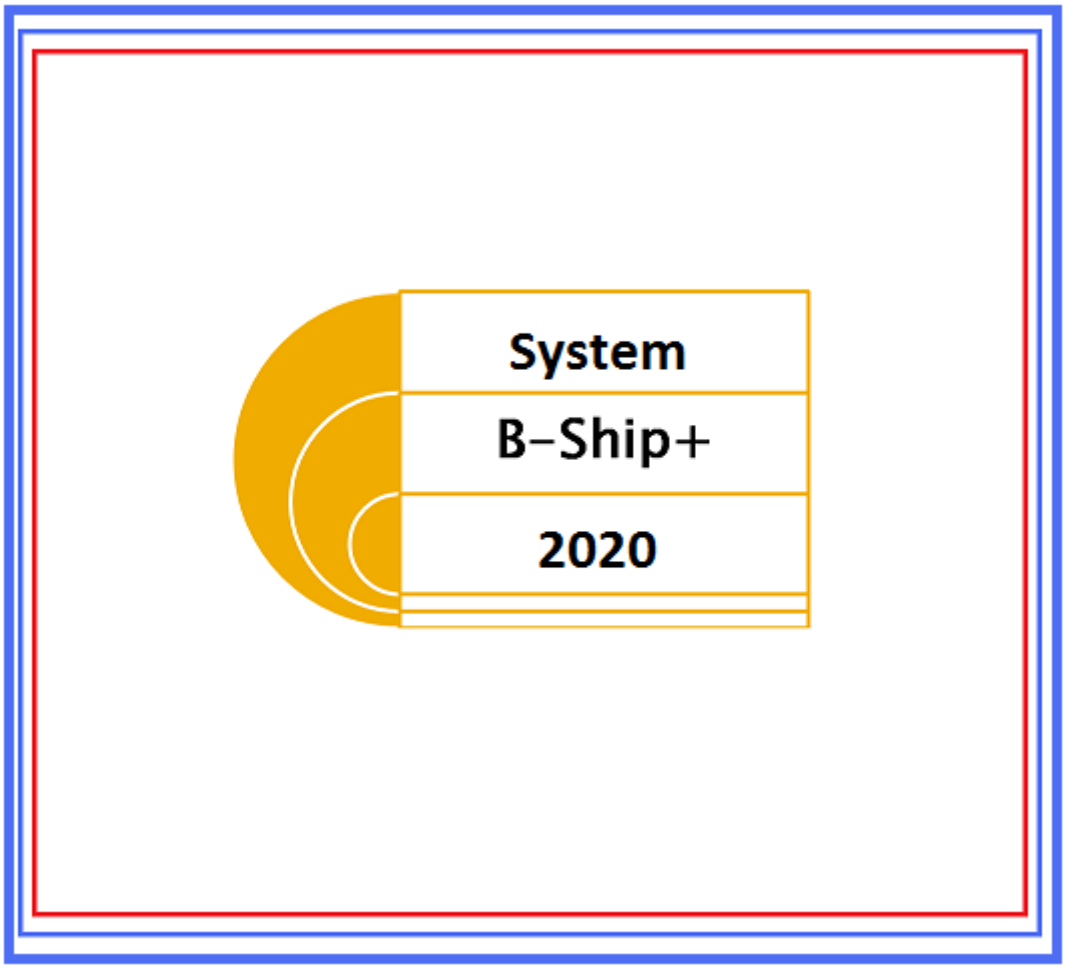
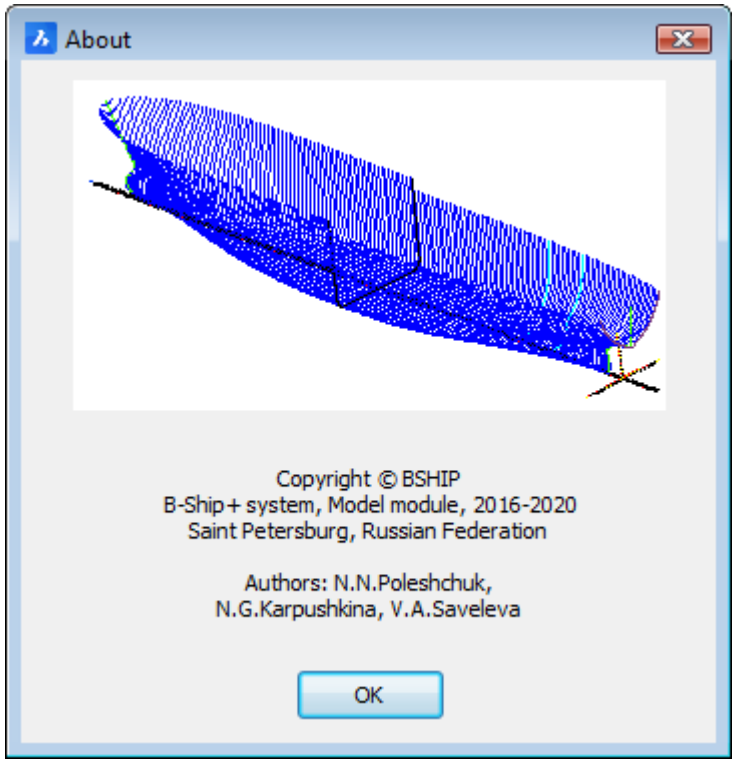
Splash Screen

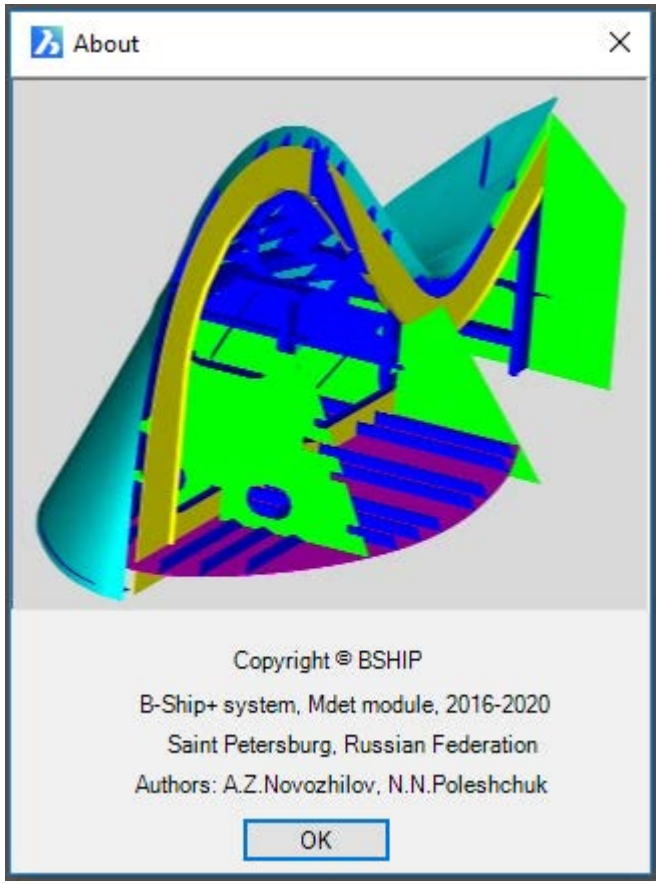


Application Field

- Shipyards (shipbuilding and shiprepair)
- Machinery enterprises
- Workshops working with sheet metal
- Design bureaux creating documents and CNC programs for ship or machine building

User Interface Language Selection


About
Copyright © BSHIP
B-Ship+ system, Model module, 2016-2020
Saint Petersburg, Russian Federation
Authors: N.N.Poleshchuk,
N.G.Karpushkina, V.A.Saveleva
OK

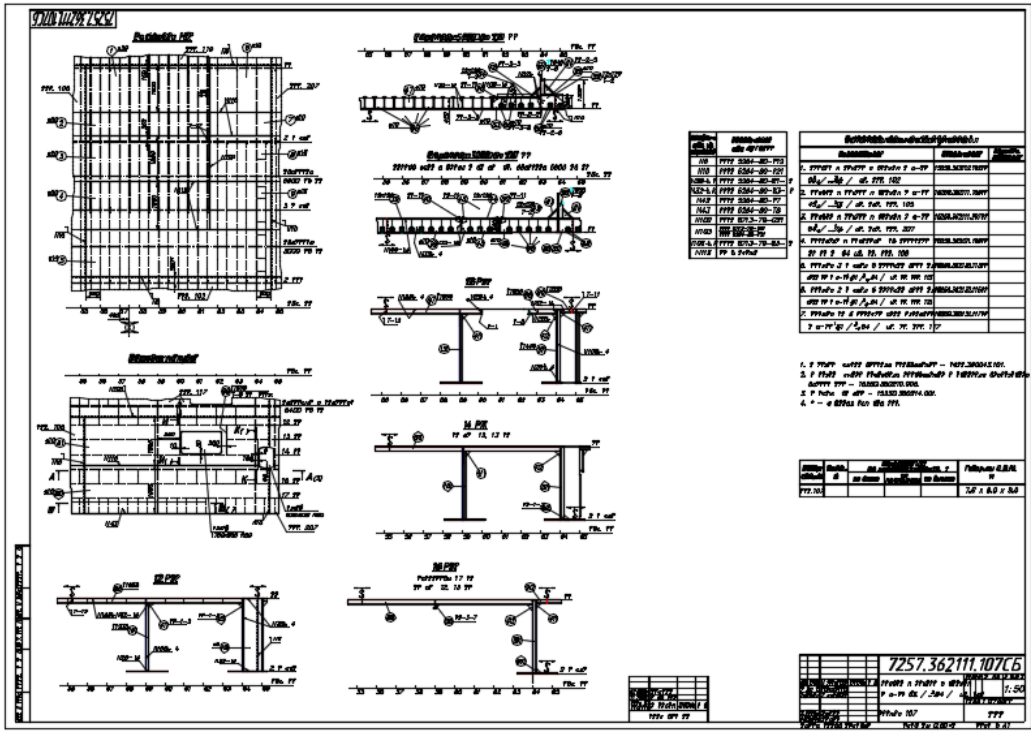

About
Copyright © BSHIP
B-Ship+ system, Mdet module, 2016-2020
Saint Petersburg, Russian Federation
Authors: A.Z.Novozhilov, N.N.Poleshchuk
OK

Main Goal

- The central object is **part**, or piece of structure (manufactured from sheet metal or profile bar).
- The system generates various information and docs for part manufacturing (for workshop technological operations).
- The most difficult technological operation is sheet **cutting** with CNC programs based on **nesting maps** of the sheet metal. CNC cutting programs can be extended with edge handling info (angle of bevel etc.).

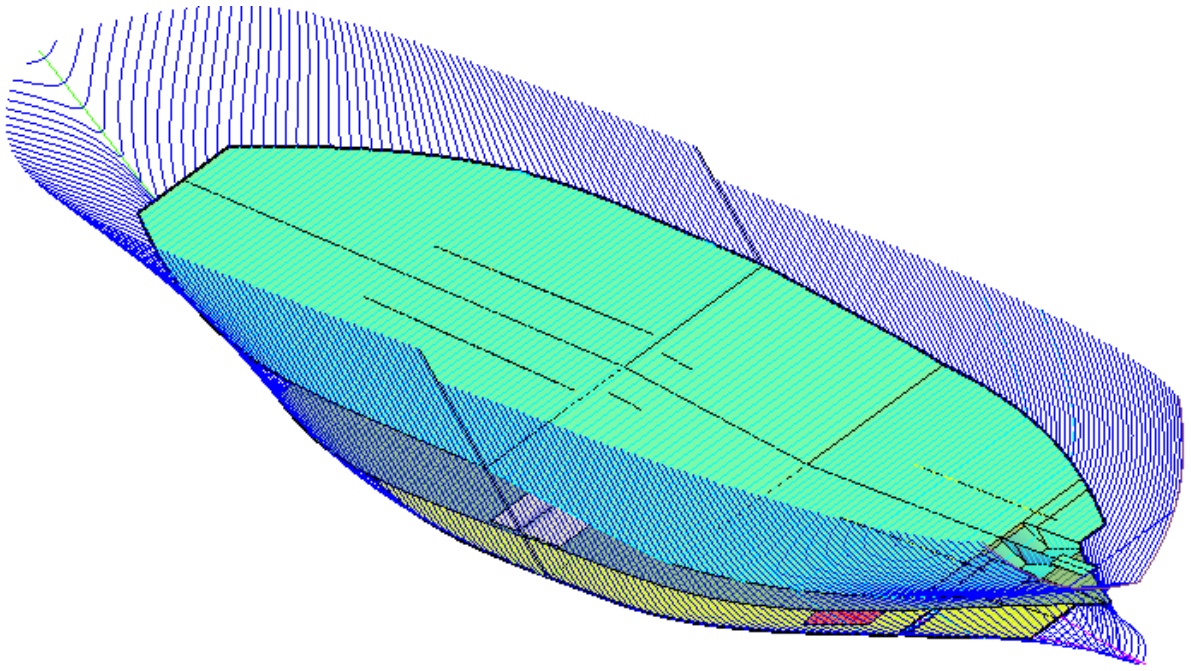
Input data (main path)

- Design drawings (dwg files)
- Parts lists



Input data (extended path)

- 3D wireframe or surface hull shell model (dwg)
- Imported 3D model sections from heavy CAD systems (Aveva, Foran, etc.)



Main Output

- CNC programs for parts manufacturing:
  - cutting routes
  - marking lines for layouts
  - marking text for labels
- DWG documents for parts (working part sketches)
- DWG documents for sheet nesting maps
- Excel tables with data for parts, nesting maps

Extended Output

- Curved shell sheets development (approximation)
- Shell surface assembly and bending tools (templates, schemes etc.)
- Objects in 3D model built with specific drawing tools (loft, plaz calculations)

- Hull loftbooks (part 1 and part 2)
- Shell expansion

Sample CNC Programs

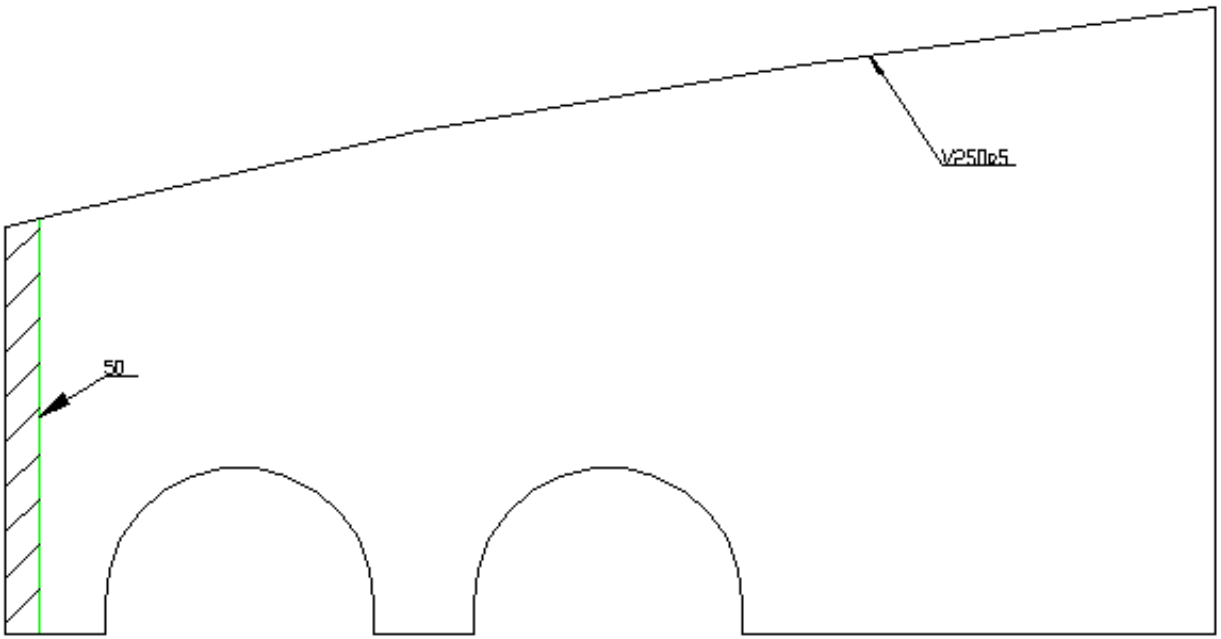
- 3
- BS103.00900001 17/08/28 19-16-28 6000.0 1600.0 9.0
- 4
- 17
- 5
- +1377+866
- 6
- 7
- ++100
- ++9644
- +13830+
- +-9468
- -13830-176
- 8
- 5
- +15366-73
- 6
- 7
- -71+71
- -500+493-485+9+
- ++3902
- +309+309
- +4783+
- +308-309
- +-3833
- -499-506-15-485+
- -4401-56

- G71
- G90
- G162
- #CS ON [V.E.START_X,V.E.START_Y,0,0,0,V.E.ROTATION]
- G00 X0.000 Y0.000
- M190
- M00
- G00 X137.70 Y86.60
- M00
- T21
- G41 D21
- G261
- N1 M07
- G01 X137.70 Y96.60
- G01 X137.70 Y1061.00
- G01 X1520.70 Y1061.00
- G01 X1520.70 Y114.20
- G01 X137.70 Y96.60
- M08
- G260
- G40 D21
- G00 X1674.30 Y89.30
- G41 D21
- G261
- N2 M07
- G01 X1667.20 Y96.40
- G03 X1617.20 Y145.70 I-48.50 J0.90

Sample Part Sketch Document

Проект BS103	Изм. цех 15	Линия обр.	Запуск 1	Маршрутно-технологическая Карта на деталь	Имя альбома	№ альбома

Комплект	Чертеж	Изм секции	Наименование и размеры	NN дет	Кол.				Техн. масса 1 шт,кг	Масса общая,кг	Марка материала	Номер карты раскроя	Маршрут комплектации
	BS103-112-001	103	ЛИСТ sB	46	1				79.4	79.4	PCB	00800005	



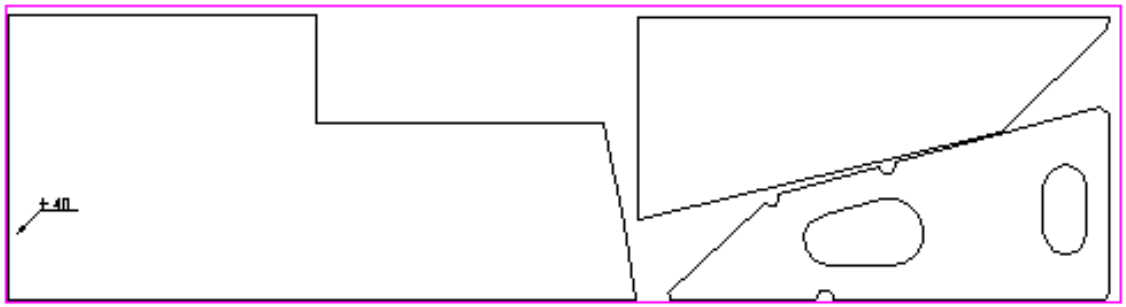
Операция																
Объем работ																
Норма времени																

Разм. плаз.	Карамева О.Л.	07.07.19						Лист
Технолог								
	Подпись	Дата	Изм.	Лист	N документа	Подпись	Дата	

Сформирован – 07.07.19 Пр. BS103 Зап. 1

Sample Nesting Map Document

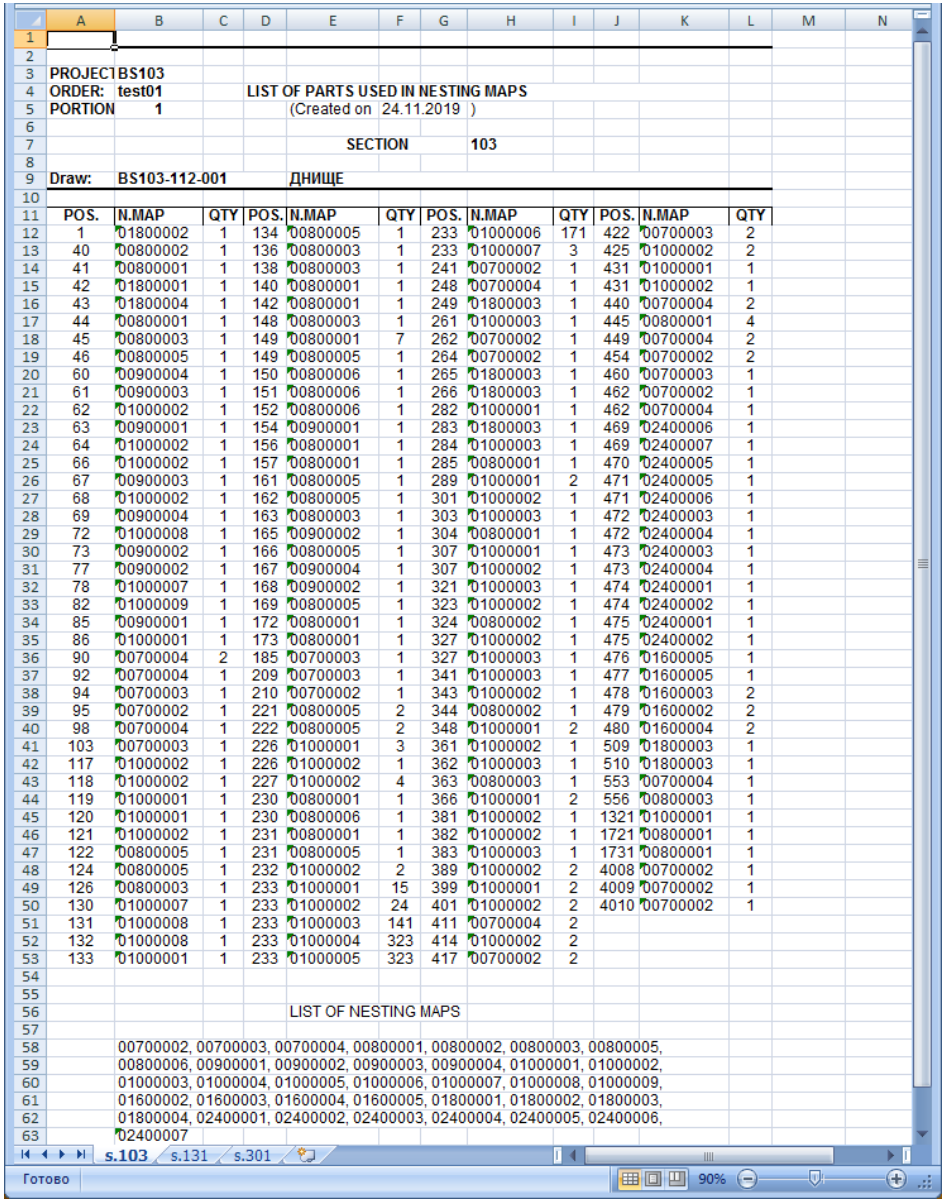
МАТЕРИАЛ		КАРТА РАСКРОЯ N 00800002								ОБРЕЗНЫЕ ОТХОДЫ шт.			
										РАЗМЕРЫ мм		РАЗМЕРЫ мм	
КОД	1122233	КОЛ-ВО ЛИСТОВ	МАССА кг		КОЭФФИЦ. РАСКРОЯ	ДЛИНА РЕЗА м	ХОЛОСТОЙ ПЕРЕХОД м	ПОЛШИРИНА РЕЗА мм	КОЛ-ВО ПРОБИВОК				
МАРКА	РСВ		ЛИСТА	ДЕТАЛЕЙ НА ЛИСТЕ									
СТАНДАРТ	1952												
РАЗМЕР ЛИСТА мм	8xd600x6000		603 кг		0.758			1.5					



N ПП.	НОМЕР ЧЕРТЕЖА	N ДЕТ.	КОЛИЧЕСТВО НА ЛИСТЕ		СЕКЦИЯ	НОМЕРА МАРШРУТОВ	N ПП.	НОМЕР ЧЕРТЕЖА	N ДЕТ.	КОЛИЧЕСТВО НА ЛИСТЕ		СЕКЦИЯ	НОМЕРА МАРШРУТОВ
			ШТ.	МАССА						ШТ.	МАССА		
1	85103-112-001	40	1	298.1	103	3							
2	85103-112-001	324	1	117.94	103	2							
3	85103-112-001	344	1	82.8	103	1							

СОСТАВИЛ	ПРОВЕРИЛ						Лист
Корпышкина Н.Г.	Корпышкина Н.Г.	Изм.	Лист	N документа	Подпись	03.12.09 Дата	1

Sample Excel Spreadsheet
(List of Parts Used in a Nesting Map)



PROJECT BS103
ORDER: test01 LIST OF PARTS USED IN NESTING MAPS
PORTION 1 (Created on 24.11.2019)

SECTION 103

Draw: BS103-112-001 ДНИЩЕ

POS.	N.MAP	QTY	POS.	N.MAP	QTY	POS.	N.MAP	QTY	POS.	N.MAP	QTY
1	01800002	1	134	00800005	1	233	01000006	171	422	00700003	2
40	00800002	1	136	00800003	1	233	01000007	3	425	01000002	2
41	00800001	1	138	00800003	1	241	00700002	1	431	01000001	1
42	01800001	1	140	00800001	1	248	00700004	1	431	01000002	1
43	01800004	1	142	00800001	1	249	01800003	1	440	00700004	2
44	00800001	1	148	00800003	1	261	01000003	1	445	00800001	4
45	00800003	1	149	00800001	7	262	00700002	1	449	00700004	2
46	00800005	1	149	00800005	1	264	00700002	1	454	00700002	2
60	00900004	1	150	00800006	1	265	01800003	1	460	00700003	1
61	00900003	1	151	00800006	1	266	01800003	1	462	00700002	1
62	01000002	1	152	00800006	1	282	01000001	1	462	00700004	1
63	00900001	1	154	00900001	1	283	01800003	1	469	02400006	1
64	01000002	1	156	00800001	1	284	01000003	1	469	02400007	1
66	01000002	1	157	00800001	1	285	00800001	1	470	02400005	1
67	00900003	1	161	00800005	1	289	01000001	2	471	02400005	1
68	01000002	1	162	00800005	1	301	01000002	1	471	02400006	1
69	00900004	1	163	00800003	1	303	01000003	1	472	02400003	1
72	01000008	1	165	00900002	1	304	00800001	1	472	02400004	1
73	00900002	1	166	00800005	1	307	01000001	1	473	02400003	1
77	00900002	1	167	00900004	1	307	01000002	1	473	02400004	1
78	01000007	1	168	00900002	1	321	01000003	1	474	02400001	1
82	01000009	1	169	00800005	1	323	01000002	1	474	02400002	1
85	00900001	1	172	00800001	1	324	00800002	1	475	02400001	1
86	01000001	1	173	00800001	1	327	01000002	1	475	02400002	1
90	00700004	2	185	00700003	1	327	01000003	1	476	01600005	1
92	00700004	1	209	00700003	1	341	01000003	1	477	01600005	1
94	00700003	1	210	00700002	1	343	01000002	1	478	01600003	2
95	00700002	1	221	00800005	2	344	00800002	1	479	01600002	2
98	00700004	1	222	00800005	2	348	01000001	2	480	01600004	2
103	00700003	1	226	01000001	3	361	01000002	1	509	01800003	1
117	01000002	1	226	01000002	1	362	01000003	1	510	01800003	1
118	01000002	1	227	01000002	4	363	00800003	1	553	00700004	1
119	01000001	1	230	00800001	1	366	01000001	2	556	00800003	1
120	01000001	1	230	00800006	1	381	01000002	1	1321	01000001	1
121	01000002	1	231	00800001	1	382	01000002	1	1721	00800001	1
122	00800005	1	231	00800005	1	383	01000003	1	1731	00800001	1
124	00800005	1	232	01000002	2	389	01000002	2	4008	00700002	1
126	00800003	1	233	01000001	15	399	01000001	2	4009	00700002	1
130	01000007	1	233	01000002	24	401	01000002	2	4010	00700002	1
131	01000008	1	233	01000003	141	411	00700004	2			
132	01000008	1	233	01000004	323	414	01000002	2			
133	01000001	1	233	01000005	323	417	00700002	2			

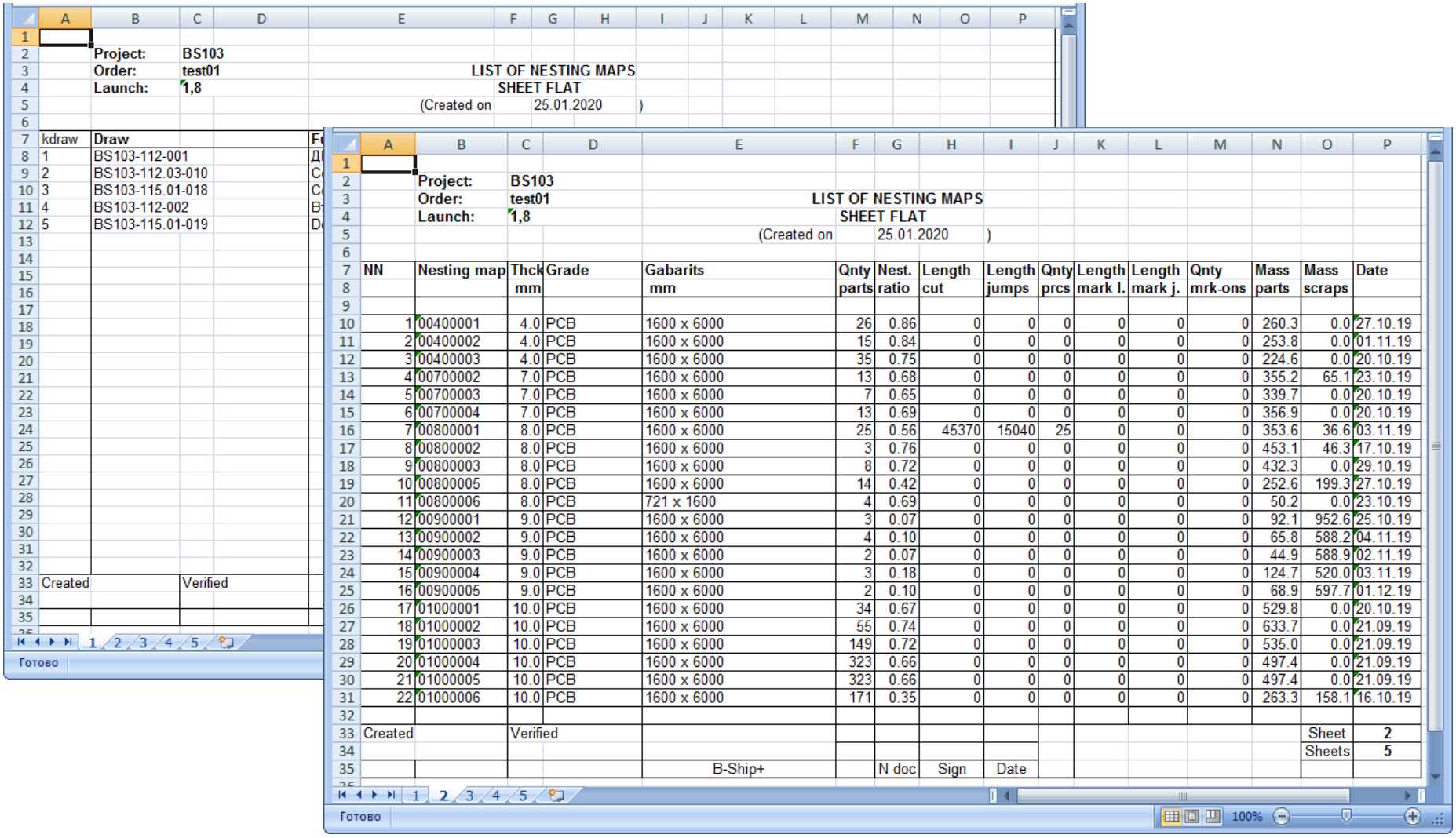
LIST OF NESTING MAPS

00700002, 00700003, 00700004, 00800001, 00800002, 00800003, 00800005,
00800006, 00900001, 00900002, 00900003, 00900004, 01000001, 01000002,
01000003, 01000004, 01000005, 01000006, 01000007, 01000008, 01000009,
01600002, 01600003, 01600004, 01600005, 01800001, 01800002, 01800003,
01800004, 02400001, 02400002, 02400003, 02400004, 02400005, 02400006,
02400007

s.103 s.131 s.301

Готово 90%

Sample Excel Spreadsheet (List of Nesting Maps)



Project: BS103
Order: test01
Launch: 1,8

LIST OF NESTING MAPS
SHEET FLAT
(Created on 25.01.2020)

kdraw	Draw
1	BS103-112-001
2	BS103-112.03-010
3	BS103-115.01-018
4	BS103-112-002
5	BS103-115.01-019

Created Verified

Project: BS103
Order: test01
Launch: 1,8

LIST OF NESTING MAPS
SHEET FLAT
(Created on 25.01.2020)

NN	Nesting map	Thck mm	Grade	Gabarits mm	Qnty parts	Nest. ratio	Length cut	Length jumps	Qnty prcs	Length mark l.	Length mark j.	Qnty mrk-ons	Mass parts	Mass scraps	Date
1	00400001	4.0	PCB	1600 x 6000	26	0.86	0	0	0	0	0	0	260.3	0.0	27.10.19
2	00400002	4.0	PCB	1600 x 6000	15	0.84	0	0	0	0	0	0	253.8	0.0	01.11.19
3	00400003	4.0	PCB	1600 x 6000	35	0.75	0	0	0	0	0	0	224.6	0.0	20.10.19
4	00700002	7.0	PCB	1600 x 6000	13	0.68	0	0	0	0	0	0	355.2	65.1	23.10.19
5	00700003	7.0	PCB	1600 x 6000	7	0.65	0	0	0	0	0	0	339.7	0.0	20.10.19
6	00700004	7.0	PCB	1600 x 6000	13	0.69	0	0	0	0	0	0	356.9	0.0	20.10.19
7	00800001	8.0	PCB	1600 x 6000	25	0.56	45370	15040	25	0	0	0	353.6	36.6	03.11.19
8	00800002	8.0	PCB	1600 x 6000	3	0.76	0	0	0	0	0	0	453.1	46.3	17.10.19
9	00800003	8.0	PCB	1600 x 6000	8	0.72	0	0	0	0	0	0	432.3	0.0	29.10.19
10	00800005	8.0	PCB	1600 x 6000	14	0.42	0	0	0	0	0	0	252.6	199.3	27.10.19
11	00800006	8.0	PCB	721 x 1600	4	0.69	0	0	0	0	0	0	50.2	0.0	23.10.19
12	00900001	9.0	PCB	1600 x 6000	3	0.07	0	0	0	0	0	0	92.1	952.6	25.10.19
13	00900002	9.0	PCB	1600 x 6000	4	0.10	0	0	0	0	0	0	65.8	588.2	04.11.19
14	00900003	9.0	PCB	1600 x 6000	2	0.07	0	0	0	0	0	0	44.9	588.9	02.11.19
15	00900004	9.0	PCB	1600 x 6000	3	0.18	0	0	0	0	0	0	124.7	520.0	03.11.19
16	00900005	9.0	PCB	1600 x 6000	2	0.10	0	0	0	0	0	0	68.9	597.7	01.12.19
17	01000001	10.0	PCB	1600 x 6000	34	0.67	0	0	0	0	0	0	529.8	0.0	20.10.19
18	01000002	10.0	PCB	1600 x 6000	55	0.74	0	0	0	0	0	0	633.7	0.0	21.09.19
19	01000003	10.0	PCB	1600 x 6000	149	0.72	0	0	0	0	0	0	535.0	0.0	21.09.19
20	01000004	10.0	PCB	1600 x 6000	323	0.66	0	0	0	0	0	0	497.4	0.0	21.09.19
21	01000005	10.0	PCB	1600 x 6000	323	0.66	0	0	0	0	0	0	497.4	0.0	21.09.19
22	01000006	10.0	PCB	1600 x 6000	171	0.35	0	0	0	0	0	0	263.3	158.1	16.10.19

Created Verified Sheet 2
Sheets 5
B-Ship+ N doc Sign Date

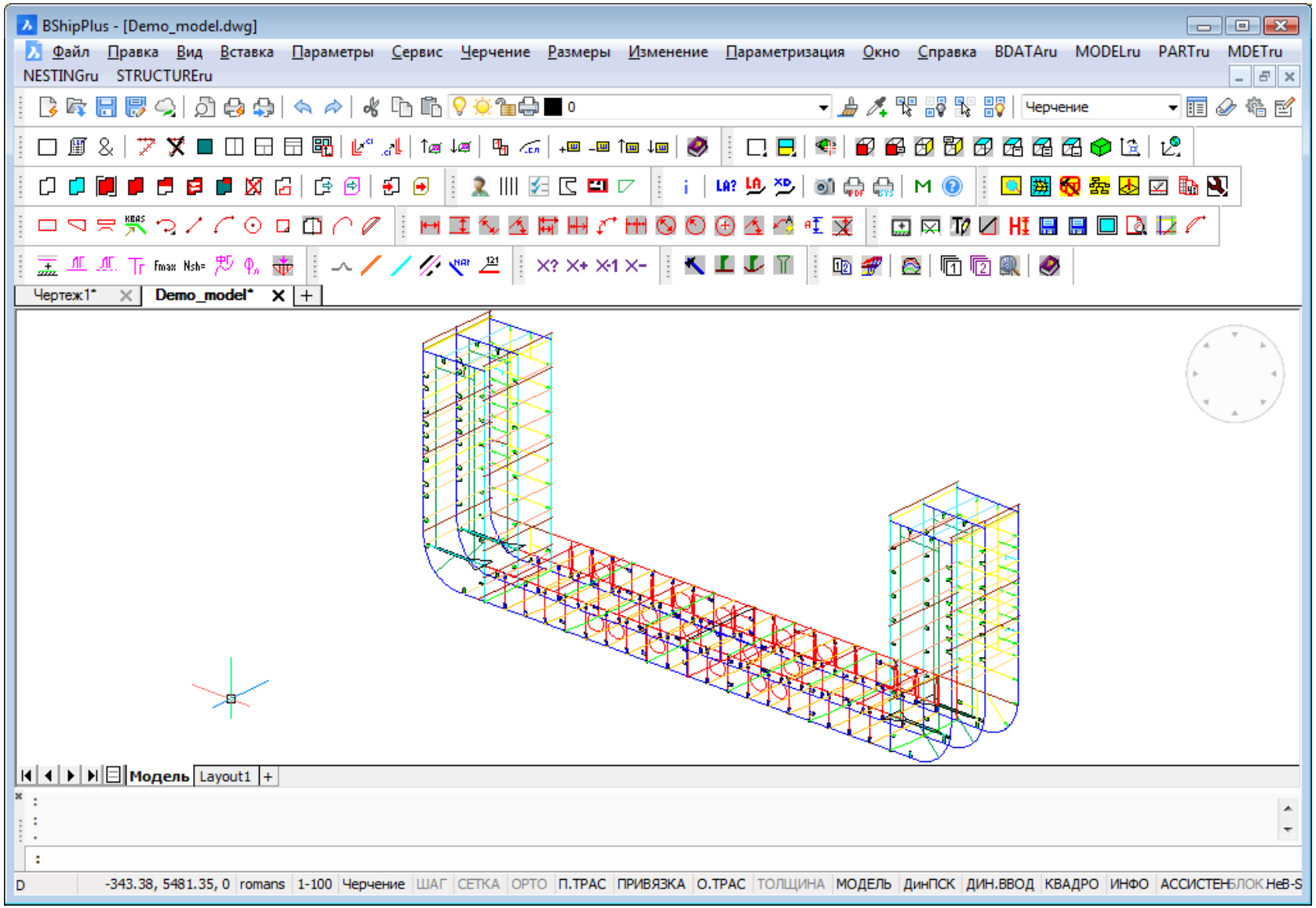
Готово 100%

B-Ship+ Modules

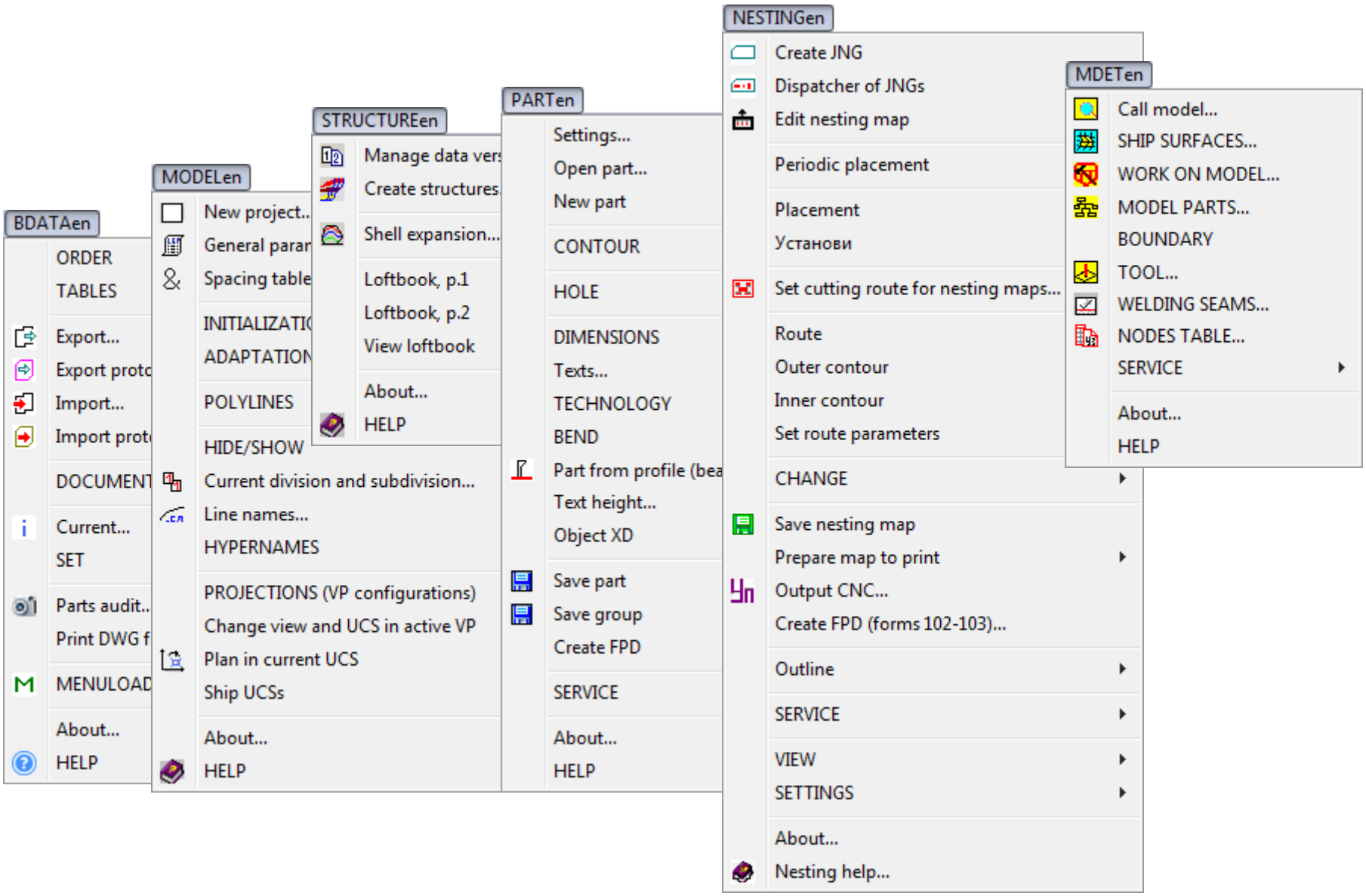
- **Bdata** – DB management
- **Model** – preparation of 3D model
- **Structure** – building decks and platforms inside 3D model
- **Part** – creation of sheet and profile parts
- **Mdet** – shell development, assembly schemes
- **Nesting** – sheet nesting, CNC programs

English and Russian interfaces are available.

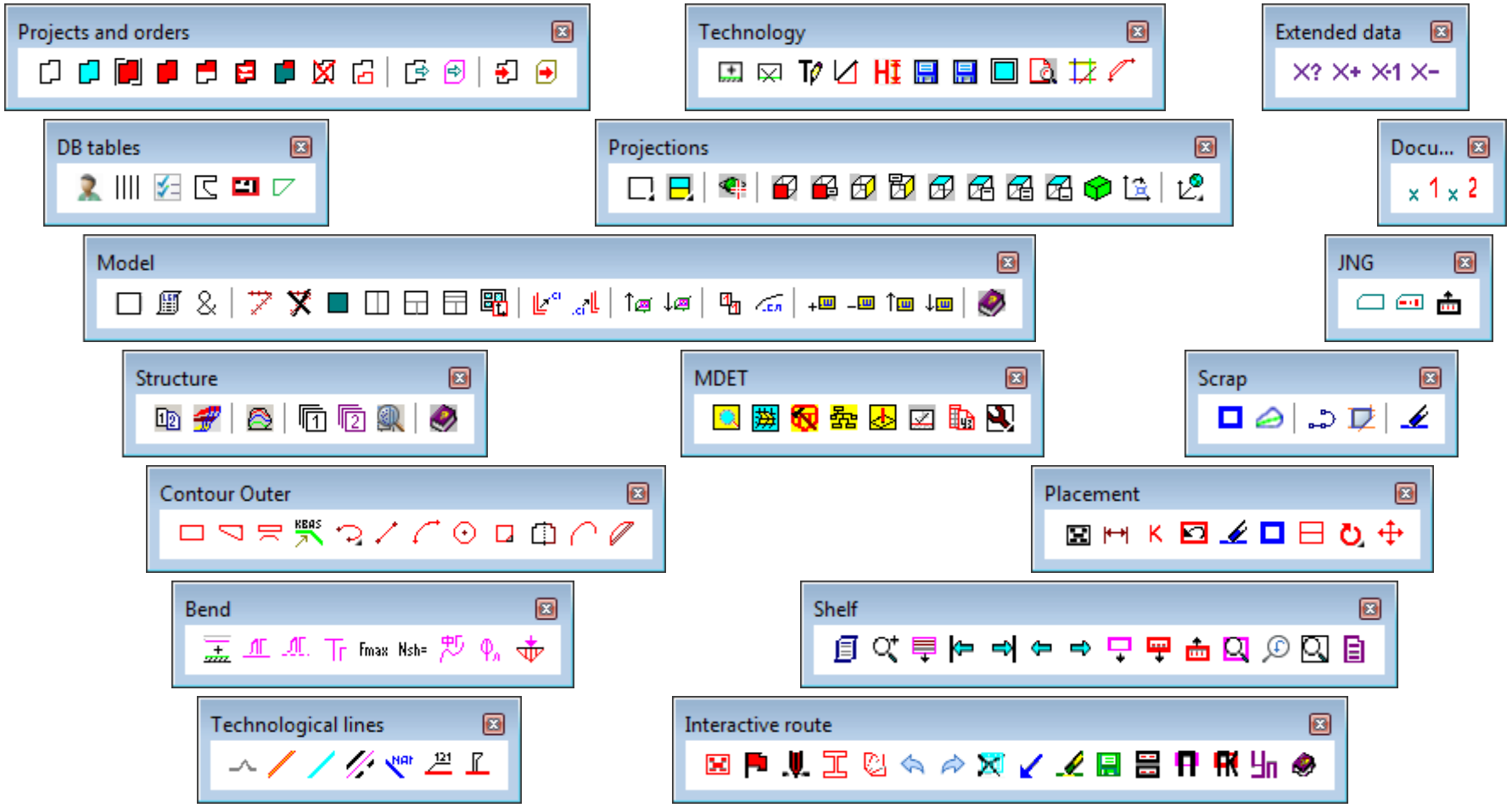
Application Window



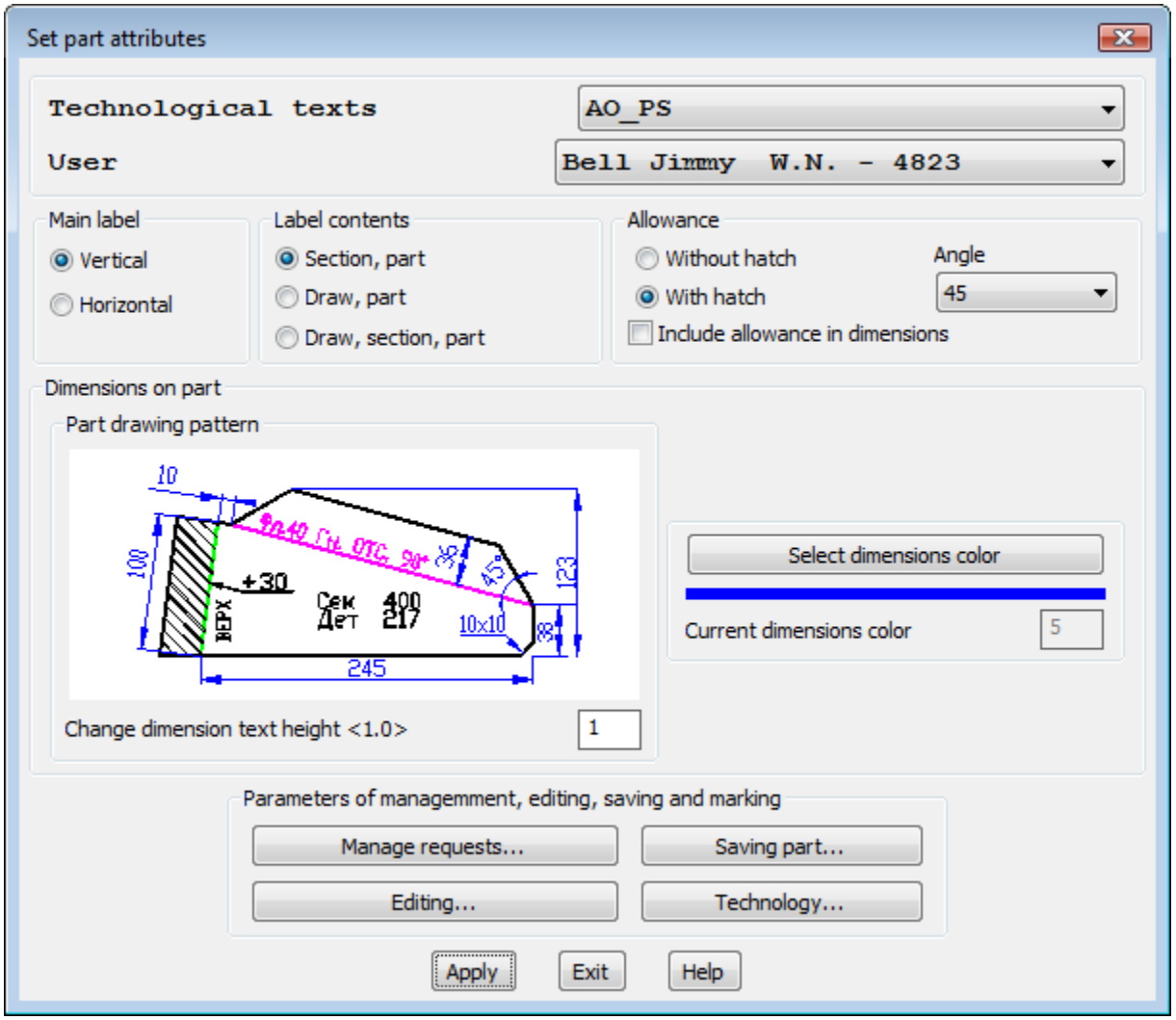
User Interface (Menus Eng)



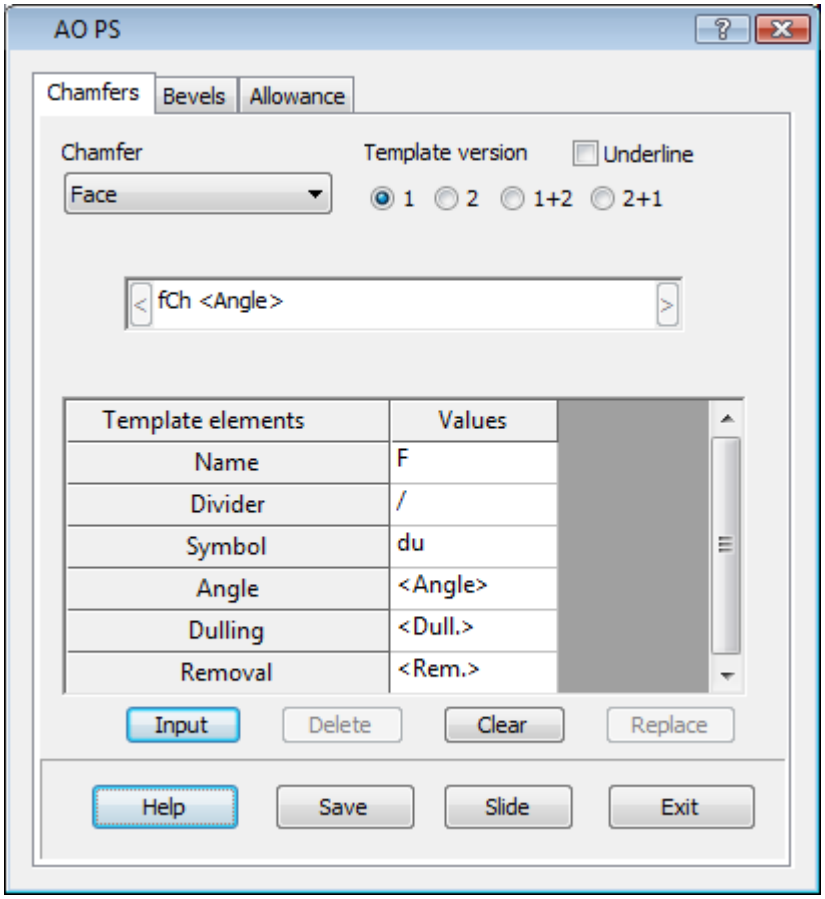
User Interface (Toolbars)

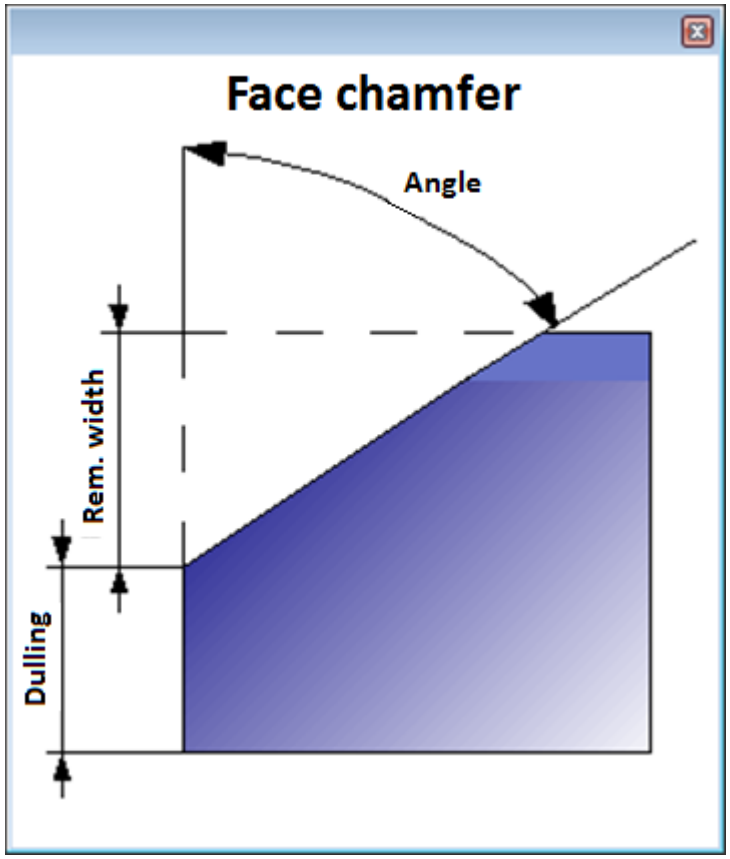


Settings Window (sketch)



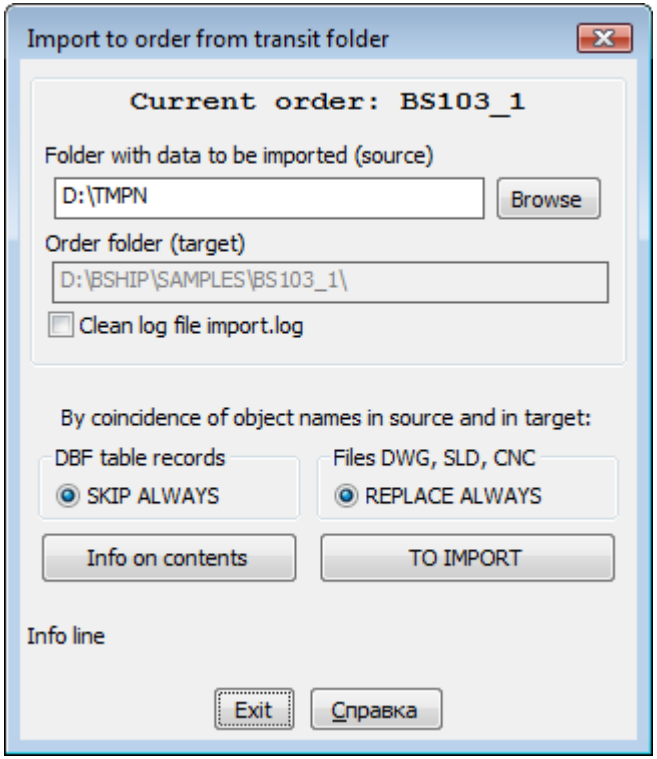
Settings Window (chamfer)



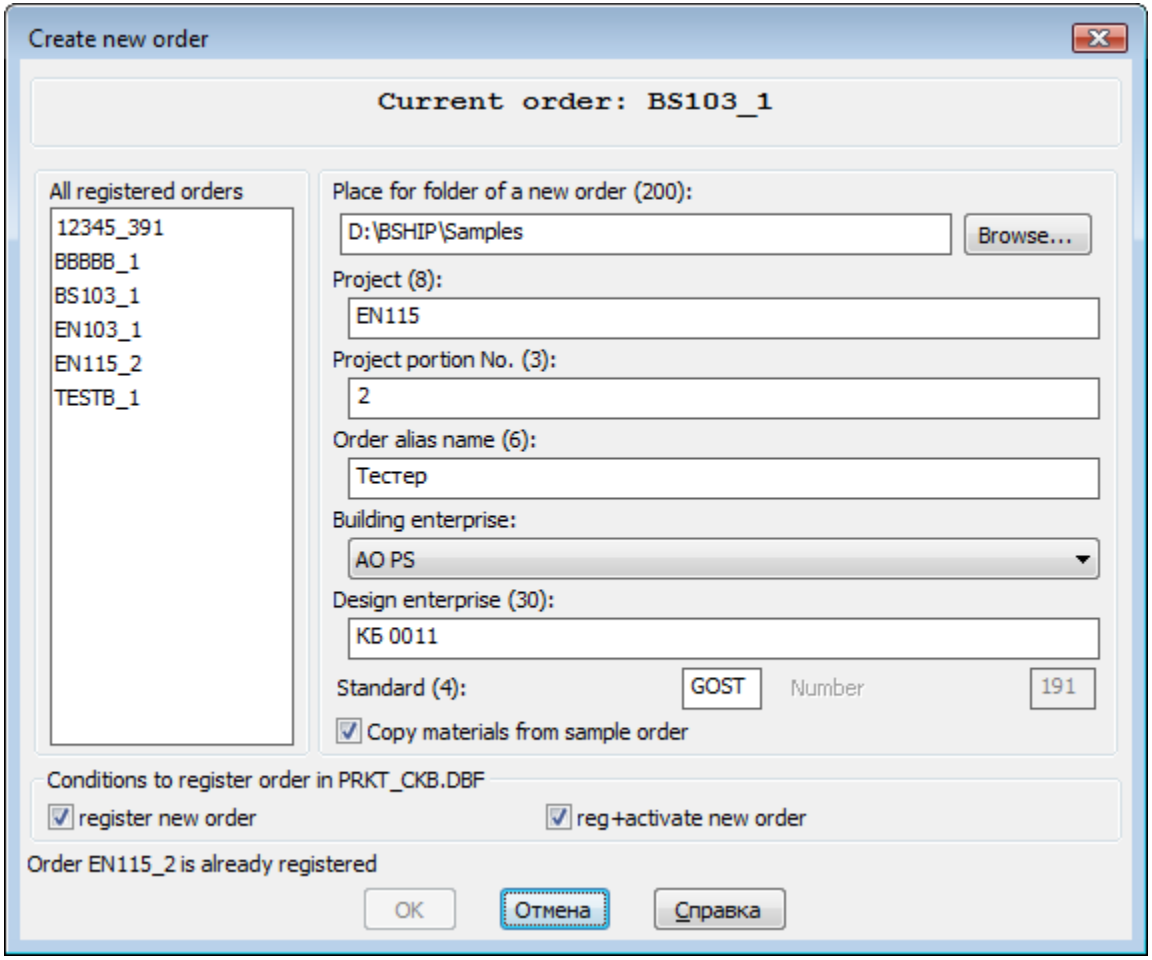


Bdata: Service Management (Portions of the Entire Ship Order)

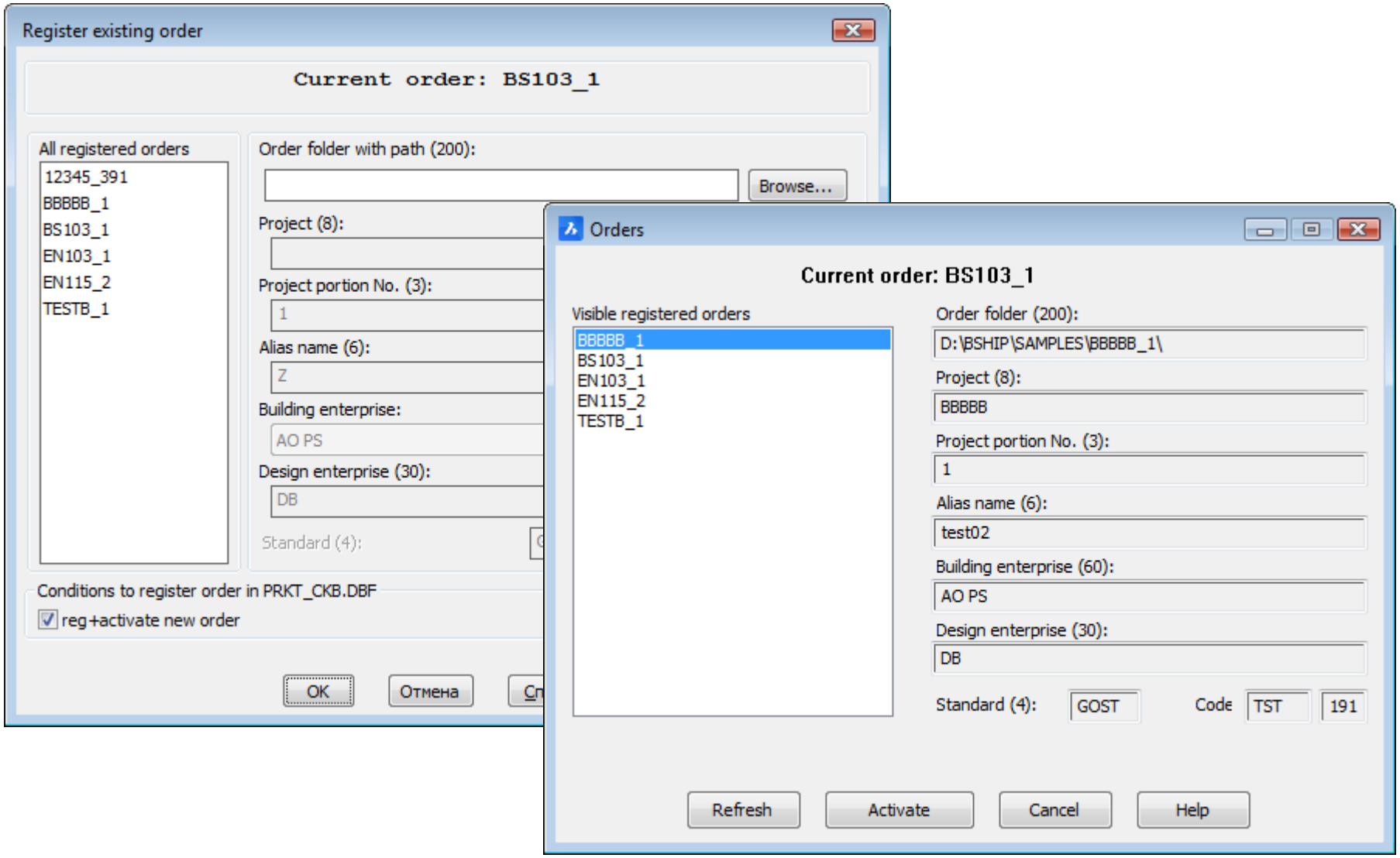
- FoxPro DBMS, **Bdata** module
- Order creation, activation
- Work with tables of users, materials, drawings, parts, nesting maps etc.
- Export & import of orders



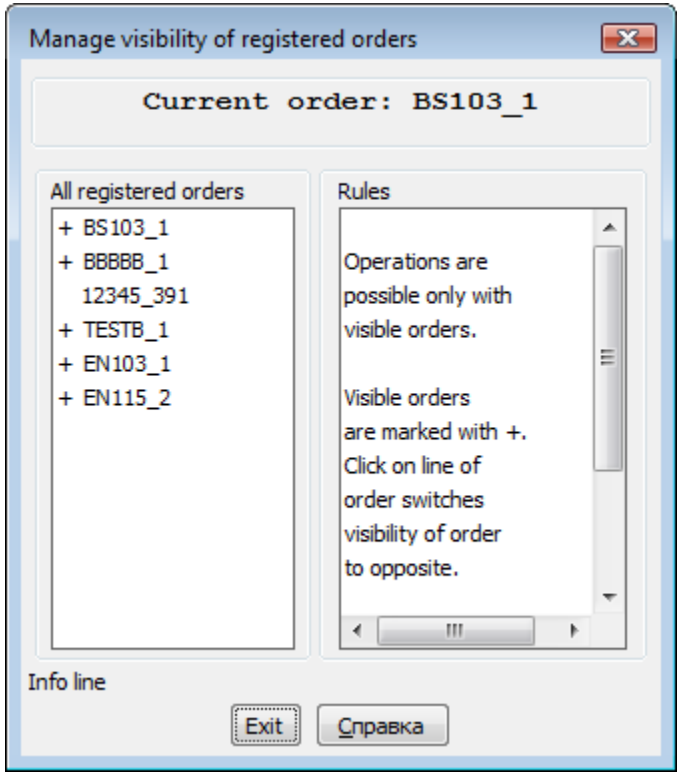
New Order


Create new order
Current order: BS103_1
All registered orders
12345_391
BBBBB_1
BS103_1
EN103_1
EN115_2
TESTB_1
Place for folder of a new order (200):
D:\BSHIP\Samples
Browse...
Project (8):
EN115
Project portion No. (3):
2
Order alias name (6):
Тестер
Building enterprise:
AO PS
Design enterprise (30):
КБ 0011
Standard (4):
GOST
Number
191
Copy materials from sample order
Conditions to register order in PRKT_CKB.DBF
register new order
reg+activate new order
Order EN115_2 is already registered
OK
Отмена
Справка

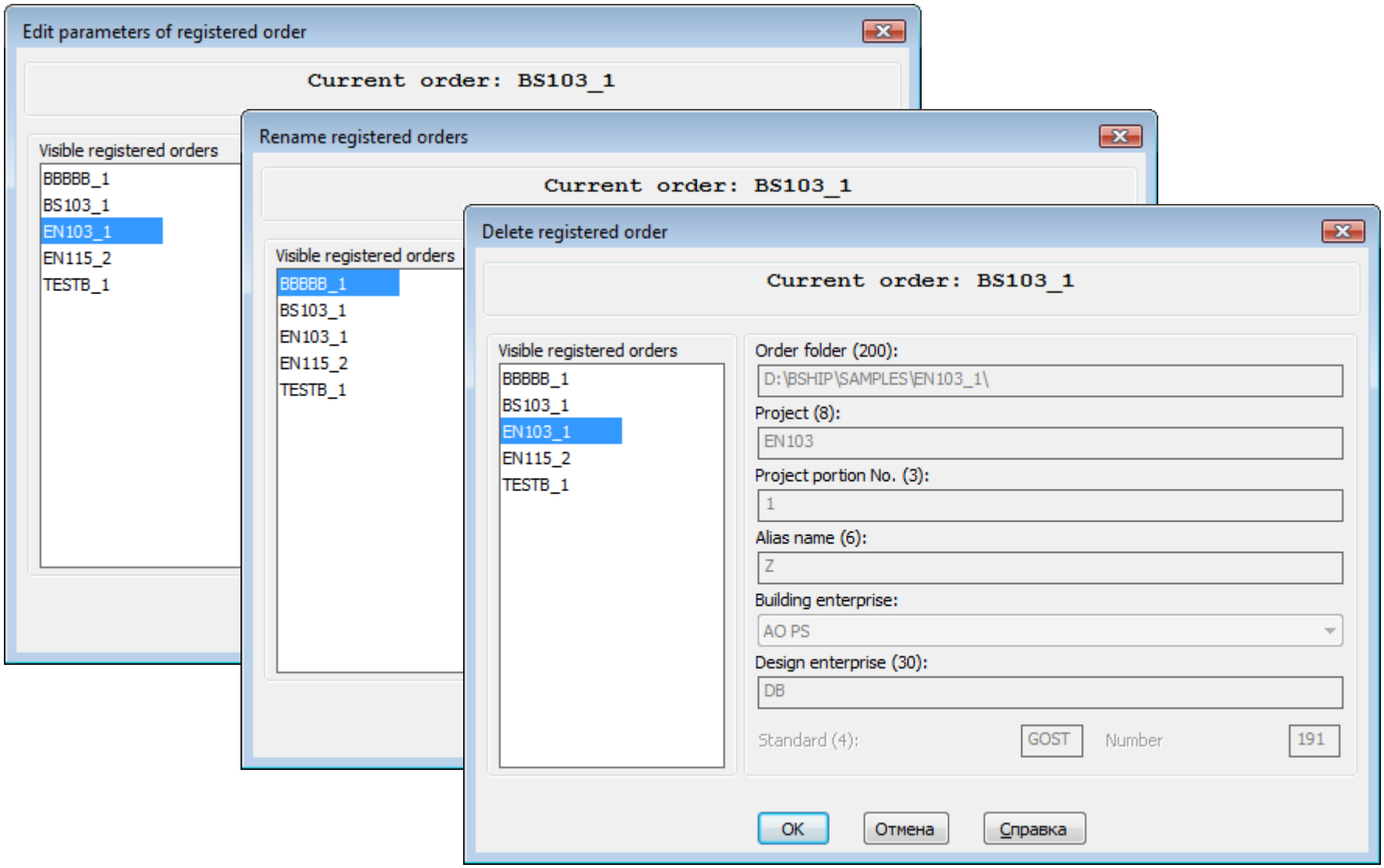
Registration, Activation of an Order



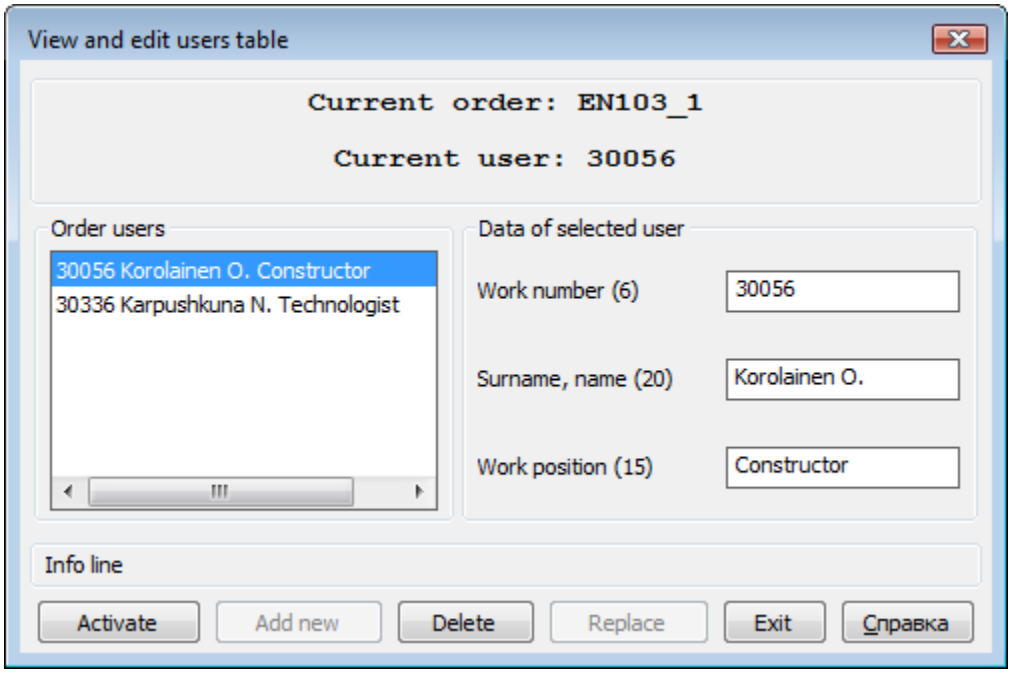
Hiding Inactive Orders



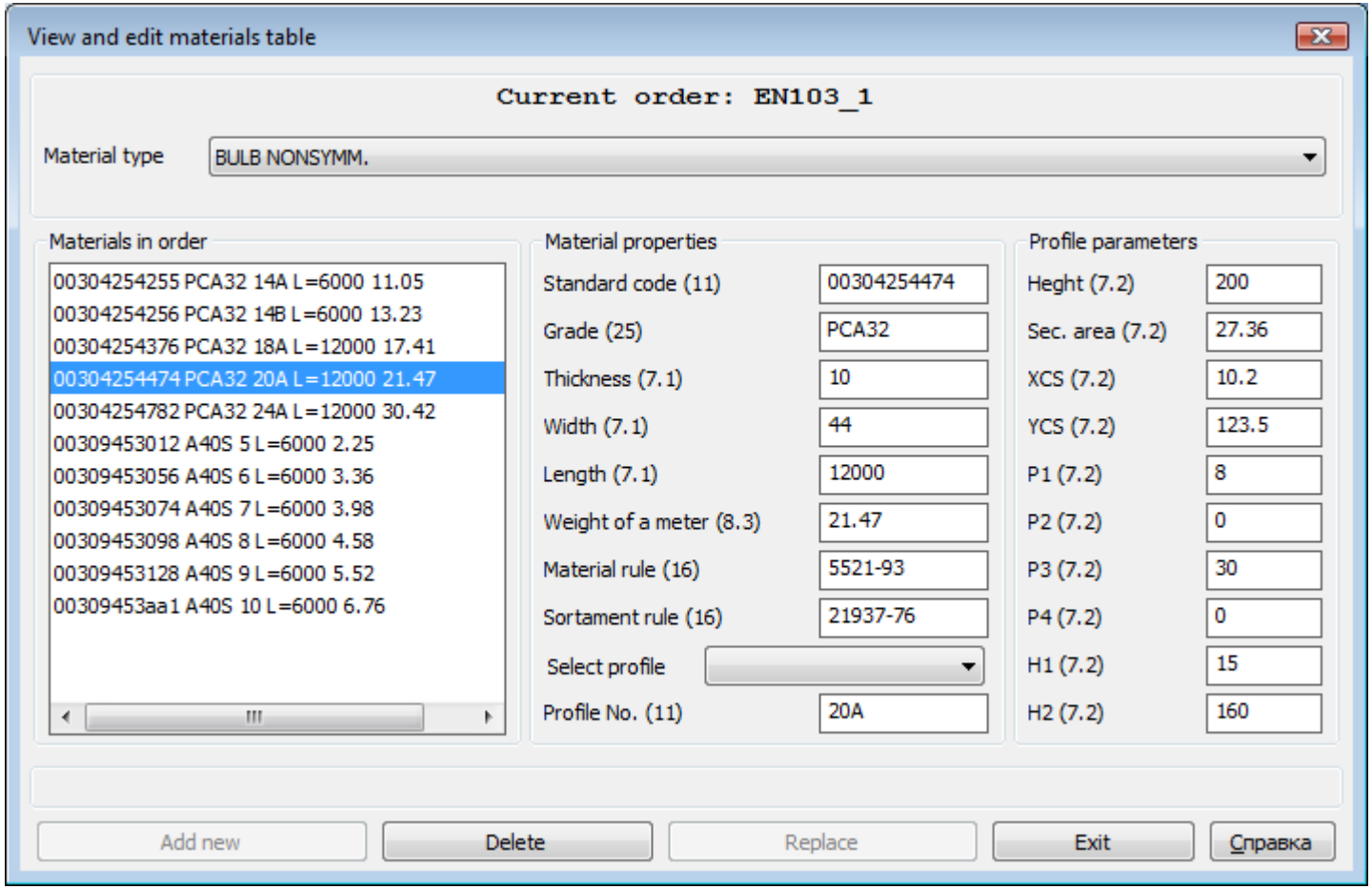
Editing, Renaming, Removing Order



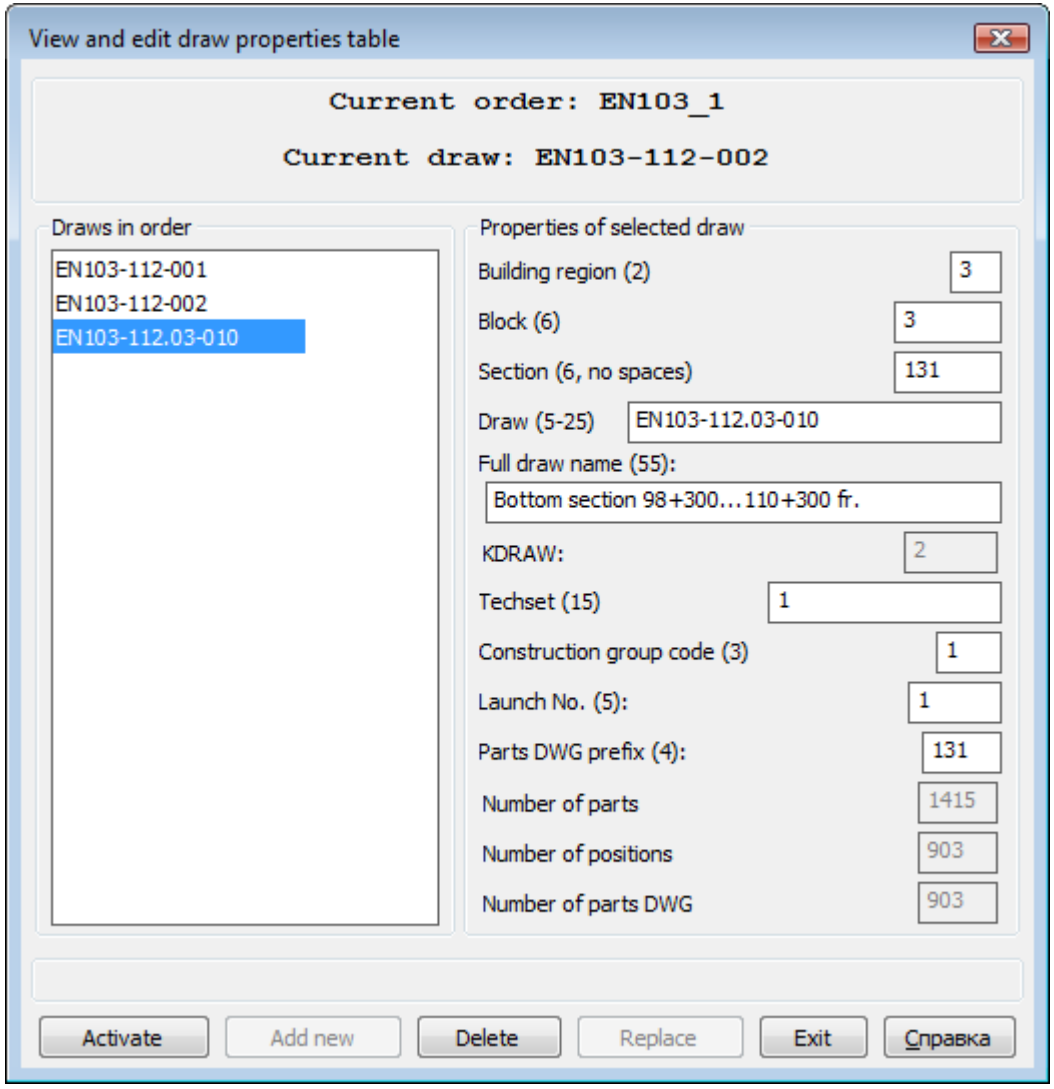
Order Tables. Users



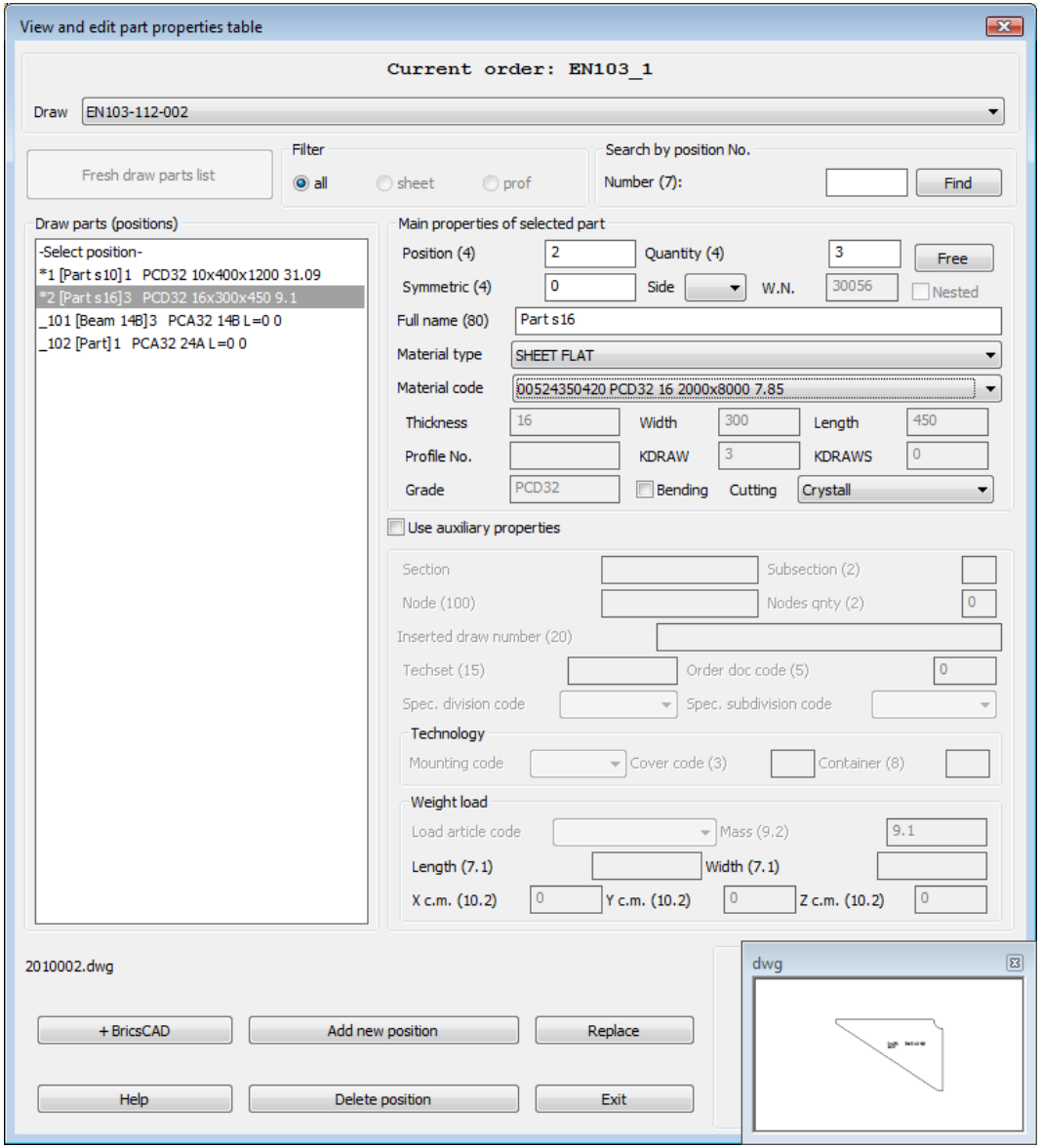
Materials Table



Draws Table


View and edit draw properties table
Current order: EN103_1
Current draw: EN103-112-002
Draws in order
EN103-112-001
EN103-112-002
EN103-112.03-010
Properties of selected draw
Building region (2)
3
Block (6)
3
Section (6, no spaces)
131
Draw (5-25)
EN103-112.03-010
Full draw name (55):
Bottom section 98+300...110+300 fr.
KDRAW:
2
Techset (15)
1
Construction group code (3)
1
Launch No. (5):
1
Parts DWG prefix (4):
131
Number of parts
1415
Number of positions
903
Number of parts DWG
903
Activate
Add new
Delete
Replace
Exit
Справка

Parts List Table (Specification)



Sheet Nesting Maps Table

View and edit nesting map properties

Current order: EN103_33

Nesting maps in order

- _ 31 00700001 52 1 PCB 7x1600x6000 (0) 0 0 0
- _ 31 00700002 52 1 PCB 7x1600x6000 (0) 0 0 0
- _ 31 00700003 52 1 PCB 7x1600x6000 (0) 0 0 0
- _ 31 00700004 52 1 PCB 7x1600x6000 (1) 0 0 0
- _ 31 00700005 52 1 PCB 7x1600x6000 (2) 0 0 0
- _ 31 00800001 52 1 PCB 8x1600x6000 (0) 0 0 0
- _ 31 00800002 52 1 PCB 8x1600x6000 (0) 0 0 0
- _ 31 00800003 52 1 PCB 8x1600x6000 (0) 0 0 0
- _ 31 00800004 52 1 PCB 8x1600x6000 (0) 0 0 0
- _ 31 00800005 52 1 PCB 8x1600x6000 (4) 0 0 0
- _ 31 01000006 52 1 PCB 10x1600x6000 (2) 0 0 0
- _ 37 01000007 52 1 PCB 10x1600x6000 (2) 0 0 0

Properties of selected nesting map

Map name (8)	00800005	Multiplicity	1	Scraps qnty	4
Launch No. (5)	31	Cutting type (3)	52	Parts qnty	14
Thickness	8	Width	1600	Length	6000

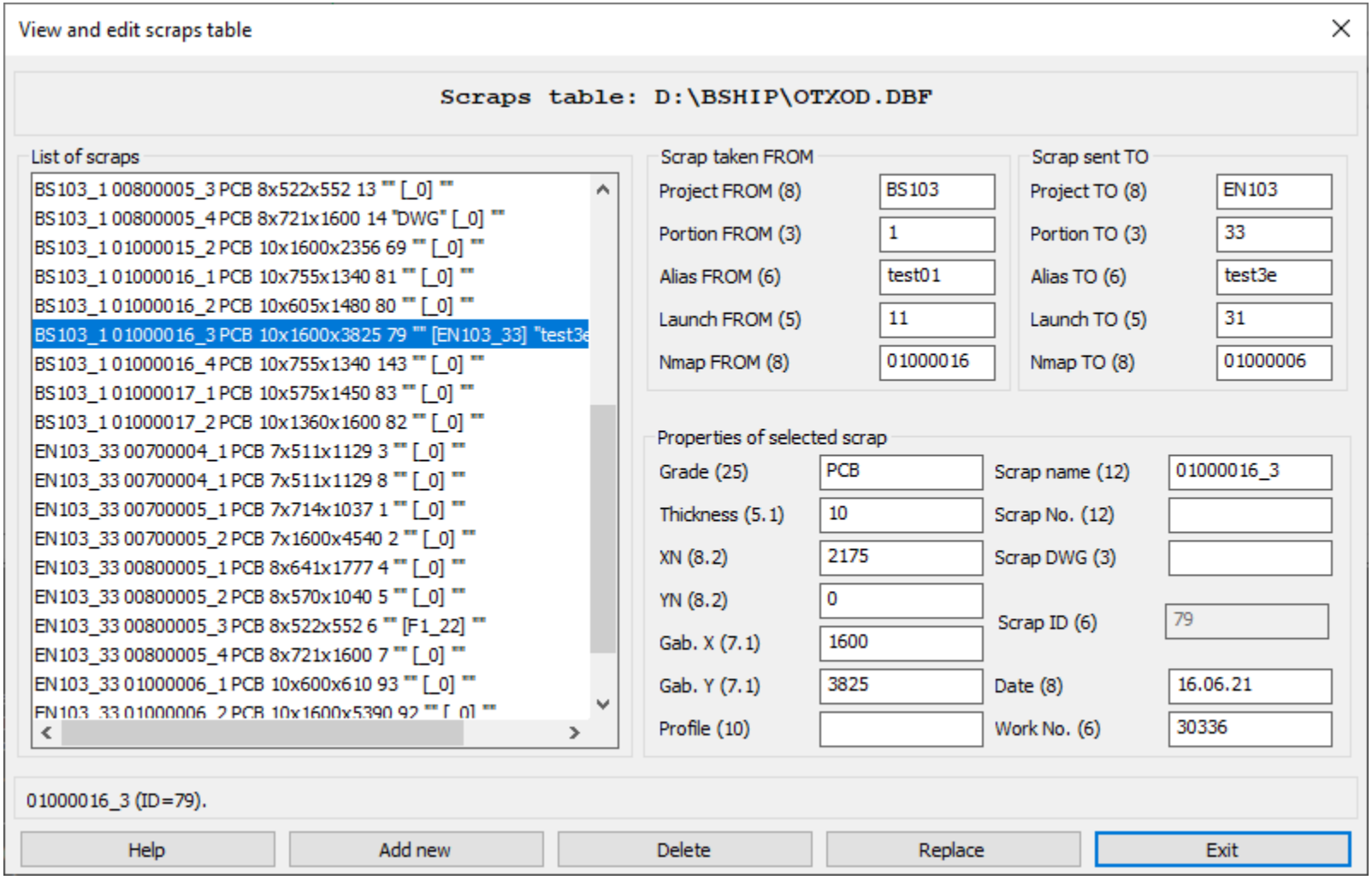
Material grade (25): PCB

☐ Route generated ☐ NC generated

Nesting ratio (4.2)	0.42	Cut kerf halfwidth (3.1)	1.5
Cut length (7)	0	Cut jumps length (7)	0
Mark lines length (7)	0	Mark jumps length (7)	0
Pierce qnty (3)	0	Qnty of marks-on (3)	0
W.N. of nesting author (6)	30336	Nesting date (8)	27.09.20
W.N. of route author (6)	0	Route date (8)	
W.N. of NC author (6)	0	NC date (8)	

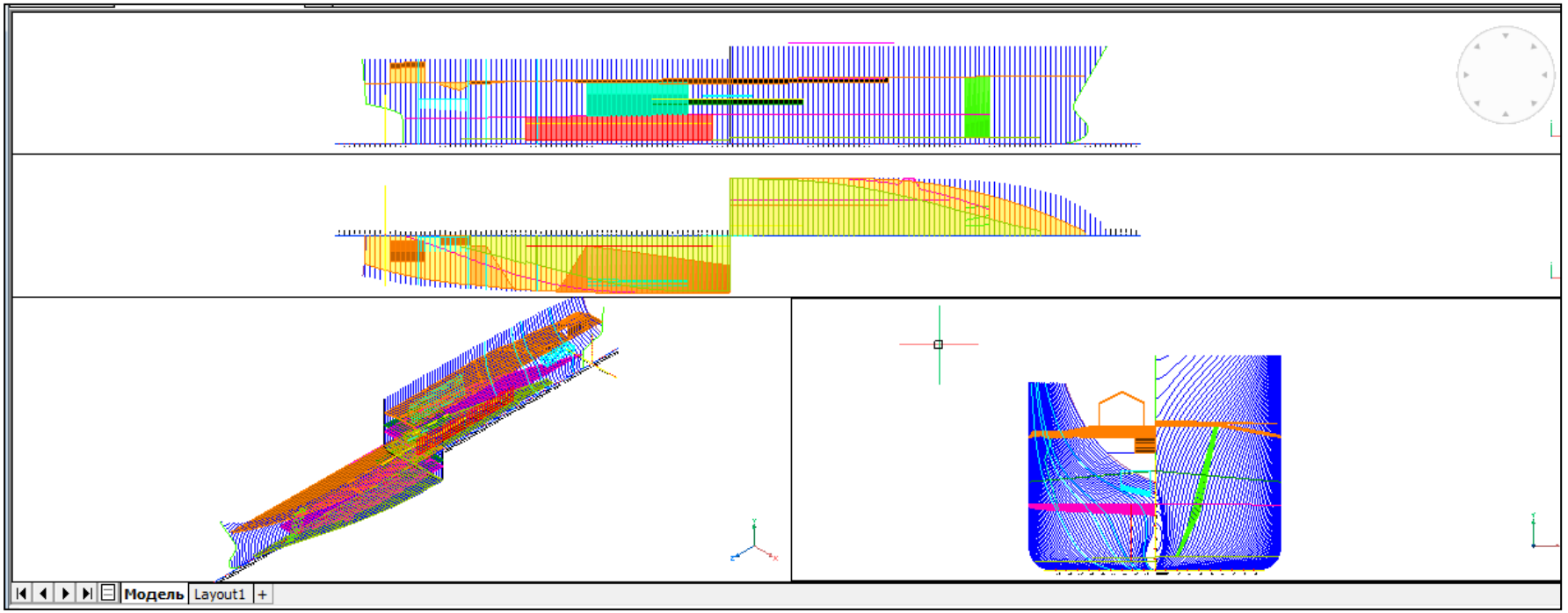
Help | Parts and scraps | Rename | Edit properties | Delete | Exit

Sheet Scraps Table

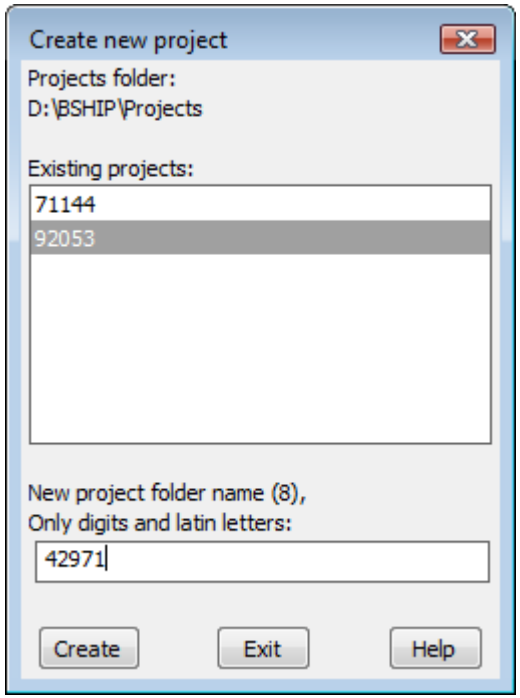


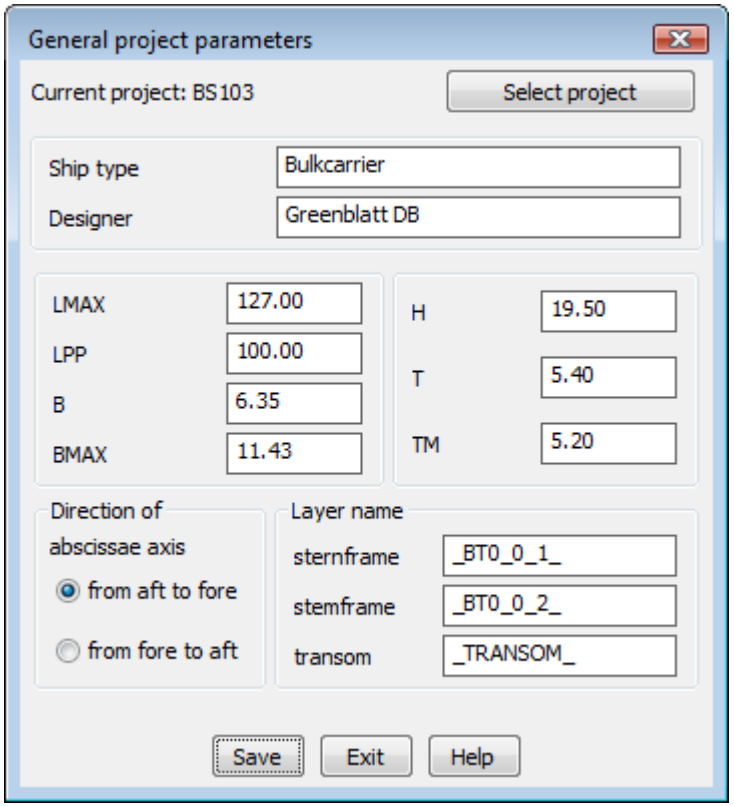
Model & **Structure** Modules

- Spacing tables
- Preparation of geometrical model, building decks and platforms
- Loftbook, shell expansion



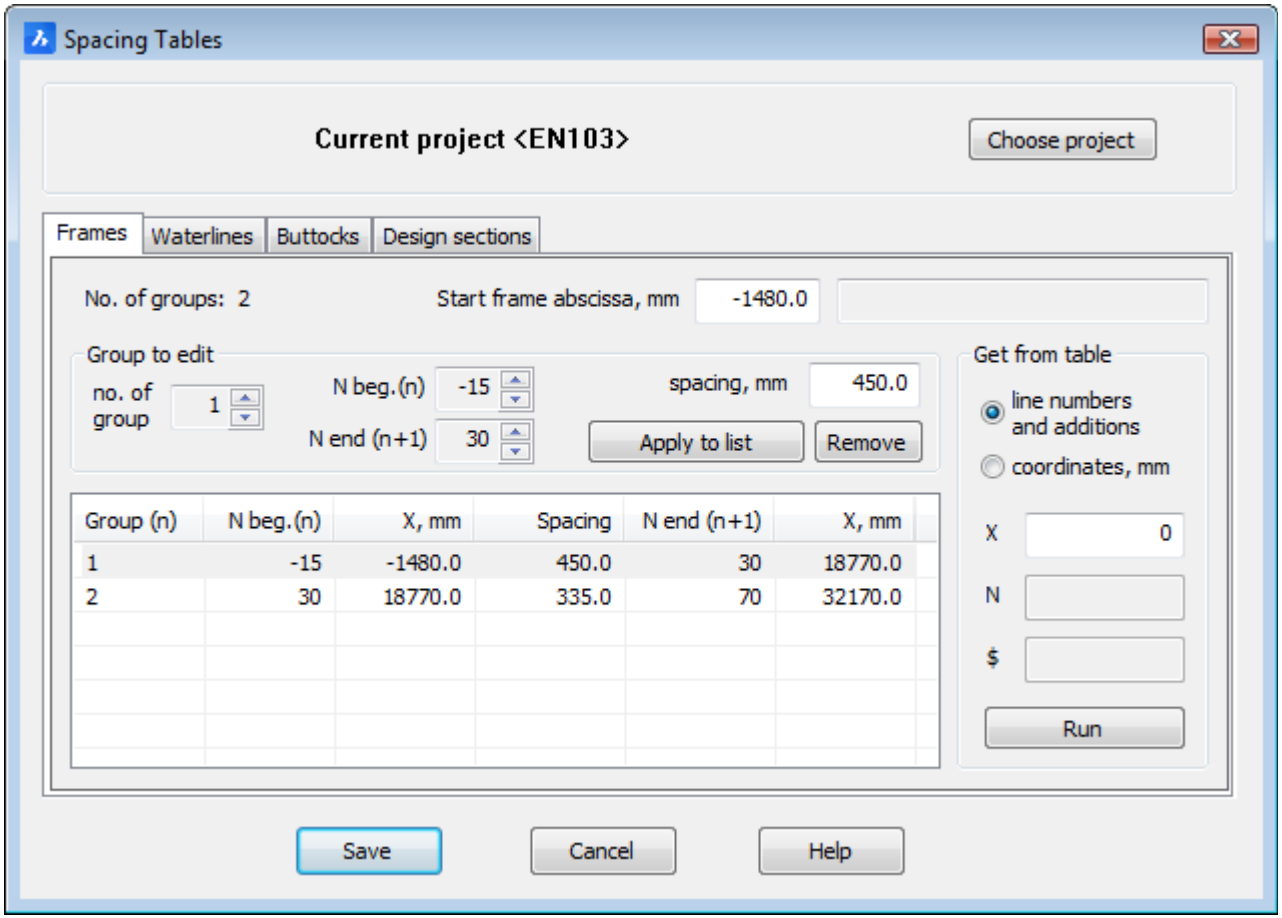
New Model (Folder & General Data)



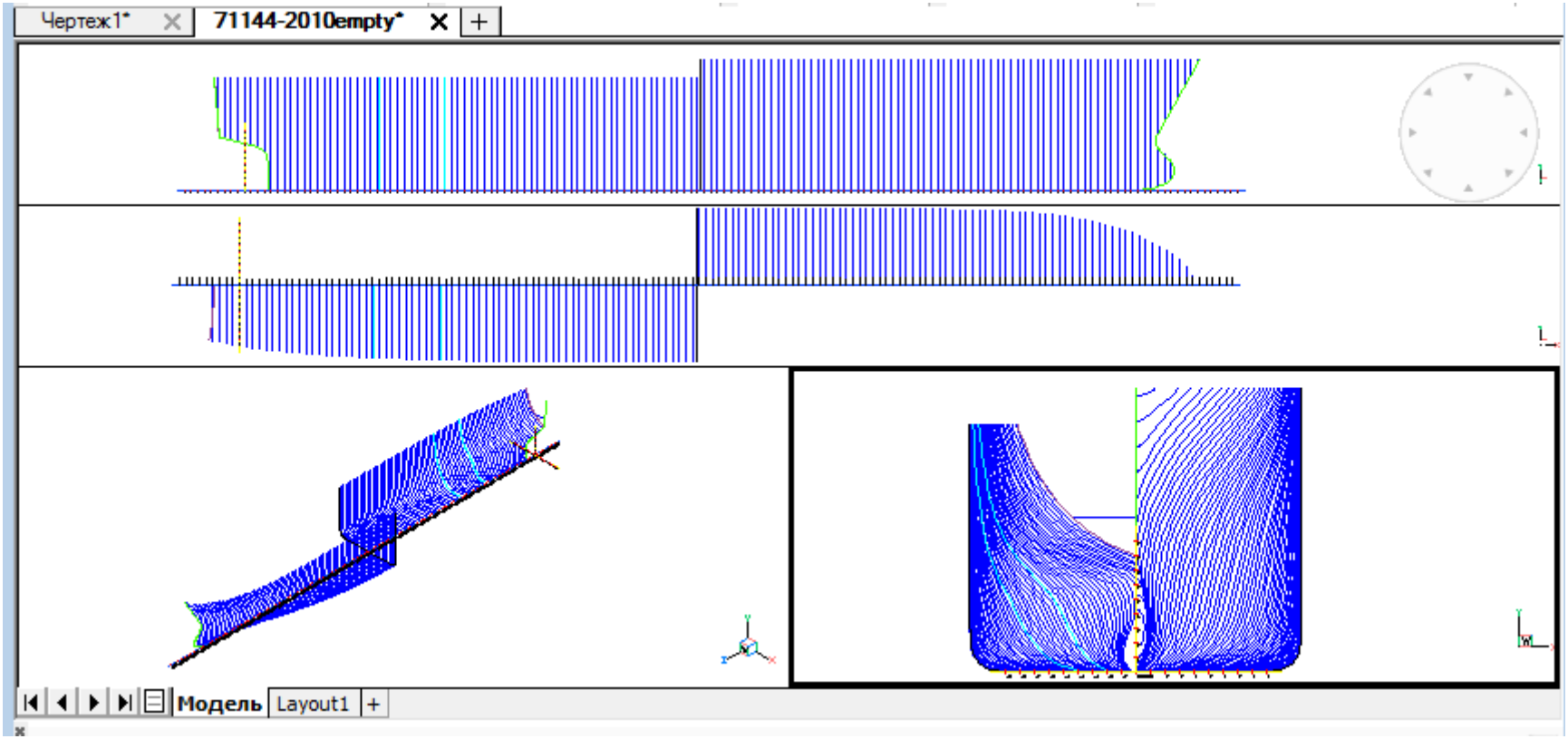


Spacing Tables

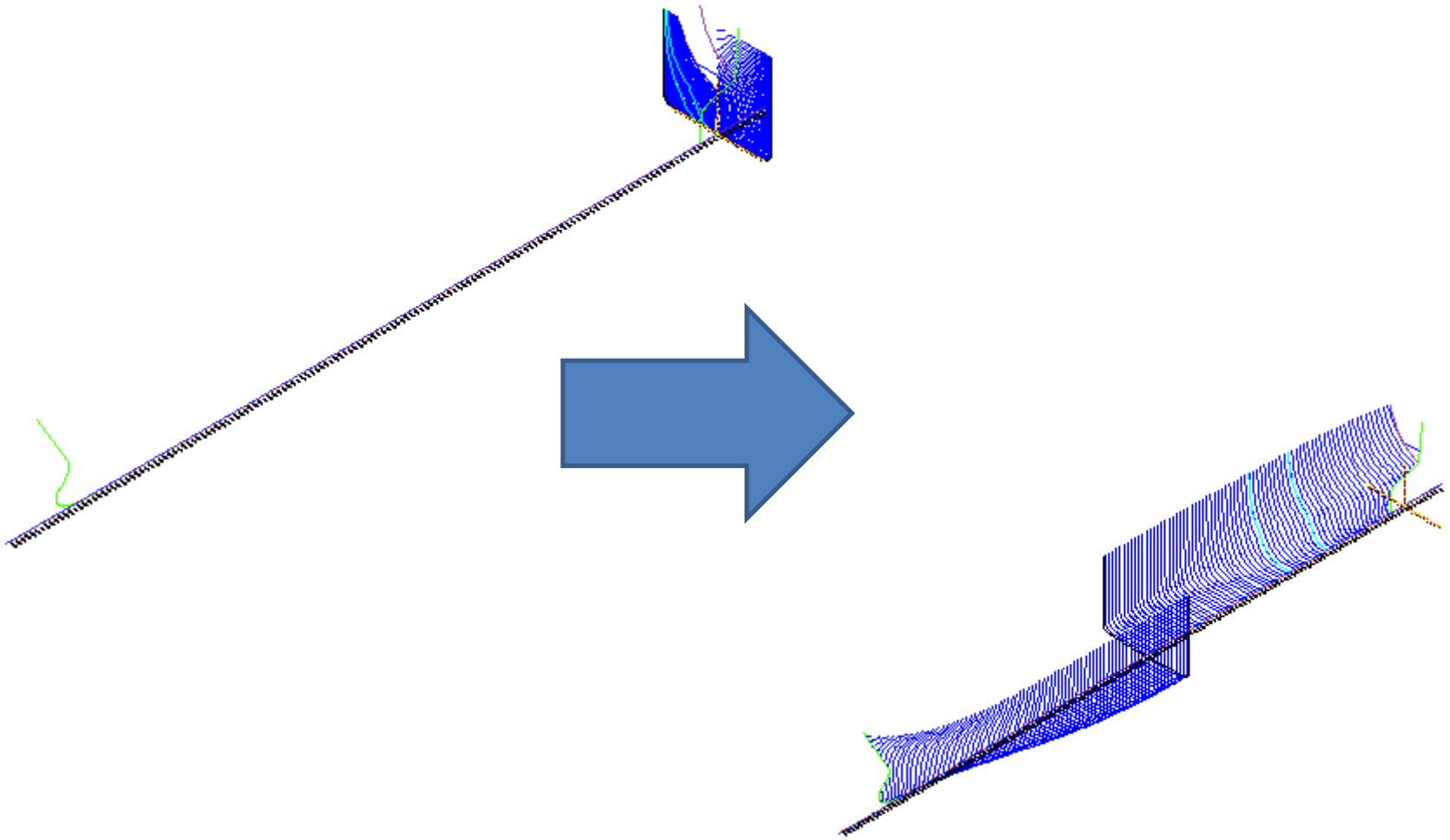
Values of distances between frames, buttocks, waterlines



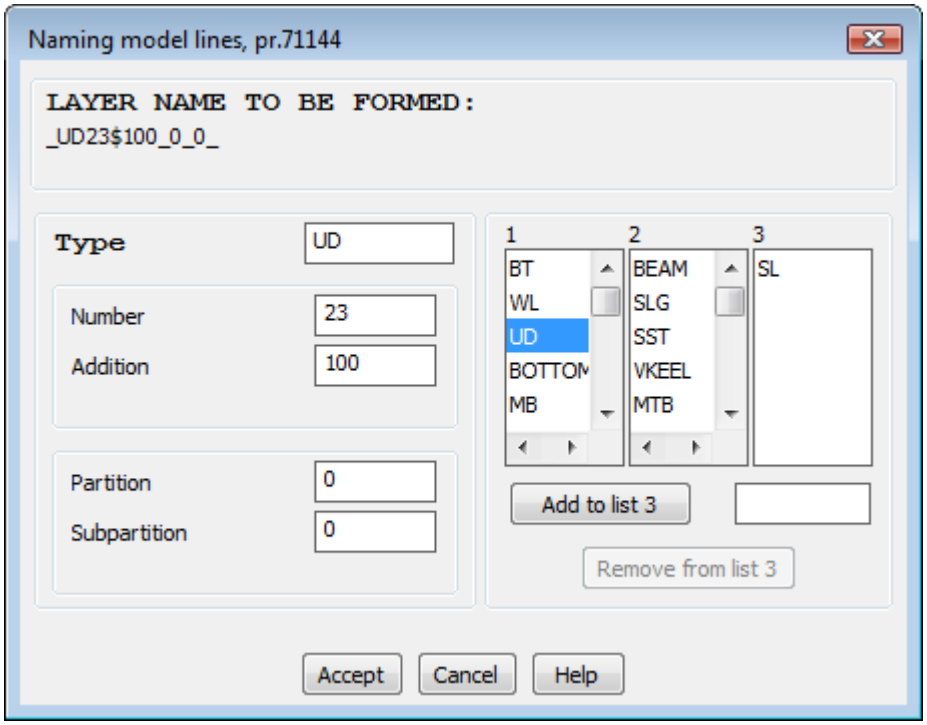
Views & Viewports Creation



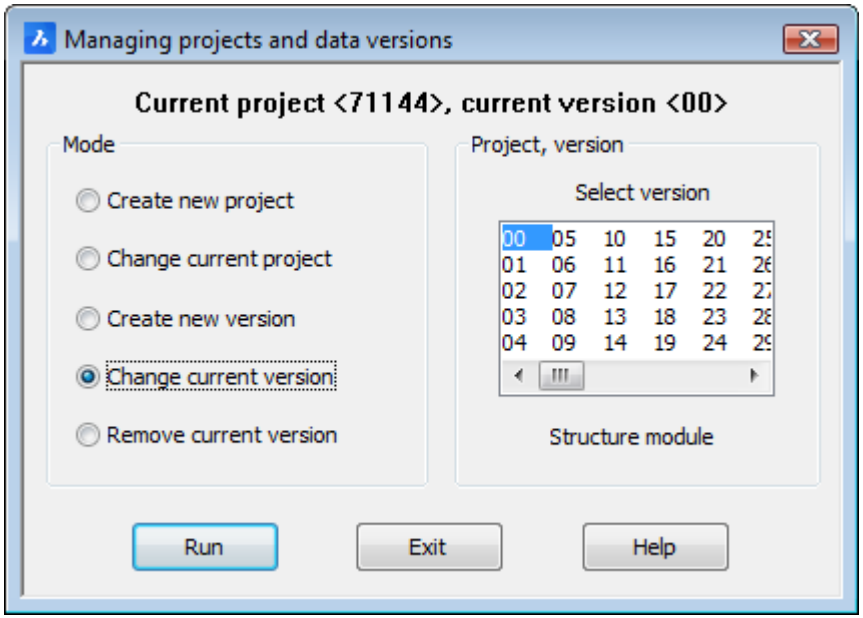
Model Lines Adaptation

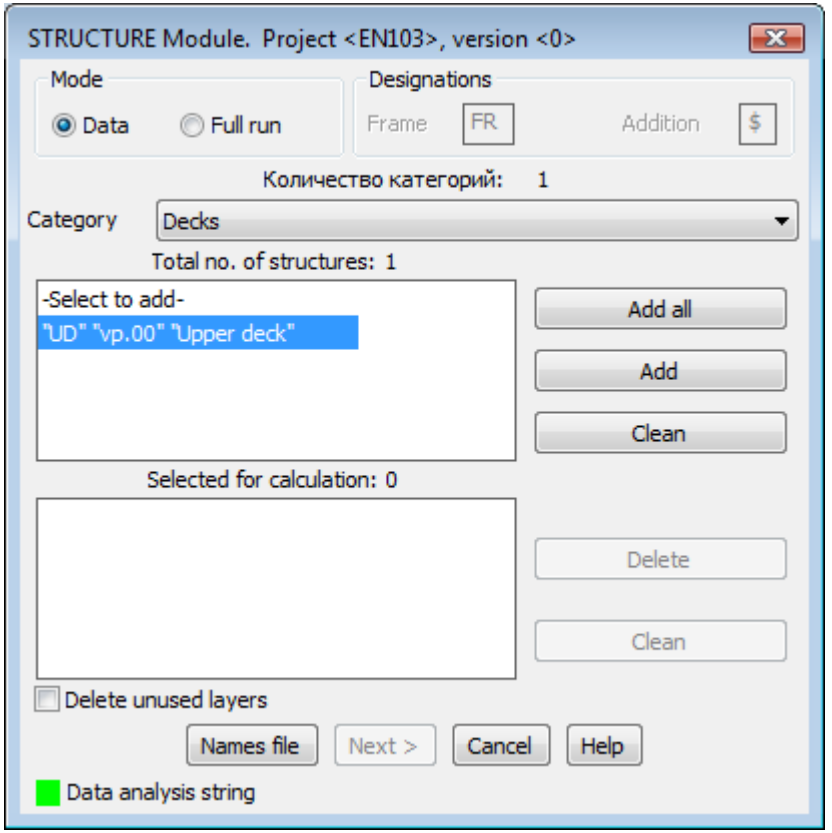


Naming Lines

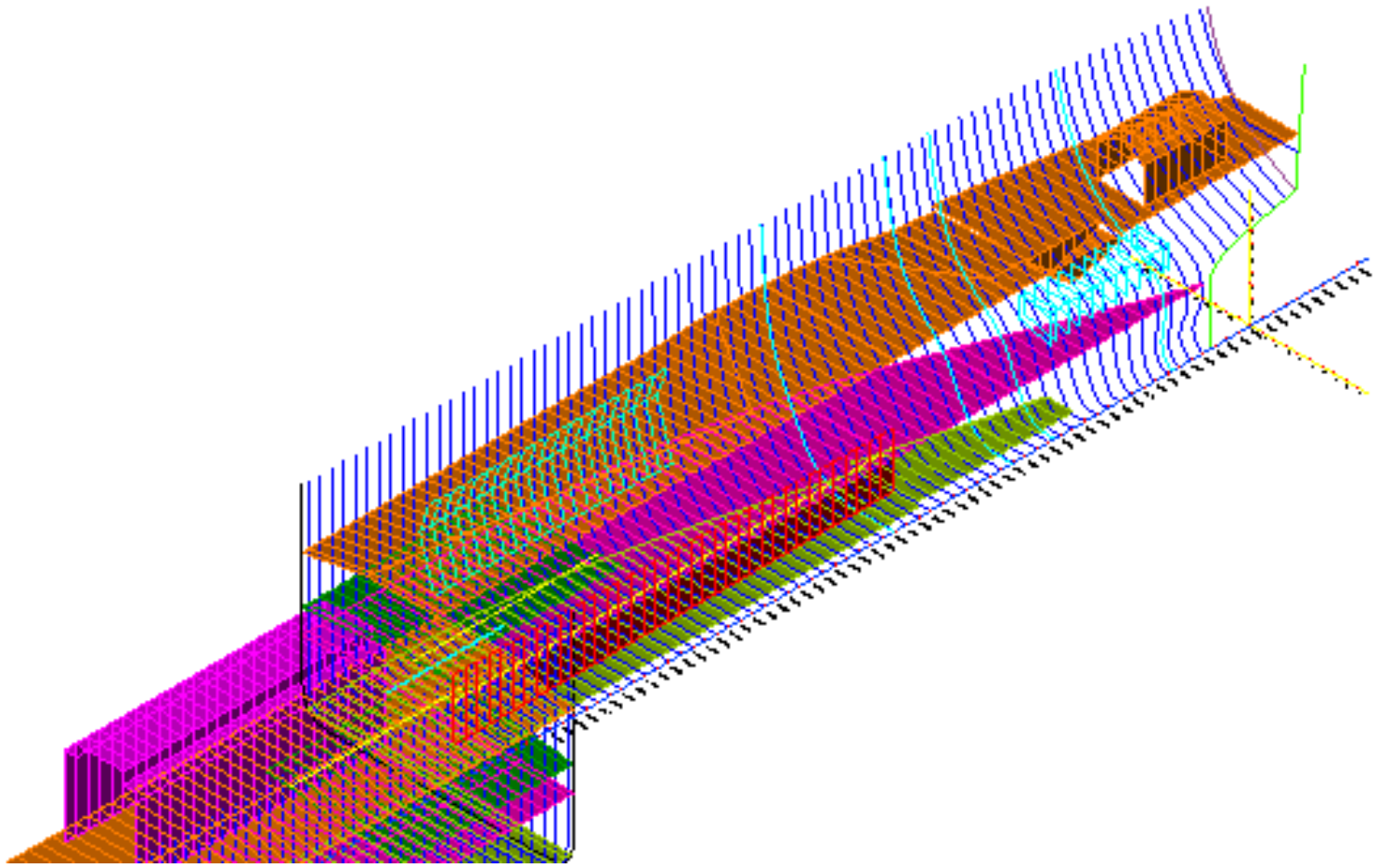


Structure Module





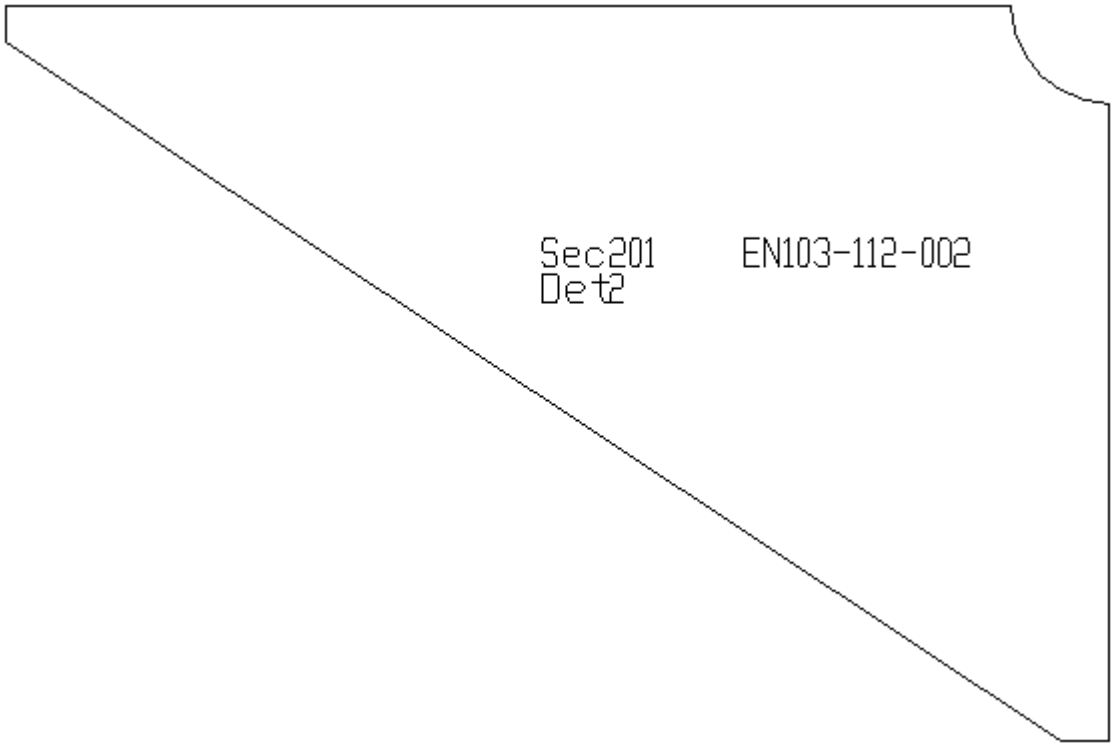
Building Decks & Platforms Surfaces in Model



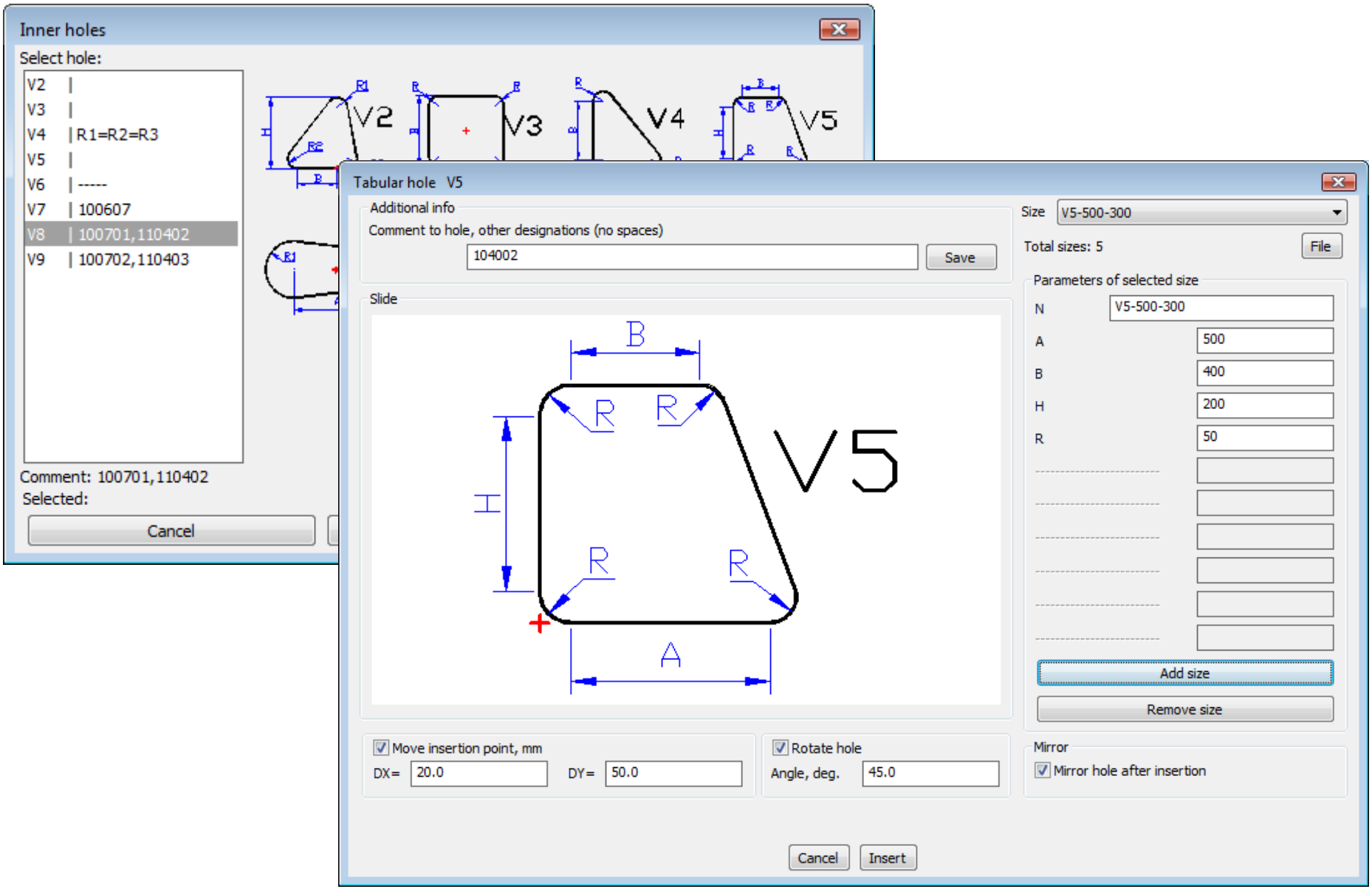
Part Module.
Creation of Parts

- Creation of part contours in accordance with a specific structure of part drawing
- Adding inscriptions, allowances, chamfers
- Holes and notches insertion
- Generation of TNC/FPD documents (technological and norming document with part sketch) using the form approved by the shipyard

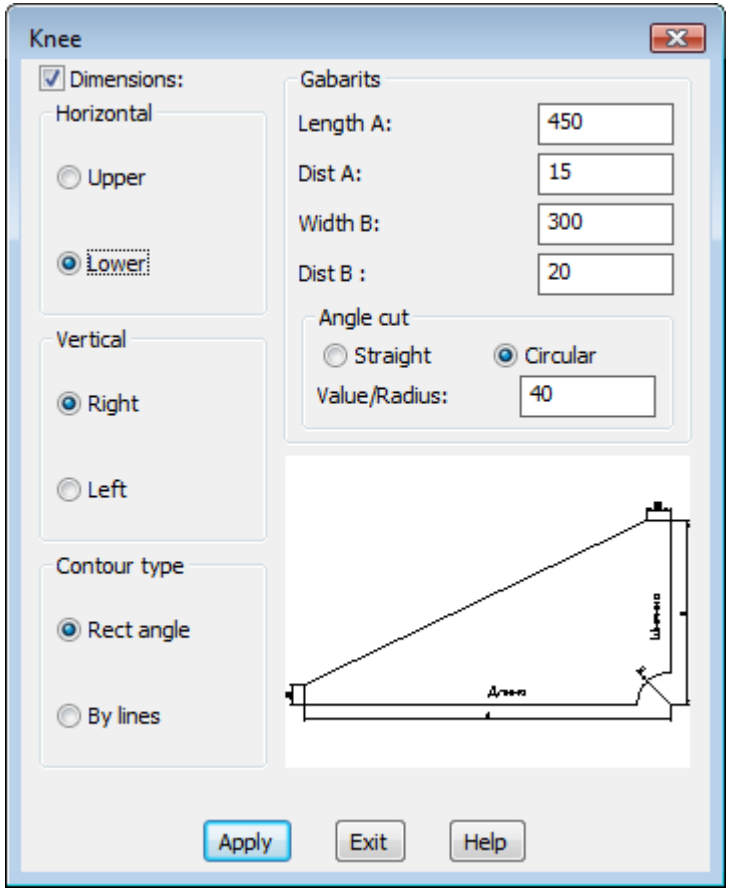
Part Contours. Tools for Outer Contour



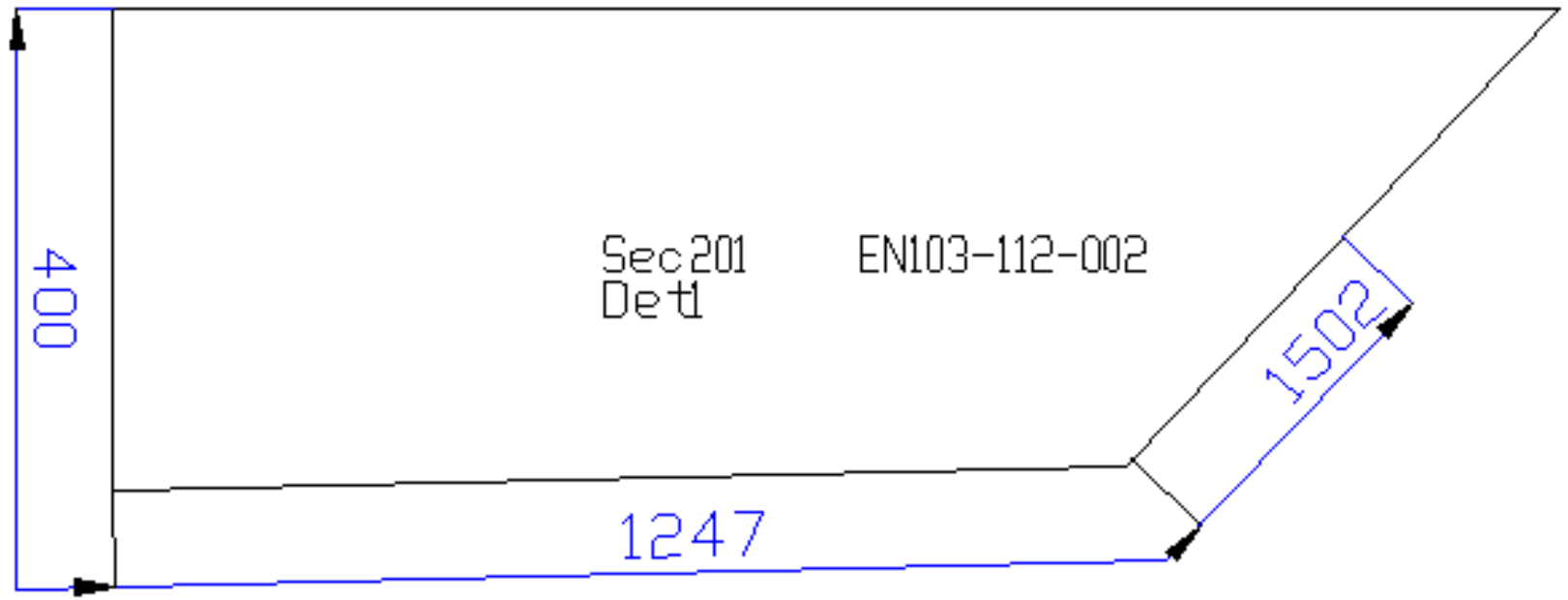
Holes, Notches



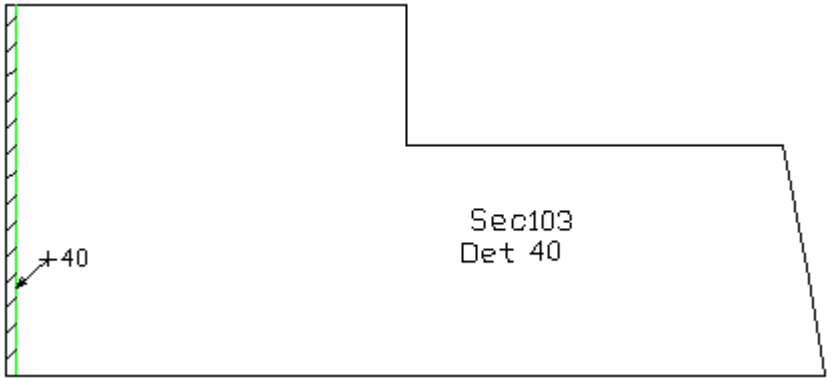
Standard Parts

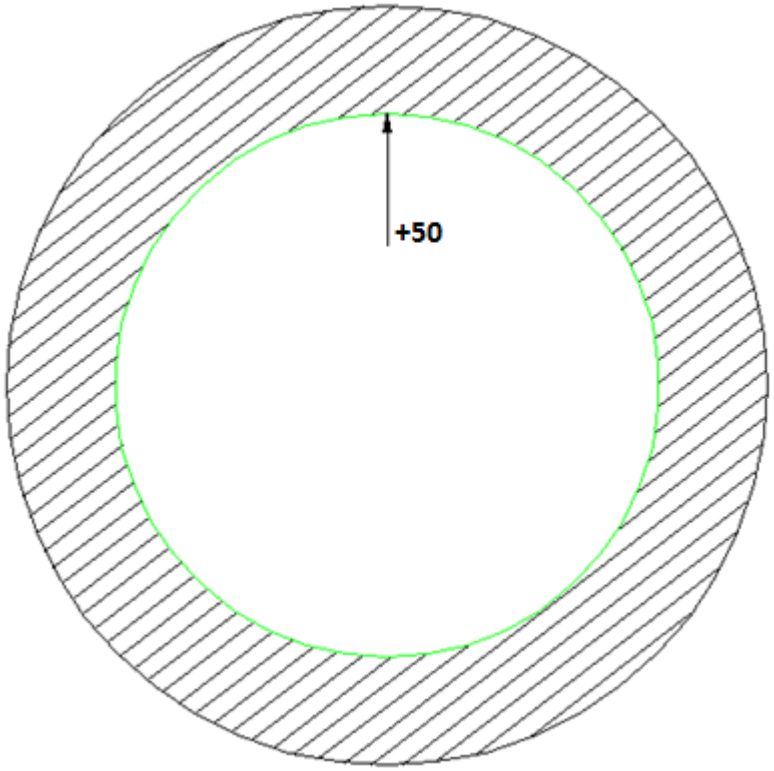


Specific Dimensioning

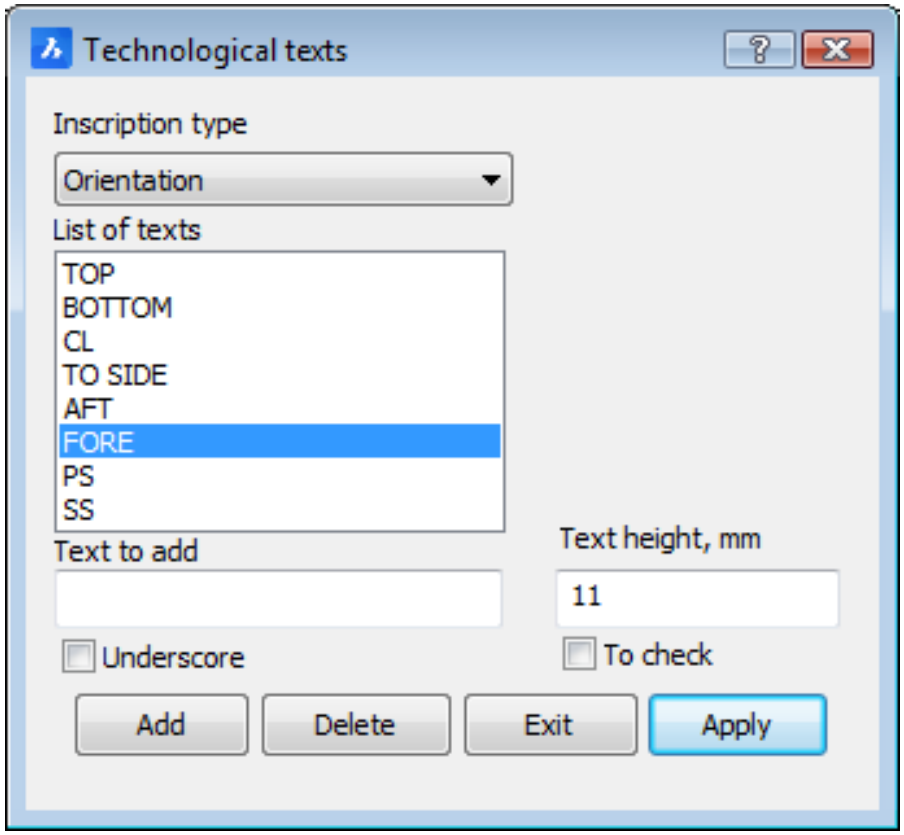


Allowance

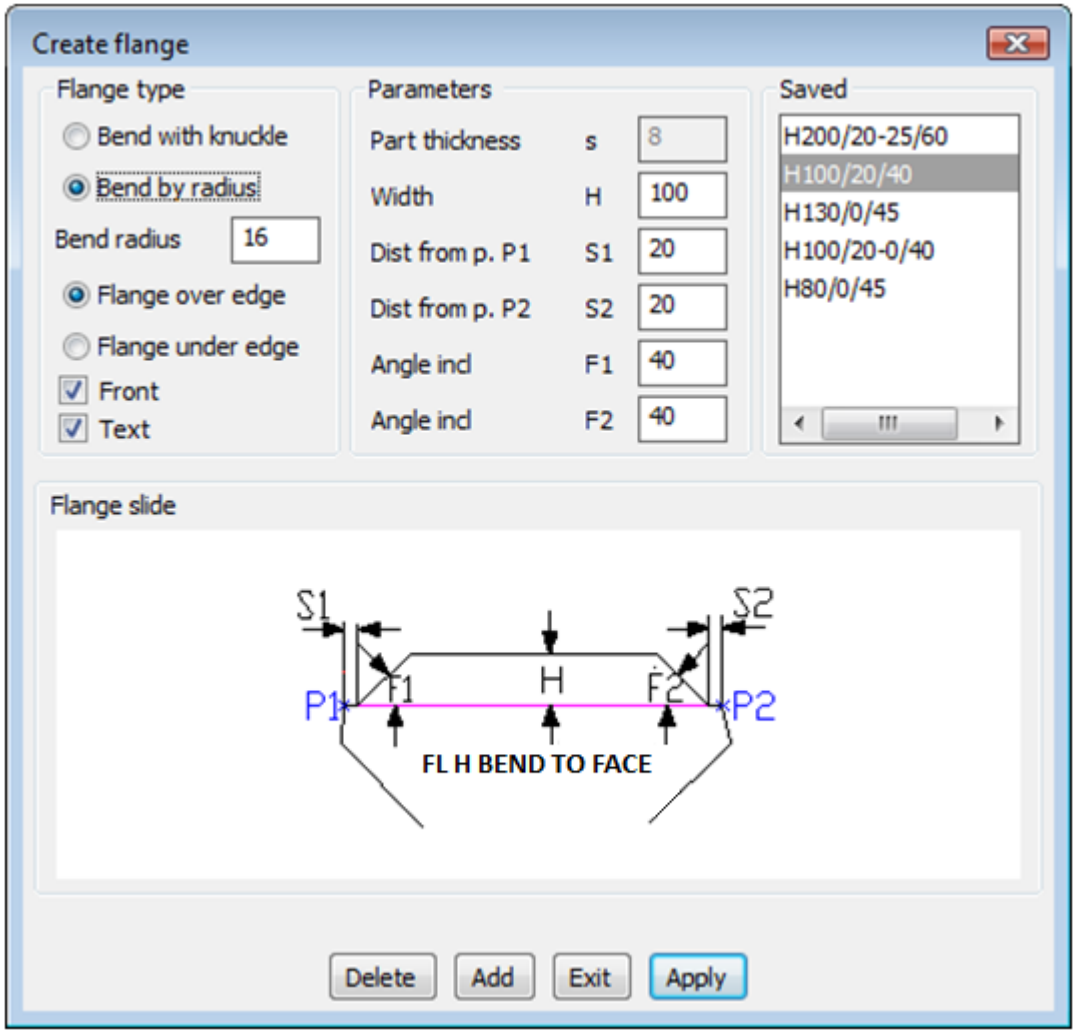




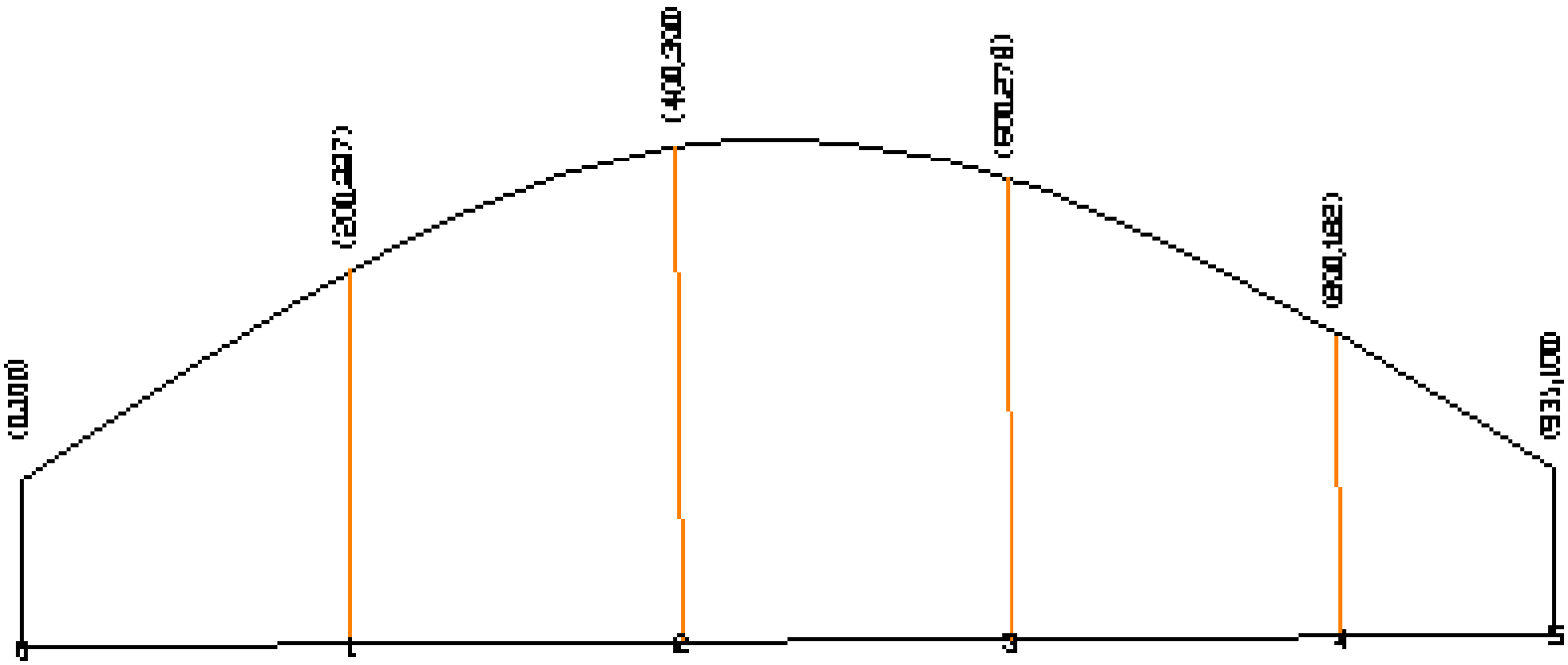
Inscriptions



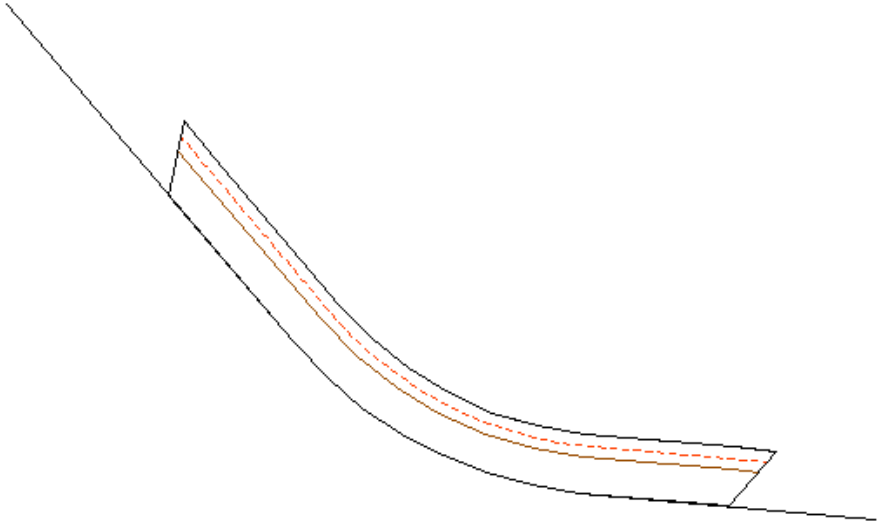
Bending, Flange

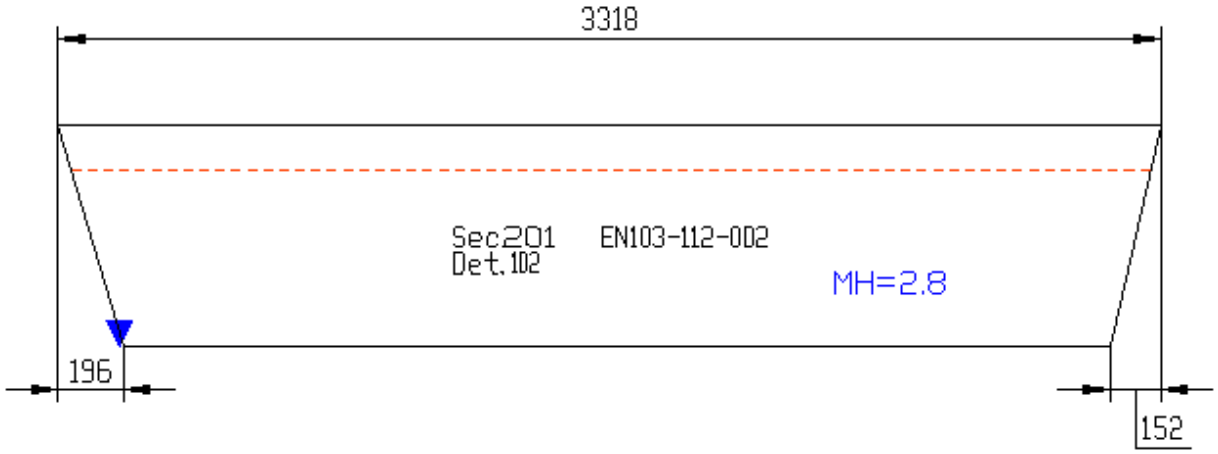


Bending.
Template for Controlling Form

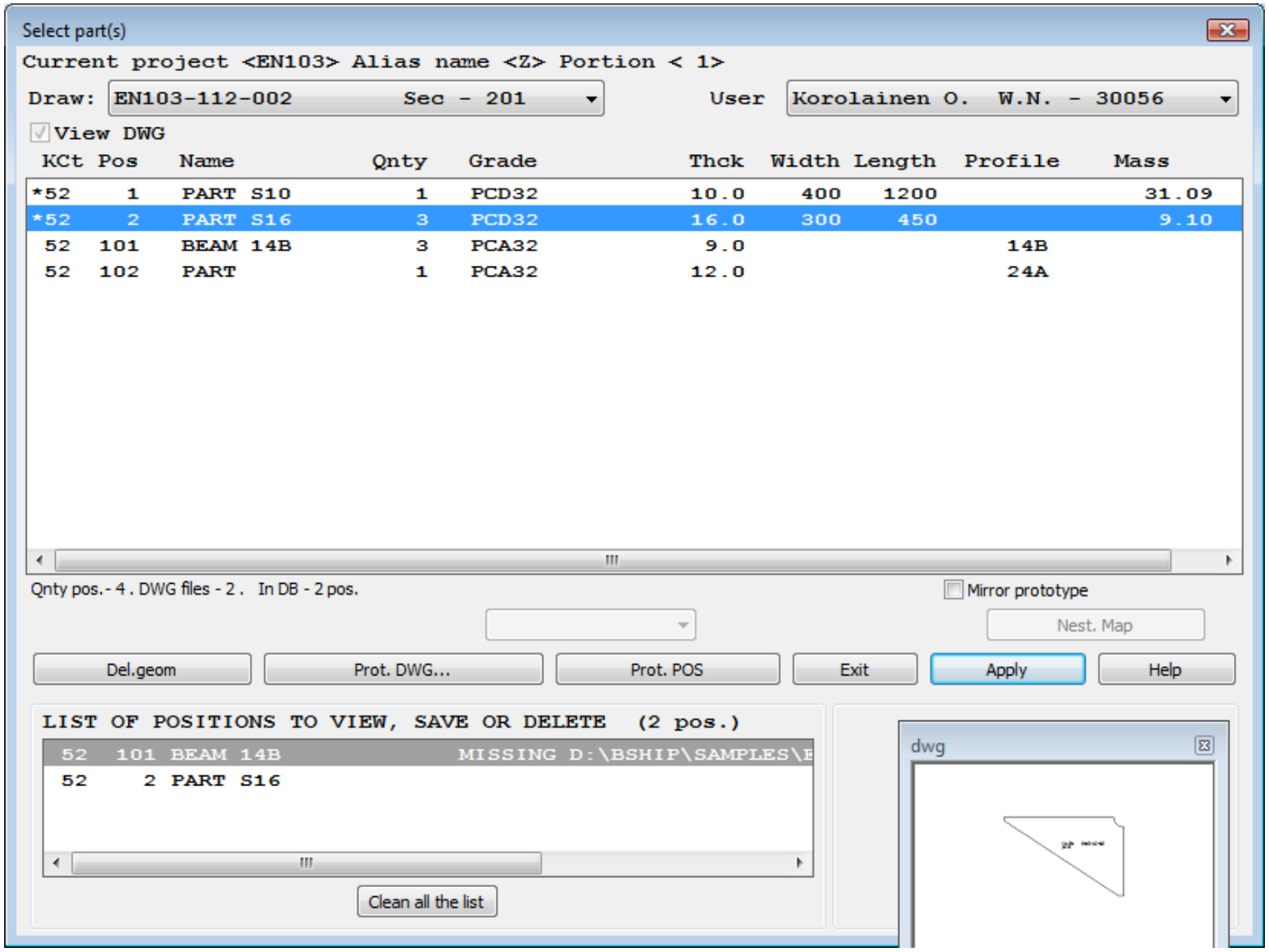


Profile (Beam) Part Sketch

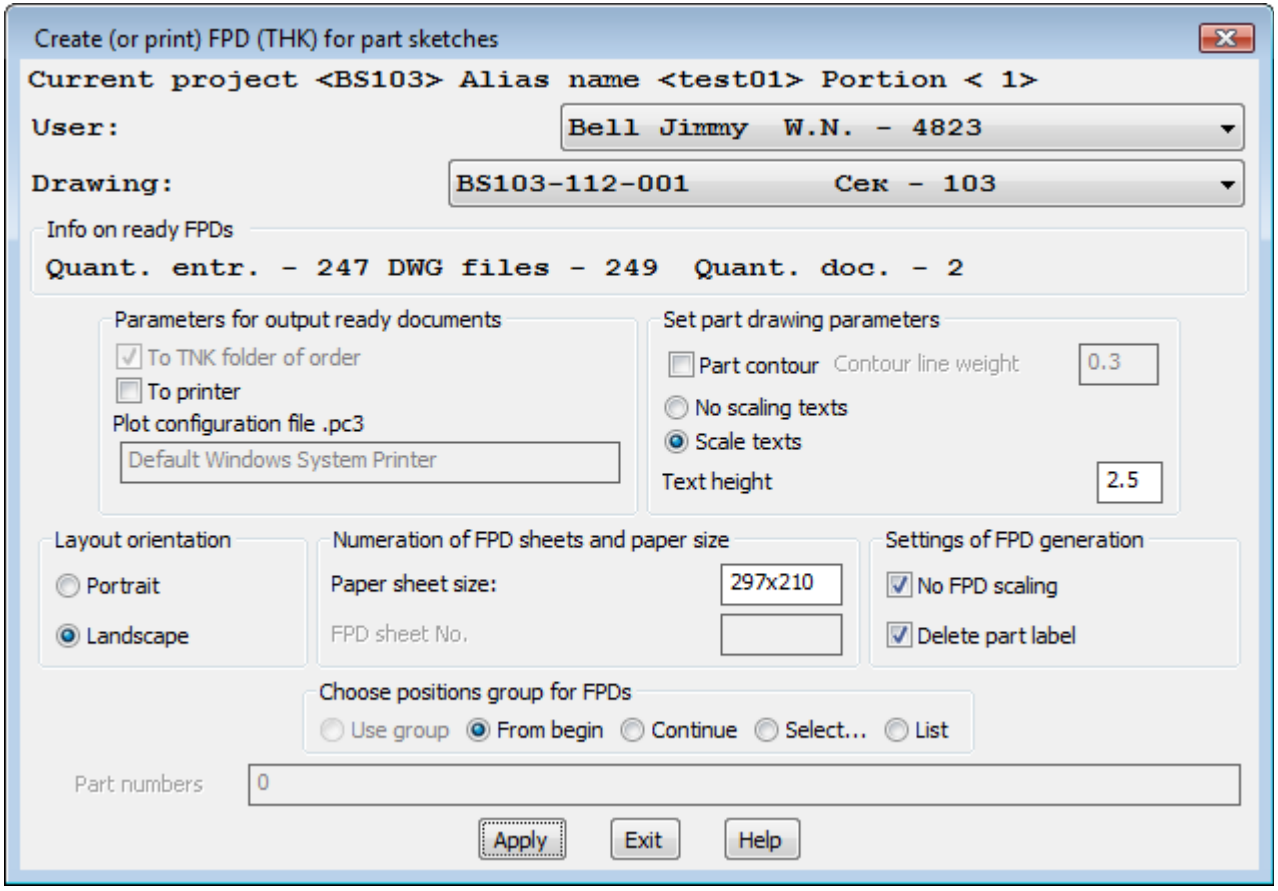




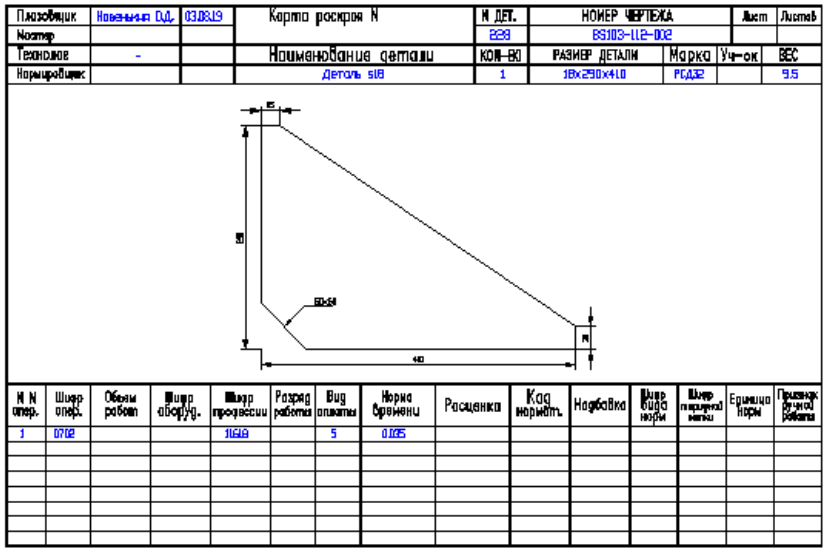
Editing Parts

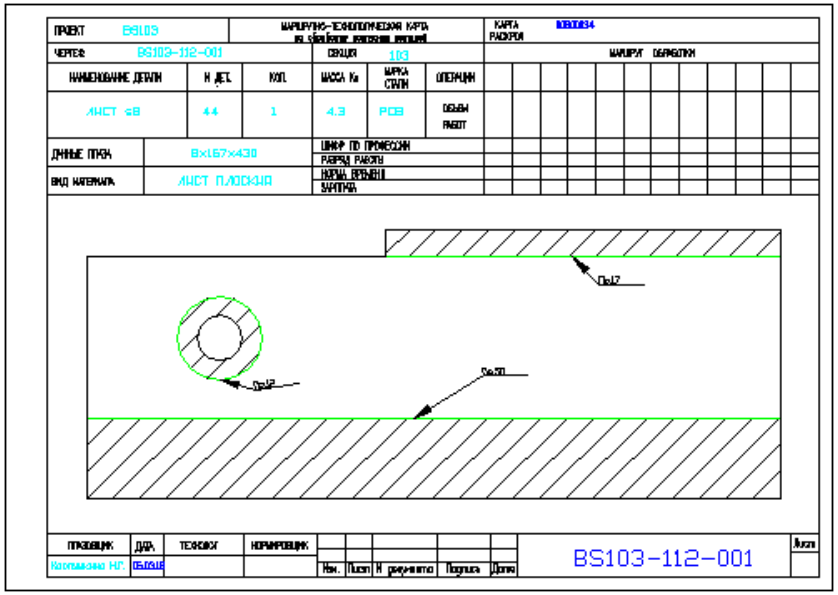


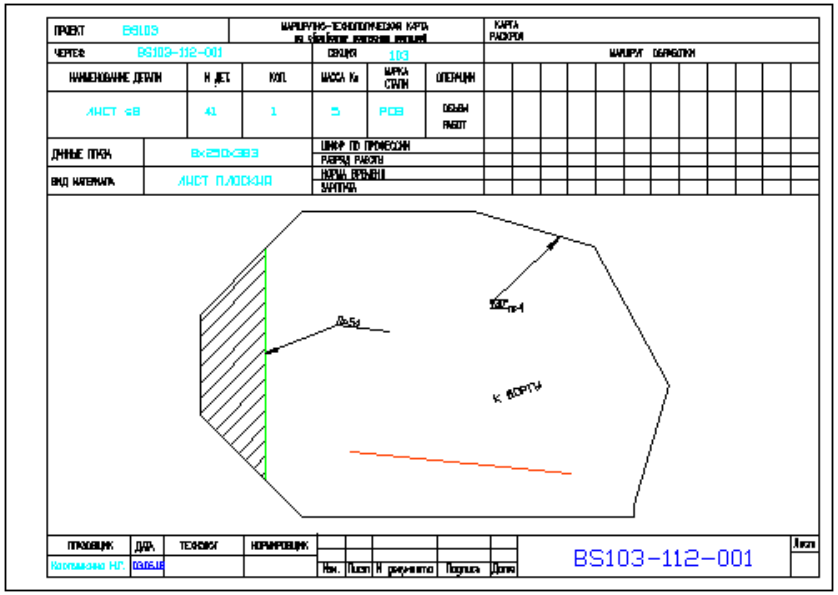
Creating TNC/FPD with Part Sketches

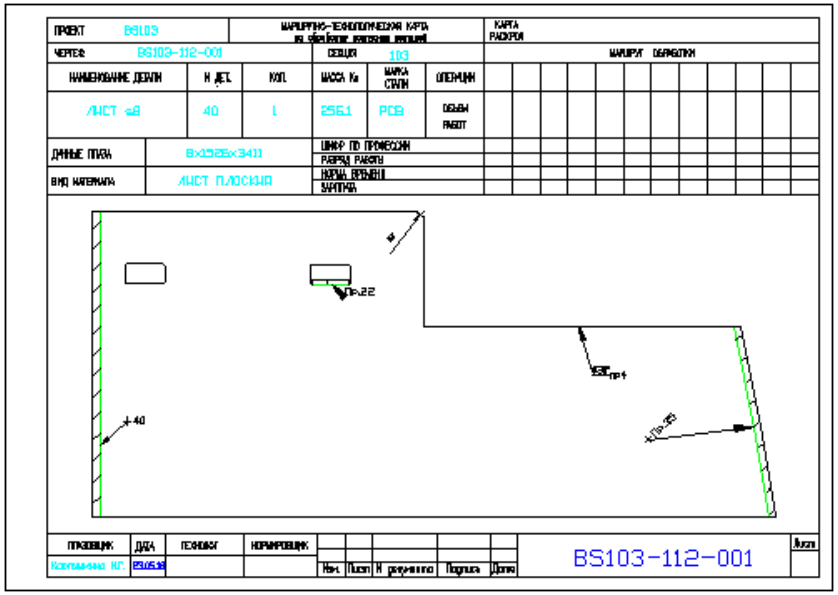


Drawings of TNCs for Parts

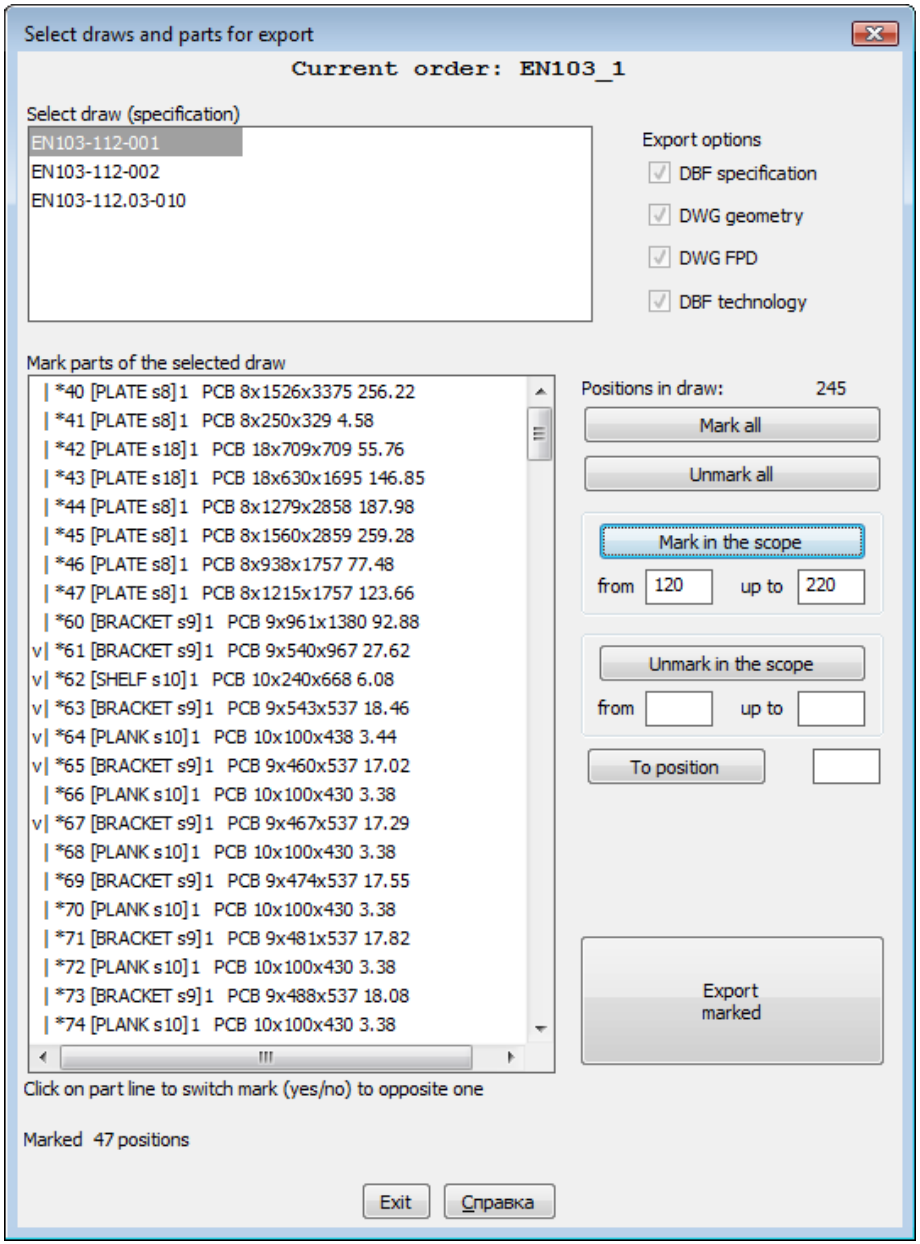








Export of Parts to Another Project

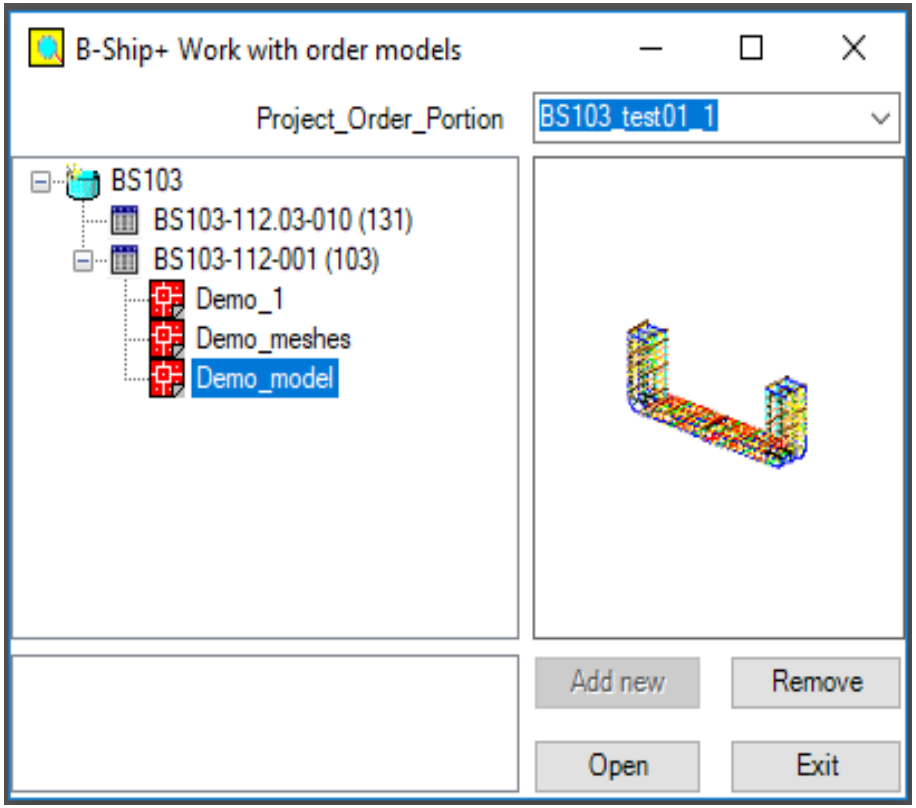


The **Mdet** Module

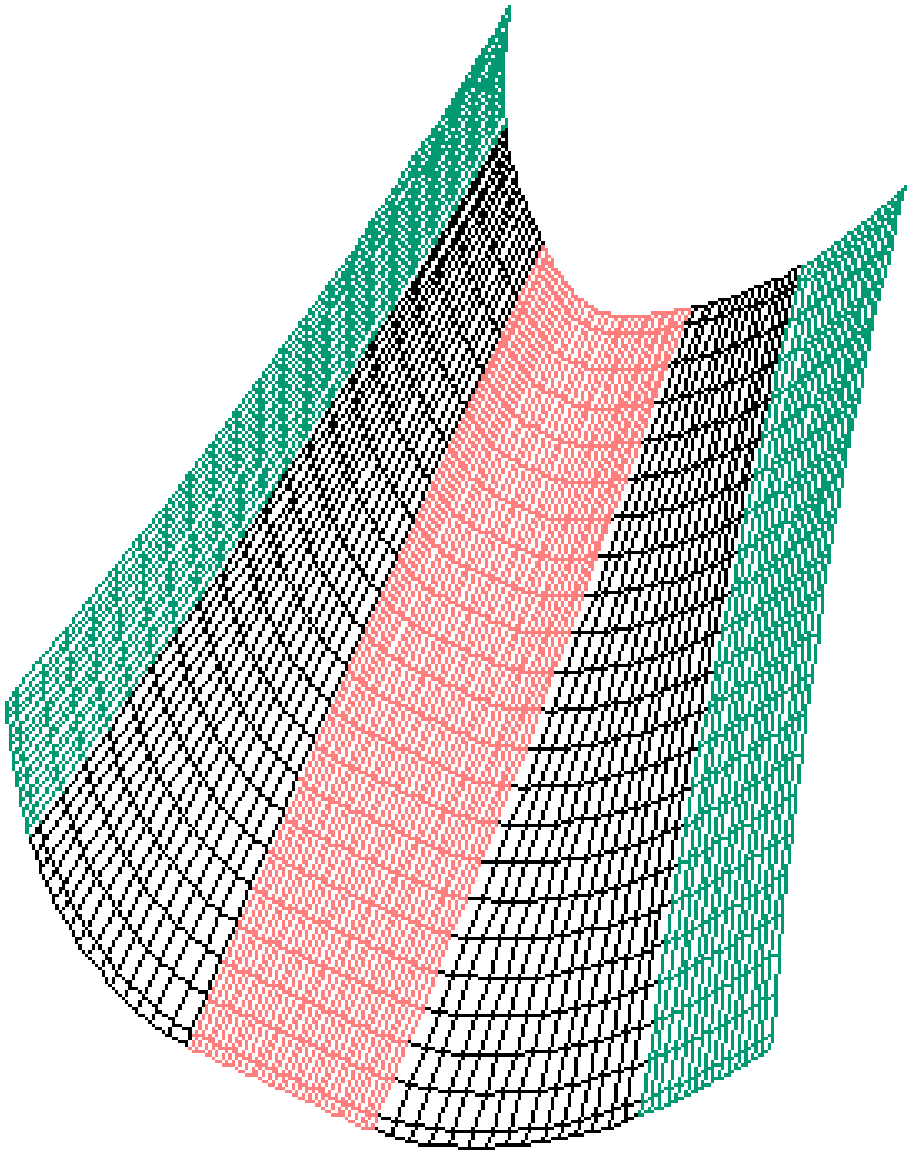
- Handling models (dwg files of ship hull block or section)
- Creation of parts geometry in 3D model
- Additional builds for plaz (loft) needs
- Calculation of bending data
- Shell sheets development
- Work with node tables and welding seams

Models in the Project

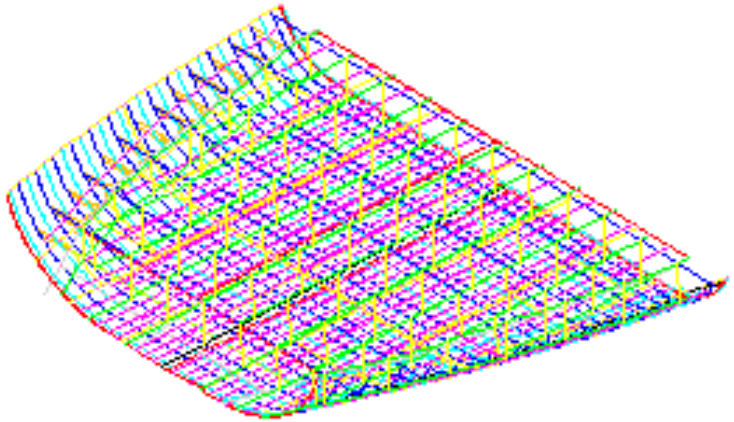
- Dwg models are being connected with a drawing document (specification)

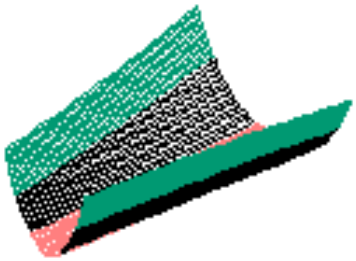


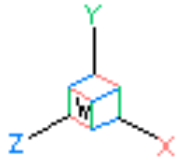
Meshes for Hull Shell Plates



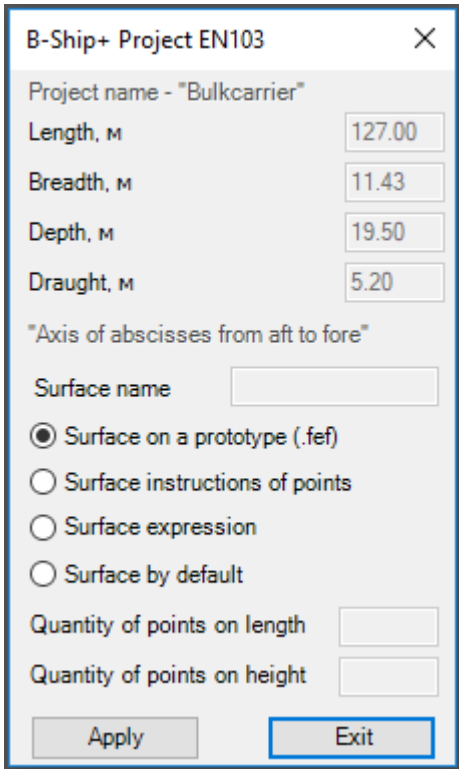
Models on Screen

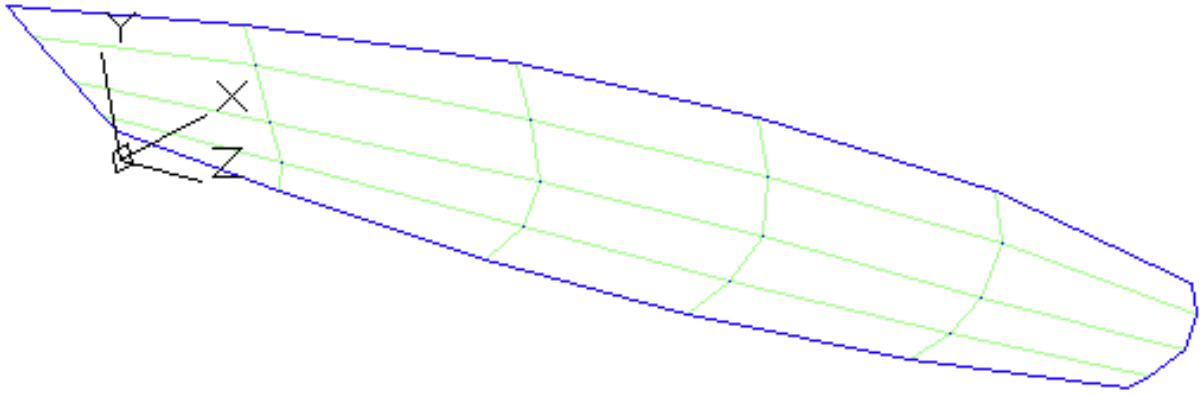


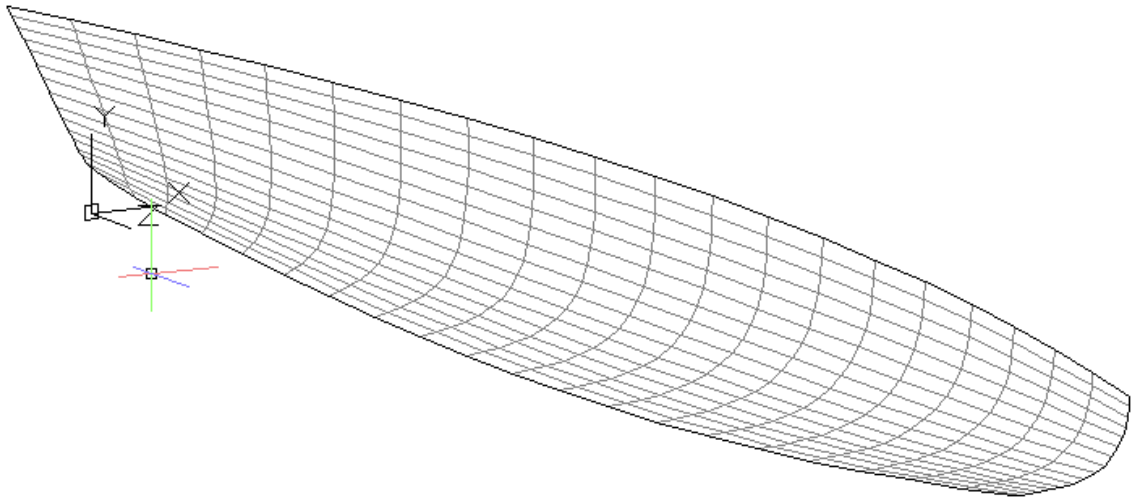




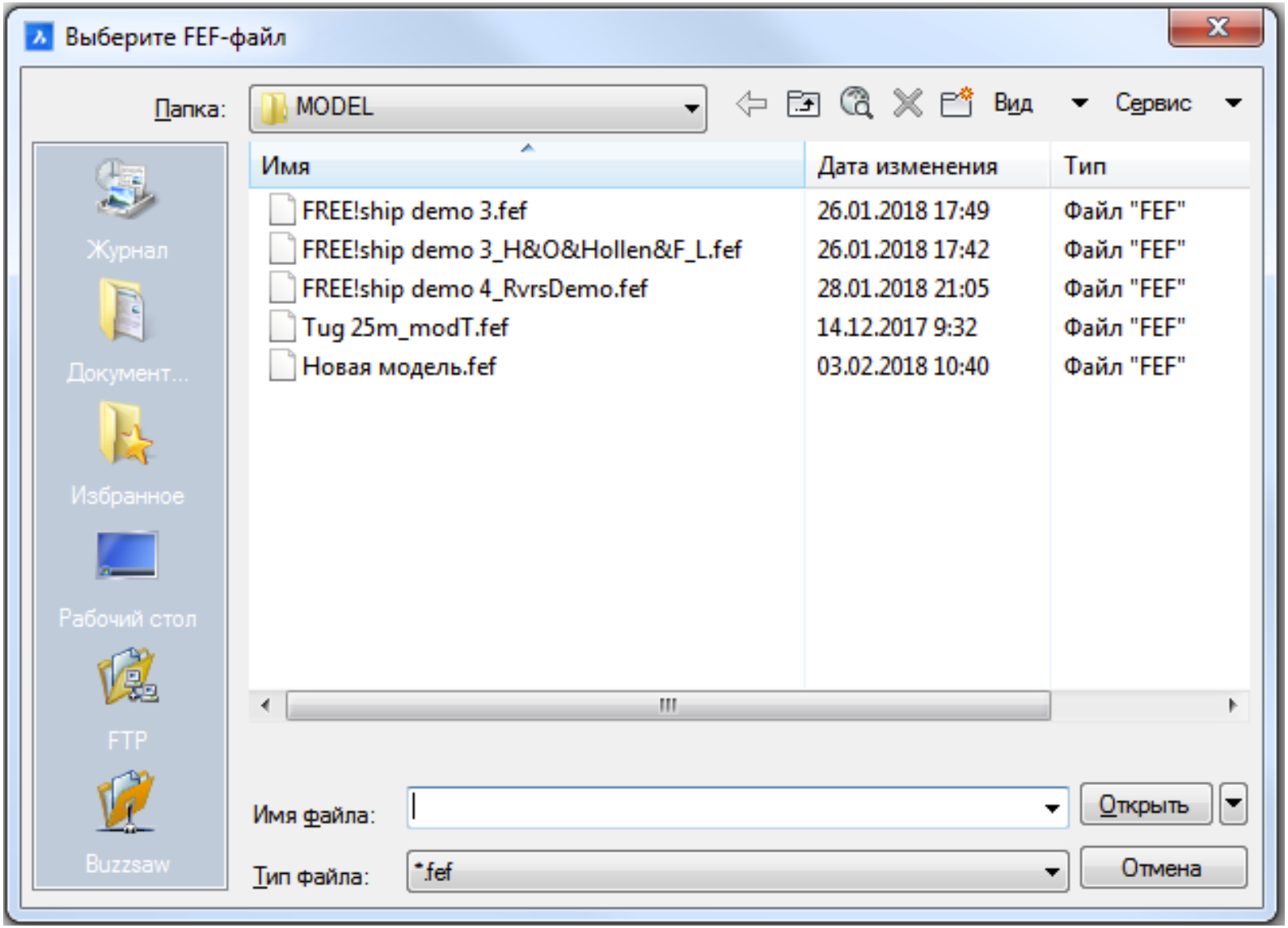
Creating Mesh Surfaces for Shell



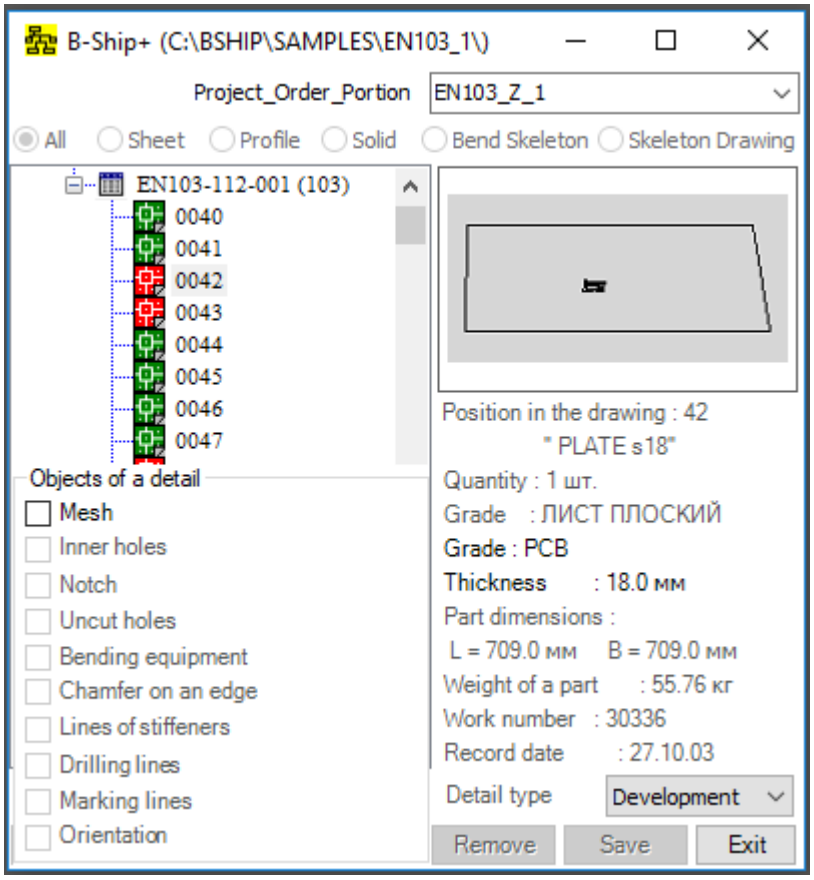




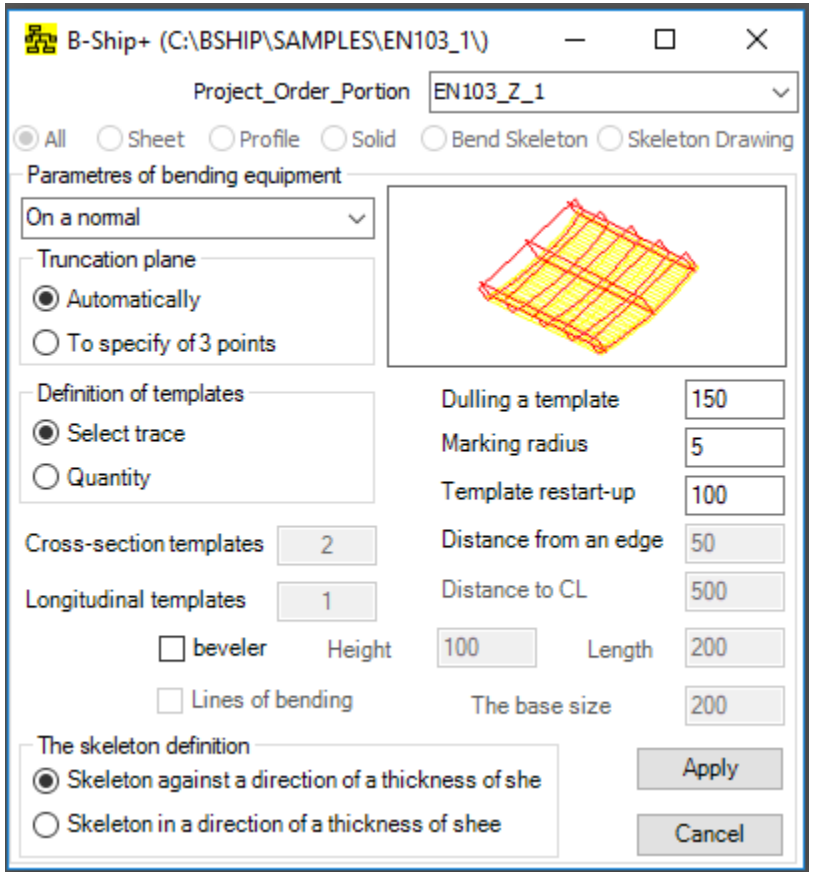
Import of Surfaces from FreeSHIP



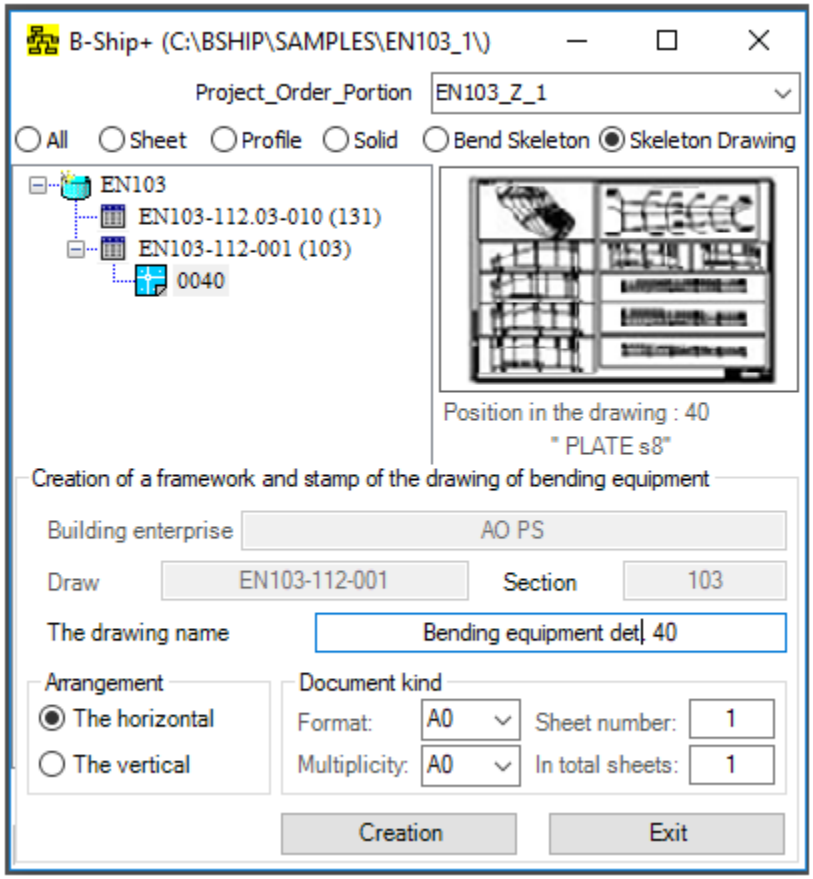
Shell Plate Development



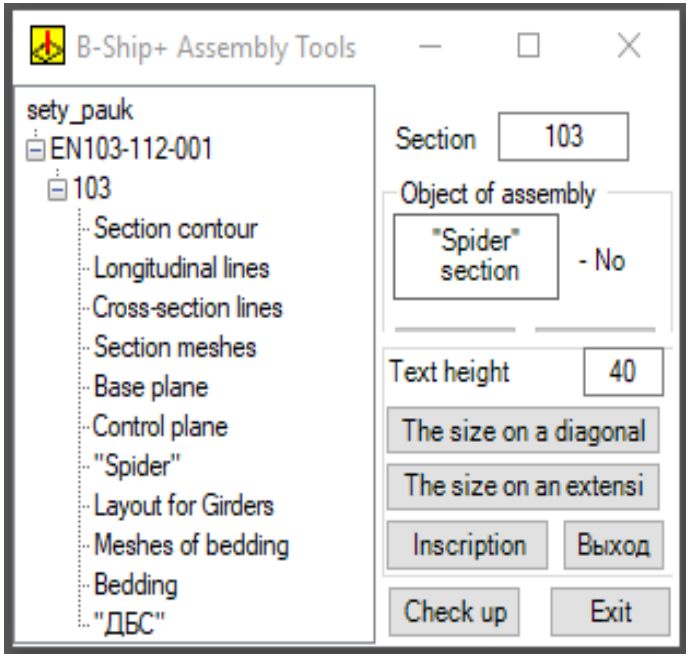
Bending Tools

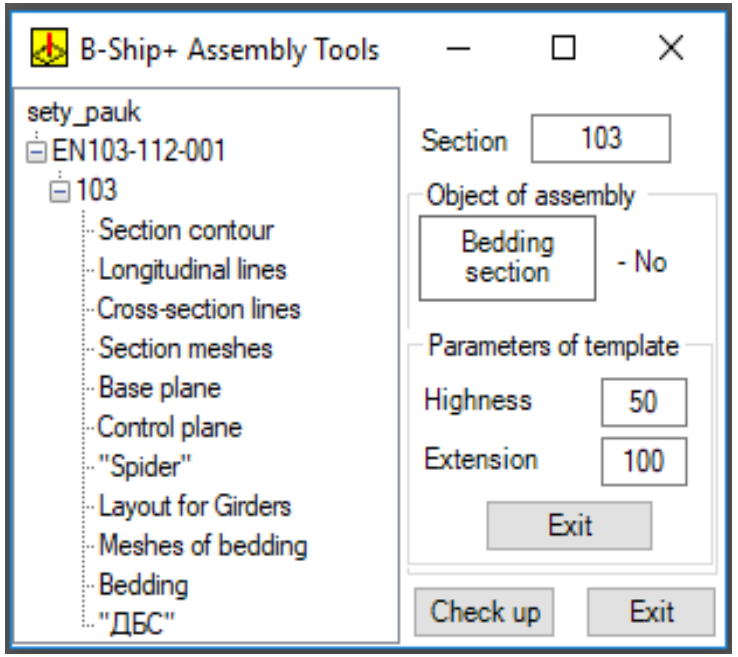


Bending Skeleton Drawing

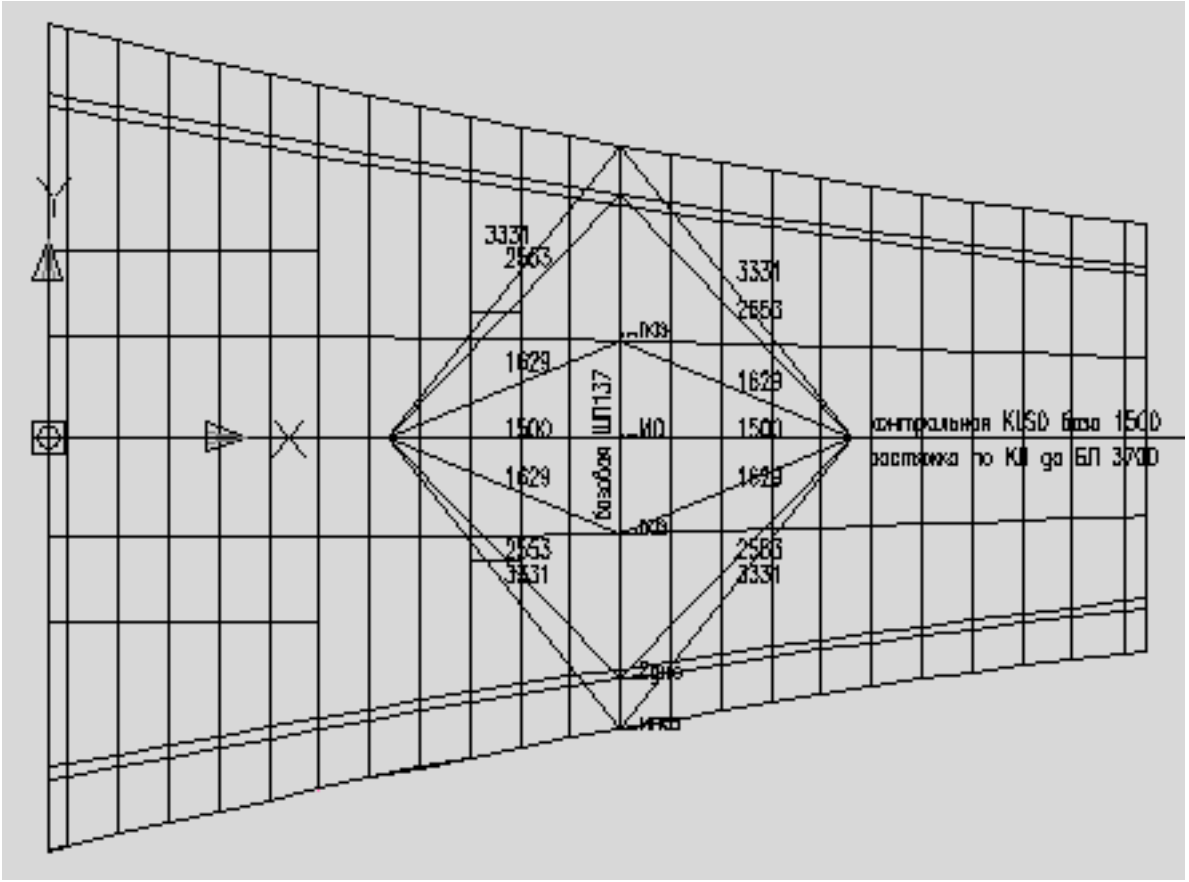


Assembly Tools

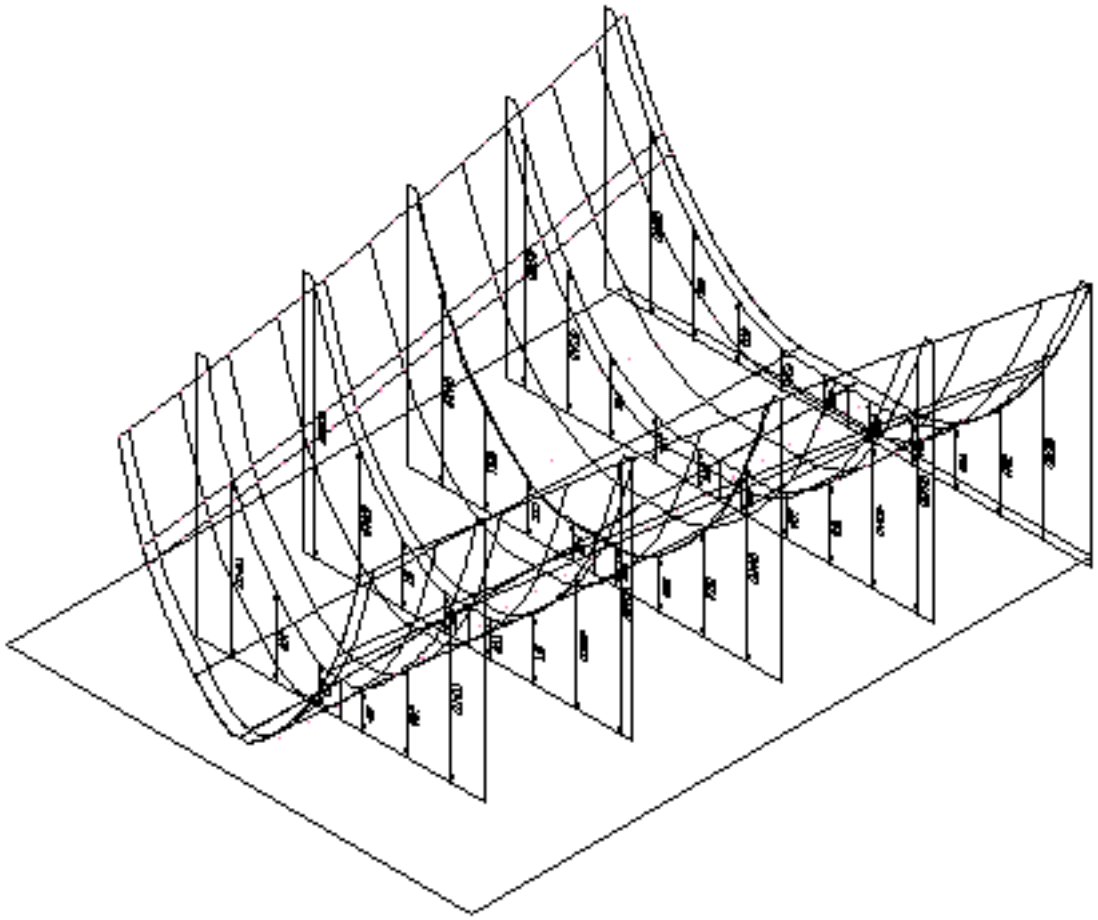




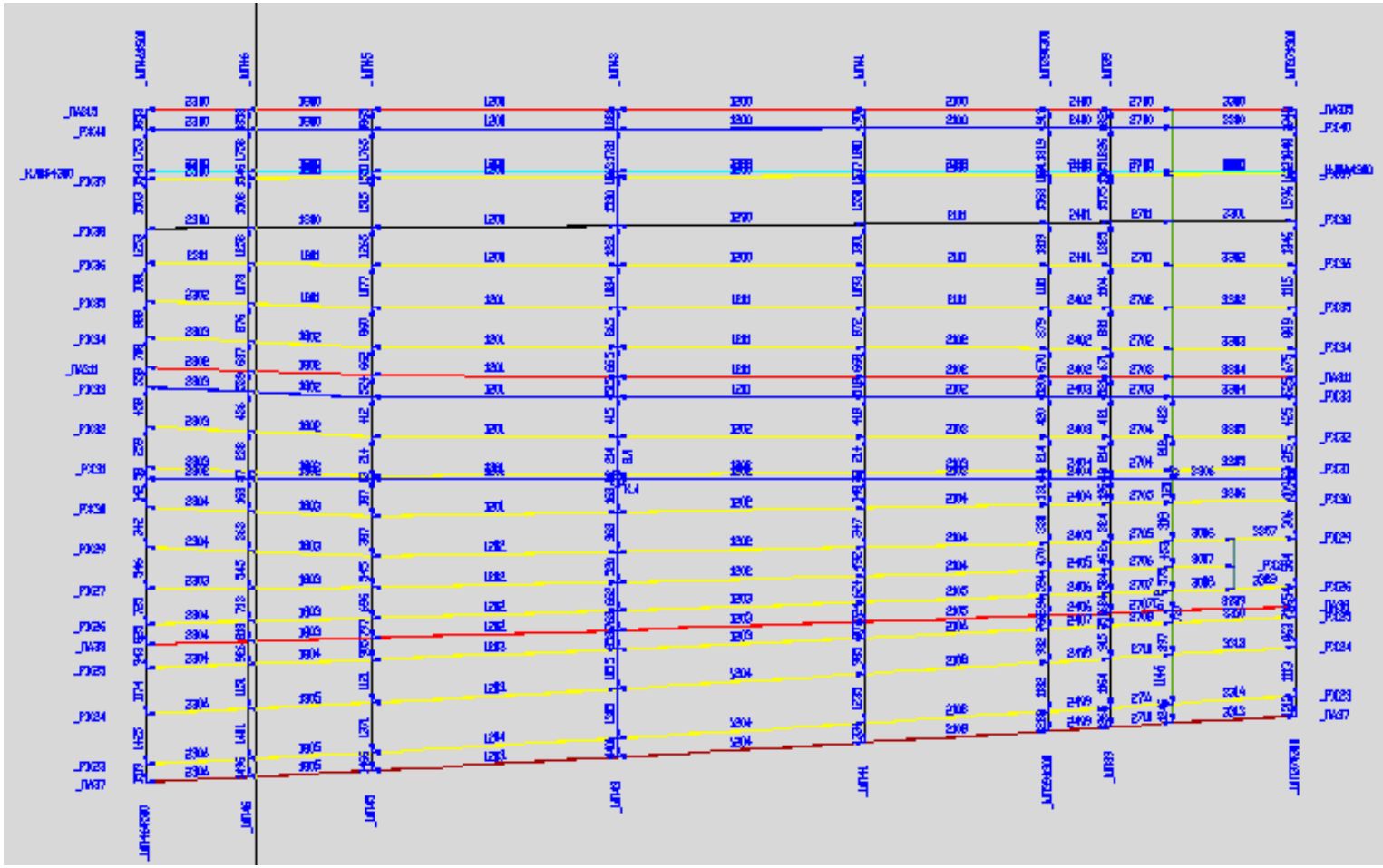
Section Marking Drawing



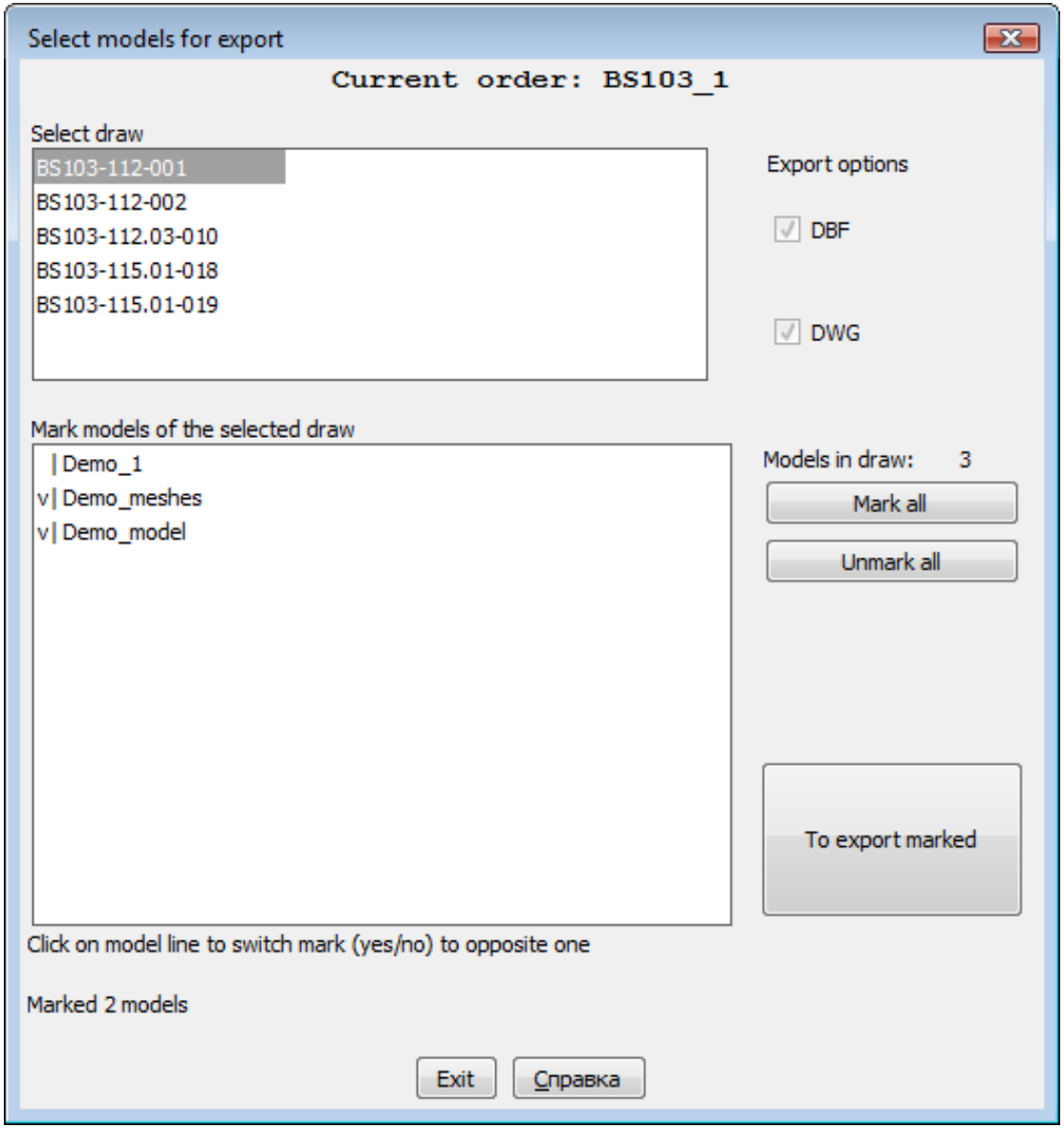
Bending Templates Positioning Data



Layout for Girders (Longitudinal and Crossing)



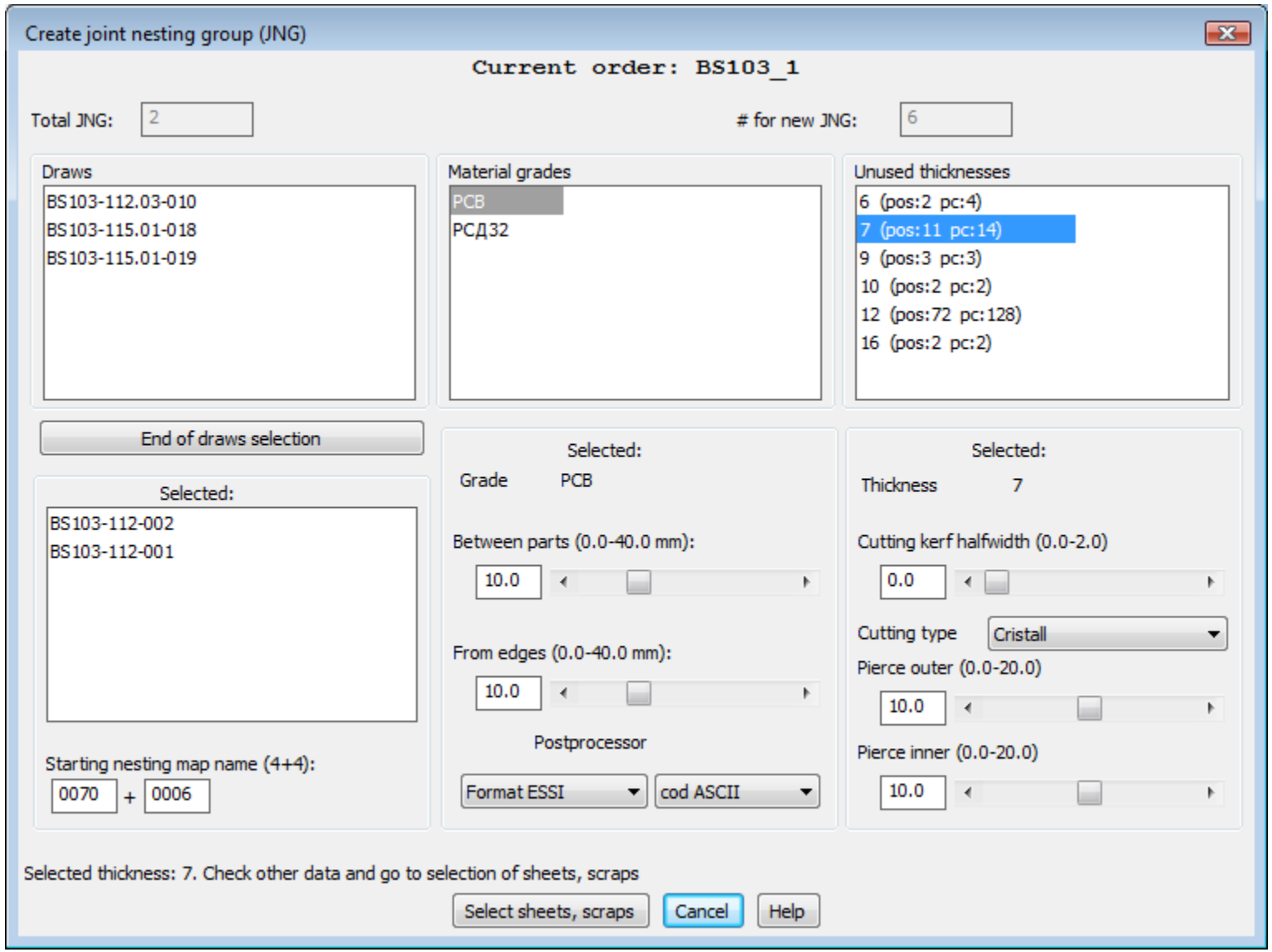
Export of Models to Another Project



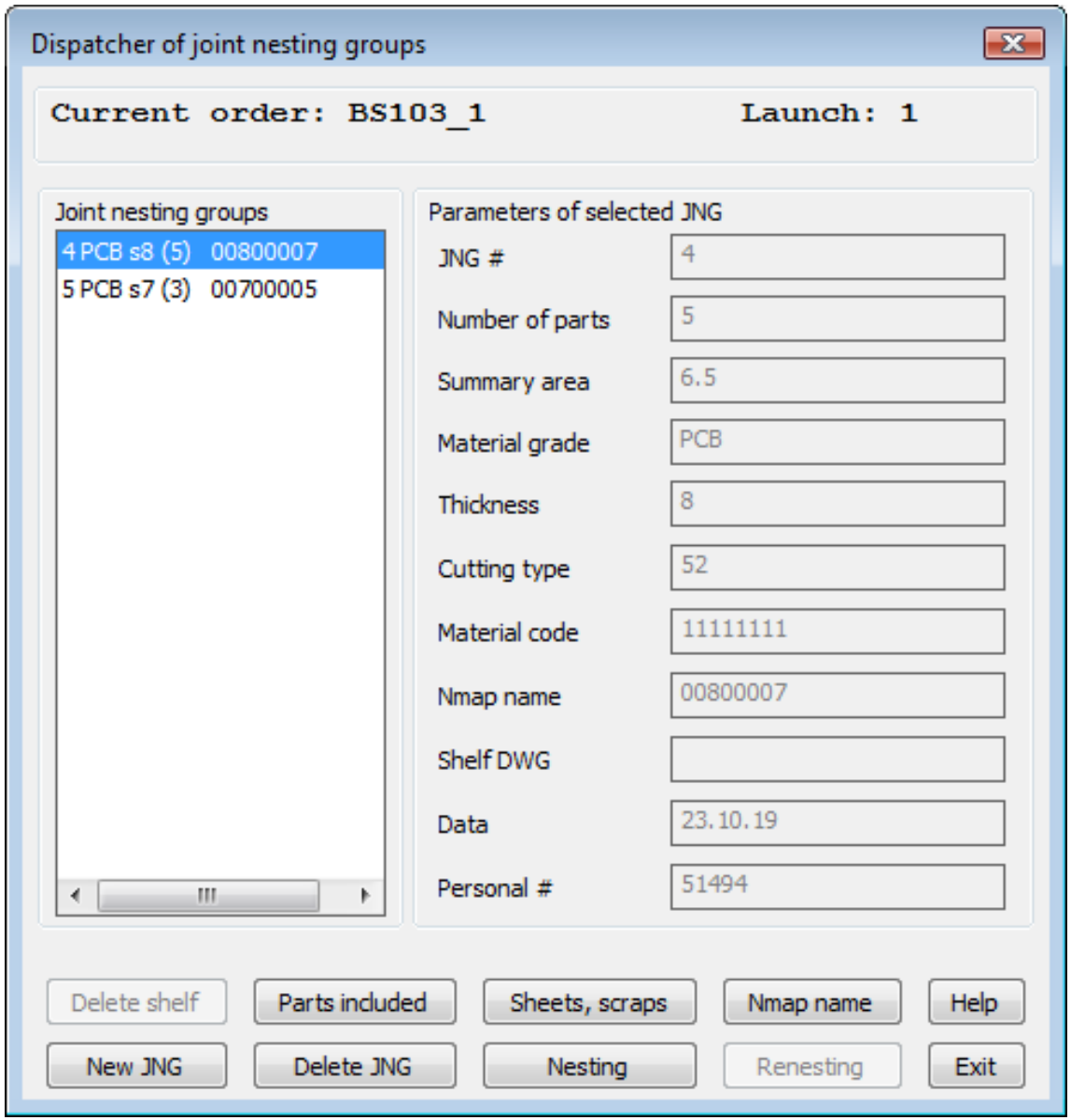
Nesting Module.
Nesting Maps, Scraps Handling

- Groups of joint nesting
- Automatic nesting of sheets
- Interactive nesting of sheets
- Defining cut route, output of CNC programs
- Forming TNC/FPD for nesting maps
- Nesting spreadsheets (tables)
- Nesting of scraps and getting CNC programs

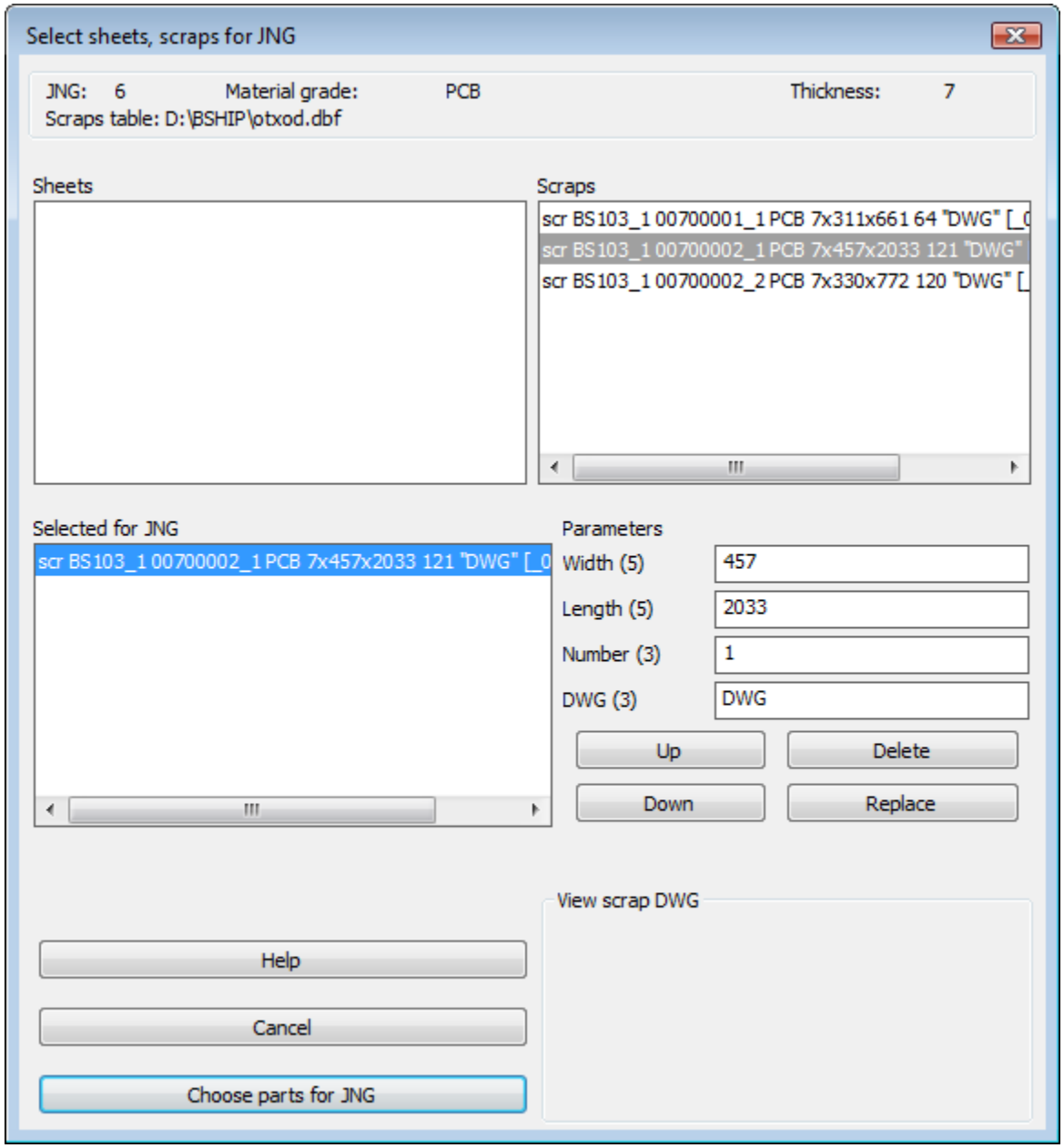
Joint Nesting Groups (JNG)



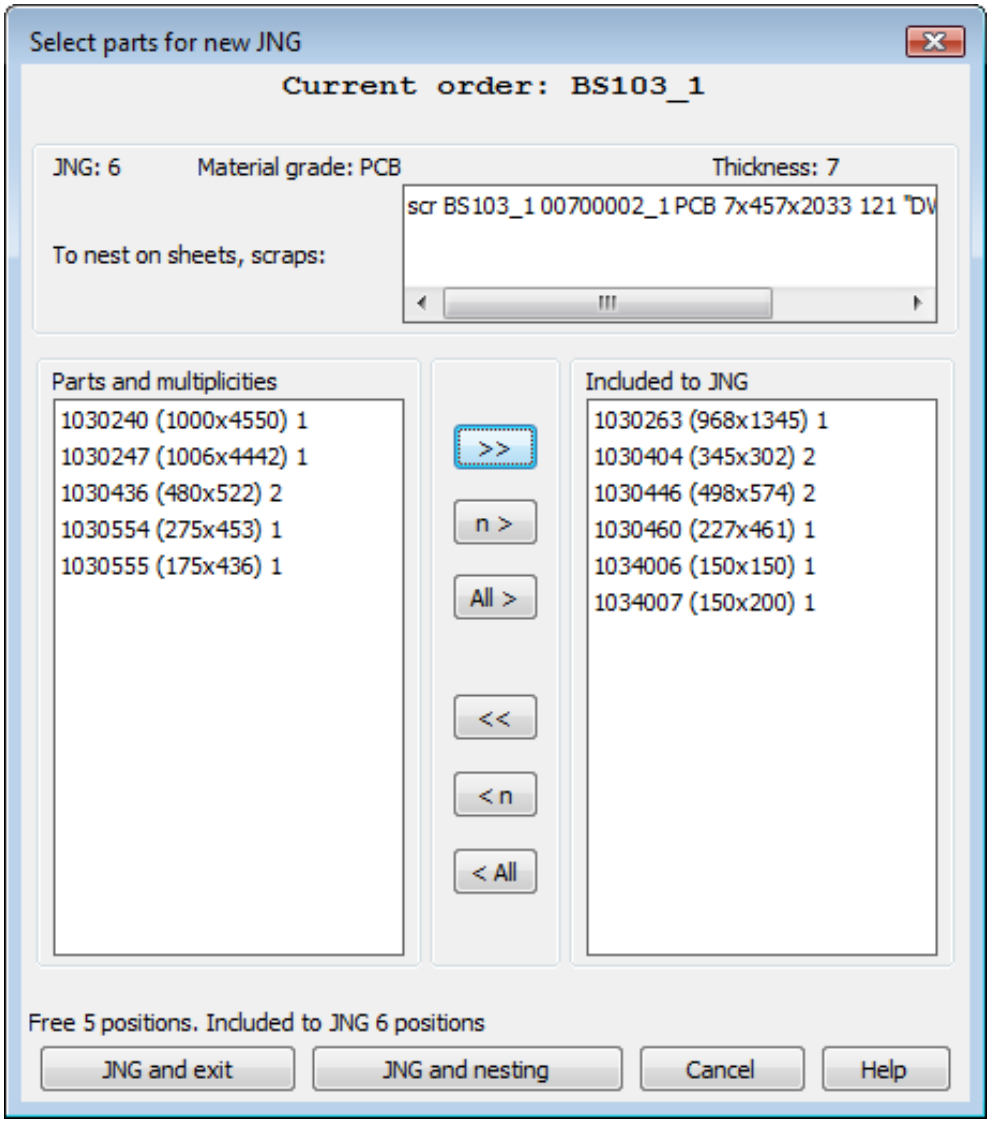
JNG Dispatcher



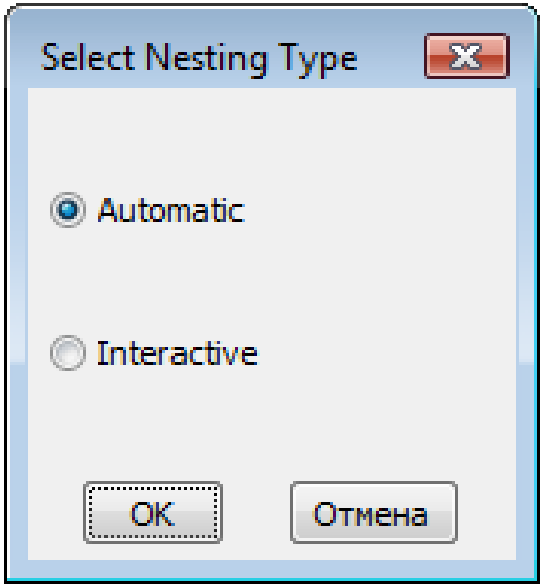
Selecting Sheets (Scraps) for JNG



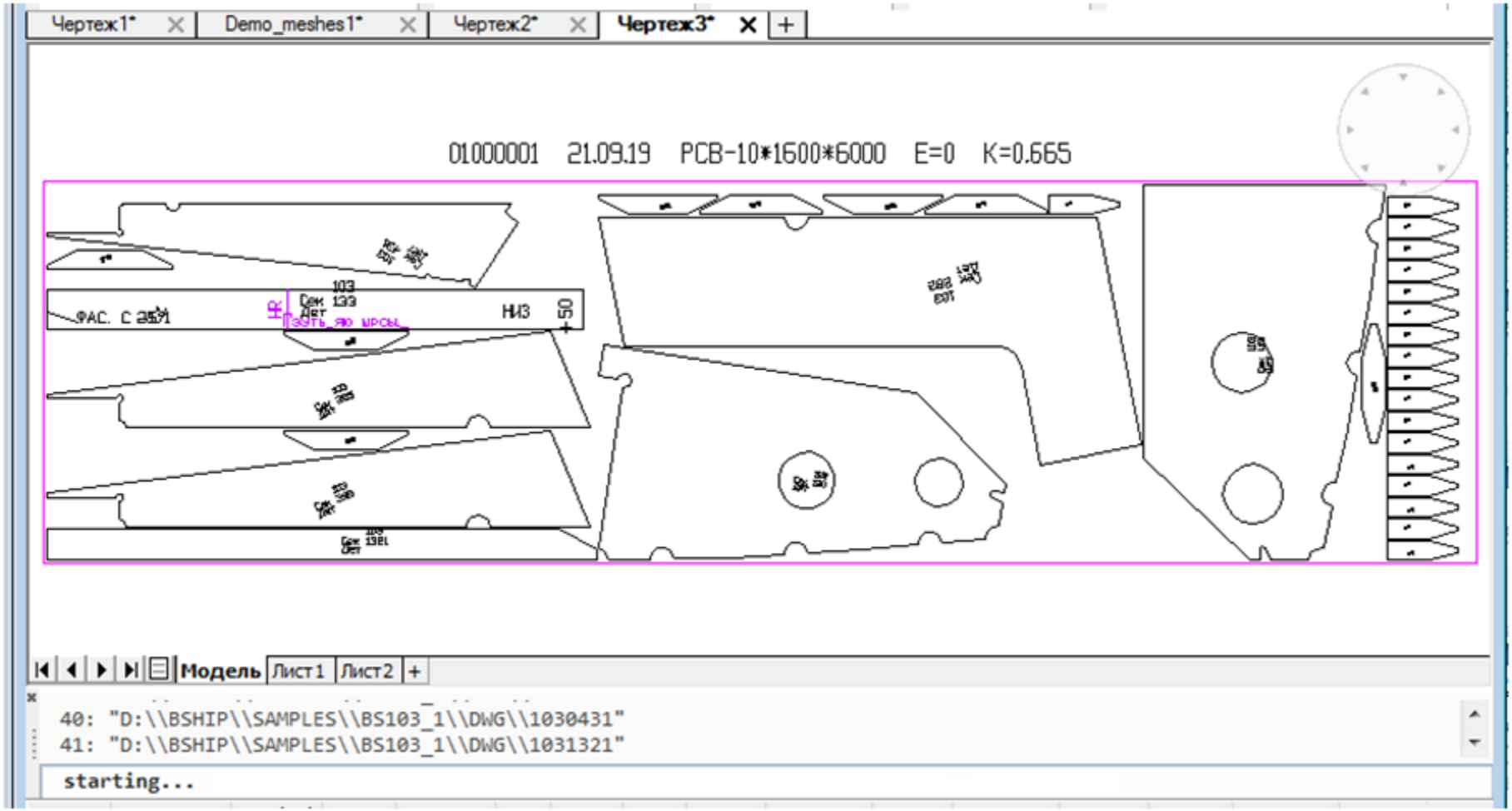
Selecting Parts for JNG



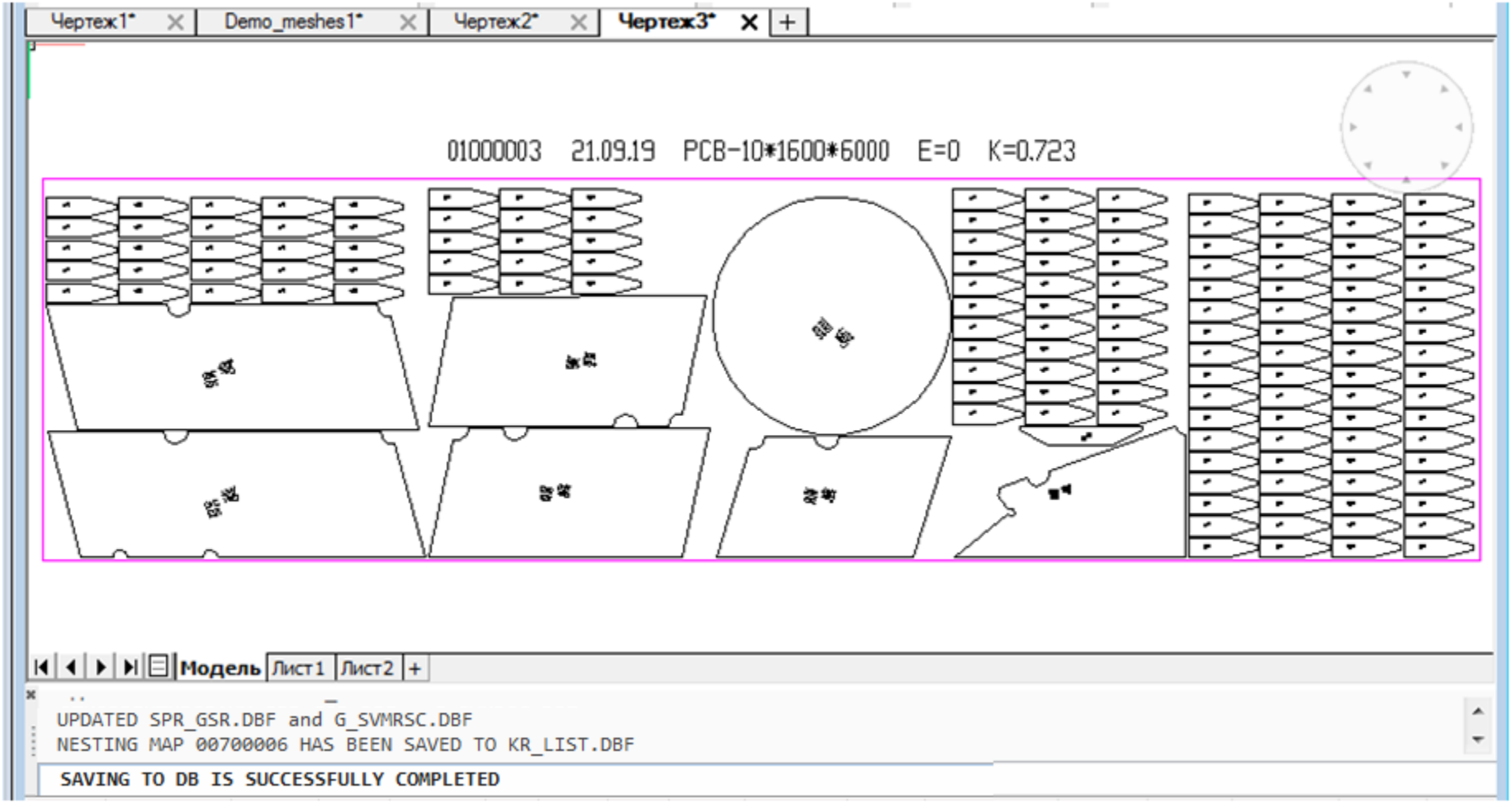
Selecting Nesting Type for JNG (Automatic or Interactive)



Automatic Nesting Process (1)

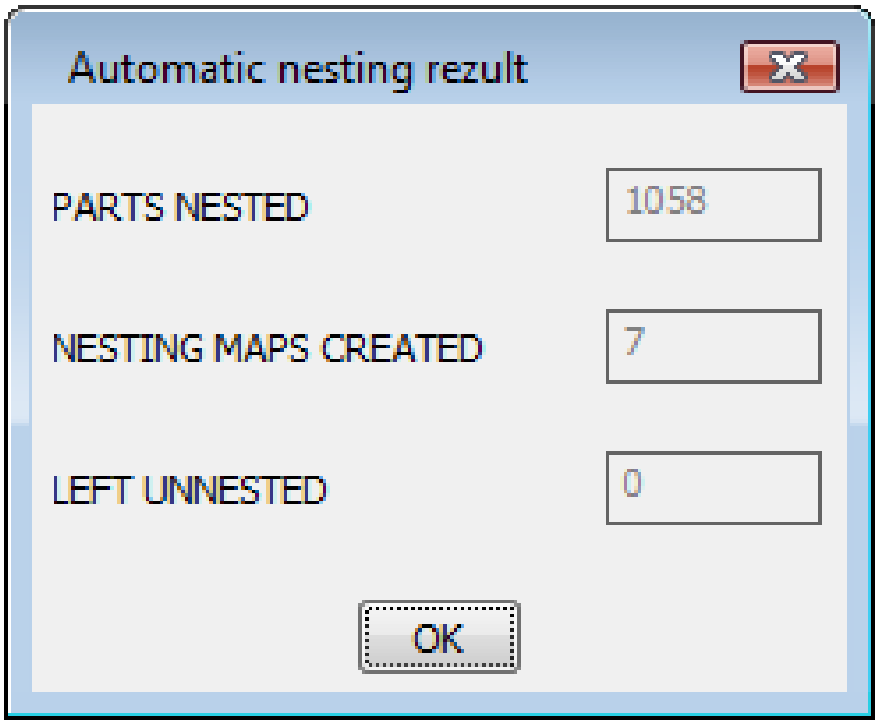


Automatic Nesting Process (2)

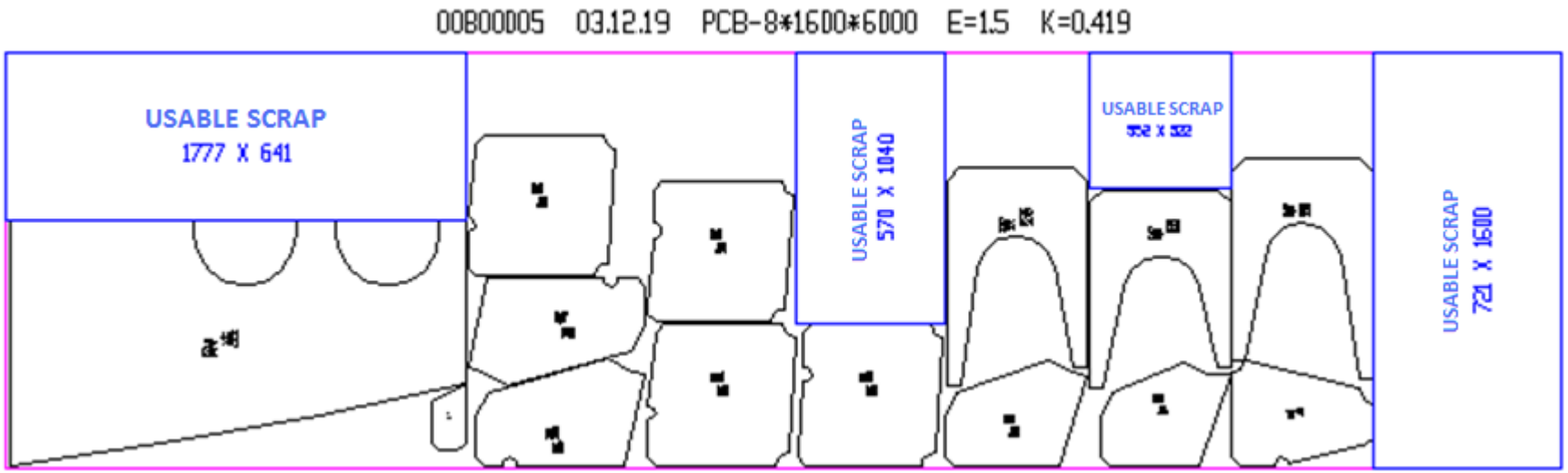


Results of Automatic Nesting

- Number of parts nested
- Number of nesting maps
- Number of parts left unnested

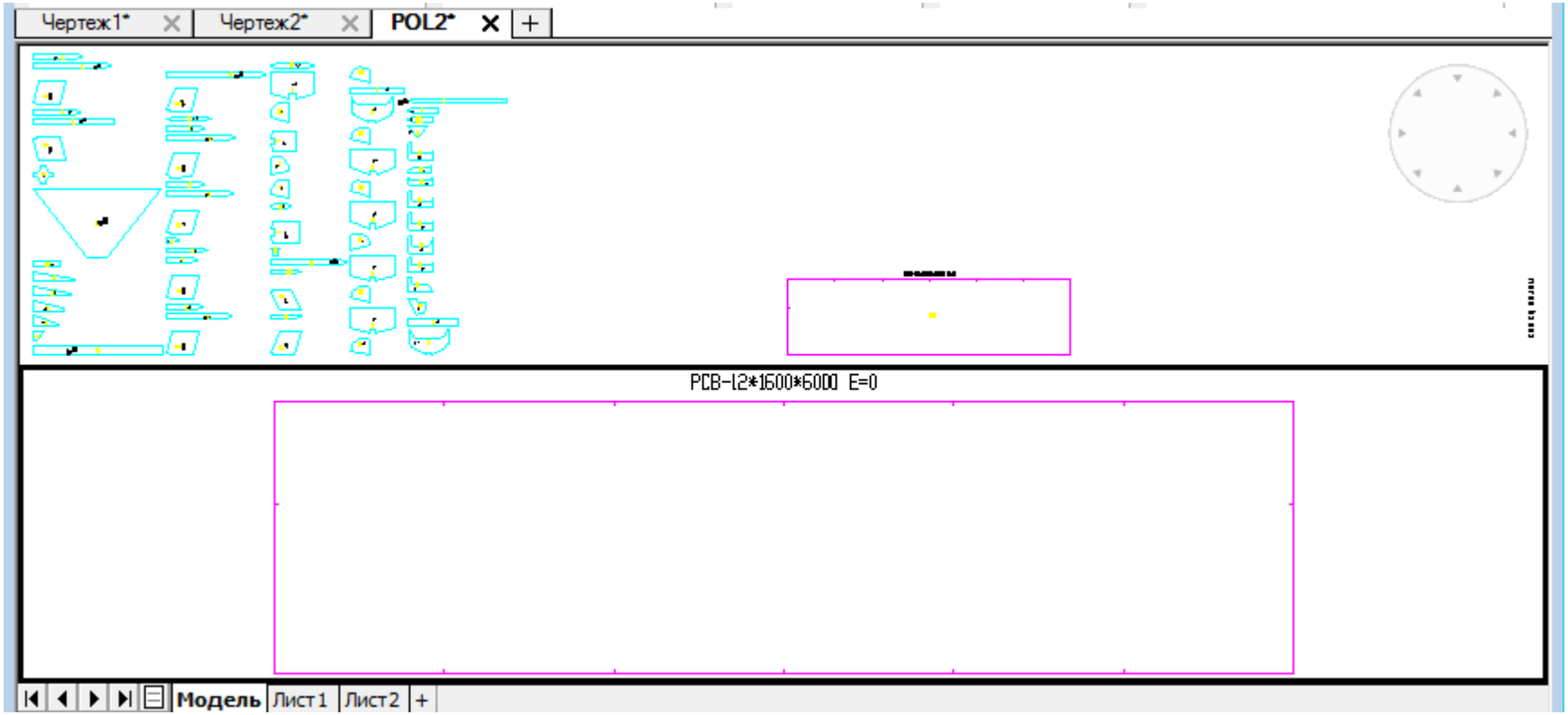


Automatic Definition of Scraps

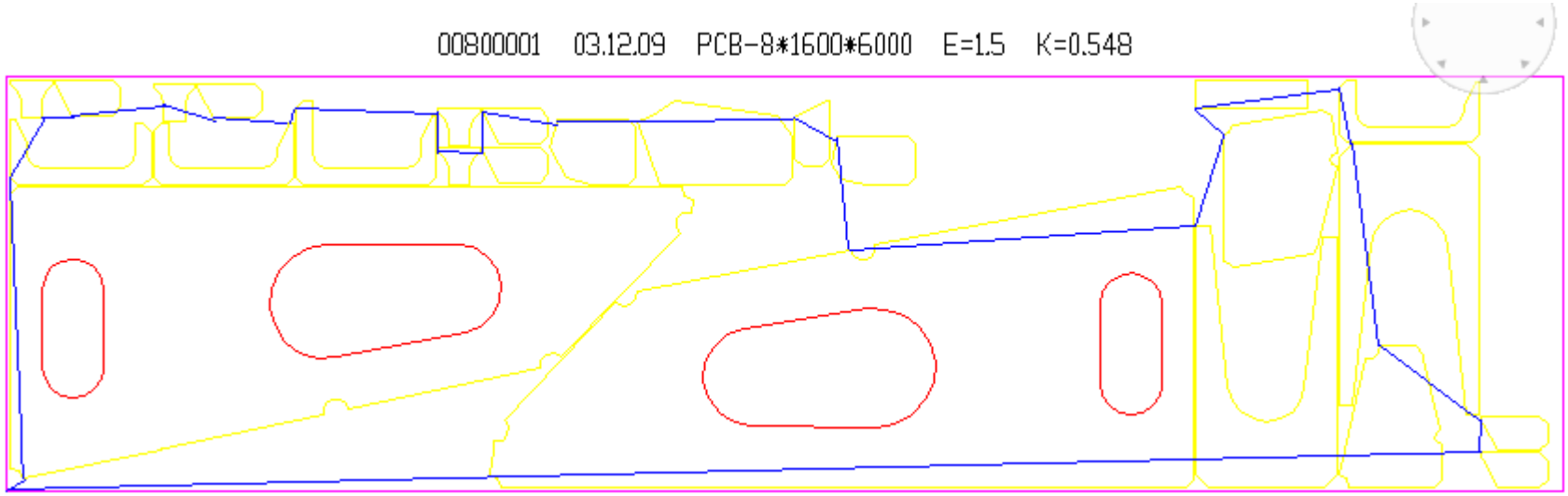


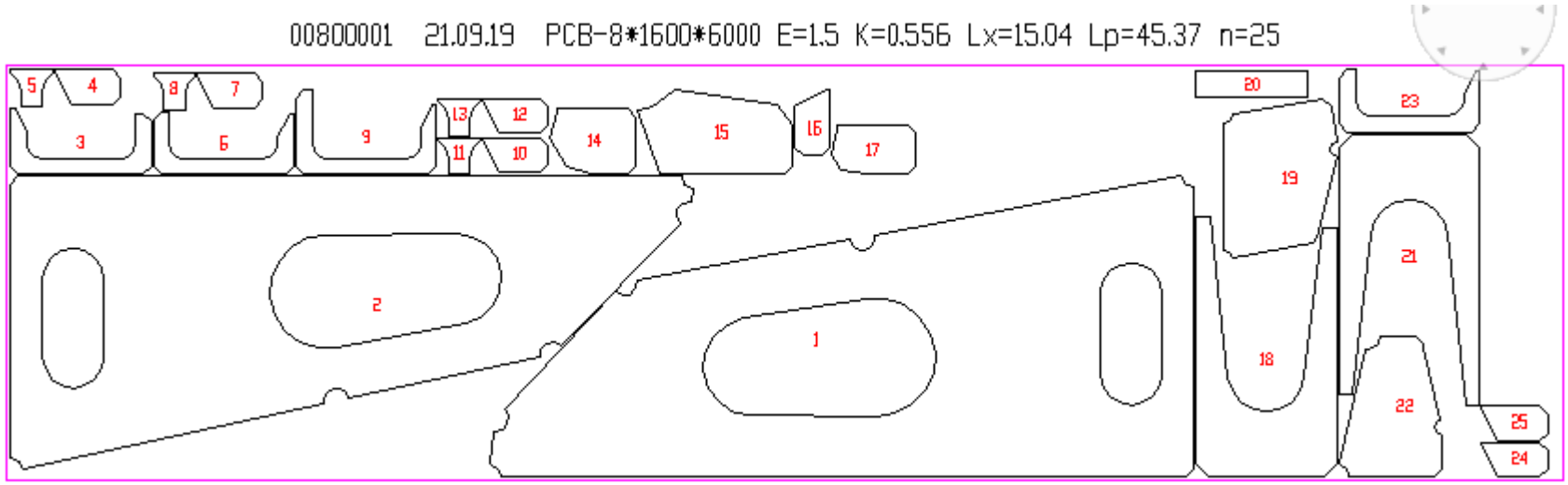
Scraps (in blue) are being defined in the free area of the nesting map (minimal dimensions are 300x300 mm).

Interactive Nesting

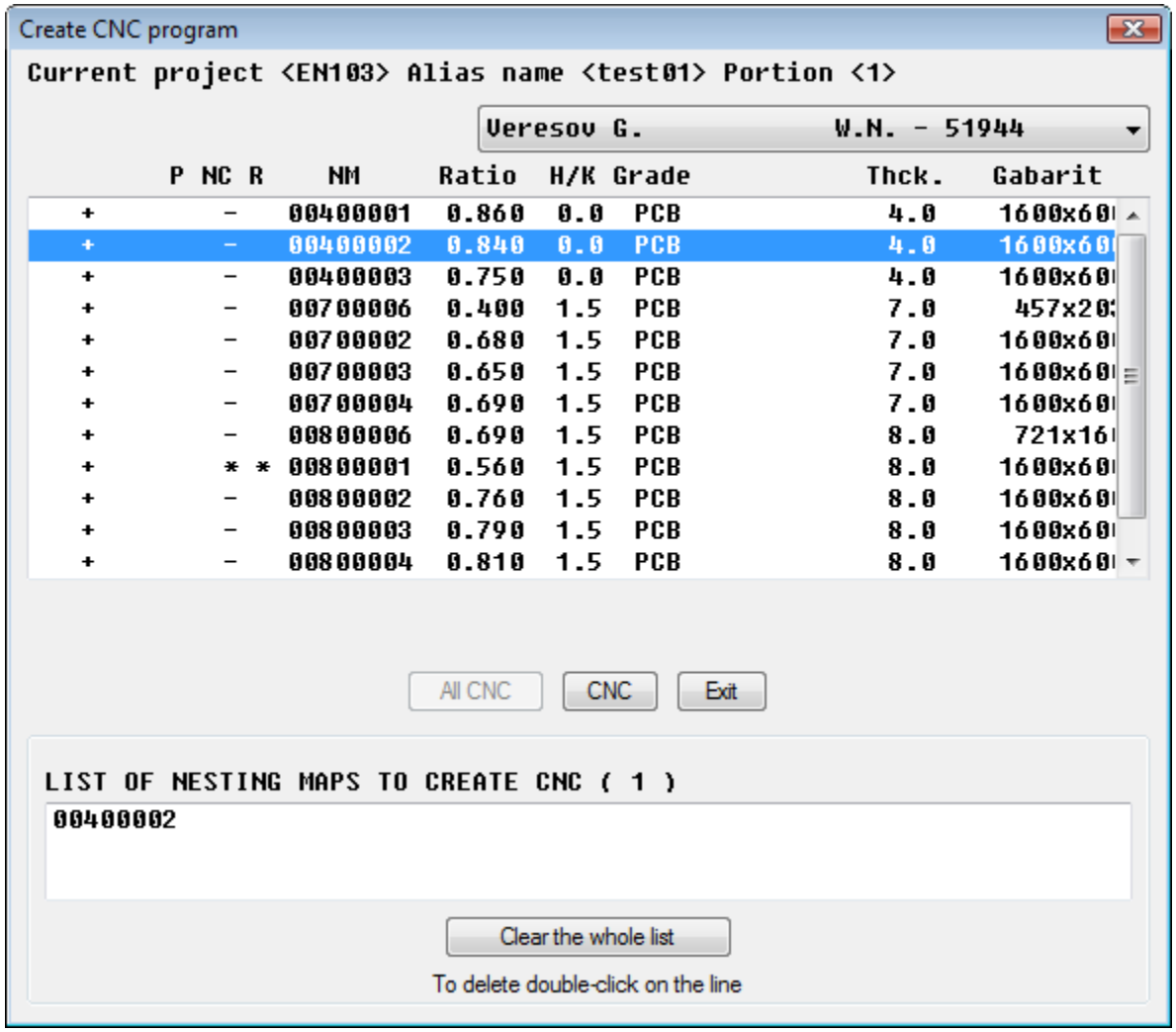


Setting cutting kerf route





Generation of CNC Program



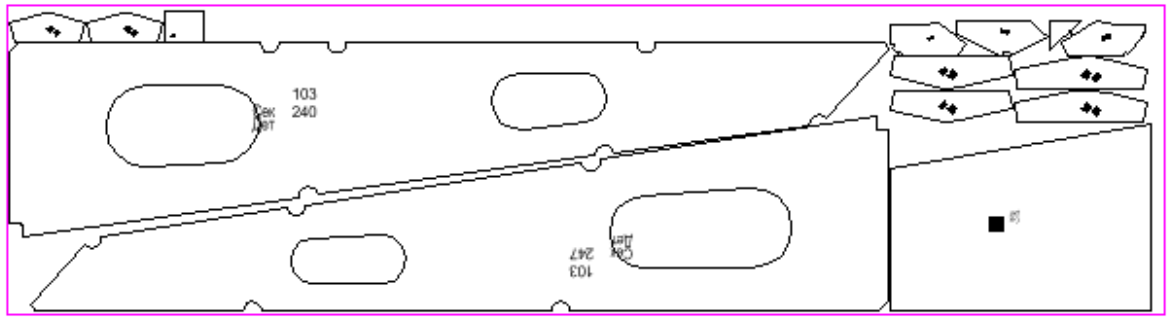
CNC Program

- 3
- BS103.00800001 19/09/21 22-55-41 6000.0 1600.0 8.0
- 4
- 17
- +705+404
- 7
- -78+63
- -492+398-477-87+
- ++10541
- +309+309
- +25588+
- +419-495+485-15+
- -85-504
- -424-834-96-476+
- -4583-4705
- -820-453-349-337+
- -7372-1576
- 18
- -579+388-477-87+
- 17
- -369-591+102-475+
- -11592-2478
- 8
- 5
- -492+11527
- 6
- 7
- ++100
- +309-309
- +4812+
- +309+309
- ++1742
- -309+309
- -321+
- 18
- +-1145
- -585-585-585+-
- -3000+
- -585+585++585-
- ++404
- 17
- -456+911
- ……

Generation of TNC Document for Nesting Map

LOFTER	Karpushkuna N.	03.12.09	TECHN. SET	PROJECT EN103			L.Jump (mm)	L.Cut (mm)	Sheet	Sheets
MASTER				NESTING MAP 00700001					1	1
STD FOR GRADE	SHEET SIZE		GRADE	No. of sheets	MASS	Parts qty in n. map	Using ratio	Note		
	7x1600x6000		PCB	1	374.49	14	0.71			

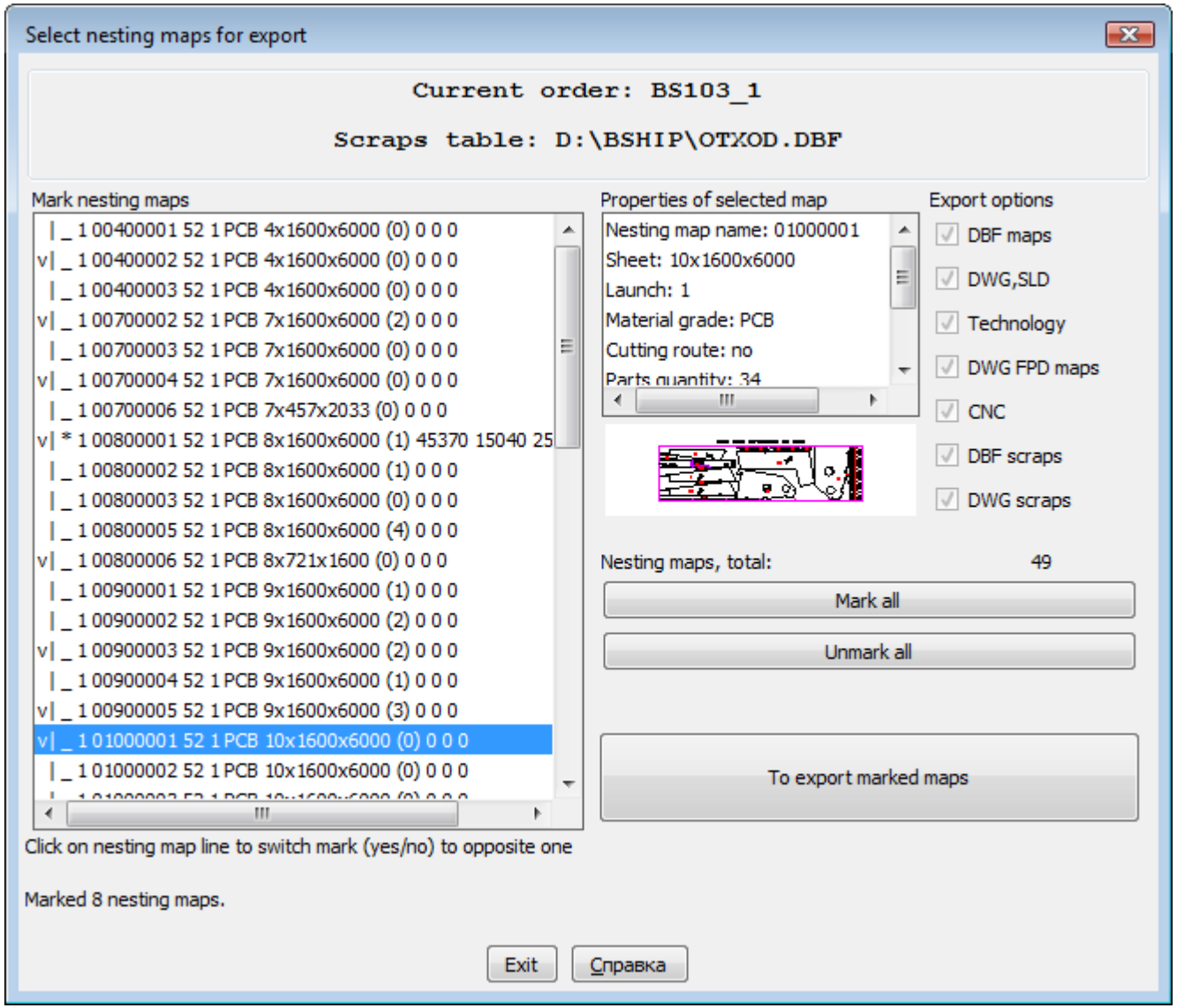
00700001 03.12.09 PCB-7*1600*6000 E=1.5 K=0.71



OPER NN	OPER CODE	WORK VOLUME	TOOL CODE	BEAM CODE	WORK CATEGORY	PAY TYPE	TIME NORM	PRICE	NORM CODE	APPEND	NORM CIPHER	NET CIPHER	NORM UNIT	MANUAL WORK SIGN

Created on 15.07.20 Order EN103_1

Export of Nesting Maps to Another Project



Graphical Kernel for B-Ship+

- B-Ship+ for its running requires preliminary installation of one of supported graphical kernels:
- BricsCAD v20, v21, …
- AutoCAD (2019 or other version).
- Parallel work in different graphical kernels is possible.

Free Trial Copy of B-Ship+

- To get free trial copy of B-Ship+ order its installer with pointing out graphical kernel/kernels. After installation get code for approved term.
- Installer with support of different versions of graphical kernel is possible (for example: BricsCAD v21 + AutoCAD 2019, and so on).
- Send a request to **npol50@yandex.ru**

BSB (BricsCAD OEM) Version

- OEM version for B-Ship+ is under construction. In such a case customer has no need to buy BricsCAD, because all the necessary graphical kernel functions are integrated into B-Ship+.

  BSB = BricsCAD Solution Build (OEM)

Web Page of the BShipPlus

http://poleshchuk.spb.ru/cad/2016/bshipe.htm

B-Ship+ CAD/CAM System

(http://poleshchuk.spb.ru/cad/2016/bshipe.htm)

The **B-Ship**+ computer-aided system for design and technological preparation of the shipbuilding and machine-building production was developed by the group of physical bodies (reg. No. 2016615527). B-Ship+ works under Windows, inside the BricsCAD v17-v19 system (Pro or Platinum) environment and functionally intergrated with the systems Ritm-Ship, R-Ship+ requiring AutoCAD, as well as with the N-Ship+ system working inside nanoCAD Plus. BricsCAD is significally cheaper than AutoCAD and retains possibility of licenses unlimited in time.

Contacts

Saint Petersburg, Russian Federation
Phone: +7 921 7561226, email: npol50@yandex.ru

B-Ship+ is a third-party appplication on the Bricsys site (Russian).

Application Field

The **B-Ship**+ computer-aided system is aimed for technical preparation in shipbuilding production up to forming documents for yard workshops. It can also be used in shiprepair and machine-building. Interface language are Russian and English. Adaptation to other languages is possible. The operating system is Windows.

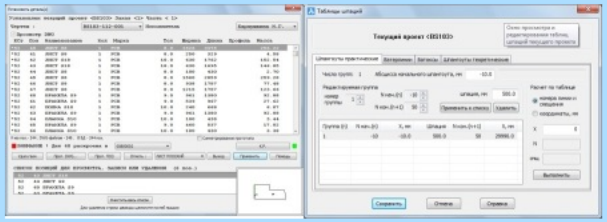
System components

The **B-Ship**+ system consists of the following modules:

- **Bdata**, **Model**, **Structure**, **Part**, **Mdet**, **Nesting**.

Software modules run using the data base connecting graphical and textual data. Work with several projects/orders is possible.

Sample illustrations



User Documentation

See http://poleshchuk.spb.ru/cad/2016/bshipe.htm
PDF docs are downloadable:

- Administrator's guide
- Bdata
- Model
- Structure
- Part
- Mdet
- Nesting

Technical support is provided during agreed period.

Bricsys Application Store

- B-Ship+ for BricsCAD is available in the Bricsys application store:
- https://www.bricsys.com/applications/a/?bship-a1402-al2424

Contacts

- InterCAD Co.
- http://icad.spb.ru

- SP Poleshchuk N.N.
- npol50@yandex.ru

http://poleshchuk.spb.ru/cad/eng.html

Thank you for your attention!