



Advanced Solution for Sheet Metal Fabrication

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Class summary

This class goes from start to finish to complete a sheet metal manufacturing workflow. We will start with importing the designs, utilizing material data, then perform an optimal nesting process, and finish with a CNC program to be used for manufacturing. Autodesk® TruNest provides an advanced and complete solution for sheet metal fabrication solution which supports water jet, plasma, laser cutters as well as routers and punch presses.

Key learning objectives

At the end of this class, you will be able to:

- importing the designs
- utilizing material data
- perform an optimal nesting process
- generate a CNC program to be used for manufacturing

Introduction to TruNest

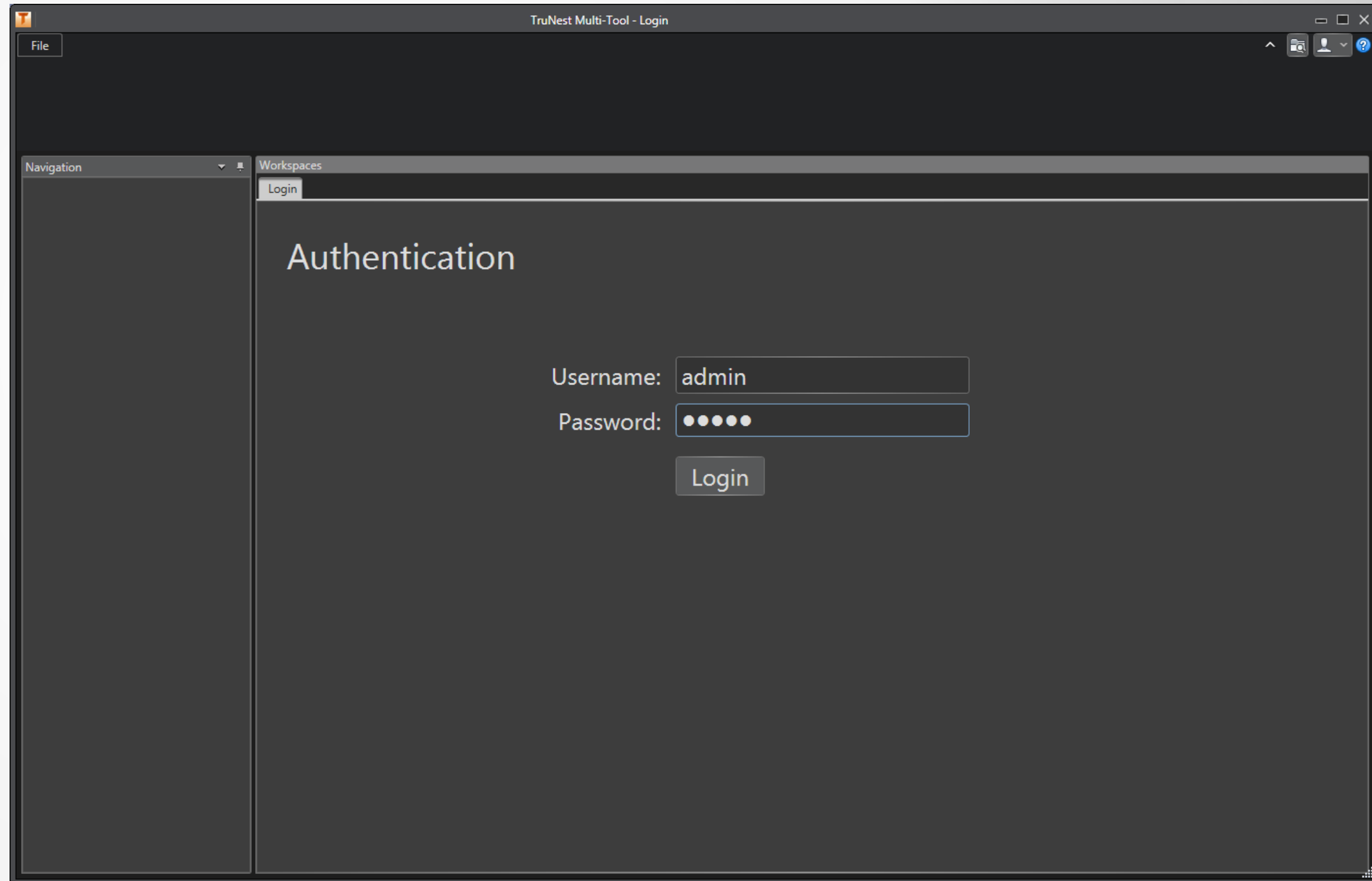
Open the Application

- Double click the Icon to start TruNest Multi-tool



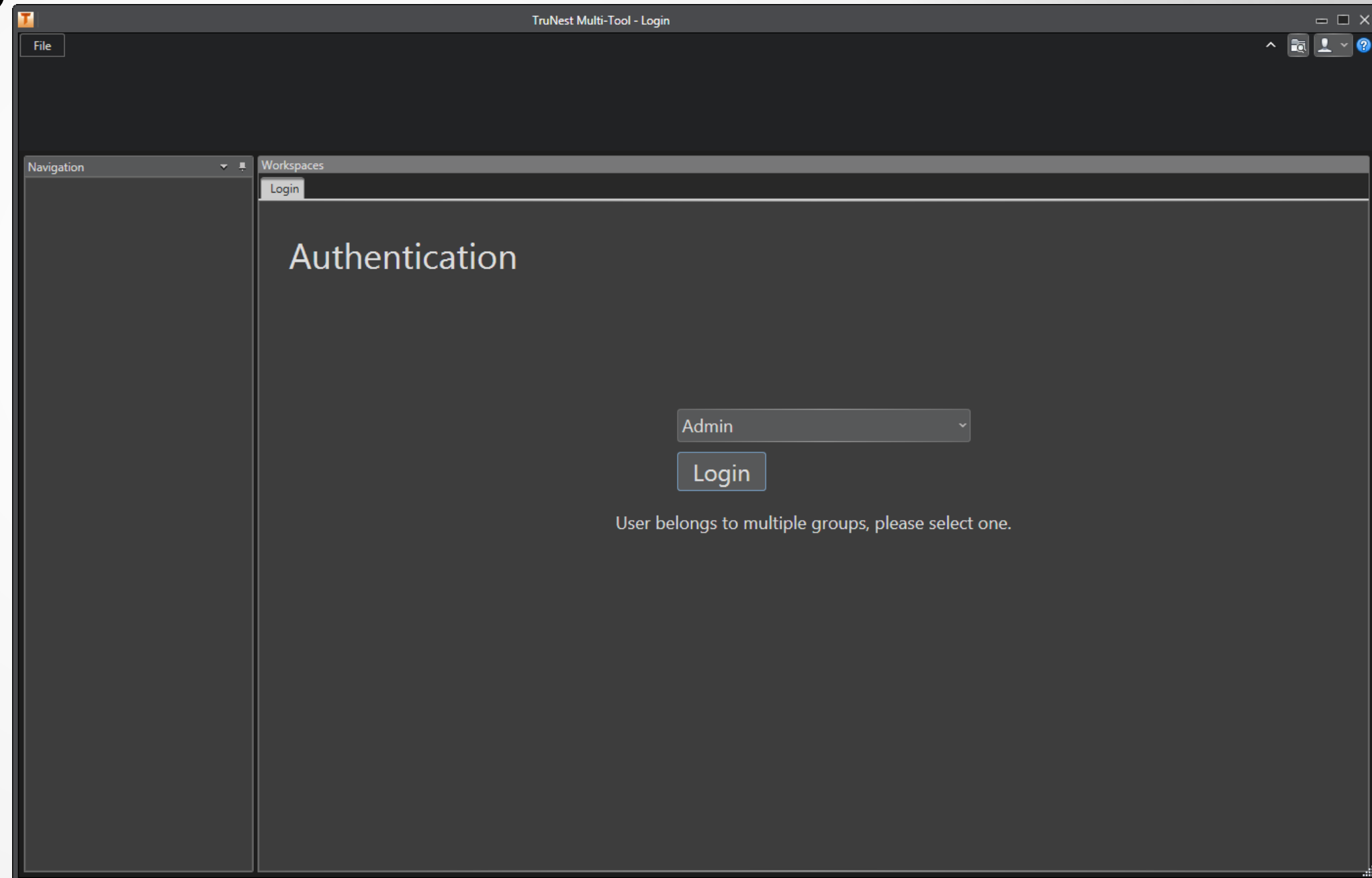
Login In to TruNest

- Username: admin
- Password: admin
- Click Login



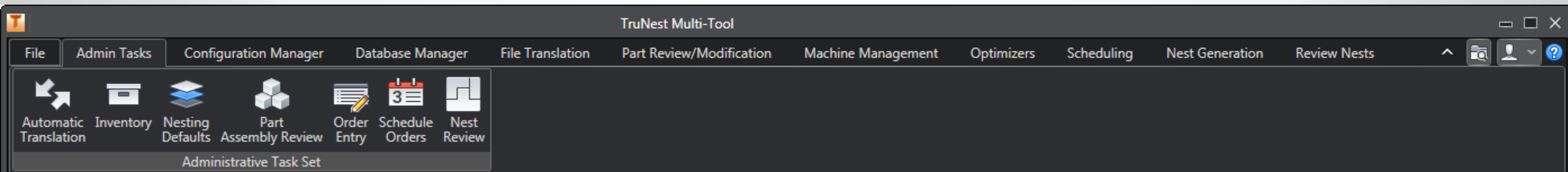
Login In to TruNest

- Select Admin Group
- Click Login



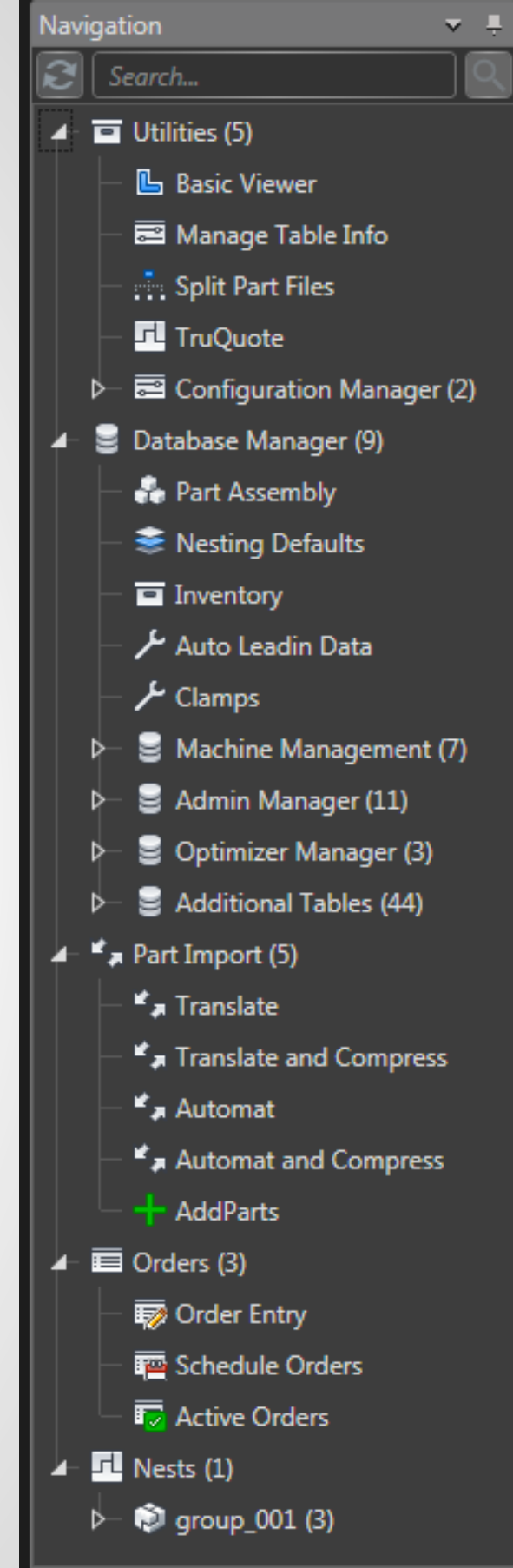
Interface: Ribbon

- Ribbon is located at the top of the application
- Highly used functions are located in the Ribbon for easy access



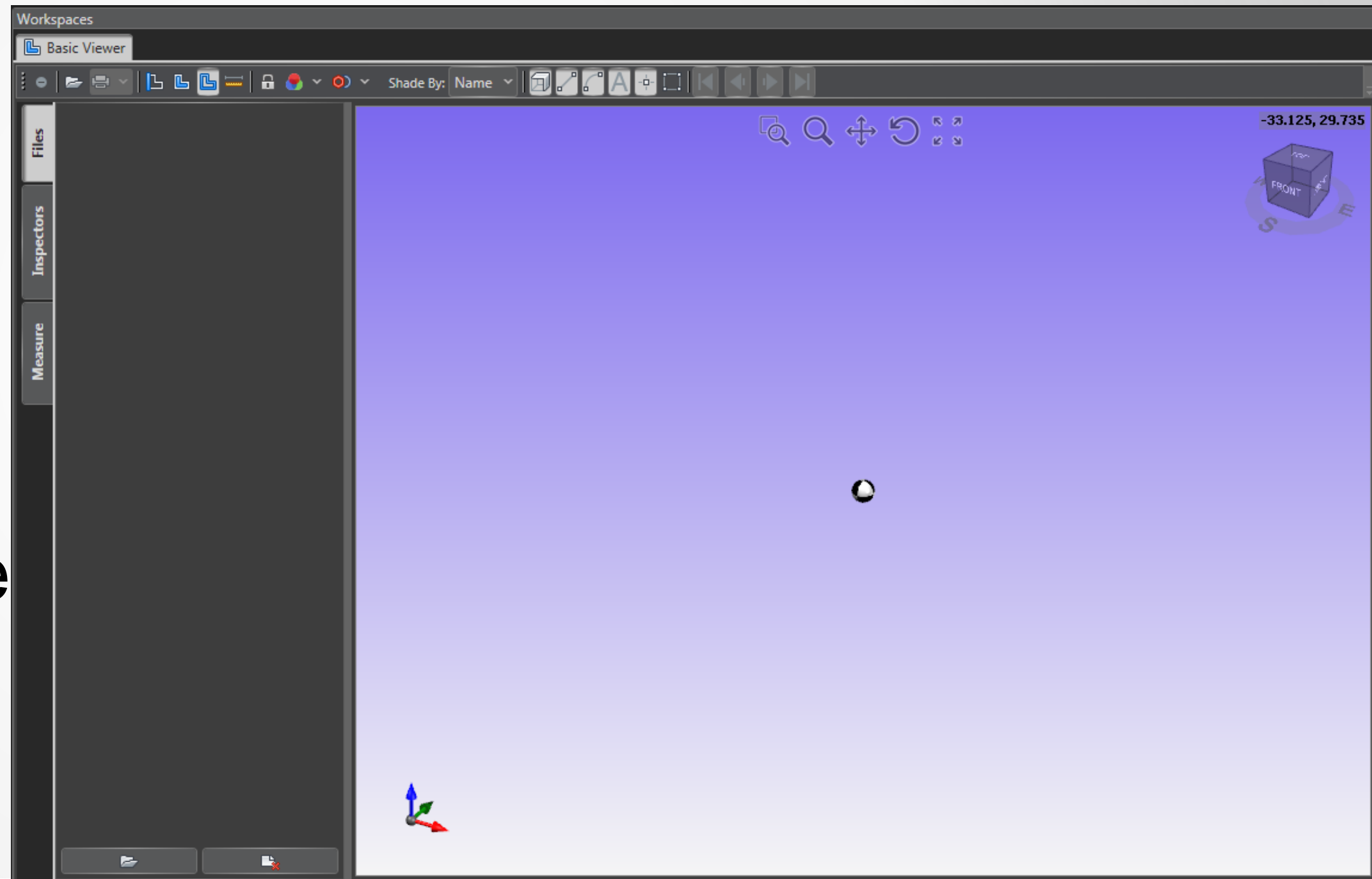
Interface: Tree

- The Tree serves as the main entry to every workspace within TruNest
- Each node in the tree indicates how many other nodes are underneath it



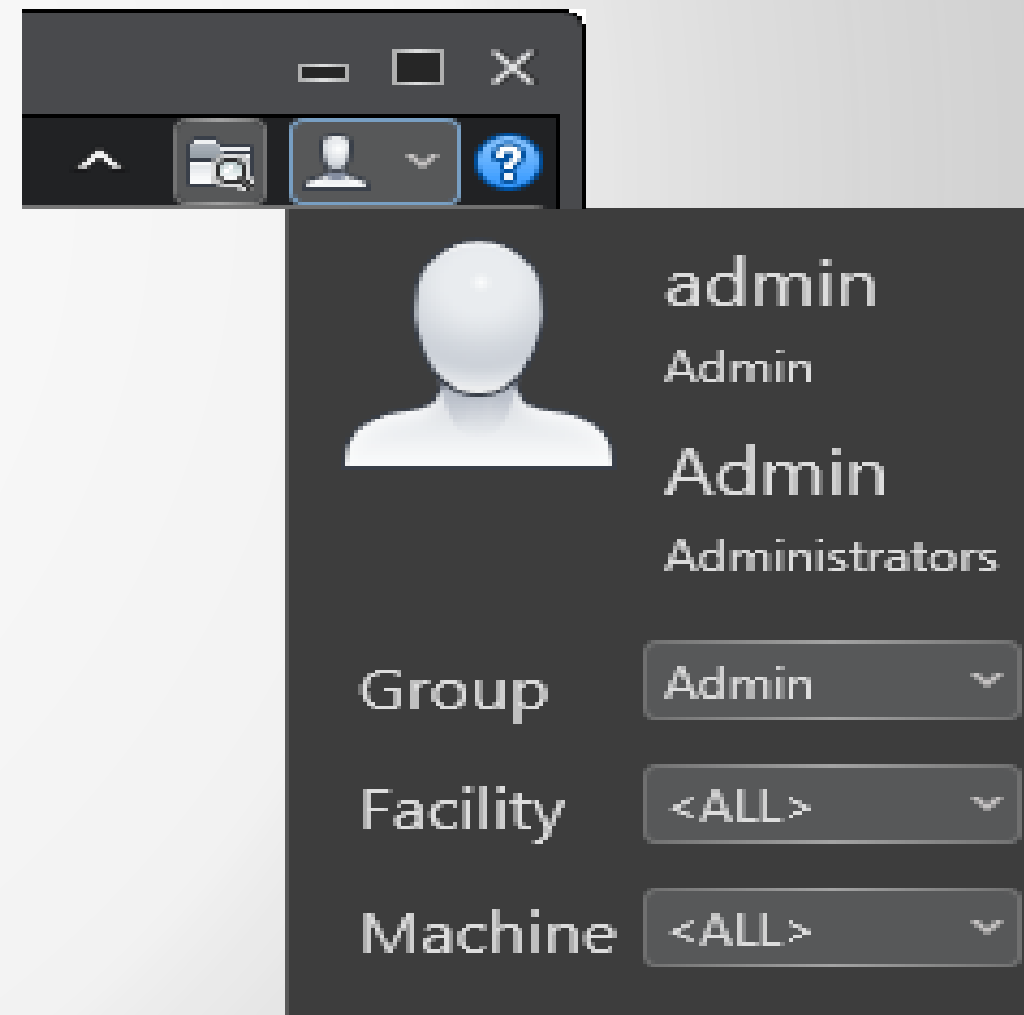
Interface: Workspaces

- Workspaces are the main action areas of the interface
- Each workspace serves a specific purpose within the application



Interface: User and Groups

- The User Information drop down shows the current user and group
- You can switch between groups to enable/disable features available to that group



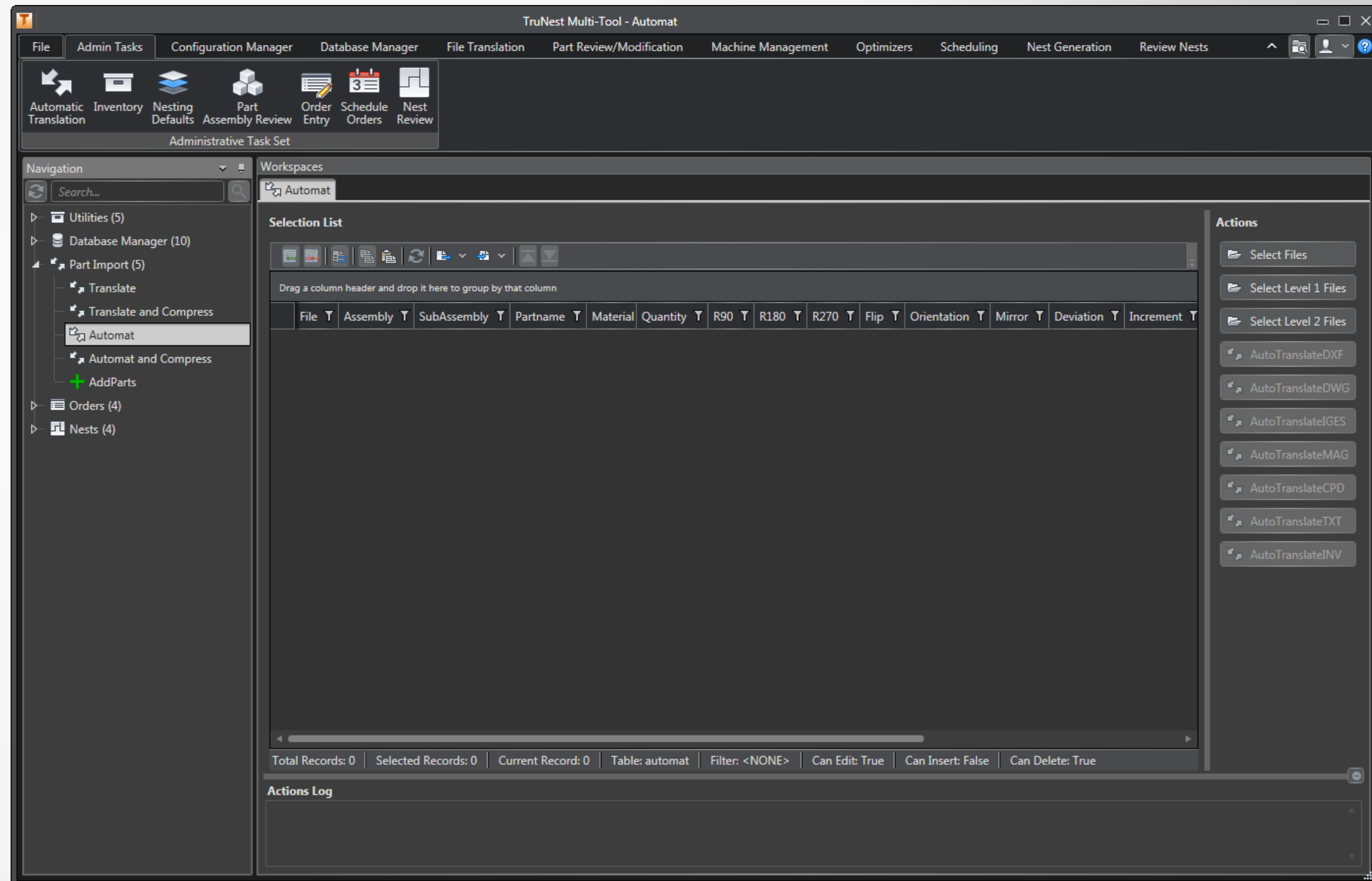


Importing the Design



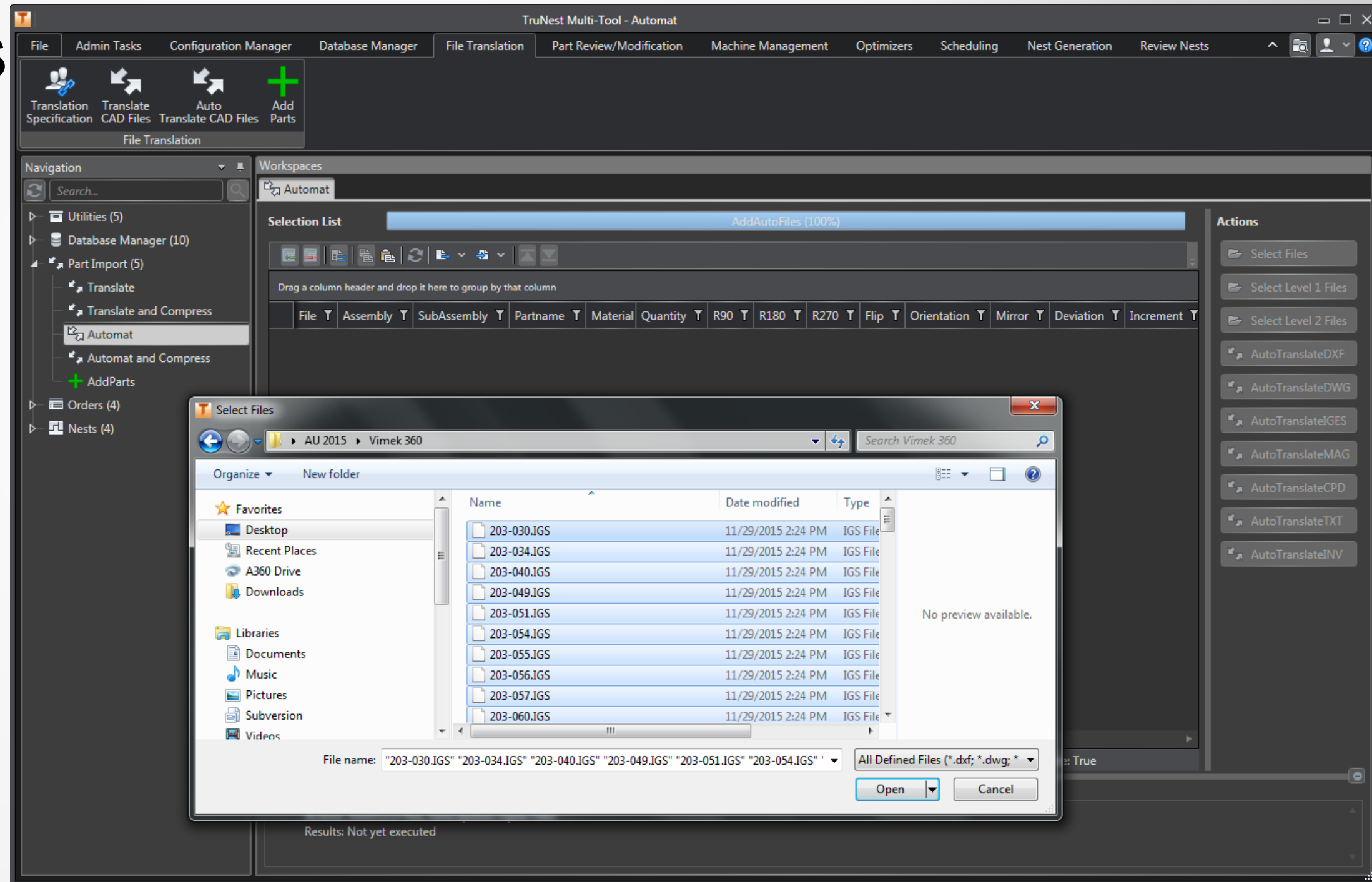
Part Import

- Expand Part Import
- Click Automat in the tree



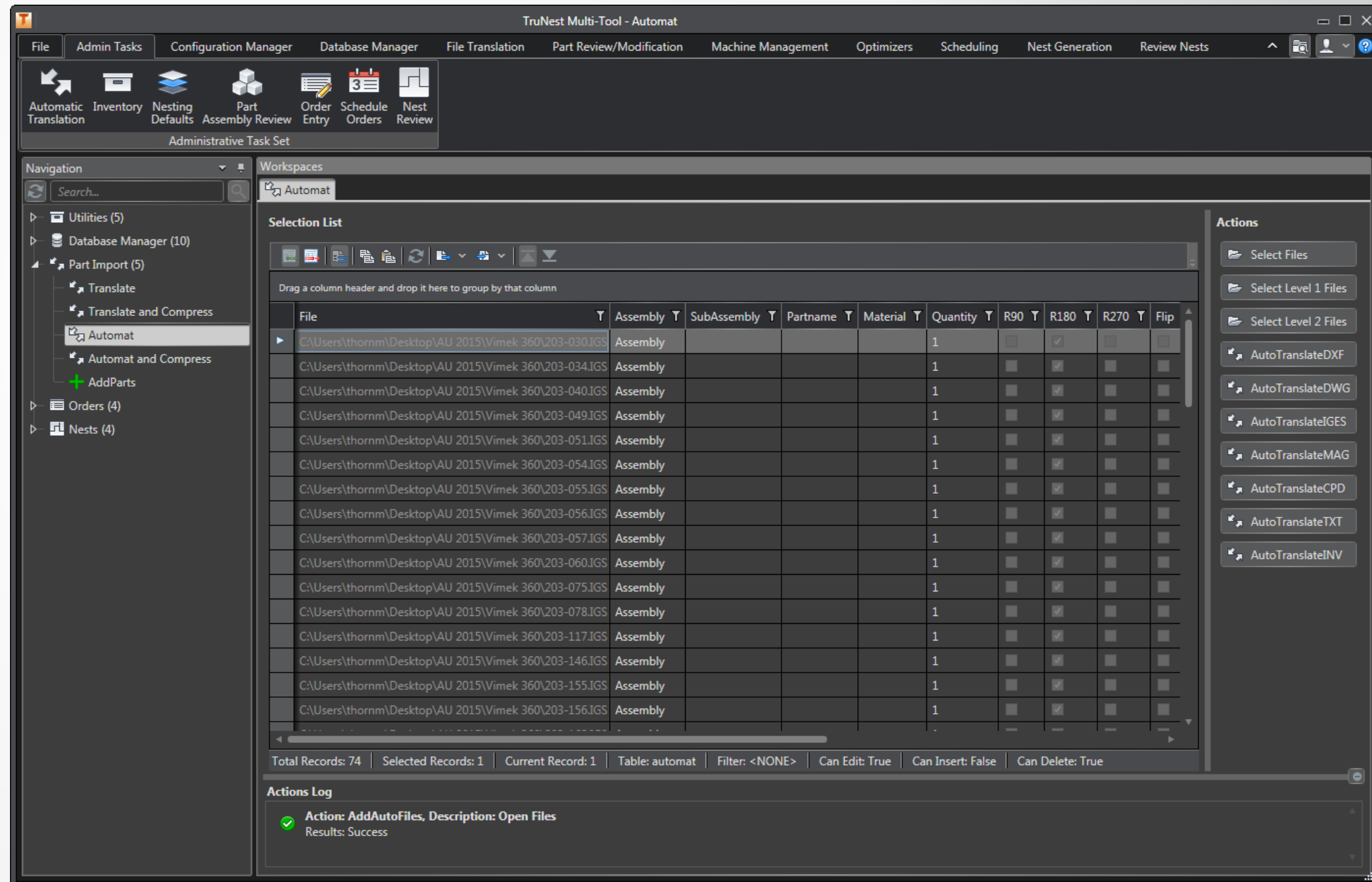
Part Import

- Click Select Files
- Find and open all *.IGS



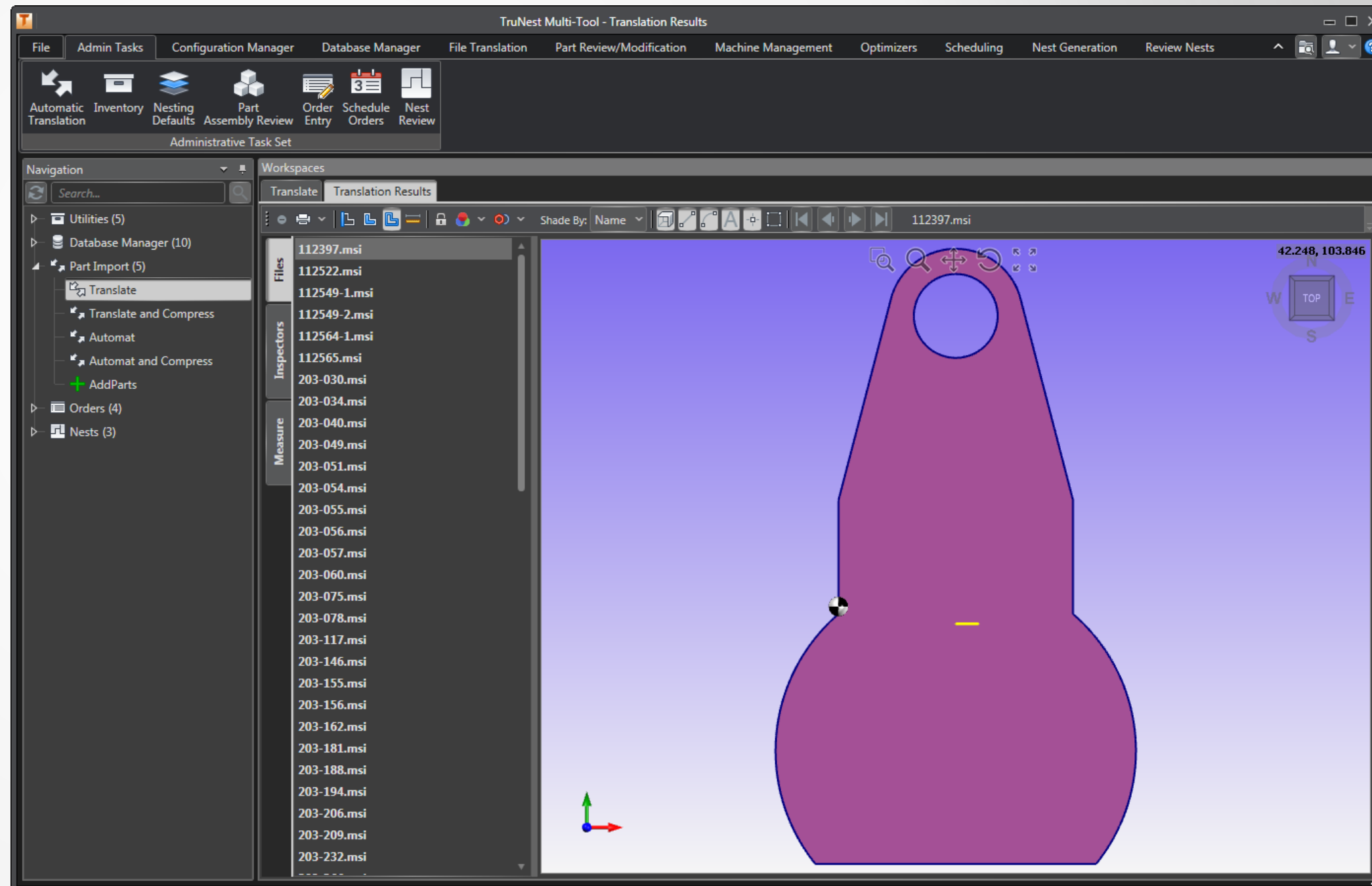
Part Import

- Click AutoTranslateIGES
- Smartran Universal Translator will begin converting the file



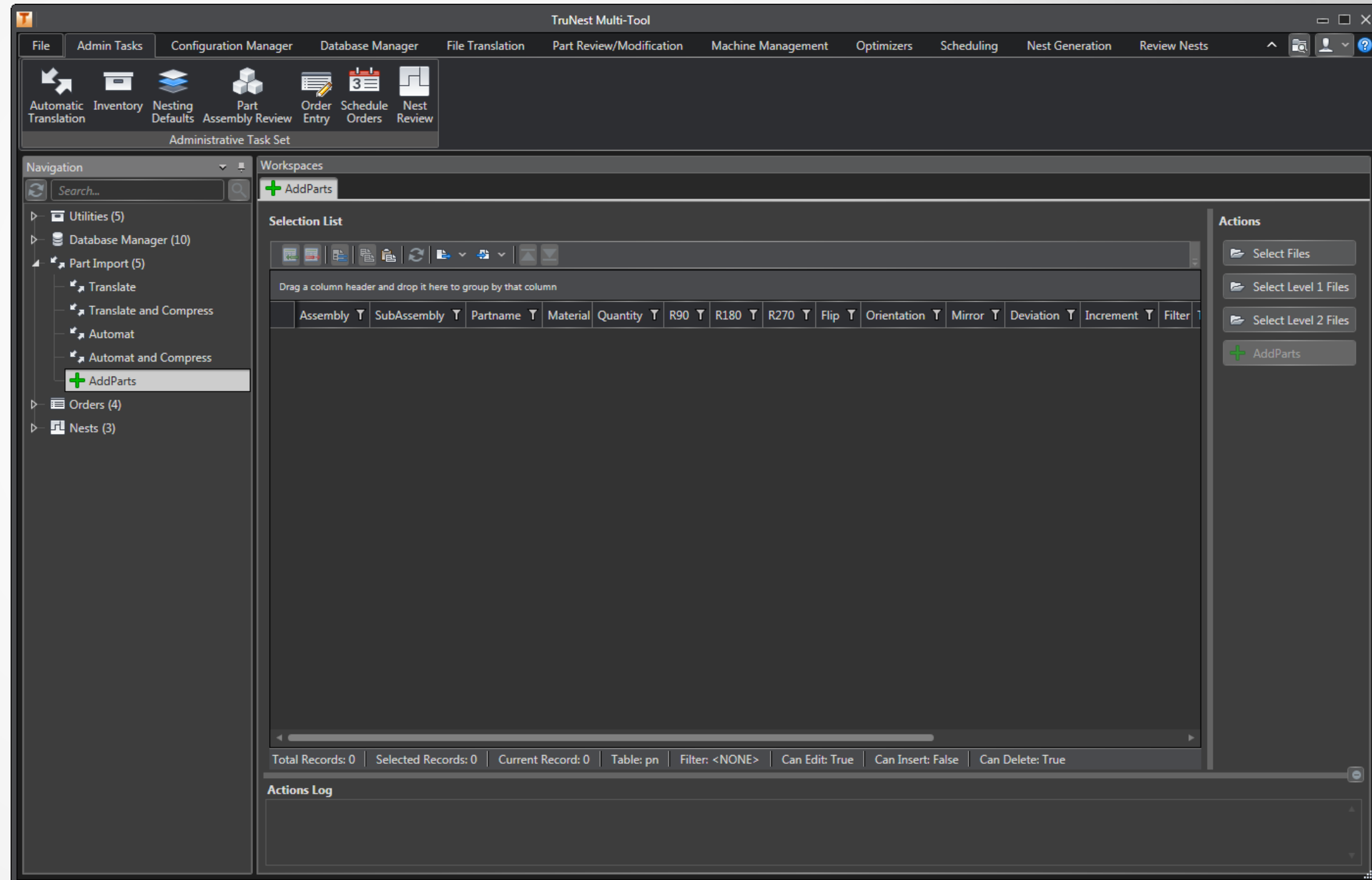
Part Import

- Inspect the results of translation by double clicking each file name in the list



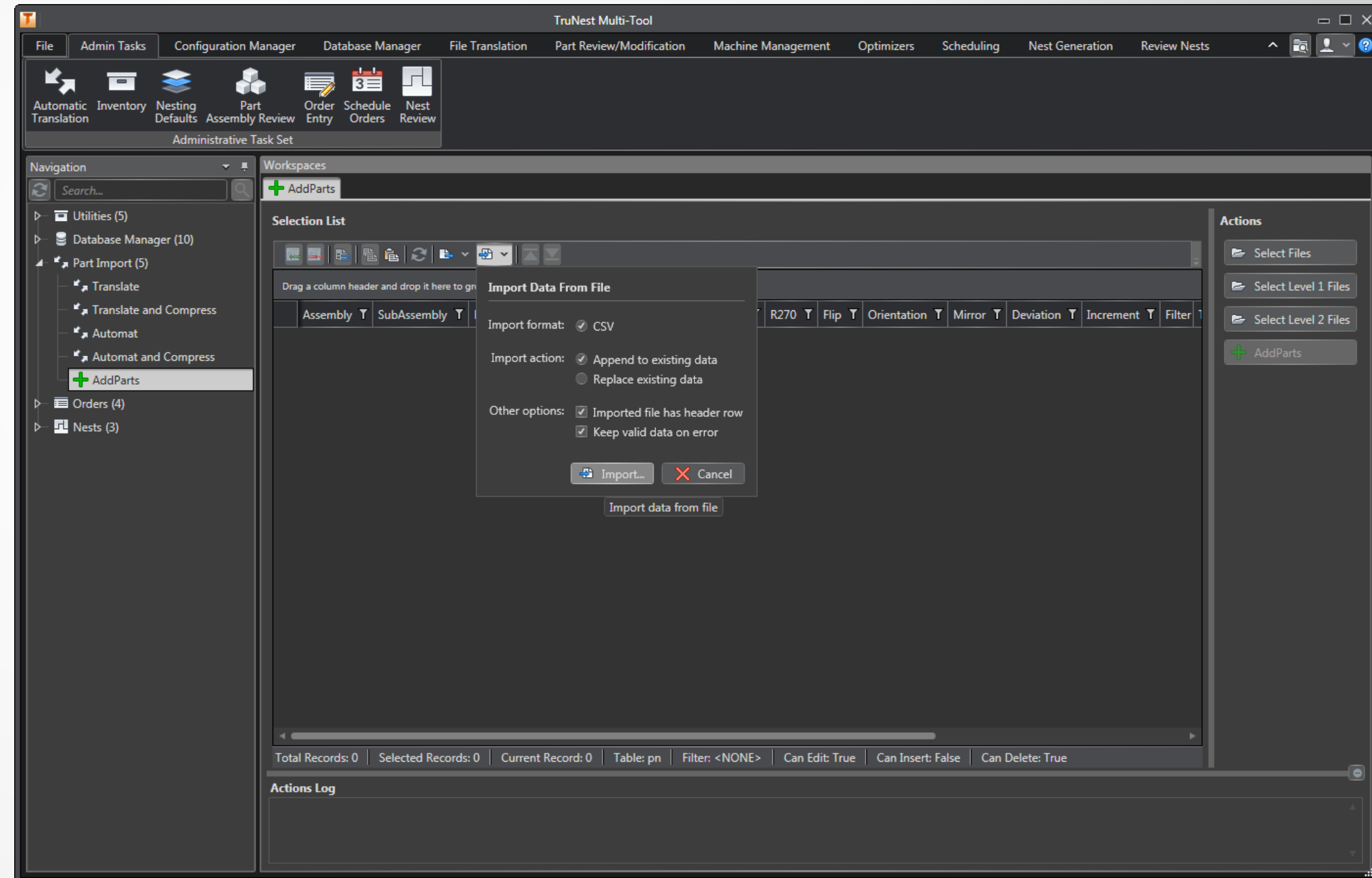
Part Import

- Click AddParts in the tree



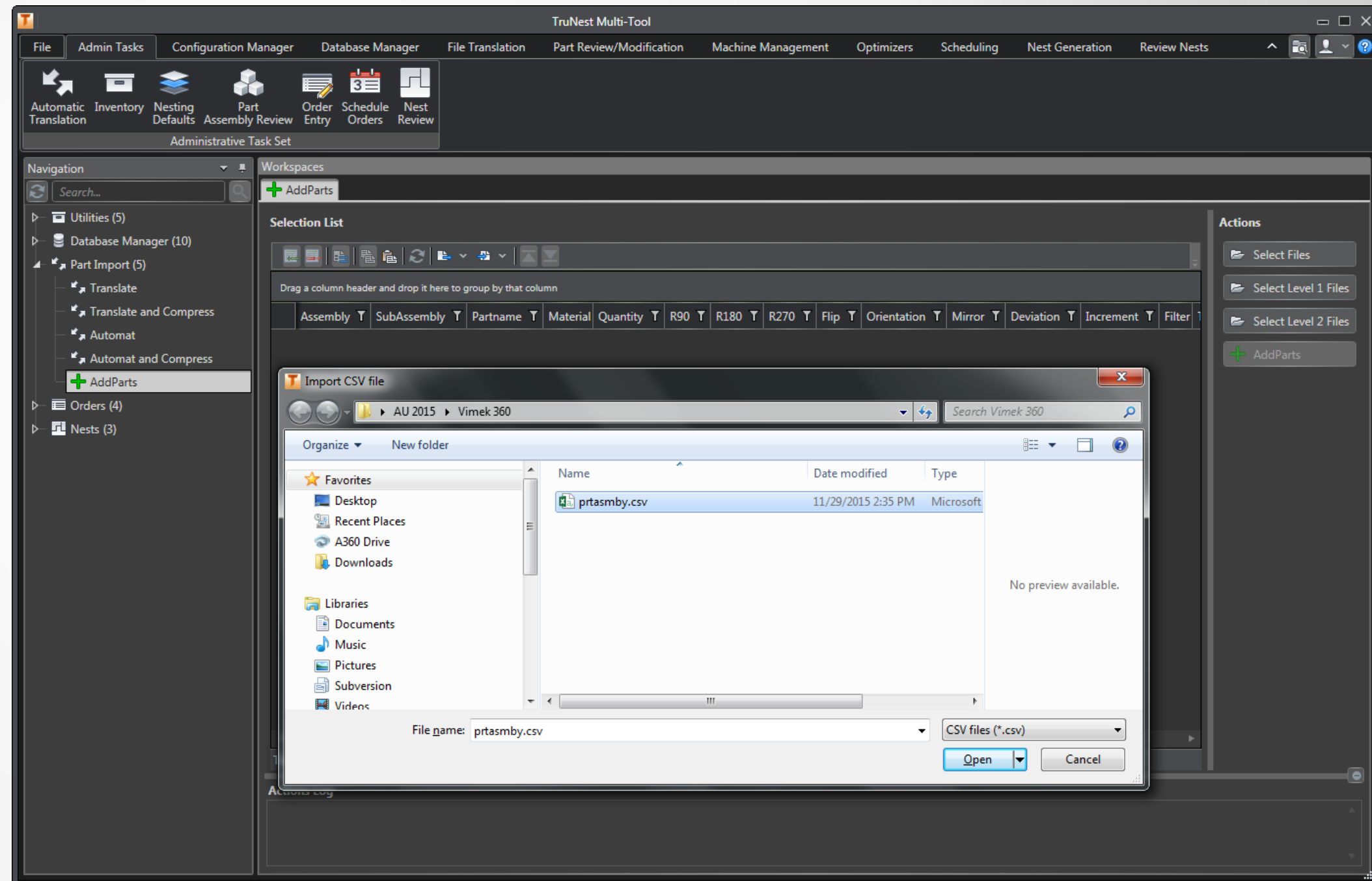
Part Import

- Select the Import function in the tool bar
- Click Import



Part Import

- Select prtasmby.csv
- Click Open



Part Import

- Click AddParts

The screenshot displays the TruNest Multi-Tool software interface. The top menu bar includes options like File, Admin Tasks, Configuration Manager, Database Manager, File Translation, Part Review/Modification, Machine Management, Optimizers, Scheduling, Nest Generation, and Review Nests. Below the menu is an 'Administrative Task Set' with icons for Automatic Translation, Inventory, Nesting Defaults, Part Assembly Review, Order Entry, Schedule Orders, and Nest Review.

The main workspace is titled 'Workspaces' and contains a '+ AddParts' button. Below this is a 'Selection List' table with columns for Assembly, SubAssembly, Partname, Material, Quantity, R90, R180, R270, Flip, Orientation, Mirror, Deviation, and Increme. The table contains 18 rows of data for VIMEK 630 parts.

On the left, a 'Navigation' pane shows a tree view with folders for Utilities (5), Database Manager (10), Part Import (5), Orders (4), and Nests (3). The 'Part Import (5)' folder is expanded, showing sub-items: Translate, Translate and Compress, Automat, Automat and Compress, and '+ AddParts' (highlighted).

On the right, an 'Actions' pane contains buttons for 'Select Files', 'Select Level 1 Files', 'Select Level 2 Files', and '+ AddParts'.

At the bottom, a status bar shows: Total Records: 74 | Selected Records: 1 | Current Record: 1 | Table: pn | Filter: <NONE> | Can Edit: True | Can Insert: False | Can Delete: True. Below this is an 'Actions Log' section.

Assembly	SubAssembly	Partname	Material	Quantity	R90	R180	R270	Flip	Orientation	Mirror	Deviation	Increme
VIMEK 630	SUB	203-055	GENERIC	1					0.0000		45.0000	5.0000
VIMEK 630	SUB	203-057	GENERIC	1					0.0000		45.0000	5.0000
VIMEK 630	SUB	203-060	GENERIC	1					0.0000		45.0000	5.0000
VIMEK 630	SUB	203-078	GENERIC	2					0.0000		45.0000	5.0000
VIMEK 630	SUB	203-117	GENERIC	1					0.0000		45.0000	5.0000
VIMEK 630	SUB	203-327	GENERIC	1					0.0000		45.0000	5.0000
VIMEK 630	SUB	203-054	STAINLESS STEEL	1					0.0000		0.0000	5.0000
VIMEK 630	SUB	112397	STEEL	1					0.0000		0.0000	5.0000
VIMEK 630	SUB	112522	STEEL	1					0.0000		0.0000	5.0000
VIMEK 630	SUB	112549-1	STEEL	1					0.0000		0.0000	5.0000
VIMEK 630	SUB	112549-2	STEEL	1					0.0000		0.0000	5.0000
VIMEK 630	SUB	112564-1	STEEL	4					0.0000		0.0000	5.0000
VIMEK 630	SUB	112565	STEEL	4					0.0000		0.0000	5.0000
VIMEK 630	SUB	203-030	STEEL	1					0.0000		0.0000	5.0000
VIMEK 630	SUB	203-034	STEEL	2					0.0000		0.0000	5.0000
VIMEK 630	SUB	203-040	STEEL	1					0.0000		0.0000	5.0000

Utilize Material Data

Part Assembly Review

- Click Part Assembly Review in the Ribbon
- Filter the Table by the VIMEK 630 Assembly

The screenshot displays the TruNest Multi-Tool interface for Part Assembly Review. The main window shows a 3D model of a part assembly. A filter dialog box is open, allowing the user to filter the table by the VIMEK 630 assembly. The table below shows the filtered results.

Assembly	SubAssembly	Partname	Material	Quantity	R90	R180	R270	Flip	Orientation	Mirror	Deviation
VIMEK 630	SUB	203-628	STEEL	1	☑	☑	☑	☑	0.0000	☐	0.0000
VIMEK 630	SUB	203-271	STEEL	1	☑	☑	☑	☑	0.0000	☐	0.0000
VIMEK 630	SUB	203-327	GENERIC	1	☐	☐	☐	☐	0.0000	☐	45.0000
VIMEK 630	SUB	203-507	STEEL	1	☐	☐	☐	☐	0.0000	☐	0.0000

Total Records: 74 | Selected Records: 1 | Current Record: 1 | Table: prtasmby | Filter: <NONE> | Can Edit: True | Can Insert: True | Can Delete: True

Part Assembly Review

- Click left-most cell in the table and use arrow keys to move up and down

TruNest Multi-Tool - Part Assembly Review

File Admin Tasks Configuration Manager Database Manager File Translation Part Review/Modification Machine Management Optimizers Scheduling Nest Generation Review Nests

Automatic Translation Inventory Nesting Defaults Part Assembly Review Order Entry Schedule Orders Nest Review

Administrative Task Set

Navigation

Search...

Utilities (5)

Database Manager (10)

Part Assembly

Nesting Defaults

Inventory

Auto Leadin Data

Clamps

Orders_In

Machine Management (7)

Admin Manager (11)

Optimizer Manager (6)

Additional Tables (44)

Part Import (5)

Orders (4)

Nests (3)

Workspaces

Part Assembly Review

Shade By: Name

421.080, 904.826

Origin

Assembly	SubAssembly	Partname	Material	Quantity	R90	R180	R270	Flip	Orientation	Mirror	Deviation
VIMEK 630	SUB	203-034	STEEL	1					0.0000		0.0000
VIMEK 630	SUB	203-040	STEEL	1					0.0000		0.0000
VIMEK 630	SUB	203-057	GENERIC	1					0.0000		45.0000
VIMEK 630	SUB	203-049	STEEL	1					0.0000		0.0000

Total Records: 74 Selected Records: 1 Current Record: 8 Table: prtasmby Filter: <NONE> Can Edit: True Can Insert: True Can Delete: True

Inventory Review

TruNest Multi-Tool - Inventory

File Admin Tasks Configuration Manager Database Manager File Translation Part Review/Modification Machine Management Optimizers Scheduling Nest Generation Review Nests

Automatic Translation Inventory Nesting Defaults Part Assembly Review Order Entry Schedule Orders Nest Review

Administrative Task Set

Navigation

Search...

- Utilities (5)
- Database Manager (10)
 - Part Assembly
 - Nesting Defaults
 - Inventory
 - Auto Leadin Data
 - Clamps
 - Orders_In
- Machine Management (7)
- Admin Manager (11)
- Optimizer Manager (6)
- Additional Tables (44)
- Part Import (5)
- Orders (4)
- Nests (3)

Workspaces

Inventory

Drag a column header and drop it here to group by that column

Material	Inventory_ID	Remnant_ID	Length	Width	Quantity	Cost	RemEdge	Comment	LeftTrim	TopTrim	RightTrim	BottomTi
139009_4_89.0	48		89.0000	40.0000	9999	1.0000	STRAIGHT	Part Length plus 1.6 inch	0.0000	0.3400	0.0000	2.0000
139009_5_89.0	48		89.0000	40.0000	9999	1.0000	STRAIGHT	SameGeometryMultipleQuantity	0.0000	0.8000	0.0000	2.0000
139009_2A_90.755	48		90.7550	40.0000	9999	1.0000	STRAIGHT	Part Length plus 1 inch: 3 Wide	0.0000	0.3400	0.0000	2.0000
139009_2_90.755	48		90.7550	40.0000	9999	1.0000	STRAIGHT	Part Length plus 1 inch	0.0000	2.3000	0.0000	2.0000
139009_2_90.955	48		90.9550	40.0000	9999	1.0000	STRAIGHT	Part Length plus 1 inch	1.0000	1.4030	0.0000	2.0000
ALI	---		96.0000	40.0000	9999	1.0000	STRAIGHT	UNKNOWN_MATERIAL	1.0000	1.0000	1.0000	3.0000
PGI	---		96.0000	40.0000	9999	1.0000	STRAIGHT	UNKNOWN_MATERIAL	1.0000	1.0000	1.0000	3.0000
GENERIC	---		96.0000	40.0000	9999	1.0000	STRAIGHT	UNKNOWN_MATERIAL	1.0000	1.0000	1.0000	3.0000
GALV16	07165792		96.0000	48.0000	9999	1.0000	STRAIGHT	0	0.0000	3.5500	12.0000	0.0000
STEEL	---		96.0000	40.0000	9999	1.0000	STRAIGHT	UNKNOWN_MATERIAL	1.0000	1.0000	1.0000	3.0000
STAINLESS STEEL	---		96.0000	40.0000	9999	1.0000	STRAIGHT	UNKNOWN_MATERIAL	1.0000	1.0000	1.0000	3.0000
GALV14	07165241		120.0000	60.0000	9999	1.0000	STRAIGHT	0	0.0000	3.5500	12.0000	0.0000
GALV20	07165430		120.0000	60.0000	9999	1.0000	STRAIGHT	0	0.0000	3.5500	12.0000	0.0000
GALV24	07165299		120.0000	48.0000	10048	1.0000	STRAIGHT	0	0.0000	3.5500	12.0000	0.0000
GALV24	07165299CS177		120.0000	48.0000	10049	2.0000	STRAIGHT	0	0.0000	1.7700	12.0000	0.0000
GVNL18	07165160		120.0000	60.0000	9999	1.0000	STRAIGHT	0	0.0000	3.5500	12.0000	0.0000
GVNL18	07165160CS177		120.0000	60.0000	9999	2.0000	STRAIGHT	0	0.0000	1.7700	12.0000	0.0000
PERF24	PERF		120.0000	48.0000	9999	1.0000	STRAIGHT	0	0.0000	3.5500	12.0000	0.0000
SSTL18	07190231		120.0000	48.0000	9999	1.0000	STRAIGHT	0	0.0000	3.5500	12.0000	0.0000
GALV18	07165332		121.0000	60.0000	10740	1.0000	STRAIGHT	0	1.0000	3.5500	12.0000	0.0000
GALV18	07165332CS177		121.0000	60.0000	10749	2.0000	STRAIGHT	0	1.0000	1.7700	12.0000	0.0000
GALV18	07165332CS300		121.0000	60.0000	10749	1.5000	STRAIGHT	0	1.0000	3.0000	12.0000	0.0000

Total Records: 76 | Selected Records: 3 | Current Record: 53 | Table: invman | Filter: <NONE> | Can Edit: True | Can Insert: True | Can Delete: True

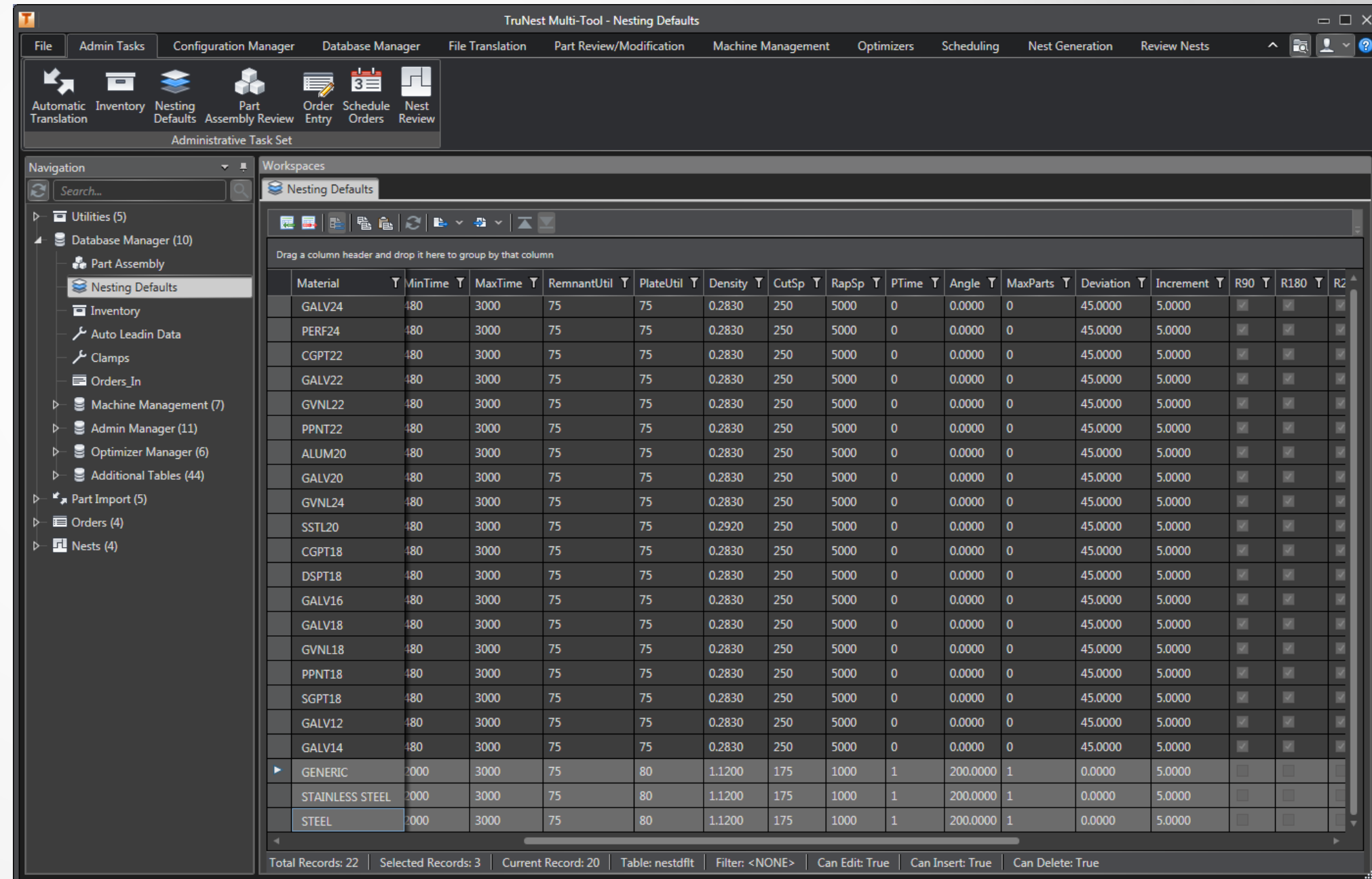
Nest Default Review

The screenshot displays the 'TruNest Multi-Tool - Nesting Defaults' application window. The interface includes a menu bar with options like File, Admin Tasks, Configuration Manager, Database Manager, File Translation, Part Review/Modification, Machine Management, Optimizers, Scheduling, Nest Generation, and Review Nests. Below the menu is a toolbar with icons for Automatic Translation, Inventory, Nesting Defaults, Part Assembly Review, Order Entry, Schedule Orders, and Nest Review. A navigation pane on the left shows a tree view with categories like Utilities (5), Database Manager (10), Part Assembly, Inventory, Machine Management (7), Admin Manager (11), Optimizer Manager (6), Additional Tables (44), Part Import (5), Orders (4), and Nests (3). The main workspace shows a table with columns for Material, Thickness, Kerf, Separation, Pierce, Frame, Machine, PlateSelection, MinTime, MaxTime, RemnantUtil, PlateUtil, Density, and CutSp. The table contains 22 rows of data for various materials. At the bottom, a status bar shows 'Total Records: 22', 'Selected Records: 3', 'Current Record: 20', 'Table: nestdfit', 'Filter: <NONE>', 'Can Edit: True', 'Can Insert: True', and 'Can Delete: True'.

Material	Thickness	Kerf	Separation	Pierce	Frame	Machine	PlateSelection	MinTime	MaxTime	RemnantUtil	PlateUtil	Density	CutSp
GALV24	0.0280	0.2000	0.6000	0.0000	0.3000	PULLMAX-1	Best Mix	480	3000	75	75	0.2830	250
PERF24	0.0280	0.2000	0.6000	0.0000	0.3000	PULLMAX-1	Best Mix	480	3000	75	75	0.2830	250
CGPT22	0.0310	0.2000	0.6000	0.0000	0.3000	PULLMAX-1	Best Mix	480	3000	75	75	0.2830	250
GALV22	0.0310	0.2000	0.6000	0.0000	0.3000	PULLMAX-1	Best Mix	480	3000	75	75	0.2830	250
GVNL22	0.0310	0.2000	0.6000	0.0000	0.3000	PULLMAX-1	Best Mix	480	3000	75	75	0.2830	250
PPNT22	0.0310	0.2000	0.6000	0.0000	0.3000	PULLMAX-1	Best Mix	480	3000	75	75	0.2830	250
ALUM20	0.0380	0.2000	0.8000	0.0000	0.3000	PULLMAX-1	Best Mix	480	3000	75	75	0.2830	250
GALV20	0.0380	0.2000	0.8000	0.0000	0.3000	PULLMAX-1	Best Mix	480	3000	75	75	0.2830	250
GVNL24	0.0380	0.2000	0.6000	0.0000	0.3000	PULLMAX-1	Best Mix	480	3000	75	75	0.2830	250
SSTL20	0.0380	0.2000	0.8000	0.0000	1.0000	PULLMAX-1	Best Mix	480	3000	75	75	0.2920	250
CGPT18	0.0480	0.2000	0.6000	0.0000	0.3000	PULLMAX-1	Best Mix	480	3000	75	75	0.2830	250
DSPT18	0.0480	0.2000	0.6000	0.0000	0.3000	PULLMAX-1	Best Mix	480	3000	75	75	0.2830	250
GALV16	0.0480	0.2000	0.6000	0.0000	0.2500	PULLMAX-1	Best Mix	480	3000	75	75	0.2830	250
GALV18	0.0480	0.2000	0.6000	0.0000	0.3000	PULLMAX-1	Best Mix	480	3000	75	75	0.2830	250
GVNL18	0.0480	0.2000	0.6000	0.0000	0.3000	PULLMAX-1	Best Mix	480	3000	75	75	0.2830	250
PPNT18	0.0480	0.2000	0.6000	0.0000	0.3000	PULLMAX-1	Best Mix	480	3000	75	75	0.2830	250
SGPT18	0.0480	0.2000	0.6000	0.0000	0.3000	PULLMAX-1	Best Mix	480	3000	75	75	0.2830	250
GALV12	0.0630	0.2000	0.6000	0.0000	0.2000	PULLMAX-1	Best Mix	480	3000	75	75	0.2830	250
GALV14	0.0630	0.2000	0.6000	0.0000	0.2000	PULLMAX-1	Best Mix	480	3000	75	75	0.2830	250
GENERIC	0.0900	0.2000	1.0000	0.0000	1.0000	PULLMAX-1	AsListed	2000	3000	75	80	1.1200	175
STAINLESS STEEL	0.0900	0.2000	1.0000	0.0000	1.0000	PULLMAX-1	AsListed	2000	3000	75	80	1.1200	175
STEEL	0.0900	0.2000	1.0000	0.0000	1.0000	PULLMAX-1	AsListed	2000	3000	75	80	1.1200	175

Nest Default Review

- Freeze the material column by clicking and dragging the left most column
- Scroll to the end of the table and set Deviation to 0



The screenshot shows the TruNest Multi-Tool - Nesting Defaults interface. The main window displays a table with columns for Material, MinTime, MaxTime, RemnantUtil, PlateUtil, Density, CutSp, RapSp, PTime, Angle, MaxParts, Deviation, Increment, R90, R180, and R2. The table is currently sorted by Material. The Deviation column is highlighted, and the value 0.0000 is visible for the selected row (GENERIC). The interface includes a navigation pane on the left, a workspace area at the top, and a status bar at the bottom.

Material	MinTime	MaxTime	RemnantUtil	PlateUtil	Density	CutSp	RapSp	PTime	Angle	MaxParts	Deviation	Increment	R90	R180	R2
GALV24	480	3000	75	75	0.2830	250	5000	0	0.0000	0	45.0000	5.0000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PERF24	480	3000	75	75	0.2830	250	5000	0	0.0000	0	45.0000	5.0000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CGPT22	480	3000	75	75	0.2830	250	5000	0	0.0000	0	45.0000	5.0000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GALV22	480	3000	75	75	0.2830	250	5000	0	0.0000	0	45.0000	5.0000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GVNL22	480	3000	75	75	0.2830	250	5000	0	0.0000	0	45.0000	5.0000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PPNT22	480	3000	75	75	0.2830	250	5000	0	0.0000	0	45.0000	5.0000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ALUM20	480	3000	75	75	0.2830	250	5000	0	0.0000	0	45.0000	5.0000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GALV20	480	3000	75	75	0.2830	250	5000	0	0.0000	0	45.0000	5.0000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GVNL24	480	3000	75	75	0.2830	250	5000	0	0.0000	0	45.0000	5.0000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SSTL20	480	3000	75	75	0.2920	250	5000	0	0.0000	0	45.0000	5.0000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CGPT18	480	3000	75	75	0.2830	250	5000	0	0.0000	0	45.0000	5.0000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DSPT18	480	3000	75	75	0.2830	250	5000	0	0.0000	0	45.0000	5.0000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GALV16	480	3000	75	75	0.2830	250	5000	0	0.0000	0	45.0000	5.0000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GALV18	480	3000	75	75	0.2830	250	5000	0	0.0000	0	45.0000	5.0000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GVNL18	480	3000	75	75	0.2830	250	5000	0	0.0000	0	45.0000	5.0000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PPNT18	480	3000	75	75	0.2830	250	5000	0	0.0000	0	45.0000	5.0000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SGPT18	480	3000	75	75	0.2830	250	5000	0	0.0000	0	45.0000	5.0000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GALV12	480	3000	75	75	0.2830	250	5000	0	0.0000	0	45.0000	5.0000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GALV14	480	3000	75	75	0.2830	250	5000	0	0.0000	0	45.0000	5.0000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GENERIC	2000	3000	75	80	1.1200	175	1000	1	200.0000	1	0.0000	5.0000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
STAINLESS STEEL	2000	3000	75	80	1.1200	175	1000	1	200.0000	1	0.0000	5.0000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
STEEL	2000	3000	75	80	1.1200	175	1000	1	200.0000	1	0.0000	5.0000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Optimizer Review

- Expand Optimizer Manager under the Database Manager node in the tree
- Click on Automatic Tabbing

Material	Machine	Rule	Contour	Holes	Lines	Arcs	Ends	EndType	MinTabs	MaxTabs	SegTabs	TabSize	MinSpace	MinSegment	MinPLen
*	Motorum2548	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	End	4	12	3	0.1500	3.0000	1.0000	1.0000
*	Motorum2548	2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	End	4	12	3	0.1500	3.0000	1.0000	1.0000
*	Motorum2548	3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	End	4	10	3	0.1500	7.0000	3.5000	1.0000
*	Motorum2548	4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	End	4	15	3	0.1500	5.0000	1.0000	1.0000
*	Motorum2548	5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	End	0	5	0	0.1500	2.0000	1.0000	1.0000
*	Motorum2548	6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	End	4	15	3	0.1500	4.0000	1.0000	1.0000
*	Motorum2548	7	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	End	4	15	3	0.1500	4.0000	1.0000	1.0000
*	Motorum2548	8	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	End	6	8	2	0.1500	4.0000	1.0000	1.0000
*	Motorum2548	9	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	End	3	8	3	0.1500	2.0000	2.0000	5.0000
*	Motorum2548	10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	End	8	25	3	0.1500	9.0000	2.0000	1.0000
*	Motorum2548	11	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	End	8	25	3	0.1500	4.0000	2.0000	1.0000
*	Motorum2548	12	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	End	8	25	3	0.1500	4.0000	2.0000	1.0000
*	Motorum2548	13	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	End	8	25	3	0.1500	4.0000	2.0000	1.0000
*	Motorum2548	14	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	End	1	2	2	0.1500	2.0000	15.0000	1.0000
*	Motorum2548	15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	End	12	30	3	0.1500	4.0000	1.0000	1.0000
*	Motorum2548	16	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	End	12	30	3	0.1500	5.0000	1.0000	1.0000
*	Motorum2548	17	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	End	12	30	3	0.1500	5.0000	1.0000	1.0000
*	Motorum2548	18	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	End	12	30	3	0.1500	5.0000	1.0000	1.0000
*	Motorum2548	19	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	End	1	2	2	0.1500	4.0000	15.0000	1.0000
*	Motorum2548	20	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	End	18	30	3	0.1500	9.0000	1.0000	1.0000
*	Motorum2548	21	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	End	8	12	3	0.1500	1.0000	2.0000	1.0000
*20	P720	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		4	4	2	0.0170	1.0000	0.5080	1.0000

Optimizer Review

- Expand Optimizer Manager under the Database Manager node in the tree
- Click on Sheetcutting

TruNest Multi-Tool - Sheetcutting

File Admin Tasks Configuration Manager Database Manager File Translation Part Review/Modification Machine Management Optimizers Scheduling Nest Generation Review Nests

Automatic Translation Inventory Nesting Defaults Part Assembly Review Order Entry Schedule Orders Nest Review

Administrative Task Set

Navigation Search...

Workspaces Sheetcutting

Drag a column header and drop it here to group by that column

	Material	SortX	SortY	SizeX	SizeY	RangeX	RangeY	MinCut	DMat	Edge	Near	Between	Thick	Tool	
▶	*20	0	4	20	25	3	2	0		12	11	17	23	P720	
	*20	0	4	20	25	3	2	0		12	11	17	23	PULLMAX-1	
	*20	0	4	40	40	0	0	0		12	11	17	23	PULLMAX-2	
	*20	0	4	40	40	0	0	0		12	11	17	23	PULLMAX-3	
	*22	0	4	20	25	3	2	0		12	11	17	23	P720	
	*22	0	4	20	25	3	2	0		12	11	17	23	PULLMAX-1	
	*22	0	4	40	40	0	0	0		12	11	17	23	PULLMAX-2	
	*22	0	4	40	40	0	0	0		12	11	17	23	PULLMAX-3	
	CGPT18	0	4	39	21	3	2	0		12	11	17	23	P720	
	CGPT18	0	4	39	21	3	2	0		12	11	17	23	PULLMAX-1	
	CGPT18	0	4	40	30	3	2	0		12	11	17	23	PULLMAX-2	
	CGPT18	0	4	40	30	3	2	0		12	11	17	23	PULLMAX-3	
	DSPT18	0	4	40	25	3	2	0		12	11	17	23	P720	
	DSPT18	0	4	40	25	3	2	0		12	11	17	23	PULLMAX-1	
	DSPT18	0	4	40	40	0	0	0		12	11	17	23	PULLMAX-2	
	DSPT18	0	4	40	40	0	0	0		12	11	17	23	PULLMAX-3	
	GALV12	0	4	39	25	3	2	0		12	11	17	23	P720	
	GALV12	0	4	39	25	3	2	0		12	11	17	23	PULLMAX-1	
	GALV12	0	4	39	25	0	0	0		12	11	17	23	PULLMAX-2	
	GALV12	0	4	39	25	0	0	0		12	11	17	23	PULLMAX-3	
	GALV14	0	4	39	25	3	2	1		12	11	17	23	P720	
	GALV14	0	4	39	25	3	2	1		12	11	17	23	PULLMAX-1	
	GALV14	0	4	39	25	0	0	1		12	11	17	23	PULLMAX-2	

Total Records: 65 | Selected Records: 1 | Current Record: 1 | Table: sheetcut | Filter: <NONE> | Can Edit: True | Can Insert: True | Can Delete: True

Perform an Optimal Nesting Process

Order Entry

- Click Order Entry node in the tree
- Enter Vimek 630 into the Assembly filter
- Select all filtered parts
- Click Add Orders on the right side to add them

TruNest Multi-Tool - Order Entry

File Admin Tasks Configuration Manager Database Manager File Translation Part Review/Modification Machine Management Optimizers Scheduling Nest Generation Review Nests

Automatic Translation Inventory Nesting Defaults Part Assembly Review Order Entry Schedule Orders Nest Review

Administrative Task Set

Navigation Search...

Workspaces Order Entry

Part Filtering

Assembly	SubAssembly	Part
VIMEK 630	SUB	112397
VIMEK 630	SUB	112522
VIMEK 630	SUB	112549-1
VIMEK 630	SUB	112549-2
VIMEK 630	SUB	112564-1
VIMEK 630	SUB	112565
VIMEK 630	SUB	203-030
VIMEK 630	SUB	203-034
VIMEK 630	SUB	203-040

Order Details

Quantity: 1

Due Date: 30-Nov-2015

Priority: 400

Job Order: JOB

Mat Group: MG

Facility: ADMIN

Comment:

Add Order(s)

Active Orders

Assembly	SubAssembly	Partname	Quantity	Date	JobOrder	Priority	Comment	MaterialGroup	Facility
VIMEK 630	SUB	112397	1.0000	30-Nov-2015	JOB	400		MG	ADMIN
VIMEK 630	SUB	112522	1.0000	30-Nov-2015	JOB	400		MG	ADMIN
VIMEK 630	SUB	112549-1	1.0000	30-Nov-2015	JOB	400		MG	ADMIN
VIMEK 630	SUB	112549-2	1.0000	30-Nov-2015	JOB	400		MG	ADMIN
VIMEK 630	SUB	112564-1	1.0000	30-Nov-2015	JOB	400		MG	ADMIN
VIMEK 630	SUB	112565	1.0000	30-Nov-2015	JOB	400		MG	ADMIN
VIMEK 630	SUB	203-030	1.0000	30-Nov-2015	JOB	400		MG	ADMIN
VIMEK 630	SUB	203-034	1.0000	30-Nov-2015	JOB	400		MG	ADMIN

Total Records: 74 Selected Records: 1 Current Record: 1 Table: actorder Filter: <NONE> Can Edit: True Can Insert: True Can Delete: True

Schedule Orders

- Click Schedule Orders node in the tree
- Select both materials
- Enter AU2015 for the Group Name
- Click Schedule

The screenshot shows the TruNest Multi-Tool - Schedule Orders interface. The navigation tree on the left shows the following structure:

- Utilities (5)
- Database Manager (10)
- Part Import (5)
- Orders (4)
 - DownloadOrders
 - Order Entry
 - Schedule Orders**
 - Active Orders
- Nests (3)

The main area displays two tables:

Unscheduled Orders

Facility	MaterialGroup	Material	Machine	Jobs	Parts	Pieces	Start	Cut	Filler	Status	Hours	Plate
ADMIN	MG	GENERIC	PULLMAX-1	1	6	7	30-Nov-2015	30-Nov-2015	30-Nov-2015	ACTV	1.4304	192.1
ADMIN	MG	STAINLESS STEEL	PULLMAX-1	1	1	1	30-Nov-2015	30-Nov-2015	30-Nov-2015	ACTV	0.1566	8.354
ADMIN	MG	STEEL	PULLMAX-1	1	67	77	30-Nov-2015	30-Nov-2015	30-Nov-2015	ACTV	11.2331	1026

Scheduled Orders

Group	Nest	Facility	MaterialGroup	Material	Jobs	Parts	Pieces	Start	Cut	Filler	Status	Hours	Plate
group_002	N058	ADMIN	YES	139009_1A_62.75	1	1	1	26-Feb-2015	26-Feb-2015	26-Feb-2015	SENT	0.1166	1
group_002	N059	ADMIN	YES	139009_1A_73.45	1	1	1	26-Feb-2015	26-Feb-2015	26-Feb-2015	SENT	0.0406	1
group_002	N060	ADMIN	YES	139009_1A_84.875	1	1	1	26-Feb-2015	26-Feb-2015	26-Feb-2015	SENT	0.0265	1
group_002	N061	ADMIN	YES	139009_1A_86.75	1	2	2	26-Feb-2015	26-Feb-2015	26-Feb-2015	SENT	0.1741	2
group_002	N062	ADMIN	YES	139009_1C_62.75	1	2	4	26-Feb-2015	26-Feb-2015	26-Feb-2015	SENT	0.1734	2
group_002	N063	ADMIN	YES	139009_1C_70.75	1	1	2	26-Feb-2015	26-Feb-2015	26-Feb-2015	SENT	0.0762	1
group_002	N064	ADMIN	YES	139009_1C_74.75	1	1	2	26-Feb-2015	26-Feb-2015	26-Feb-2015	SENT	0.0795	1

Create Nests

- Expand the Nests and AU2015 node in the tree
- Click Create Nests in the tree
- Select all available nests
- Click Yes

TruNest Multi-Tool - Create Nests

File Admin Tasks Configuration Manager Database Manager File Translation Part Review/Modification Machine Management Optimizers Scheduling Nest Generation Review Nests

Automatic Translation Inventory Nesting Defaults Part Assembly Review Order Entry Schedule Orders Nest Review

Administrative Task Set

Navigation

Search...

Workspaces

Create Nests

Selection List

Drag a column header and drop it here to group by that column

Group	Nest	Material	MaterialGroup	Facility	Machine	EstPlt	Hours	Status	MinDate	MaxDate
AU2015	N075	STEEL	MG	ADMIN	PULLMAX-1	9999	0	SCHD/SCHD	30-Nov-2015	30-Nov-2015
AU2015	N076	GENERIC	MG	ADMIN	PULLMAX-1	9609	0	SCHD/SCHD	30-Nov-2015	30-Nov-2015
AU2015	N077	STAINLESS STEEL	MG	ADMIN	PULLMAX-1	418	0	SCHD/SCHD	30-Nov-2015	30-Nov-2015

Total Records: 3 | Selected Records: 3 | Current Record: 3 | Table: schdlist | Filter: <NONE> | Can Edit: False | Can Insert: False | Can Delete: False

Actions Log

Actions

Yes

Shared

Report

Parts

TruEDIT

Review Nests

- Click the AU2015 node in the tree
- Use the arrow buttons in the tool bar to view all the nests created

TruNest Multi-Tool - AU2015

File Admin Tasks Configuration Manager Database Manager File Translation Part Review/Modification Machine Management Optimizers Scheduling Nest Generation Review Nests

Automatic Translation Inventory Nesting Defaults Part Assembly Review Order Entry Schedule Orders Nest Review

Administrative Task Set

Navigation

Search...

Utilities (5)

Database Manager (10)

Part Import (5)

- Translate
- Translate and Compress
- Automat
- Automat and Compress

Orders (4)

Nests (4)

- AU2015 (5)
 - Create Nests
 - Manage Nests
 - N075 (8)
 - N076 (5)
 - N077 (5)
- Demo (5)
- group_001 (10)
- group_002 (16)

Workspaces

AU2015

Shade By: Name

N075_001.MSI

39.923, 85.519

PROGRAM ID : 1023 MACHINE ID : PULLMAX-1

NESTING ID : N075_001 ADMIN QUANTITY : 001

MATERIAL ID : STEEL INVENTORY ID : ---

REMNANT ID : COMMENT : No Material

DATE : 30-Nov-15 TIME : 11:13:53

96.000

40.000

Origin

1)203-146 2)112564-1(2) 3)203-049 4)112549-1 5)203-271 6)908409 7)203-617-D

8)203-608 9)203-056 10)203-040 11)112397 12)203-209 13)203-621 14)203-155

15)203-156 16)203-188

Generate a CNC Program to be used for Manufacturing

Manage Nests

- Click Manage Nests under the AU2015 node in the tree

The screenshot displays the TruNest Multi-Tool - Manage Nests application. The interface includes a menu bar at the top with options like File, Admin Tasks, Configuration Manager, Database Manager, File Translation, Part Review/Modification, Machine Management, Optimizers, Scheduling, Nest Generation, and Review Nests. Below the menu is a toolbar with icons for Automatic Translation, Inventory, Nesting Defaults, Part Assembly Review, Order Entry, Schedule Orders, and Nest Review. The main workspace is divided into three sections: a Navigation tree on the left, a central Selection List table, and an Actions panel on the right.

The Navigation tree shows a hierarchy of nodes: Utilities (5), Database Manager (10), Part Import (5), Orders (4), Nests (4), AU2015 (5), Create Nests, Manage Nests (selected), N075 (8), Part List, Plate List, Nesting Parameters, Report, N075_001 (3), Orders, Nc Code, Report, N075_002 (3), N075_003 (3), N075_004 (3), N076 (5), N077 (5), Demo (5), group_001 (10), and group_002 (16).

The Selection List table displays the following data:

Group	Nest	Plate	Quantity	Material	MaterialGroup	Facility	Machine	Nst	Tru	RemL	RemW	RemA	Status	MachineID
AU2015	N075	001	1	STEEL	MG	ADMIN	PULLMAX-1	64.4029	61.5821	96	40	0	RJCT	1035
AU2015	N075	002	1	STEEL	MG	ADMIN	PULLMAX-1	65.3727	61.1763	96	40	0	RJCT	1036
AU2015	N075	003	1	STEEL	MG	ADMIN	PULLMAX-1	24.6904	24.2865	31.8	40	2568	RJCT	1037
AU2015	N075	004	1	STEEL	MG	ADMIN	PULLMAX-1	55.7075	54.1832	96	40	0	RJCT	1038
AU2015	N076	001	1	GENERIC	MG	ADMIN	PULLMAX-1	58.3737	53.9915	29.8	40	2648	RJCT	1041
AU2015	N077	001	1	STAINLESS STEEL	MG	ADMIN	PULLMAX-1	14.6535	12.7407	83.8	40	487.9999	RJCT	1032

The Actions panel on the right contains buttons for Schedule, Select, Reject, Send, SendA, NcRev, DXFout, PDFout, Cut, Post, BackPlot, Plot, Print, and TruPART. The bottom status bar shows: Total Records: 6 | Selected Records: 1 | Current Record: 1 | Table: selrjctn | Filter: <NONE> | Can Edit: False | Can Insert: False | Can Delete: False.

Post

- Under Manage Nests, select all plates and Click Post

TruNest Multi-Tool - Manage Nests

File Admin Tasks Configuration Manager Database Manager File Translation Part Review/Modification Machine Management Optimizers Scheduling Nest Generation Review Nests

Automatic Translation Inventory Nesting Defaults Part Assembly Review Order Entry Schedule Orders Nest Review

Administrative Task Set

Navigation

Search...

Utilities (5)

Database Manager (10)

Part Import (5)

Orders (4)

Nests (4)

AU2015 (5)

Create Nests

Manage Nests

N075 (8)

Part List

Plate List

Nesting Parameters

Report

N075_001 (3)

Orders

Nc Code

Report

N075_002 (3)

N075_003 (3)

N075_004 (3)

N076 (5)

N077 (5)

Demo (5)

group_001 (10)

group_002 (16)

Workspaces

Manage Nests

Selection List

Drag a column header and drop it here to group by that column

Group	Nest	Plate	Quantity	Material	MaterialGroup	Facility	Machine	Nst	Tru	RemL	RemW	RemA	Status	MachineID
AU2015	N075	001	1	STEEL	MG	ADMIN	PULLMAX-1	64.4029	61.5821	96	40	0	RJCT	1035
AU2015	N075	002	1	STEEL	MG	ADMIN	PULLMAX-1	65.3727	61.1763	96	40	0	RJCT	1036
AU2015	N075	003	1	STEEL	MG	ADMIN	PULLMAX-1	24.6904	24.2865	31.8	40	2568	RJCT	1037
AU2015	N075	004	1	STEEL	MG	ADMIN	PULLMAX-1	55.7075	54.1832	96	40	0	RJCT	1038
AU2015	N076	001	1	GENERIC	MG	ADMIN	PULLMAX-1	58.3737	53.9915	29.8	40	2648	RJCT	1041
AU2015	N077	001	1	STAINLESS STEEL	MG	ADMIN	PULLMAX-1	14.6535	12.7407	83.8	40	487.9999	RJCT	1032

Total Records: 6 | Selected Records: 6 | Current Record: 4 | Table: seljrctn | Filter: <NONE> | Can Edit: False | Can Insert: False | Can Delete: False

Actions Log

- Action: ExportNestEdit, Description: Export NestEdit List
Results: Success
- Action: ExportNestData, Description: Export Nest Info

Actions

- Schedule
- Select
- Reject
- Send
- SendA
- NcRev
- DXFout
- PDFout
- Cut
- Post
- BackPlot
- Plot
- Print
- TruPART

Backplot

- Under Manage Nests, select all plates and Click BackPlot

TruNest Multi-Tool - Manage Nests

File Admin Tasks Configuration Manager Database Manager File Translation Part Review/Modification Machine Management Optimizers Scheduling Nest Generation Review Nests

Automatic Translation Inventory Nesting Defaults Part Assembly Review Order Entry Schedule Orders Nest Review

Administrative Task Set

Navigation Search...

Workspaces Manage Nests

Selection List

Drag a column header and drop it here to group by that column

Group	Nest	Plate	Quantity	Material	MaterialGroup	Facility	Machine	Nst	Tru	RemL	RemW	RemA	Status	MachineID
AU2015	N075	001	1	STEEL	MG	ADMIN	PULLMAX-1	64.4029	61.5821	96	40	0	RJCT	1035
AU2015	N075	002	1	STEEL	MG	ADMIN	PULLMAX-1	65.3727	61.1763	96	40	0	RJCT	1036
AU2015	N075	003	1	STEEL	MG	ADMIN	PULLMAX-1	24.6904	24.2865	31.8	40	2568	RJCT	1037
AU2015	N075	004	1	STEEL	MG	ADMIN	PULLMAX-1	55.7075	54.1832	96	40	0	RJCT	1038
AU2015	N076	001	1	GENERIC	MG	ADMIN	PULLMAX-1	58.3737	53.9915	29.8	40	2648	RJCT	1041
AU2015	N077	001	1	STAINLESS STEEL	MG	ADMIN	PULLMAX-1	14.6535	12.7407	83.8	40	487.9999	RJCT	1032

Total Records: 6 | Selected Records: 6 | Current Record: 4 | Table: seljrctn | Filter: <NONE> | Can Edit: False | Can Insert: False | Can Delete: False

Actions Log

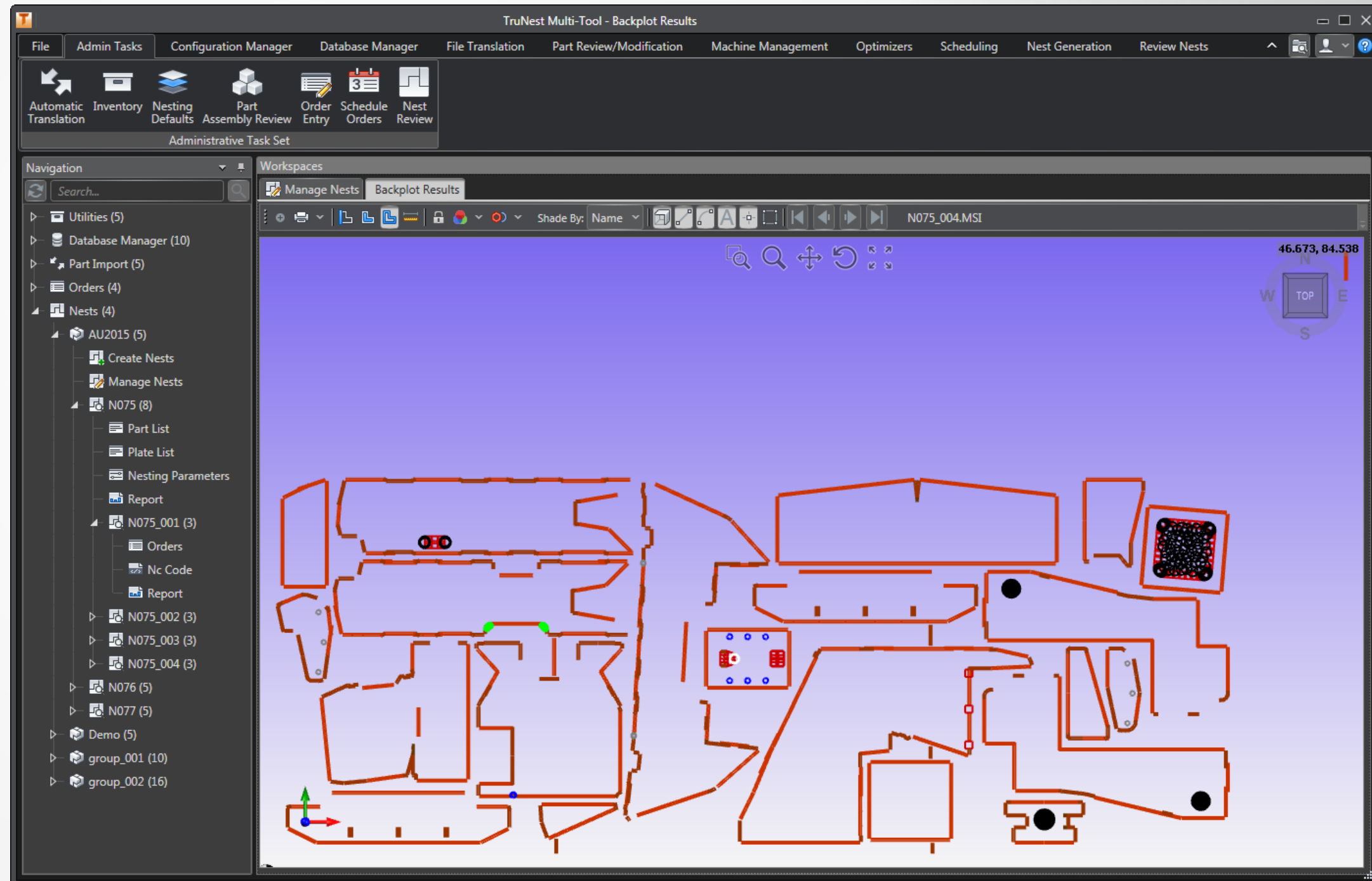
- Action: ExportNestEdit, Description: Export NestEdit List Results: Success
- Action: ExportNestData, Description: Export Nest Info

Actions

- Schedule
- Select
- Reject
- Send
- SendA
- NcRev
- DXFout
- PDFout
- Cut
- Post
- BackPlot
- Plot
- Print
- TruPART

Backplot

- Scroll through each material pull with the arrow buttons at the top of the tool bar



Send

- Under Manage Nests, select all plates and Click Send

The screenshot displays the TruNest Multi-Tool - Manage Nests application. The interface includes a menu bar with options like File, Admin Tasks, Configuration Manager, Database Manager, File Translation, Part Review/Modification, Machine Management, Optimizers, Scheduling, Nest Generation, and Review Nests. Below the menu is a toolbar with icons for Automatic Translation, Inventory, Nesting Defaults, Part Assembly Review, Order Entry, Schedule Orders, and Nest Review. The main workspace is divided into a Navigation pane on the left and a central table area. The Navigation pane shows a tree structure with folders like Utilities (5), Database Manager (10), Part Import (5), Orders (4), and Nests (4). Under Nests, there are sub-folders for AU2015 (5), N075 (8), N076 (5), and N077 (5). The central table, titled 'Selection List', contains the following data:

Group	Nest	Plate	Quantity	Material	MaterialGroup	Facility	Machine	Nst	Tru	RemL	RemW	RemA	Status	MachineID
AU2015	N075	001	1	STEEL	MG	ADMIN	PULLMAX-1	64.4029	61.5821	96	40	0	SENT	1035
AU2015	N075	002	1	STEEL	MG	ADMIN	PULLMAX-1	65.3727	61.1763	96	40	0	SENT	1036
AU2015	N075	003	1	STEEL	MG	ADMIN	PULLMAX-1	24.6904	24.2865	31.8	40	2568	SENT	1037
AU2015	N075	004	1	STEEL	MG	ADMIN	PULLMAX-1	55.7075	54.1832	96	40	0	SENT	1038
AU2015	N076	001	1	GENERIC	MG	ADMIN	PULLMAX-1	58.3737	53.9915	29.8	40	2648	SENT	1041
AU2015	N077	001	1	STAINLESS STEEL	MG	ADMIN	PULLMAX-1	14.6535	12.7407	83.8	40	487.9999	SENT	1032

At the bottom of the table, it shows 'Total Records: 6', 'Selected Records: 1', 'Current Record: 1', 'Table: selrjctn', 'Filter: <NONE>', 'Can Edit: False', 'Can Insert: False', and 'Can Delete: False'. On the right side, there is an 'Actions' panel with buttons for Schedule, Select, Reject, Send, SendA, NcRev, DXFout, PDFout, Cut, Post, BackPlot, Plot, Print, and TruPART. The 'Send' button is highlighted. Below the table is an 'Actions Log' showing two successful actions: 'Action: Forward_unused_plate_send, Description: Results: Success'.

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