

SOFTWARE PRODUCT CATALOG



M S **MIRISYS**

Complete software solutions for your cutting room



About Company

The MiriSys company develops and sells CAD/CAM/ERP systems for furniture, automotive, footwear, garment, fancy goods and other industry.

The MiriSys team has been engaged in the development and sale of systems for more than 25 years. Their systems have been installed in hundreds of companies in more than 25 countries worldwide.

The company is mainly focused on the development of software. Sales and installation of these products to customers is handled mostly through authorized partners and distributors, who deliver complete solutions, which means hardware and software, under their brand name.

Pattern Input



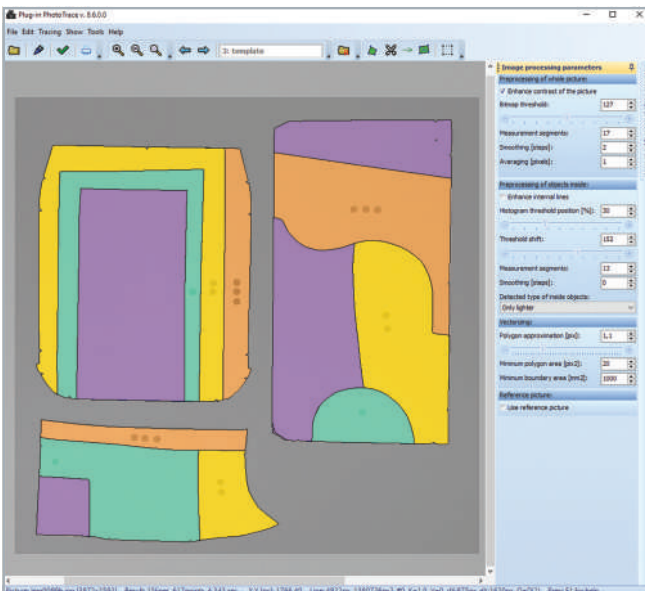
Digitizing by Tablet

It includes the process of transfer of a real paper template or construction grid into digital form. The digitizing tablet is used.

Thanks to the special function of automatic connection it is possible to use the smaller and therefore cheaper tablet formats – for example an A3 format tablet can be used to digitize the jacket or a coat.

Tablet is controlled by the cursor with the cross and buttons for digitization control. The point position can be confirmed with the buttons and also point types and line types can be defined.

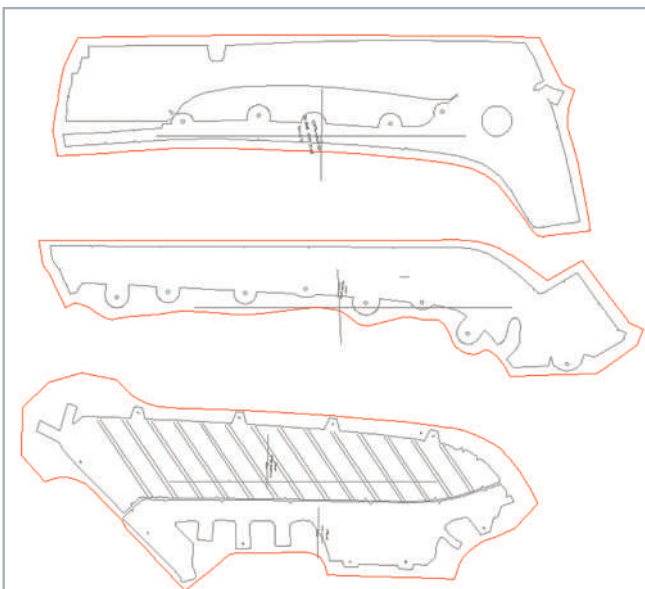
- Available in: **UniPDS, FootwearCAD, GarmentCAD**



Digitizing by Camera

It is effective method for digitizing of large piece templates without using of large and expensive digitizing tablets. The automated digitizing process by camera is many times faster than manual digitizing by the tablet. Many pieces can be digitized by one camera shot.

- Supported devices: DSLR cameras, scanners, USB cameras
- High accuracy: depending on the resolution and size of working area
- Automatic detection of corner points, spline curves, notches, quality areas
- Automatic creation of sewing additions
- Easy and fast calibration process

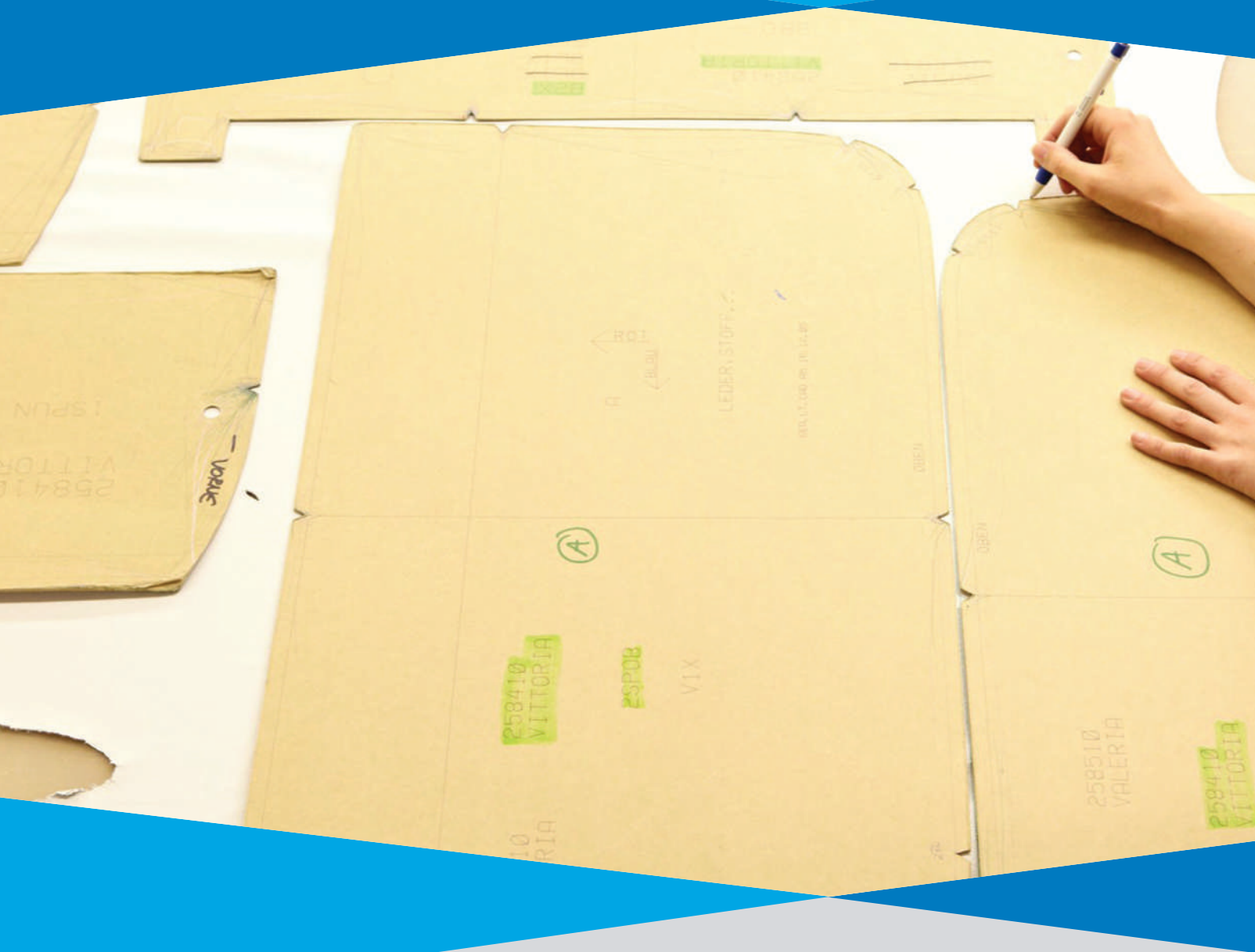


Import from CAD Systems

Module **Plug-in Import** enables import of models and patterns from other CAD systems to MiriSys nesting or PDS systems. Models can be imported from standard data formats as well as from other nonstandard formats which are available on request.

Module **Plug-in Import** also optimizes shape of patterns, deletes unnecessary points and lines or converts special technological marks.

- DXF, DWG, AAMA, ASTM, PLT
- Lectra, Assyst, Gerber, Investronica
- Comelz, Teseo, Atom, Elitron, USM, Microdynamics



Pattern Design Software

MiriSys company offering three types of Pattern Design Software (PDS) products. Each of them is optimized for different industries.

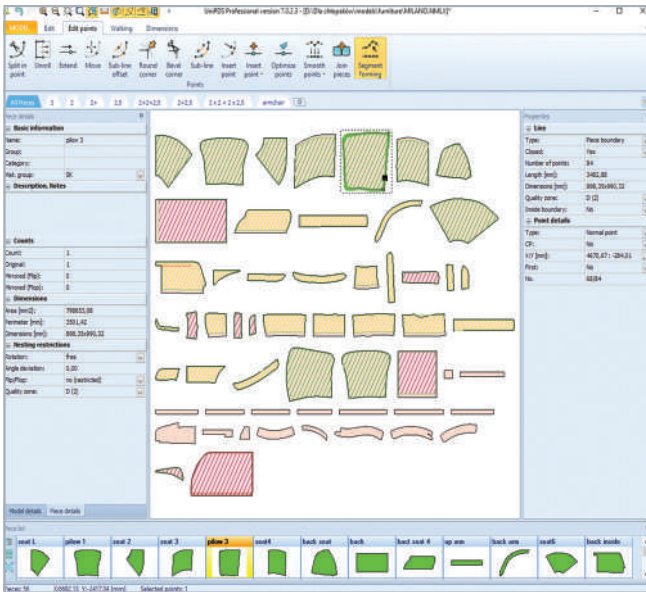
UniPDS is designed for leather and technical textile processing, for example furniture manufacturing, the automotive industry and similar branches.

FootwearCAD is specialized for construction and grading of footwear and leather goods.

GarmentCAD is specialized for construction and grading of garments.

PDS systems are used to prepare models and 2D patterns for the nesting and cutting process.

Pattern Design Software

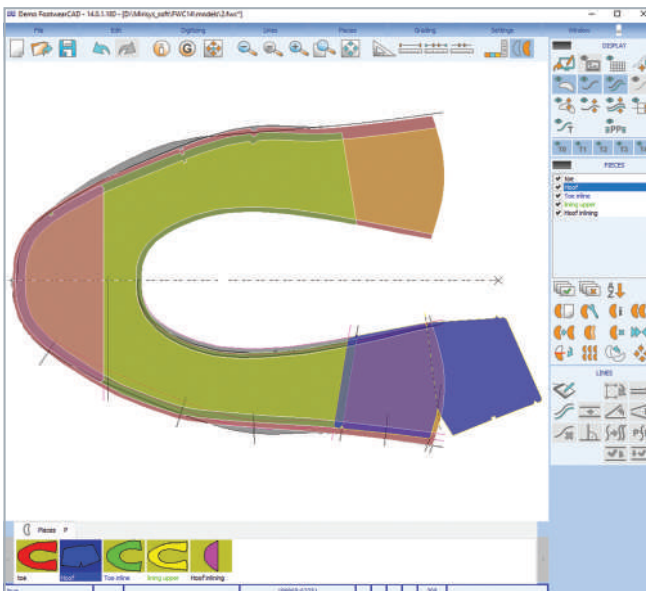


UniPDS

Universal, easy-to-use, CAD system used mainly in the leather and technical textile processing industry, automotive industry, upholstery industry and similar applications.

The system contains functions which covers the creation of new models and patterns, from as early as their digitization and direct design. A fully hardware-accelerated user interface (OpenGL) allows easy and fast editing of the shape of the pieces and their parameters.

- Available variants: Standalone application, Plug-in for MRP system
- Available editions: Enterprise, Professional, Viewer



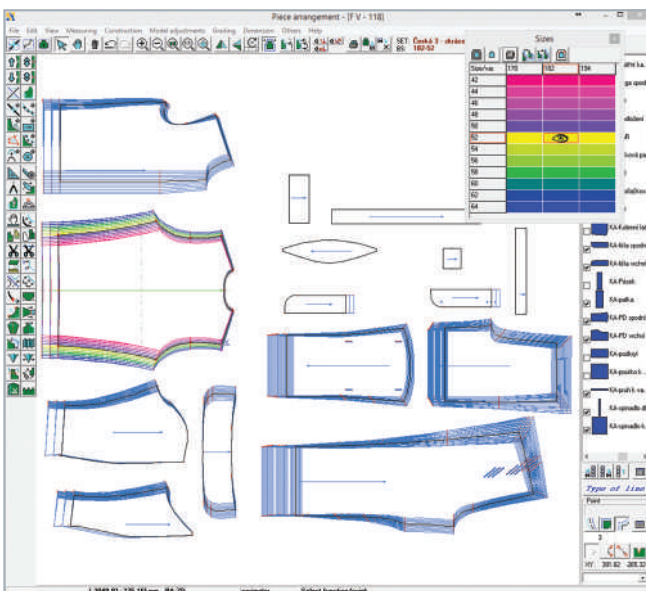
FootwearCAD

Professional 2D construction and grading system designed for producers of all kinds of shoe and leather goods.

The **FootwearCAD** is a powerful tool for large companies as well as for mid-sized and small companies. System markedly simplifies designers, modelers and technologists work and is ideal for a complete construction and grading of shoe patterns.

The system contains many efficient functions from a shoe standard digitizing, through patterns construction to automatic grading.

- Available editions: Professional, Limited



GarmentCAD

GarmentCAD is highly effective tool for garment producers. The choice of functions has been optimized to provide the maximum support for practical needs of manufacturers in producing heavy-duty clothing, underwear, knitted and leather articles, working and leisure time clothing. It is used for creation of models, grading into the range of sizes and for creation of technical documentation.

- Advanced construction tools: darts, sewing lines, folding, etc.
- Time savings through automatization of grading
- Integrated models and patterns management system
- Available editions: Enterprise, Professional



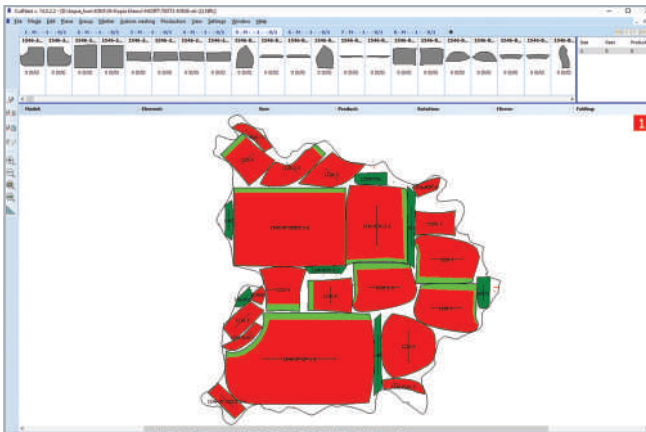
Nesting and Cutting System

MiriSys offers a wide range of software modules that are used to create markers and prepare cutting data.

The markers creation includes interactive and fully automatic methods. Nesting can be provided on the computer screen or directly on the material by using projection. Markers can be made for textile or natural leather hides.

The preparation and optimization of cutting data is fully automated with a wide range of options for the specific cutting technology. All common plotters, CNC cutters and roller presses are supported.

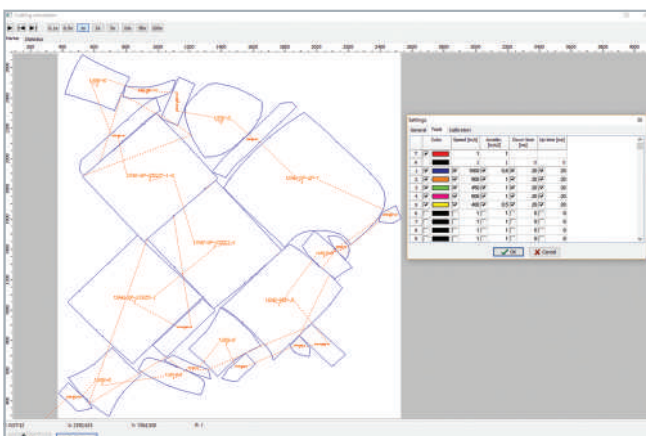
Nesting and Cutting System



CutNest

The **CutNest** module is a basic building block for a complex nesting and cutting system. It allows creation of production order with several different models. Markers are created with use of interactive nesting or fully automatically with optional **Plug-in AutoNest**. The **CutNest** enables connection with output devices, such as large format printers, plotters.

- Available variants: Standalone application, Plug-in for MRP system
- Available editions: Professional, Lite, Templates, Viewer



Plug-in Postprocessor

It manages outputs to CNC cutters and optimizes the output data, so the pieces would be produced in the highest possible quality. By setting the parameters, it is also possible to markedly shorten the preparation and cutting time and increase the overall capacity of a cutting room.

- Available from: **CutNest**



Plug-in Export

Each of the MiriSys software modules allows different types of export of processed data. This data can be used in other CAD / CAM / ERP third-party systems. **Plug-in Export** is an optional component because not every user needs this module.

- Available editions: DXF, ASTM, AAMA, XML
- Available from: **UniPDS, FootwearCAD, GarmentCAD, CutNest, MRP, PhotoTrace**

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Daily production			
From: 18.07.2014 18:07		To: 18.07.2014	
SPECIFICATION			
From time: 18.07.2014 18:07	Station: Zumd 2XL3000	Model: ALFA	
To time: 18.07.2014	Cutter:	Material: Leather	
Worker: ZUND	Shift: 2	Order number: 77289	
Send to job: 18.07.19.20	Send to job: 18.07.19.20	Send to job: 18.07.19.20	Send to job: 18.07.19.20
CutList Code: 4.00	CutList Code: 4.00	CutList Code: 4.00	CutList Code: 4.00
Waste used PLY: 23.69	Waste used PLY: 23.89	Waste used PLY: 23.89	Waste used PLY: 23.66
Pieces produced: 41	Pieces produced: 41	Pieces produced: 41	Pieces produced: 41
Send to job: 18.07.19.20	Send to job: 18.07.19.20	Send to job: 18.07.19.20	Send to job: 18.07.19.20
CutList Code: 4.00	CutList Code: 4.00	CutList Code: 4.00	CutList Code: 4.00
Waste used PLY: 23.71	Waste used PLY: 23.89	Waste used PLY: 23.86	Waste used PLY: 23.59
Pieces produced: 41	Pieces produced: 41	Pieces produced: 41	Pieces produced: 41
Send to job: 18.07.19.20	Send to job: 18.07.19.20	Send to job: 18.07.19.20	Send to job: 18.07.19.20
CutList Code: 4.00	CutList Code: 4.00	CutList Code: 4.00	CutList Code: 4.00
Waste used PLY: 23.71	Waste used PLY: 23.89	Waste used PLY: 23.86	Waste used PLY: 23.59
Pieces produced: 41	Pieces produced: 41	Pieces produced: 41	Pieces produced: 41

Plug-in CutStatistic

Plug-in CutStatistic records the statistical data of marker and cutting data processing into SQL database. The source of data is **CutNest** system, which gathers following information: names of cut plans and models, list and quantity of pieces, time of cutting, material area, waste, efficiency, picture of marker, cutting length for each cutting tool, etc.

Statistical data can be presented by module **MRP - CutStatistic Manager**.

- Available editions: Enterprise, Professional
- Available from: **CutNest**

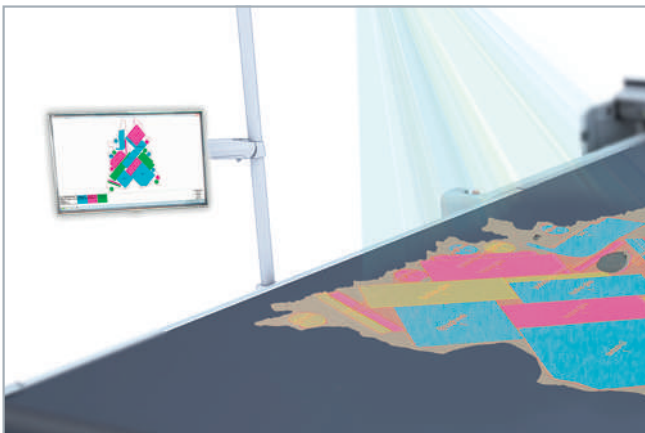
Nesting and Cutting System



Plug-in Projection

Module **Plug-in Projection** is used for display of the marker on the surface. Presented are not only patterns but also material shape with defects and quality zones. Typical applications are:

- Interactive nesting on leather hide
- Interactive nesting on fabrics with stripes and plaids
- Collecting and sorting of cut pieces on the CNC cutter
- Projection of cutting dies placement on the roller press
- Interactive marking of quality zones and defects of leather
- Quality control station – inspection of pieces dimensions



Plug-in Sorting Manager

Module **Plug-in Sorting Manager** is used for effective collecting and sorting of cut pieces on the CNC cutter. It gives opportunity to mix many models in the nesting order which increases nesting effectivity.

The **Plug-in Sorting Manager** is usually used together with **Plug-in Projection**. It displays specified pieces defined by bundles – sorting specifications.

The complete marker is also displayed on the monitor or TV.

- Available from: **CutNest**



Plug-in IDM

Module **Plug-in IDM** is used for **Interactive Defects Marking** of natural leather hides. An electronic pen with the projector is used for marking defects and quality areas. The control panel is displayed directly on the projection area. This module can also be used for interactive measurement of length and area.

- Required modules: **CutNest, Plug-in Projection**
- Optional module: **Plug-in PhotoTrace**



Plug-in BarCode

Module **Plug-in BarCode** is used for generating and printing barcodes on special label printers. Label includes all obtained information from the digitization and marking of defects and quality zones process. Typical printed information are: supplier area, real leather area, size of defects and quality zones, the catalog classification of the skin in the material stock. Customization of the labels according to customer requirements is also available.

- Available variants: **CutNest, MRP – Material Warehouse, Plug-in IDM, Plug-in PhotoTrace**

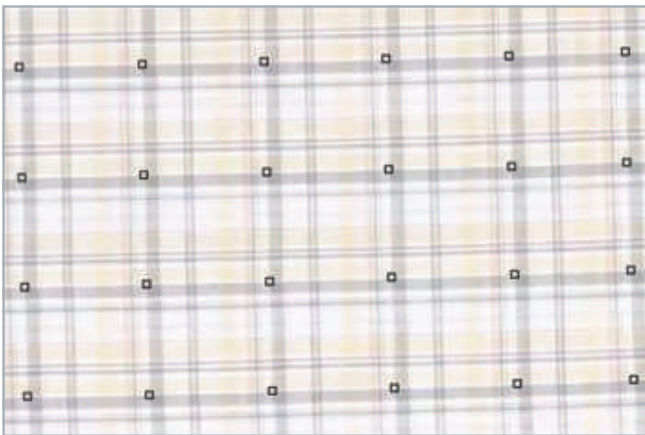
Nesting and Cutting System



Plug-in PhotoTrace Leather

The **Plug-in PhotoTrace** automatically converts the picture from digital camera or scanner into a vectors. Advanced calibration process ensures high accuracy of digitization process. Available editions:

- **Professional** is used for leather hides digitization. Boundary, defects and quality zones are recognized.
- **Enterprise** has the same functionality as **Professional** edition, but it also supports 2 camera stations.
- **Lite** is used for templates digitization. Boundary line, internal lines, notches, quality areas, corners and spline points are recognized.



Plug-in PhotoTrace Match

The **Plug-in PhotoTrace Match** is used to automatically recognize matching points from the picture of the material taken by the digital camera. It is typically used for detection of repeating stripe and plaid point positions on the fabrics. Recognized matching points are used then for automatic alignment of the patterns in the marker.

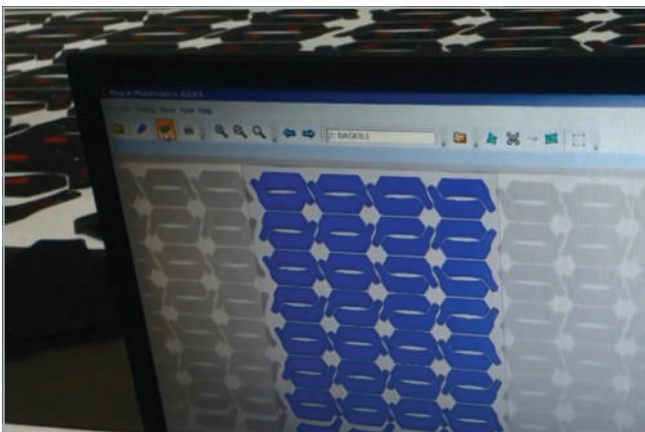
- Required module: **CutNest**
- Optional module: **Plug-in Projection**



Plug-in OHA

Module **Plug-in OHA** is used for **Optical Hide Alignment** of the already digitized and stored leather hides that are determined for cutting on the CNC cutter or roller press. With combination of module **Plug-in PhotoTrace** it allows to achieve high accuracy of alignment of the marker position with the real material position on the table.

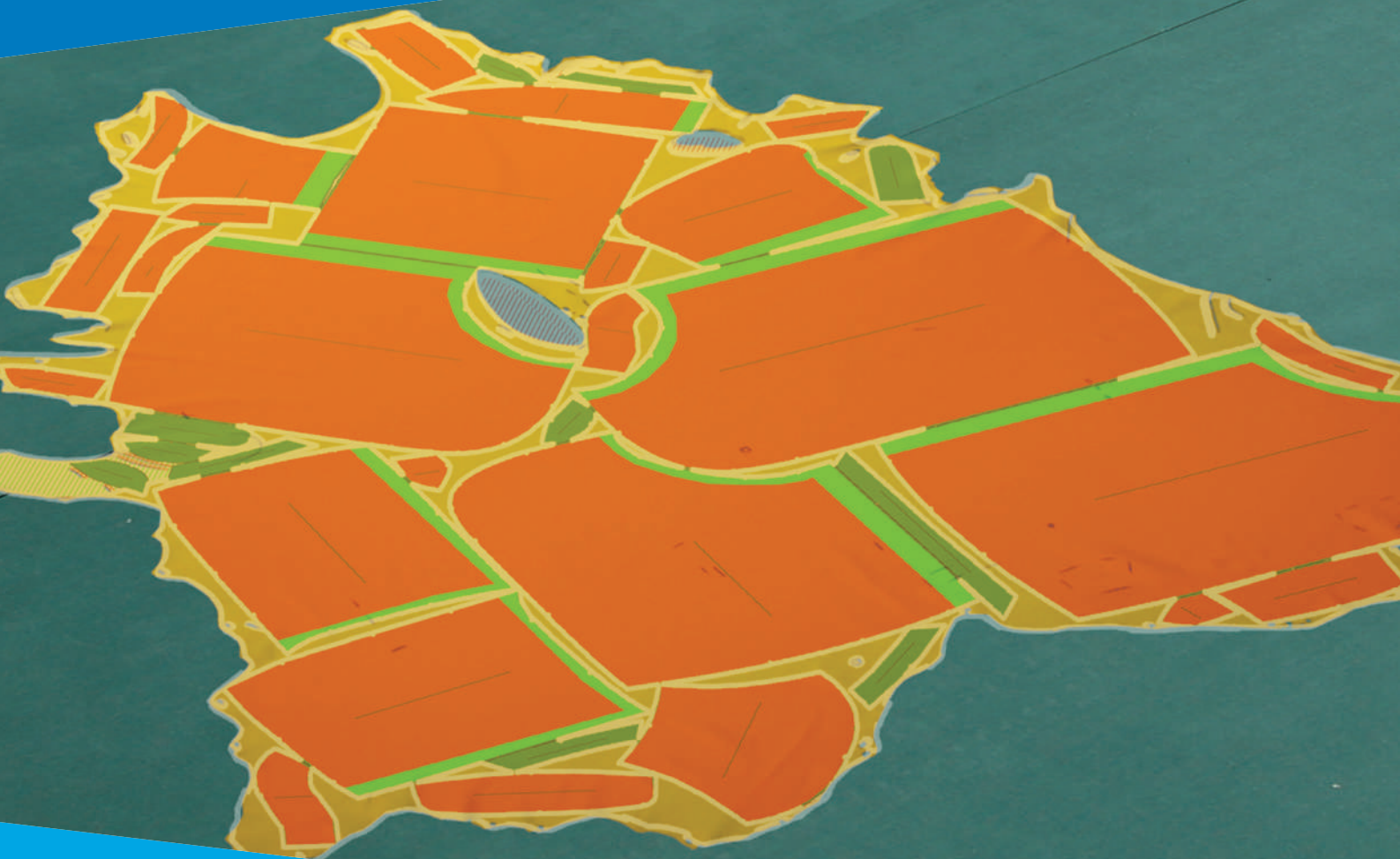
- Required modules: **CutNest, Plug-in PhotoTrace**
- Optional module: **Plug-in Projection**
- Optional hardware: barcode reader



Plug-in OPR

Module **Plug-in OPR** is used for **Optical Pattern Recognition**. Typical application is cutting out the pieces from the printed material roll. The exact position and orientation of the piece on the material is obtained from the **Plug-in PhotoTrace**. Scanned piece is automatically compared with database of pieces. The exact shape of the piece, including internal lines, is then processed by the CNC cutter.

- Required modules: **CutNest, Plug-in PhotoTrace**



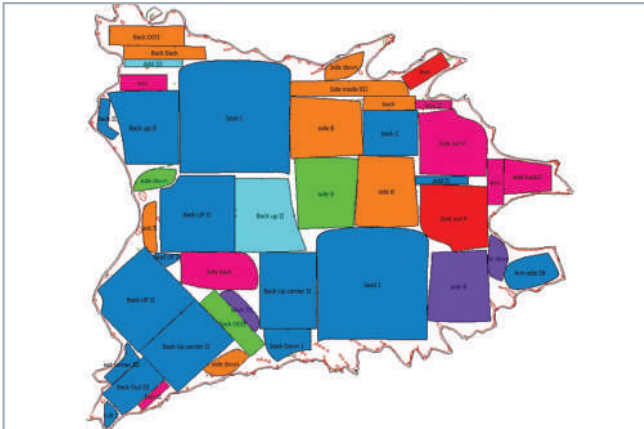
Automatic Nesting

Fully automatic nesting modules, which completely replaces difficult and time taking preparation of marker by method of interactive nesting, with maximal material utilization. Optimal solution for manufacturers who prepare large amounts of markers or use large amount of pieces.

According to set parameters of pieces and material, automatic nesting module tries thousands of different variations for a set period of time and chooses the best one.

The maximum automation and effectivity of the nesting process can be achieved by connecting with module **MRP - Nesting Server**.

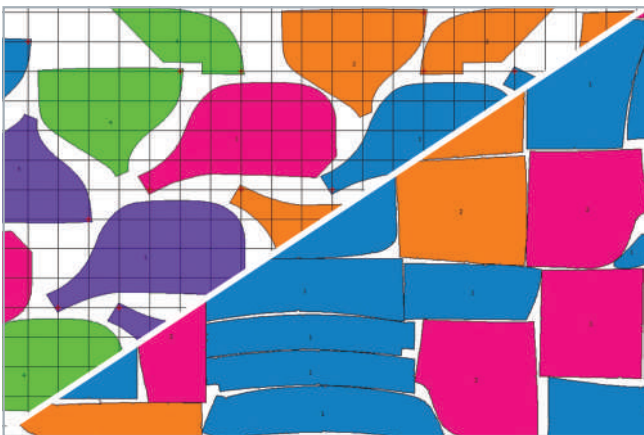
Automatic Nesting



Plug-in AutoNest Leather

Module **Plug-in AutoNest Leather** is optimal for automatic nesting of patterns into the leather hide with respecting of defects and quality zones of patterns and material. The nesting time can be adjusted to affect the resulting quality of the marker. The module allows to choose a suitable nesting strategy with preference to: large patterns, high quality patterns, by products, etc.

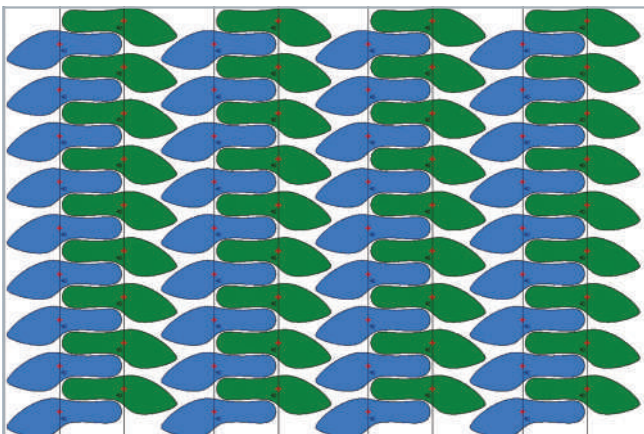
- Available editions: Multi-core, Single-core
- Available from: **CutNest, MRP – Nesting Server**



Plug-in AutoNest Textile

Module **Plug-in AutoNest Textile** is optimal for automatic nesting of patterns into the fabrics with limited or unlimited length. It also allows nesting to the stripes and plaids. The nesting time can be adjusted to affect the resulting quality of the marker. The module allows to choose a suitable nesting strategy with preference to: large patterns, high quality patterns, by products, etc.

- Available editions: Multi-core, Single-core
- Available from: **CutNest, MRP – Nesting Server**



Plug-in AutoNest Insoles

Module **Plug-in AutoNest Insole** is the special variant of automatic nesting algorithm for producers of shoe soles and insoles. It creates markers with a higher utilization of material than a general nesting algorithm. It includes two nesting strategies: first strategy for homogenous materials, second strategy for material with partial reinforcement.

- Available from: **CutNest**



Plug-in AutoNest Gaskets

Module **Plug-in AutoNest Gaskets** is the special variant of automatic nesting algorithm for producers of gaskets. It creates markers with a higher utilization of material than a general nesting algorithm. It allows automatic placement of patterns inside of other patterns with respecting of their internal boundary lines.

- Available from: **CutNest**



MRP – Manufacturing Resource Planning

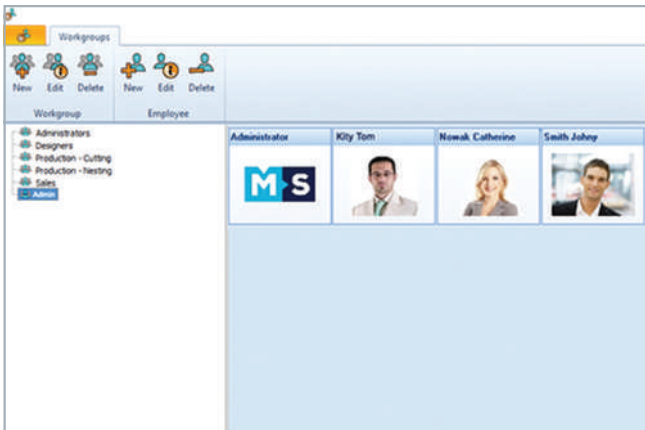
A comprehensive **MRP** system is used to prepare, plan and monitor the cutting process. It allows planning and optimization the use of production resources, such as: materials, cutting machines and workers.

The system is based on a central SQL database server. It enables the control of the access rights of individual groups of users. A centralized database storage simplifies system administration and increases the security of stored information.

Using the SQL database system makes it easy to connect to existing ERP systems, and it is also possible to customize the functionality of the system for the needs of a customer.

Module **MRP – Control Panel** is used for easy access to individual **MRP** modules and allows user customization of functionality and appearance.

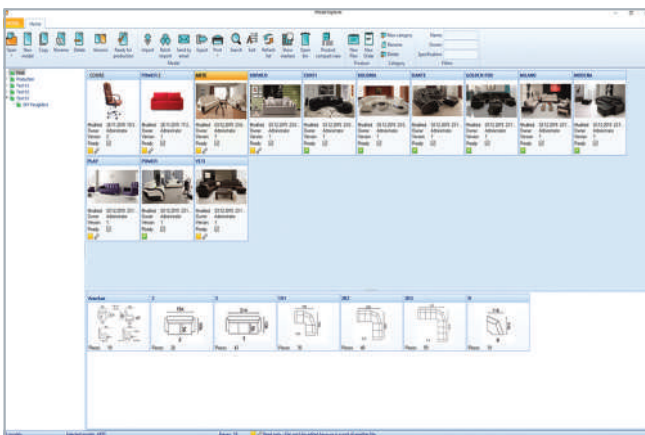
MRP – Manufacturing Resource Planning



MRP – Administration

Module **MRP - Administration** is a tool for efficient management of the **MRP** system and its advanced settings.

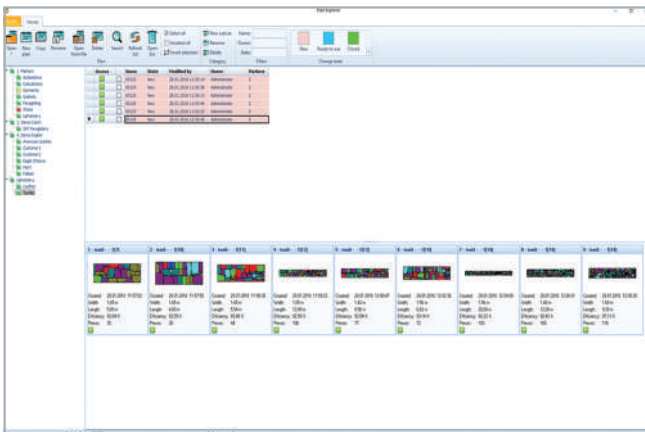
- User management, information, login
- User groups, adjustment of access rights
- Access rights for system modules and particular libraries
- List of units and currencies
- List of workplaces and queues
- List of suppliers and customers



MRP – Model Explorer

Management of models created in MiriSys PDS systems or imported from another CAD systems.

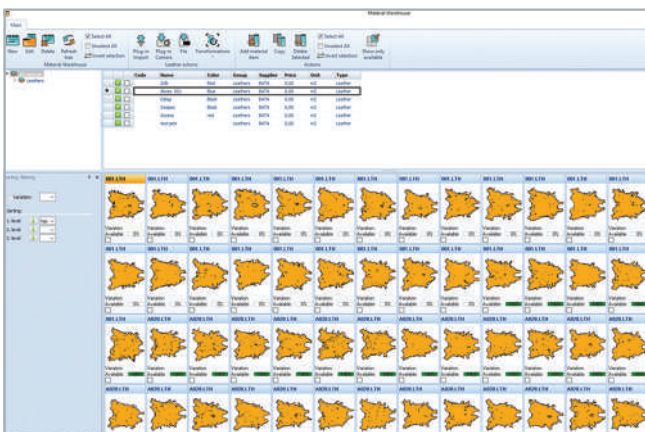
- Tree-structure management
- List of models with preview of basic information
- Versions of model, history of changes
- Searching of model, sorting, filtering
- Printout of models catalog



MRP – Plan Explorer

Preparation and management of nesting plans – set of markers for given combination of models and products

- Tree-structure management
- List of plans with basic information
- Automatic detection of new model version
- Preview of markers
- Searching of plan, sorting, filtering
- Optional connection to **Plug-in CutNest**

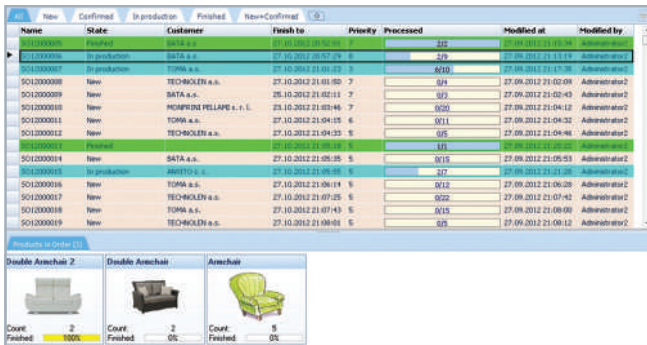


MRP – Material Warehouse

Simple management of material warehouse. It is used as a storage for digitized leather hides and source of information for automatic nesting server.

- Groups of materials
- Three material types: leather hides, textile rolls, plates
- Producers/Suppliers of materials
- Stands management
- List of warehouse items with preview
- Optional leather hides scanning with **Plug-in PhotoTrace**

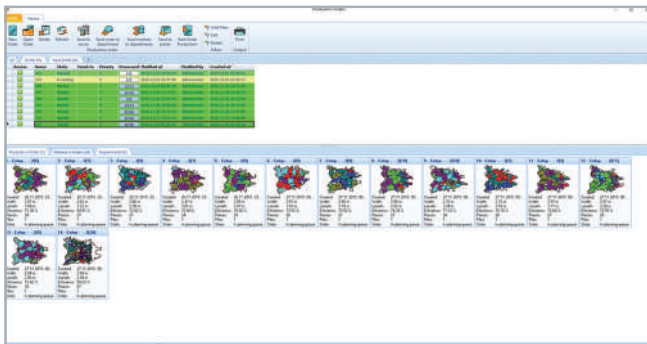
MRP – Manufacturing Resource Planning



MRP – Sales Orders

Sales orders are created with using the information stored in **MRP - Model Explorer** and **MRP - Material Warehouse**. The possibility of inserting additional information specifying the customer's order.

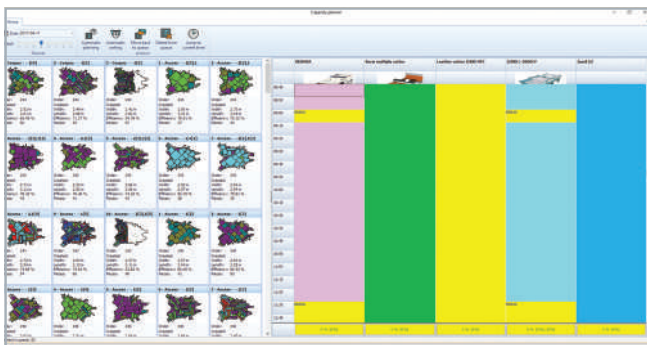
- List of sales orders
- Creation of new order, adding models and quantities
- Assign of material, pre-calculation of material usage
- Printouts



MRP – Production Orders

Module **MRP - Production Orders** enables to create new production orders or convert existing sales orders into production order.

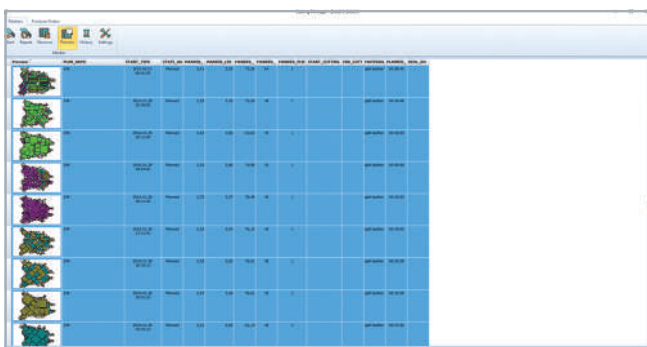
- List of production orders
- Addition of products from multiple sales orders or from list of models
- Assign of material, pre-calculation of material usage
- Splitting of one sales order into more production orders



MRP – Capacity Planning

Planning and optimizing the use of cutting machines with respect to the parameters of the production orders and the required cutting method.

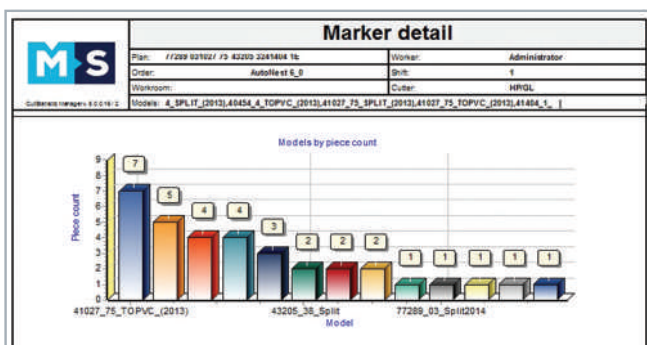
- Workplaces management
- Adjustment of production capacity for workplaces
- Shifts and breaks management
- Service breaks planning
- Automatic or manual planning of production



MRP – Cutting Manager

This module is designed for easy operation of the cutting line with respecting of the scheduled cutting queue.

- Preview and cutting of markers
- Creation and editing of cutting profiles
- History of production

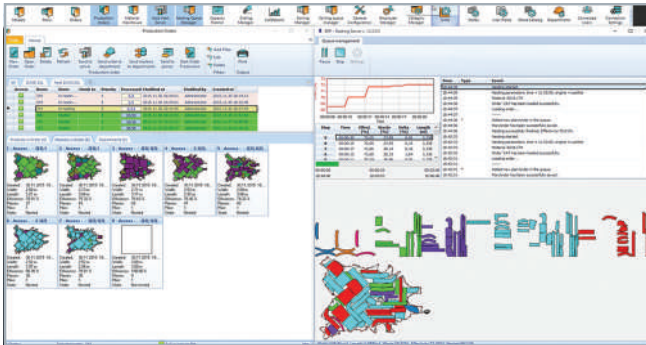


MRP – CutStatistic Manager

The module is designed for viewing and evaluating statistical information stored with **Plug-in CutStatistic**.

- Real-time production monitoring
- Filtering and sorting
- Print forms for selected workstation, time interval, worker, etc.
- Export to Excel, HTML, PDF

MRP – Manufacturing Resource Planning



MRP – Nesting Server

Allows non-stop automatic nesting for the prepared nesting queue and markers. It allows the creation of markers for both the textile rolls and the leather hides.

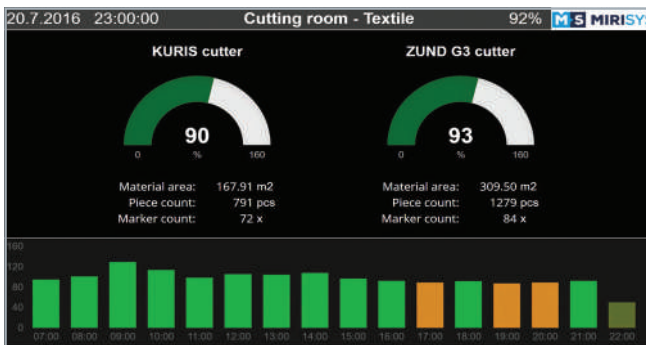
- Management of nesting queues
- One nesting server for many cutting machines
- Scalability of server performance
- Control of priority queues and markers



MRP – Sorting Manager

It is used for effective collecting and sorting of cut pieces on the CNC cutter. It gives opportunity to mix many models in the nesting order which increases nesting effectivity.

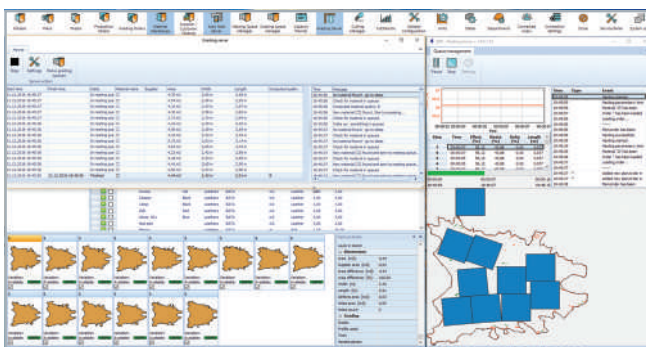
- Sorting specifications – bundles adjustment
- Mostly used with **Plug-in Projection**
- Display of marker on the monitor or TV



MRP – Analytics

Powerful module for online monitoring of the cutting machines performance by the form of dynamic HTML pages.

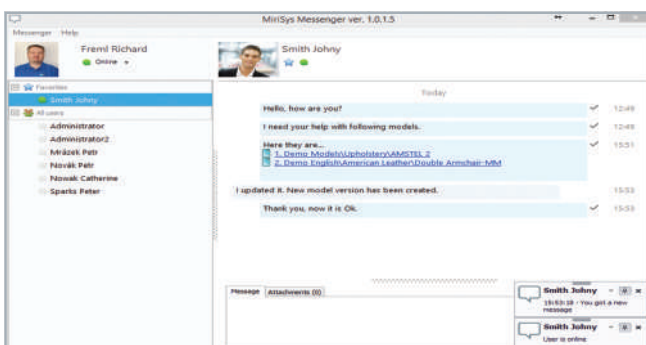
- Customization according to user requirements
- Access to results from computer, mobile phone, tablet or TV
- Access from Internet through the VPN



MRP – Grading Server

Solution for automatic evaluation of leather hides quality using statistical information or automatic nesting of typical shapes and dimensions of patterns.

- Settings of evaluation rules
- Printouts and export of grading results
- Optional modules: **MRP – Grading Orders, Plug-in IDM, MRP – Nesting Server**



Messenger

Easy-to-use tool for effective communication between MRP users. Allows to send messages between users or groups of users.

- Sending link to: model, marker, production order
- Online status of users
- History of communication

CONTACT INFO

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Complete software solutions for your cutting room
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