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SCHNELL SOFTWARE'S PRESENTATION

Schnell Software S.L. started business activity in March 2001 with the aim of providing specialized software for reinforcement steel industry, a sector which was growing and where the technology is constantly evolving. Thenceforth it has focused on developing programs to optimise reinforced concrete rebar processing.

Schnell Software develops a CAD-CAM product that gives a solution to the organization and production of rebar industries, both small volume (SMEs) and big international steel industries. We are currently introduced in all the continents, with more than 850 installations and over 4.500 software licenses.

The company has a professional group of 20 people excited about their work who are divided among areas such as product development, CAD, electronics, communications, installations, administration and commercial area. We also have technology collaborators and people who are highly qualified in calculation systems.

The work of the company is also performed with the support of Schnell Group, a multinational group to which it belongs, composed of 16 companies among machine production, software and services.

In 2013. Schnell Software also established a new company in the Brazilian market. Schnell Software Do Brasil, in order to better serve this growing market.

Schnell Software is present at major exhibitions of machinery and software applications for rebar. We are up to date on **new technologies** and continually develop new options for our programs and new products, improving efficiency and usability. We adapt to universal formats for information transfer. We tailor our products to new operating systems and new market standards.

This orientation to customer satisfaction and the attention to the continuous improvement, allowed in 2011 the company was certified by TUV Rheinland company according to the ISO

9001:2008 international standards for quality management.





PRODUCTS SUITE

GRAPHICO PRO BBS Entry, tagging and reports printing **GRAFO-CAD GRAFO-PLAN** Drawings importation Advanced production planning **GRAFO-MESH OPTIMO** Mesh design Cutting list optimization LOCAL **OPTIMO ASSISTANTS** ▦ Piles, columns, Tags optimization excel importation in the machine لييا 710 **GRAPHICO PRO** SUITE **MACHINES REBARWEB DOWNLOADING** Internet rebar ROW MATERIA Barcode reader, scheduling network, usb **SHIPPINGBAR DATA PRO** Machines supervisor Delivery tracking **GRAFO-BOSS GRAFO-GEST** Products prices Production and and Invoicing operators tracking **STOCK MANAGEMENT GRAFO-TRAX** Material tracking

In/Out Material purchase



A single software for different working systems



A single software for different working systems



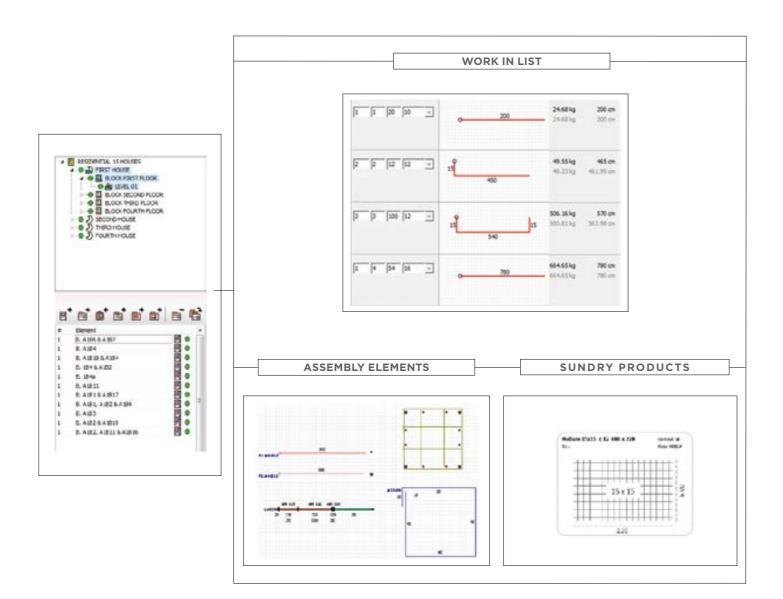
Graphico Pro is an integral management software for rebar shop companies, which is constituted as the **main module** of the Schnell Software products suite.

Graphico Pro is the best software to organize the Engineering Department's projects, to do **rebar detailings** in an easy and structured way and plan the production of the rebar shop.

The program covers all the needs of the technical office, allowing to do all type of rebar detailings, both in **list and assembly**; as well as entering **sundry products**.

The graphical interface, the power and flexibility of the program allow the user more **speed and security in his work**.

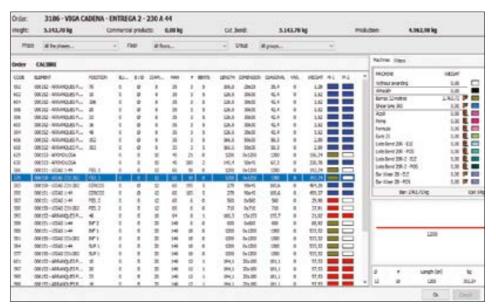
The Graphico Pro program, thanks to its design and the powerful base engine of relational data, allows you to **connect several manufacturing centers** forme distance.







Figures report by element



Assignment of machines

Powerful, flexible, visual and easy to use

Reusable material management: Save raw material, time and space!

Save time with bar cutting optimization

Avoid duplications!
Control if the labels have been printed





GRAPHIC AND FUNCTIONAL REBAR DETAILING

View in .CAD format the drawing of your shapes.

Parametrize shapes with formulas.

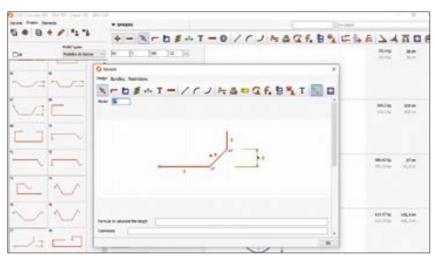
Unlimited shape base and shared with all the work team.

Quick and easy creation of variable figures.

Contemplate piece's real angles for automated production.

Adapted to all the international metric systems.

Fast work with keyboard.



Shapes edition

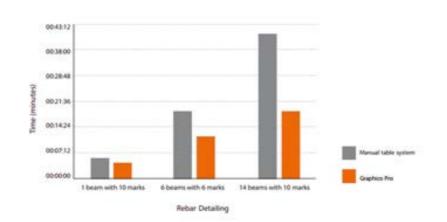
With ClicCAD you can **import pieces** from projects designed in AutoCAD © or BricsCAD © with a single click. The program makes the reading of the project in scale, reads column sand beams extracting the necessary information for the cutting, thus reducing times and costs.

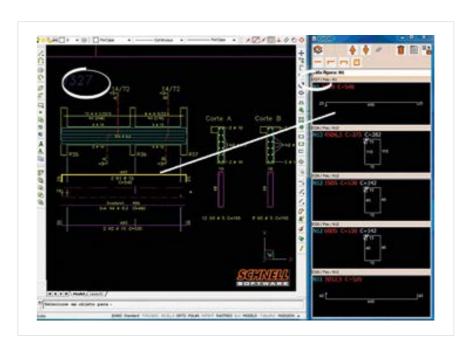
ClicCAD is a great tool to increase **productivity in technical offices** and for the development of the activity of rebar shops.



Software for importing drawings in .dwg and .dxf format, that transfers, with a click of the mouse, all the piece's information to our system.

COMPARATIVE REBAR DETAILING'S TIME MANUAL SYSTEMS VS GRAPHICO PRO





DIFFERENT FORMATS READING

Compatible with Autocad© and Bricscad©.

Recommended for beams, columns and slabs drawings.

It reads all the piece's information (name, quantity, diameter and sizes) with a single mouse click.

Extract information from the texts of the figures.

Validate read figures by color change.

Modify the piece's data and / or its geometry manually.

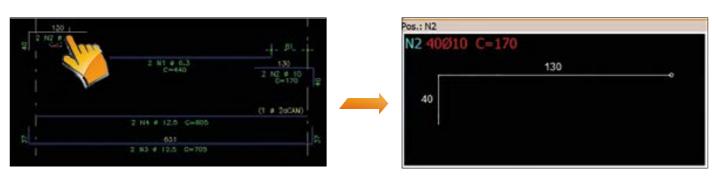
Group equal figures.

Calc the total length of the figure.

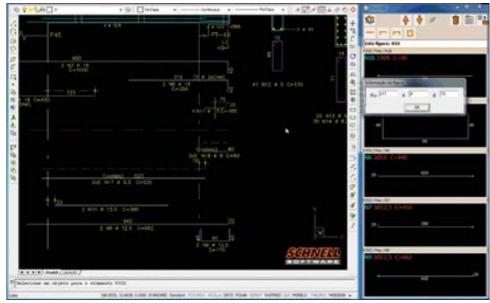
Import slabs with positive reinforcements.



ONLY 3 SECONDS PER PIECE



Drawing reading Figure reading



Data modifying

Increase the speed of your rebar detailings

Reduce review times

Take advantage of the drawings of your project, you won't need to draw anything

Improve your delivery times

The software interface allows a quick introduction of the mesh data with **cross and long bars** indicating the spacing, diameter, laps and hooks.

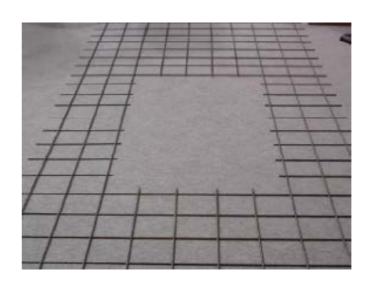
Grafo-Mesh is able to produce any kind of mesh whatever complexitis Itallows you to set the spacing in both the same or variable directions, to enter overlaps, hooks and to open rectangular or circular windows.

The graphical representation of the mesh is stored in the program as an element so that you can **print the assembly or the tag.**

The solution gives the possibility to **connect with meshes machines**, sending all the information to the machine only by reading a barcode.



Software for the design of meshes, spread footings, wall footings and other structural elements having longitudinal and transversal wires. It also includes a module for detail the preassembly of meshes with the innovator Schnell VersaLine system.



FLEXIBILITY AND EASY DESIGN

Unidirectional and bidirectional elements.

Mesh design with different diameters and spacing.

Overlaps in both wires: long and cross.

Application of rectangular or circular holes.

Possibility of reinforcement the mesh bends.

3D final design.

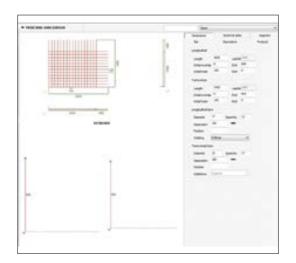
Recommended unidirectional elements: preassembled slabs (VersaLine system).

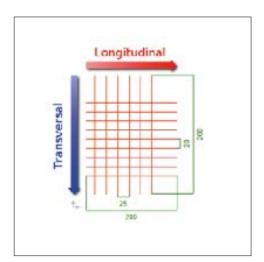
Recommended bidirectional elements: meshes, spred footings, wall footing...

Produce any type of mesh











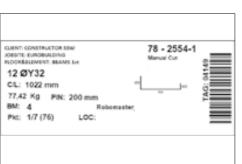














Synchronization between cut and bend and mesh section

Save time and mistakes by connecting your mesh machine

Group all the mesh information on a single label

Organize production according to your planned deliveries

PILES

Piles insertion software. It allows you to set a pile with spirals and overlaps.

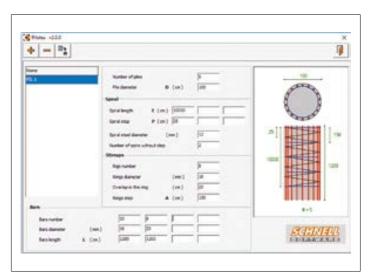
Creation of piles or round columns.

It allows you to enter the overlaps, the spirals pitch and until 4 diameters of longitudinal bars of different calibers.

Reinforced stirrups of the pile.

Exports to the Graphico Pro system the assembly scheme of the pile and calculates the weight.

It includes optimizer for truck loading.



Piles Design

BVBS IMPORT

Import of BVBS files from international structural calculation programs to Graphico Pro.

It imports all the infos of the pieces from a file created in the BVBS international format. The system Graphico Pro, through this module reads the file and uploads the complete list in the program, showing the pieces list for selection and importation.

Import of the data of the pieces, geometric shape included.

Import of the pieces at project level or creation of the orders.

Displaying of the list to import.

Especially recommended for prefabricators who have a structural calculation module, and bigs cut and bend companies with engineering departments that design their own pieces.

Web application that let

your customers prepare

BBS online, printing,

share and export to

Graphico Pro for its

production.





Rebar Web is a **bar scheduling service in the cloud**, that offers the most graphic, flexible, powerful and easiest tool in the international market.

It allows total **mobility** when detailing a bar list, accessing to all the projects and schedules from everywhere, using just an internet connection.

Besides it's totally **functional**, the service is designed to get a massive entry of data in a graphic way, so the speed is like working in a local system.

Its **social** dimension is noteworthy. The system gives you the possibility of manage a contacts agenda to communicate through private messages; Work in groups and share projects and schedules makes easy the exchange of BBS for its manufacturing, thanks to the direct contact between users.

Of course, it is part of a system completely **reliable**, that guarantees the confidentiality and protection of the data.



SIMPLIFY THE REALIZATION OF YOUR BBS

Visual Tool: Insert pieces in a graphic form and navigate the template.

Custom work: enter figures from predefined models with arithmetic, trigonometric and logical functions, or design your own shape models.

Your schedules on PDF file or on paper: It permits to create bar bending schedules in a PDF file that you can save in your local pc or print it on paper.

Weights summary by diameter and BBS by position and elements.

V

CHOOSE THE ACCOUNT THAT BEST SUITS YOUR NEEDS

Freemium

Sign up for free and start working with the tool!

BBS detailing in the web completely free of charge*

Testing service of the Advanced package.

*Up to a maximum of 5mB

Advanced

Destined to professional users looking for a custom tool to make their schedules

Creation of customized shape models

Weigths summary

Unlimited space

Corporate

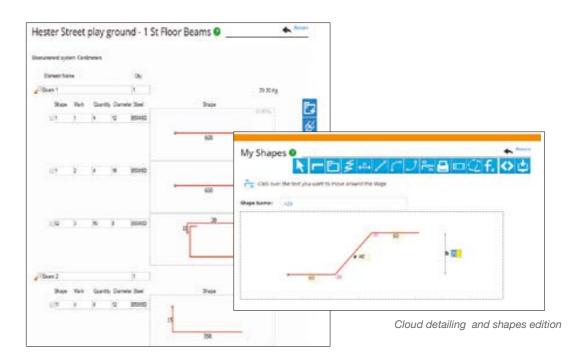
Destined to rebar shop companies wishing to receive orders digitally from their customers or sales network

It allows to export the schedules directly to Graphico Pro

It includes Advanced account features

And also if you wish ... **Corporate**⁺ **customized account!** Within the environment of your company's website. Includes your logo, corporate colors, personalized banners, possibility to insert your advertising ...*

*Request a personalized study if you want to offer tracking of the orders to your customers.



No installation required!

Adapted to the work's systems of the different international markets

Closer to your customers and/or suppliers

Reduce scheduling and reviewing times of your technical staff

1:



Order planning module

that allows to work with

for rebar steelworks.

orders planned and





Grafo-Plan is a **visual planning** module that allows you to organize orders and assign them to production dates. The system displays the whole week and allows you to move the orders from one day to another, assign orders to shifts within the day and establish the priority within the shifts.

The module integrates a work calendar with the production capacity of your factory and its machines, start and end of each shift, rest time, machine time ...

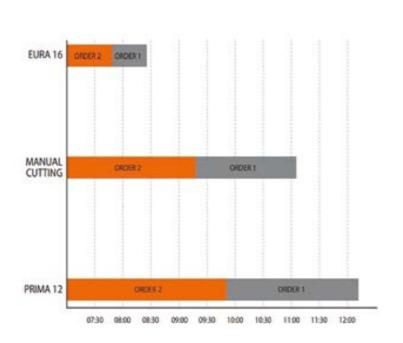
Grafo-Plan is an essential tool for **estimating the times of manufacturing**.

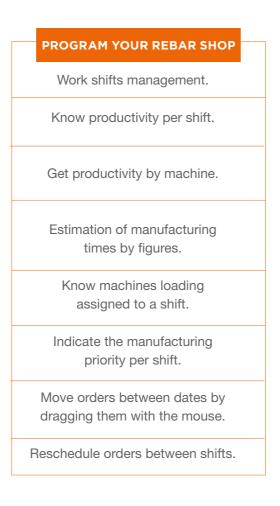
Generate also essential **reports for the company's manager:** production orders per day-shift and manufacturing priority, summaries of daily load per machine and diameter, weekly estimate ...

FORECAST TIMES

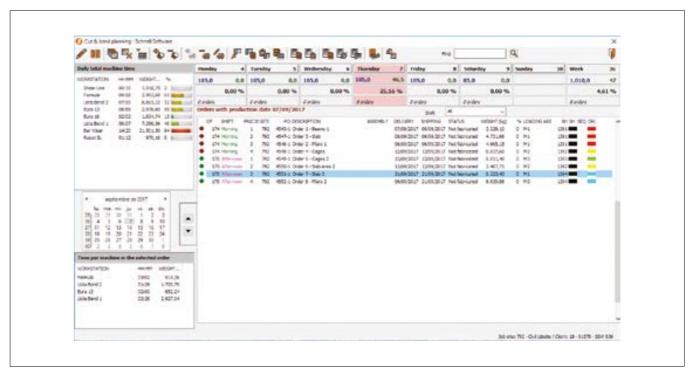
FOR WORKSTATION AND ORDER

accepted.





FORGET BLACKBOARDS OR CALCULATION TABLES



Cut and bend planning









Optimization management module whose objective is to study the production orders, to obtain the best combination that allows the minimum scrap and highest productivity.

Optimize the cutting list assigned to the cutting machine to minimize scraps, reduce cutting cycles and increase the machine's productivity.

Several mathematical algorithms are available depending on the type of work to be done (by diameter, by element, by position). The optimization considers the machine's configuration in order to increase productivity.

Optimo allows to store in a database the amount and length of the off-cutsgenerated in the optimization in order to reuse it for next orders. The software automatically assigns the bars that can be used using off-cutsby the application of a tolerance.



OPTIMIZE YOUR ORDERS

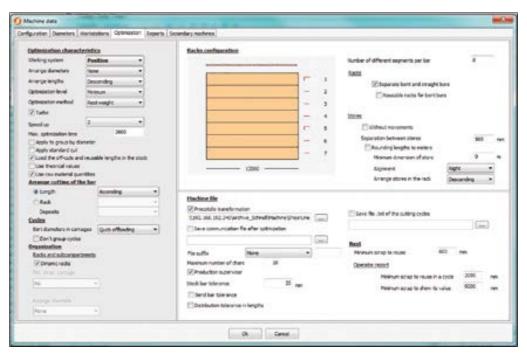
It allows to register different lengths of bars (p.m 12m,14m ...) and make several tests between them. Classify products according to your needs by diameter, position and/or element.

Take in count real stock quantity of bars in order to be more accurate in the cuts.

Combine different customer BBS.

Manage the off-cuts-stock fed by the different cutting optimizations.

Get statistical reports from of your optimizations's efficiency.



Shearline machine configuration for optimization

Increase the efficiency of your reusable warehouse

Help in your provisioning's decisions

Reduce the scraps of your orders

Increase efficiency of your processes and staff

General da	ta								
Optimizat	on summa	y:			A	2	%		
Total	cutted bars				7584,8	5	100,00		
Total	scrap smal	ler than 600,	c		127,7	2	1,68		
Total	reusable				24,7	3	0.33		
Stand	dar bars tota	si i			842.2	3	11.10		
Total	outting				6590,13	3	86,89		
Summan	by type of	ehana:					%		
Total		andpo.			6590.1		100.00		
	ght bars:				2569,7		38,99		
Bent	bers:				4020,3	4	61.01		
No. of machi	nes cycles:		26						
No. of machines loadings: 26									
NO OF US	ED BARS	AND OFF	urs						
ø		Length	kg	Scrap-mm	Scrap-kg	%-kg	ReusableRe	usable-k	% kg
Y10	144	12.000	1066,19	5.648,00	3,49	0,05	6.428,00	3,97	0,05
Y16	40	12.000	757,91	11.200,00	17,68	0.23	0,00	0,00	0.00
Y25	6	13,700	316,80	0.00	0,00	0.00	5.400,00	20,81	0.27
Y40	38	12.000	4497,99	7.300,00	72,02	0,95	0,00	0,00	0,00
Y40	7	13.700	945.96	3.500,00	34,53	0.46	0,00	0,00	0,00
				3.500,00					

Optimization Results





Local Optimo is a **optimization software to work on the cutting lines t**hat allows the best use of cutting lengths minimizing scraps.

The program works according to the configuration of the machine and the operatorneeds, allowing total **flexibility** in the production process.

It allows to do **three different optimizations** with different lengths of bars, reporting the operator which is **the best solution**. This means that the operator moves the stock based the cutting needs and the results obtained.

Local Optimo also considers the reusable material allowing a best solution.

Optimized data are sent to the machine automatically avoiding loss of time and data entry errors.

REDUCE TIMES

Solution that manages

the tags optimization that

are going to be produced.

Direct optimization by reading bar codes on tags.

Optimize orders from multiple customers.

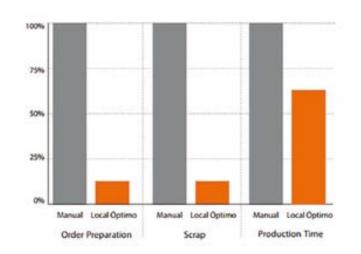
Working with touch screen.

Machine configuration: racks, deposits, machine length ...

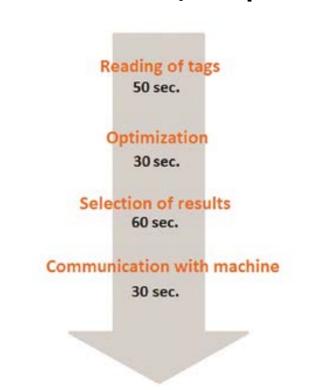
Introduce new figures manually on the system.

Get statistical reports of your optimizations efficiency.

PRODUCTIVITY AND SAVING OF RAW MATERIAL IN CUTTING LINES



30 Posiciones / Etiquetas





Schnell Software works on math calculations to improve the performance and productivity of the cutting machines for over 10 years. The successful optimization of our products lies in the application of mathematics to the reality of the customer's production for the completion of the final product. The entire production process of our customers has been studied in all details. The calculation capacity, the different cutting lines layout options and how the final product that must be cut is defined, allow our module to suits to any production system.



Free your staff from complex mathematical calculations and operations

Saves costs in times of order handling and off-cuts

Increase productivity and efficiency of your production

Includes importation of BBS generated by third party software

Automation



Protocol that automatically sends the information of the rebar pieces to be produced (geometry, diameter and quantity) to the cut and bend machines, assembled and meshes from Schnell and other manufacturers.

Schnell Software, through its different software modules, allows the connection with the machines to facilitate the insertion of data, increase the factory's productivity and the quality of the production process.

The communication is made through a personalized protocol in the case of Schnell machines and with the universal BVBS communication protocol in the other cases. We also develop special protocols for machines that don't share that defaults.

If we analyze the time an operator takes to insert a piece with all its geometry, according to our experience is of 45 seconds/piece. A transmission system to the machine via barcode minimizes the time to **2 secs/piece**. The saving is significant.por pieza



AN ADAPTED CONNECTION

Connection with PDF 417 or EAN 128 barcode reader (in this last case required Data Pro Panel): programming is done much more agile and the production time is reduced, for examplein assembly machines as the Idea.

Client-server connections through TCP / IP protocols on current Schnell machines versions, which allow the operator to do orders and load them into the machine automatically.

USB connection





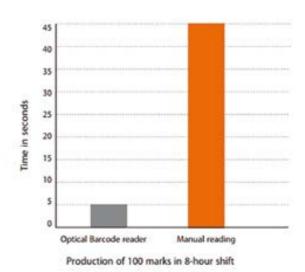


INCREASE YOUR PRODUCTIVITY IN MORE THAN 30%

Time saving of 66 minutes in the example case



COMPARISON OF READING TIMES IN STIRRUP BENDER MACHINES



Reduce figures digitalization times

Minimize machine data entry errors and improves the quality of the production process

Increase the productivity of your rebar shop

Reduce manufacturing times and thus delivery times, increase your competitiveness! Transmission of variable figures to machines include







Solution for Schnell machines:

Data Pro Machine + Data Pro Panel

- · Know the your Schnell machines real production.
- · Know with high precision the amount of scrap per machine.

The system Data Pro record the activity of the rebar shop and send to the central system the production data of each machine or workstation.

Solution for manual machines, assembly workstations and other manufacturers:

Data Pro Panel

- · Know the expected production of your workstations.
- · Calculate the predicted scrap.



Data Pro Panel Solution in Rebar Shop

Ensures your processes control with the reliability and precision of the Data Pro system data

We adapt to all machinery manufacturers!

REAL TIME PRODUCTION

Graphical interface.

Production by workstation or machine broken down by diameters, per day or shift.

Traceability record.

Incident Record.

Consumption of raw material per package or kg.

Export information to Excel spreadsheet.

Machine communication status.

Collect production information, traceability and consumption of raw material for that Grafo-Boss, Grafo-Trax and G-Stock receive it automatically.

Ask for information about the kit Data Pro that includes Touchscreen PC and optical barcode reader for data transmission.

Grafo-Boss software allows, with minimal user action, to manage and monitor the rebar shop production in real time.

It's based on a structure of computer network with Internet technology TCP-IP, integrated with **touch screen** terminals that allow sending the Information from the factory to a data manager to monitor production.

It's an open system integrated with Graphico Pro in a transparent way and adapting to all its functions.

It can manage every production configuration in the rebar shop. It's compatible with any kind of production system: by element, by position, assembled elements and civil works.



Integral software that allows the control of production, tracking orders and time management, with real-time monitoring.

GET THE INFORMATION YOU NEED

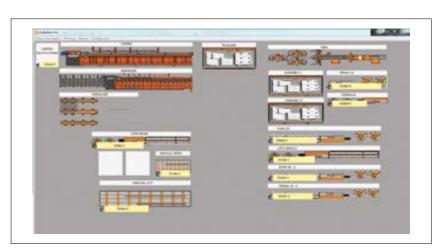
Planning of production orders according to installed capacity of the rebar shop and provided deliveries.

Rebar shop monitoring: know the rebar shop productivity and by workstation.

Operators management: shifts, productivity indexes, incentives according to productivity ...

Incident management: stop types, statistics ...

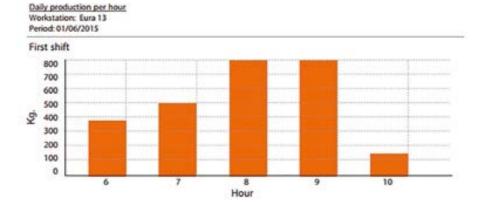
Productivity reports between dates, daily, monthly and yearly.



Rebar Shop situation in real time



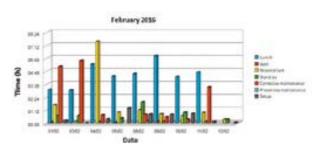
PRODUCTION BY SHIFT AND WORKSTATION



MONTHLY PRODUCTION BY WORKSTATION

	Acel	Barwiser 22	Dho 15	Eura 13	Eura 16	Prima 12	Prima 12 H5 (1)	Total
JANUARY	9.541	48.913	1.668	64.504	37.768	27.996	29.758	211.148
PEBRUARY	12 009	148.606	10.401	75.692	70.509	28 896	29.000	269.304
MARCH	16.329	95.207	61	118.804	129 894	45.531	31.399	437.225
APFIL	11.834	96,168	7.262	100.860	116.384	41.933	43,499	493.861
MAY	14.418	85.901	45.162	92.891	136.797	24.933	43.534	427.635
Total	64,211	444.734	68,574	452,742	499.342	169,288	159.234	1,849,174

DAILY STOPS OF MACHINES BY TYPE



Estimate production times of each piece according to its geometry and machine for which it will be manufactured Estimates production times both cutting and bending, as well as steel assembly

Know the expected dates of order ending

Module that allows the **tracking of material for quality management** and real time reception of the steel used in the different machines.

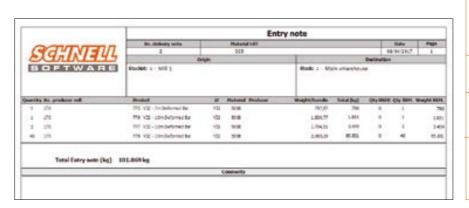
Grafo-Trax manages the **traceability of the cut and bend products and sundry products** of the rebar shop. Once the goods receipt has been registered, it's possible to add the quality **certificates** of the steel products to the system to register them.

The system allows after the tracking to print the **tracking report** by order or by project, adding its certificates in electronic PDF format or obtain a full CD of the project.



Software that allows to track the material of the production orders in the factory. It can be applied to cut and bend products and sundry products in the stock.





TRACKING = QUALITY

Automatic scan and store of the certificates.

Automatic assignation of heats to the orders through the system Data Pro.

Tracking by project according to levels of detail of information (floor, group, elements and/or positions).

Tracking by order.

Tracking reports with certificates copy.

Supplier barcode decoding.







THE ROLL OF STREET AND STREET AND

Avoid re-labeling all your raw material

Optimization of resources in your production and quality departments

Reliability of the data obtained as opposed to a manual system

Add sales arguments to your services

Software of **automatic reading of stock** at the reception of material. After unloading the packages, manufacturer's tags are read and loaded into the data capture device.

Once received, It is sent from the device to the central system, making the input of material and issuing a document of entry receipt.

In addition, if you wish to relabelling the system allows you to print new tags with barcode supported.



Module that manages the orders of raw materials, goods, incoming and exit of the stock in the production process.

CONTROLLED STOCK AT ALL TIMES

Automatic entry of materials with data capture device.*

Consumption control per package or kg.

Multicenter management between production centers.

Available Stock reports and between dates (by diameter, presentation and type of steel).



Save raw material reception times

Know the kg of raw material consumed in your orders

Synchronize with Grafo Gest software and improve your purchases management.

^{*} With compatible barcodes







ShippingBar is a system for the **shipment control** that allows to manage the load in an easy way and safe, through a **bar code tag**.

At the time of loading, the tags of each order are registered with a barcode reader. In this way, the operator can control the load and verify if it is complete, avoiding errors of loading and forgetting of material to be delivered.

The system allows to include several different orders in one load, for different projects and/or customers, and even to divide orders by limited space in the truck or by other customer needs, generating a report of pending for future load.

The theoretical weight and **production weight** of each order is registered and also allows to include **scale weight**.

Software for the logistics management of the rebar shop that includes routes management and shipment control.

GENERATE ORDER TRUCK ROUTES

Registration and control of the rebar shop output of finished products (cutting and bending, assembly and goods).

Shipment control with data capture device.

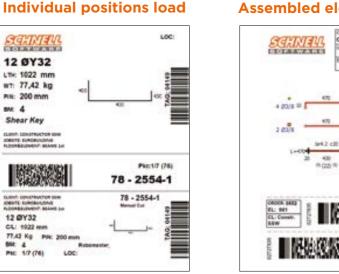
Registration of transport routes per project and periods knowing at all times what was delivered to the customer.

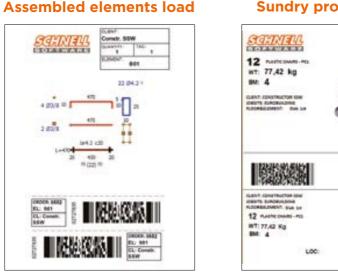
Registration of trucks and transport personnel for transport documents

Live information of the orders shipment status.

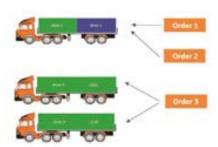
Shipping control reports per project and order.

Connection with Grafo-Gest to generate the delivery note or to third party management systems.

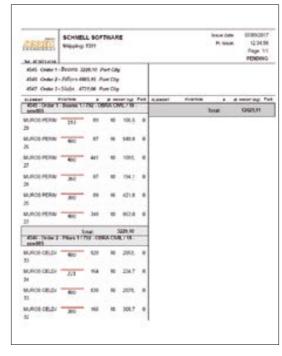












Eliminates shipments orders mistakes avoiding unplanned costs Improve the quality of your processes and increase your commercial capacity

Reduces order preparation times







Grafo Gest is an integrated and **multicenter** departmental management software, with a **web interface** and connected to the production management of **Graphico Pro**, that allows to centralize data from the different departments:

- · Purchasing: orders, receptions of raw materials and Sundry products, valued stock entries, supplier invoice tracking, payment management ...
- Sales: budgets management, customer orders, expected projects ...
- · Shipping: delivery notes, daily expected loads ...
- · Administration: invoicing, collections, risks ...

It also includes the option of automatic dump of orders and delivery notes, and **parameterized reports models** adapted to the needs of the client.

software that allows to build a homogeneous information system with Graphico Pro software.

Integrated management

PURCHASING MANAGEMENT

Supplier management.

Raw material orders.

Orders for sundry products and steel products.

Management of goods receipt and invoices received.

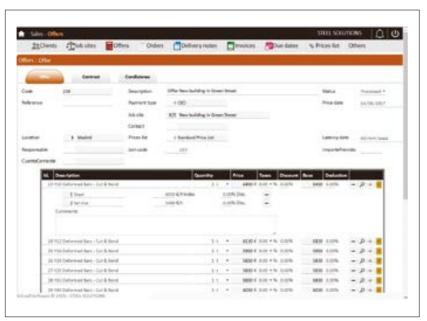
SALES MANAGEMENT

Follow-up of new projects.

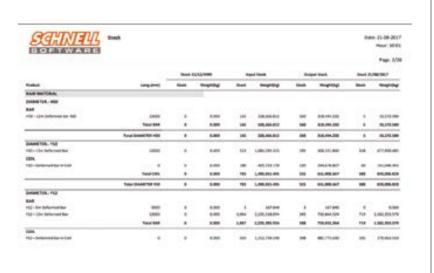
Production orders management and steel supply.

Management of sundry products and services orders.

Products and dynamic prices management.



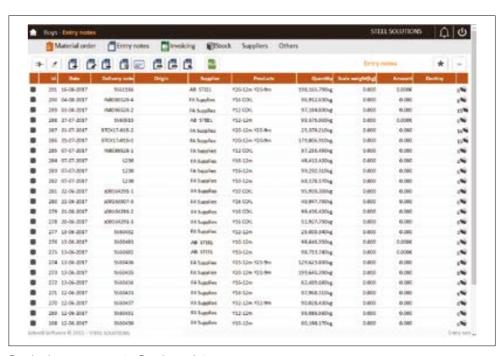
Sales management - Budgets





Stock between dates

Projects expected



Purchasing management - Goods receipt

Access from anywhere and device!

Your production costs now more controlled

Improve tracking of your sales operations

Integration with third parties systems

We offer the solution that best suits your needs:

- **1.** Communication through generation of exchange files containing the information required by the ERP system (weight per diameter, sales order ...).
- **2. Integration** through web services with the ERP system (master of clients and projects, bidirectional update of tables ...).

This eliminates the complex links between the systems of the different business areas. We help you to optimize your business processes, facilitating the access to training and an efficient management that allows the proper decision-making and reduction of total operating costs.

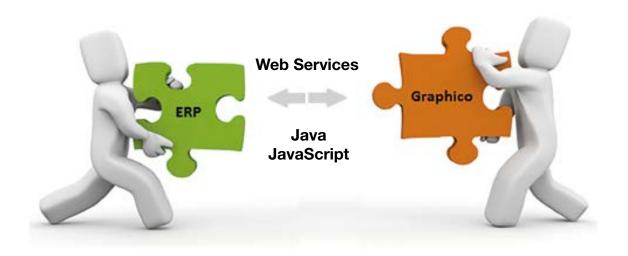


Schnell Software gives the possibility to communicate or integrate its software with other international ERP software.

A unique software to manage your business

Avoid duplication of data entry

Consolidate your business information



Due to continuous product development, photos are not binding.



Schnell spa

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