



SOFTELEGANCE

DYNAMIC SOFTWARE BUSINESS SOLUTIONS

SUCCESS STORY

Leading U.S. tubing manufacturer improved business processes automation using custom software development service

SOFTELEGANCE USA:

4771 Sweetwater Blvd.,
Sugar Land, Houston, TX 77479
www.softeleganceusa.com

SOFTELEGANCE U.K.:

124 Cromwell Road,
London, SW7 4ET
www.softelegance.co.uk

SOFTELEGANCE EUROPE:

44 Palladina Ave., 2 and 5 floors,
Kyiv, 03142
www.softelegance.com



OVERVIEW

Customer is a leader in providing superior coiled tubing products and services to the well-servicing industry. It manufactures tubing products to industry standards and customer specifications with high quality.

ABOUT

It was provided custom software solution and integration services for all the business processes in the company.



PREVIOUS SITUATION

There was the following situation before starting business processes automation:

Out of the box vendor ERP system has been used to automate several business processes, however it was not applicable for the overall process improvement.

But:

- **Many paper documents and paper archive;**
- **Manual quality matrix testing and calculation;**
- **Semi-manual inventory process.**



INTRODUCTION

Tubing manufacturing and distribution is a complicated process that involves multiple internal and external parties and different technological operations.

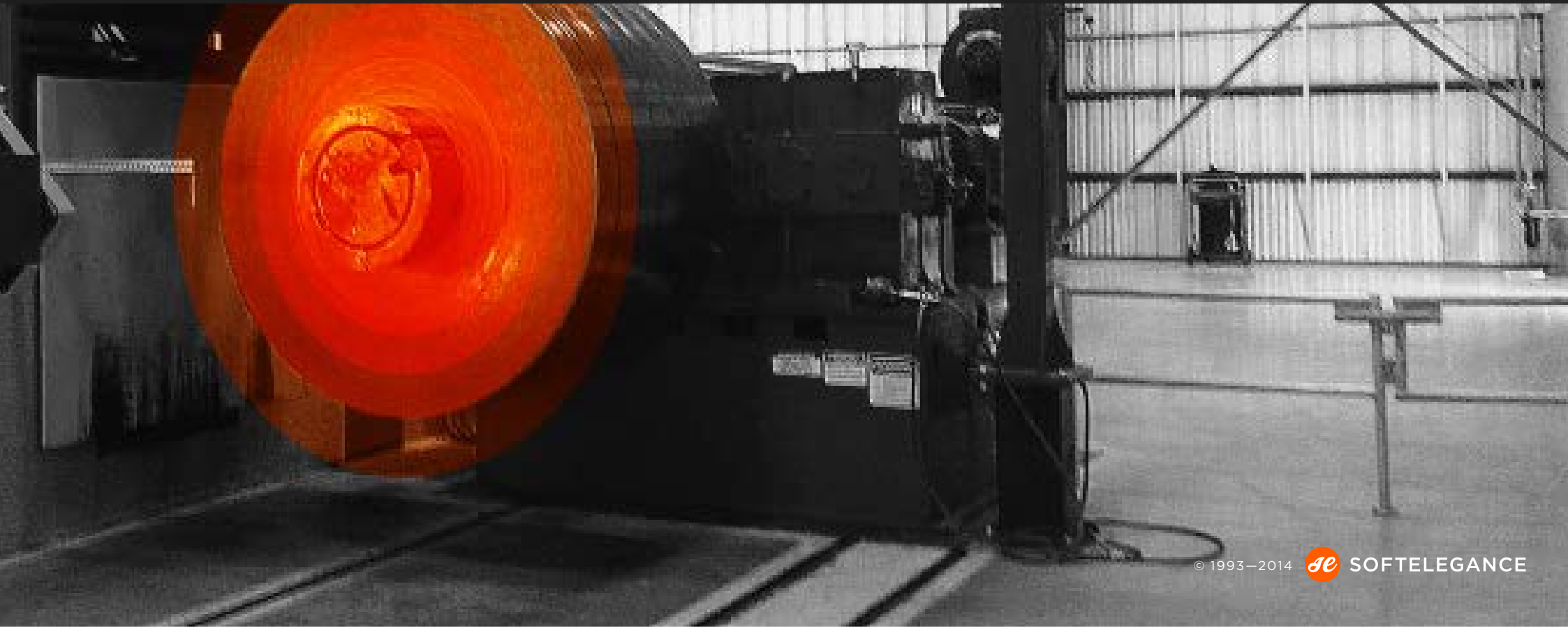
Upon manufacturing, string is going through complex service workflow that includes but is not limited to chemical tests, re-spooling, cutting, milling, butt welding, hydro tests, up to shipping etc.

The complex workflows are covered by new custom software system.

MODULES

The automation software consists of the following main modules:

- Sales;
- Production;
- Quality;
- Service;
- Shipping;
- Spools;
- Material Handling;
- Alerts;
- Specifications Matrix;
- Out of Specification Process.



SALES

Sales system uses for the planned and actual revenue summary and details, has 2 major parts:

- Customer enquiries – allows to maintain enquiries and make sales decisions;
- Revenue view – provides data for revenue analysis. Shows current, next and future months.

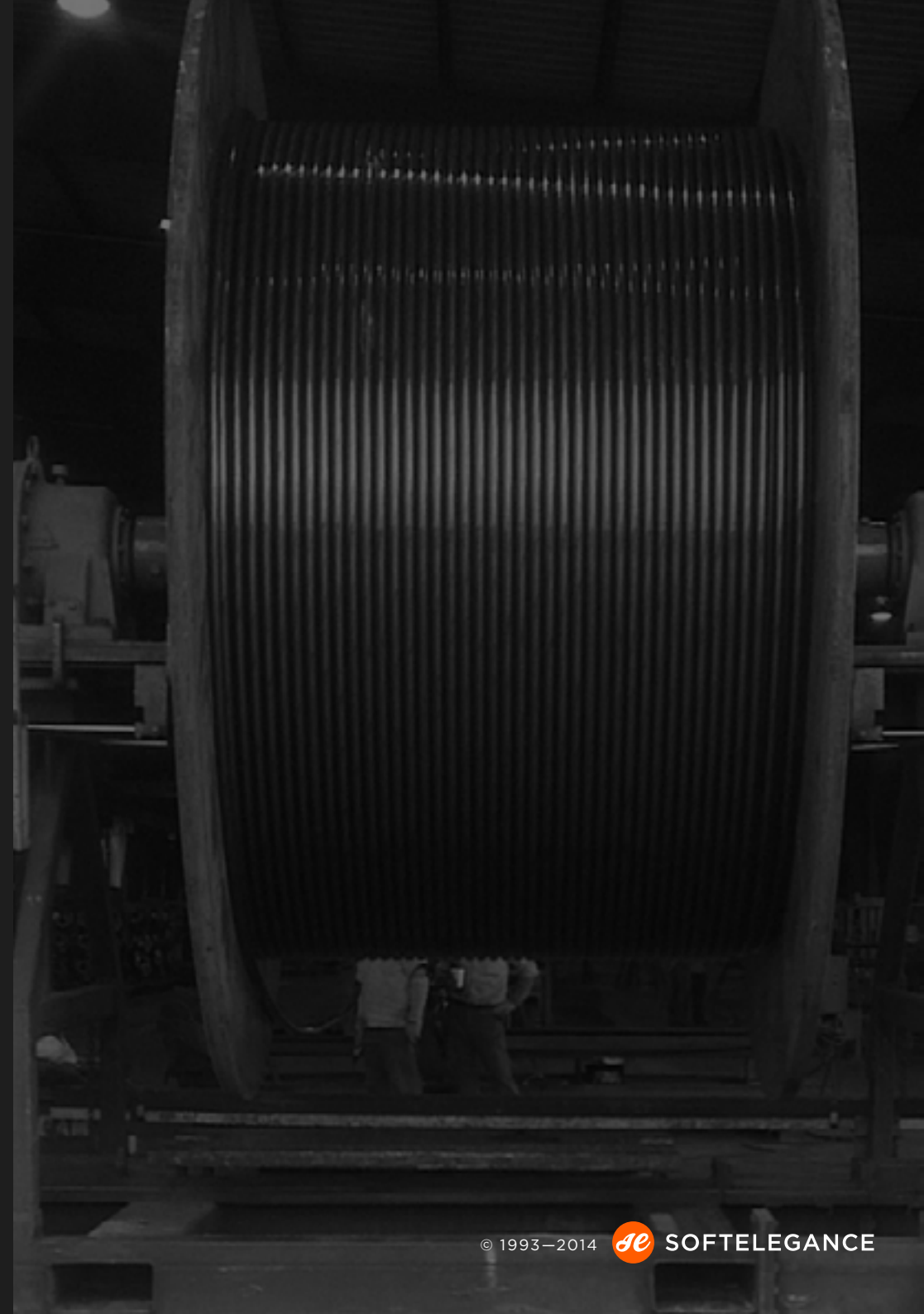
It is possible to monitor sales life cycle, due date tracking, and history.

PRODUCTION

Production system covers production queues and operations, from creating requests for strip slitting to the end of string milling.

String planning, production step monitoring, location in the yard tracking, are the key features in production system.

Production module is integrated with other system's modules and includes initial and final quality test.



QUALITY

Operations Quality covers various measurements, from coils receipt to bias welds quality checks.

It includes digital radiography exams, hydrostatic pressure testing, and electromagnetic inspection.

Quality control is performed according different specifications and might be used from templates or set-up from the scratch.

Testing process might include lab, stress, and crash testing, with result integration.

SERVICE

Service uses plans and tracks execution of the string servicing operations.

There are a lot of service types with different workflows that might be configured instantly from admin panel.

Service procedures expand quality control process during manufacturing process, as well it is used in post-sales and guarantee services.

SHIPPING

Shipping system tracks shipment preparations and delivery.

It allows recording and tracking of different steps occurring with each shipment.

The main idea of shipping process tracking is ensuring that all parts/materials are included, all shipping standards/checks are followed etc.

The shipping process is a verification process, and not linear, as some phases in the cycle may occur at the same time.



SPOOLS

Spools tracks receiving, usage and shipments of the wooden and metal spools with coils, strips, strings or empty ones.

The module integrated with RFID sensor for convenient tracking over the yard.

All the tubing manufacturing, service and shipping activities heavily rely on the spools storage. It is important to use spools with proper parameters, such as dimensions, maximum weight, durability etc., for smooth and safe operations.



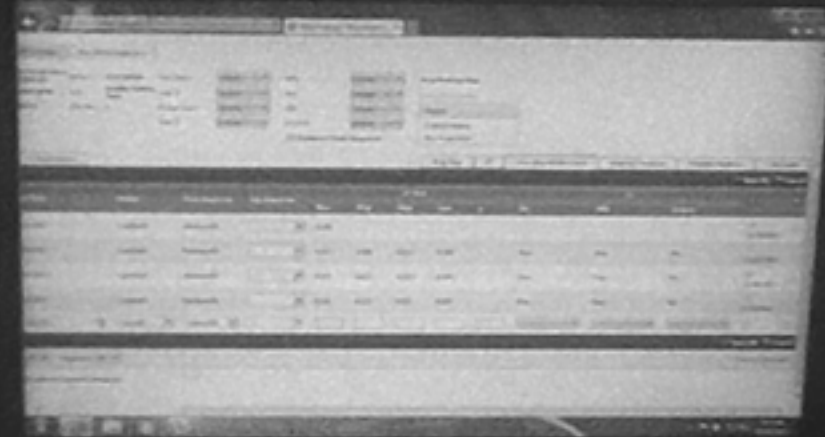
MATERIAL HANDLING

Material Handling application tracks items placement over the territory and stores, records requests for movements.

System tracks the material locations over the territory, the move requests and completed material moves.

It is used to assist both the office personnel and the workers who perform actual material moves on the forklift cars.

ALERTS



Alerts tracks special critical and informational conditions in all applications, sends email notifications, provides issue detail lists with access to respective issues.

There are two types of alerts: informational and action required, that might block all production processes.

There is a possibility for online adjustment and creation new alerts from web admin panel.

SPECIFICATIONS MATRIX

Spec Metrics is a flexible set of various conditions that determine if particular measurements (wall width, hardness, seam size, chemical concentrations) are within allowed range or not.

It consists from 2 types of specifications:

- Generic – reused for different strings;
- Special – created specifically for some strings.

Provides automatically possibilities to check for the conditions.

OUT OF SPECIFICATIONS PROCESS

The OSC subsystem informs the users about Out-of-Spec Conditions, allowing taking decisions.

It ensures that product which does not conform to specified requirements is properly detected, identified and documented to prevent unintended use.

There are many different OSC cases, involving different workflows, decision makers and available actions.

A bright sun in a blue sky with white clouds below.

STAY TUNED

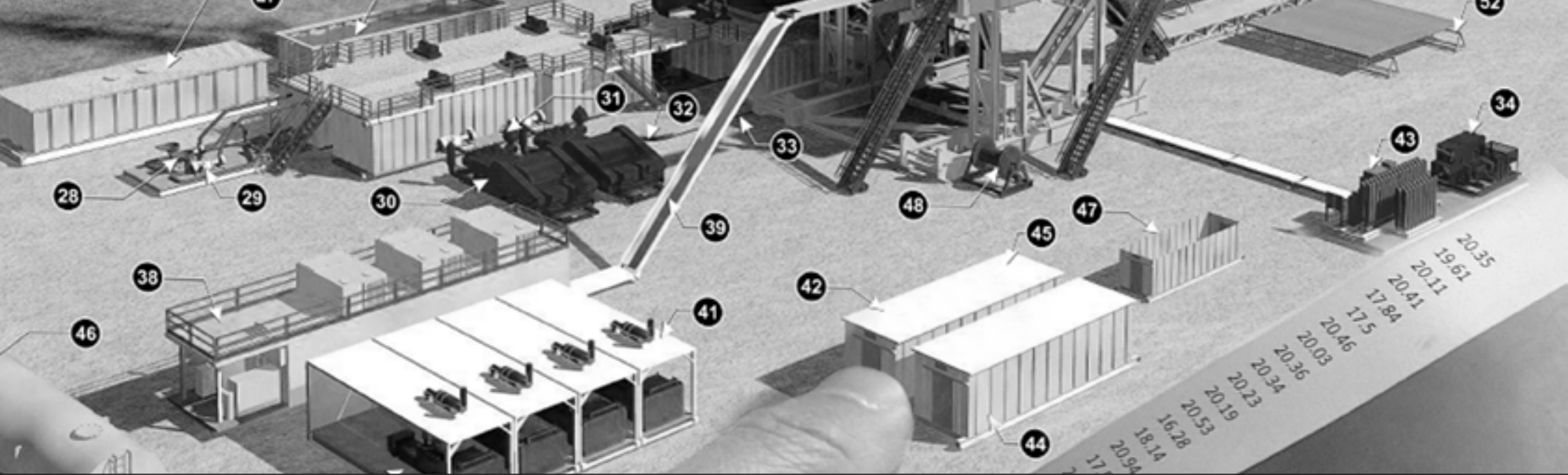
FEATURES

- User Interface designed for desktop PC and mobile/tablet devices;
- Compatibility with an application controlling mechanical tests hardware (testing steel samples for tensile, yield etc.);
- Custom online reporting system in each module;
- Strict security policies, permissions, and roles;
- Robust and instant alerting system;
- Open and extensible architecture allowing for further improvements and third-party solutions;
- Integration with the variety of vendor ERP systems as well as with specialized lab and process control equipment devices.

TECHNOLOGIES

The system is three-tier web based application installed in customer's local private network, and uses following technologies:

- .NET Framework 4.5;
- IIS 7.5;
- MS SQL Server 2012 with Reporting Services;
- Windows Server 2008 R2;
- .NET Compact Framework 3.5.



IMPROVEMENTS

Custom software improved productivity in the following areas:

- Time spent on quality control procedures;
- Time spent on inventory tracking;
- Time spent on service/shipment planning and tracking;
- Milling optimization;
- Postsales service improvement;
- Considerably reduced human errors factor in all the operations.

FUTURE

There are several new modules currently in development:

- **Business Intelligence (BI) module with SharePoint integration;**
- **Automation with supplier's software and documentation;**
- **Integration with new hydrostatic equipment.**



THANK YOU FOR YOUR ATTENTION!

PLEASE CONTACT THE REPRESENTATIVE IN YOUR AREA

**HOUSTON
ANALYTICS CENTER
IT CONSULTING**

**LONDON
BUSINESS DEVELOPMENT**

**EASTERN EUROPE
SOFTWARE DEVELOPMENT CENTER**

Founded in 1993, SoftElegance is a custom software development company that has been providing reliable services for implementation of SaaS systems, sophisticated business solutions, engineering applications, and business processes automation software. A variety of companies, ranging from dynamic small and medium to Fortune 500, across oil and gas, drilling, engineering, and manufacturing industries, use SoftElegance's software development outsourcing services. With clients from the U.S. and the E.U., offices in London, Houston, and development centers in Eastern Europe, SoftElegance assists customers in delivering innovative software solutions on a global scale.

SoftElegance USA:
ROMAN BEKETOV
+1 (281) 787 7166
rbeketov@softeleganceusa.com

SoftElegance U.K.:
ANDY STARZHINSKY
+44 (207) 048 7339
andy.starzhinsky@softelegance.com

SoftElegance Europe:
ANNA POLOKA
+38 (050) 312 4725
apoloka@softelegance.com