

# we think food

PRIMARY  
PROCESSING

RECIPE MIX

TRACEABILITY

SECONDARY  
PROCESSING

STOCK  
MANAGEMENT

PRODUCTION  
MANAGEMENT

RAW  
MATERIAL  
INTAKE

PACK HOUSES

The fresh choice in processing software  
for the Fresh Produce industry



**integrator**  
food processing software



Software designed to work in harmony  
with fresh produce processing

SI (Systems Integration) has a deep understanding of the fresh produce sector and the problems that often occur during fruit and vegetable processing. That's why our food ERP system, together with our modular processing software, has been developed to work with the perishable nature of your raw materials and short lead times.

For more than 25 years, SI has been dedicated to developing software for the perishable food processing sector. Our software delivers superior levels of control, checks and balances, all underpinned by real-time data and "one version of the truth" to support your business's ongoing success and to help improve profit margins.

With our software in place, processors and handlers can seamlessly control production; whether it's intake of stock, processing, finished goods, right through to despatch. SI's software ensures that the location of every item is precisely recorded, together with its current shelf life, throughout every stage of processing.

### **Keep the supply chain moving**

Complex supply chain management, cost pressures, the impact of food safety laws, and the complications due to the inevitably short shelf life of the product. Just a few of the strategic issues that fresh produce companies face every day and reasons why their choice of specialist processing software is crucial.

SI's specialist fresh produce capabilities cover:

- Production planning
- Raw material and packaging
- Intake and QA
- Primary prepping/benching
- Yield tracking
- WIP stocking
- Secondary/value added processing
- Packhouse management
- Finished goods stock and labelling
- Integration to specific 3<sup>rd</sup> party systems
- Picking and despatch
- Accounts integration.



We went through a vigorous systems selection process and felt that SI was best placed to provide our business with market-leading consultancy, services and solutions.

R&G Fresh Herbs



# Primary processing

With our software in place, processors and handlers can seamlessly control production; whether it's intake of stock, processing and finished goods. With SI, ensure that the location of every item is precisely recorded, together with its current shelf life, throughout every stage of processing.

Understanding lead-times vs demands is critical for the fresh produce sector. Processors need to be assured of raw material supplies all year round. But when they are reliant on an international supply chain, the growing seasons and delivery leadtimes for each product code will vary.

This is especially dependent on where the raw material is sourced from. The quality of raw material will also affect whether it can be processed into the required grade to deliver against the required customer specifications.

Whenever raw material is checked at intake, it's judged against a rigorous specification control for appearance, quality and consistency of product. If the raw material doesn't match the specification at intake, processors need to decide whether to:

- a) use and make the most of raw material
- b) part accept it.
- c) reject the produce.

Our software comprehensively manages stock control and all product codes, together with life left on the product, stock rotation, quality and yield.

Because we understand the challenges of fresh produce processors, SI's software is designed to provide the data transparency required to deal with all your customer orders, no matter how much notice you are given.

## Optimising your supply chain

Our Stock and Order software provides fresh produce processors with complete visibility of raw materials, WIP and finished goods. Our active real-time dashboards and reports can give staff a clear visual understanding of whatever needs to be sourced to meet demand. This helps processors achieve optimum stock levels, without having too much cash tied up in stock.

Our end to end approach to stock control means that we don't just stop at product intake, scanning and issuing to a production line, we also give processors the ability to hold stock and see when stock has run out of date. With our tacit knowledge of the sector we have also created modules to help customers control supply chain planning and QA management in real-time.

This means our customers have all the tools they need to enable them to optimise and control the supply chain. By combining our specialist Stock & Order module, renowned shop floor data capture and the ability to capture daily QA results in real-time, we have also been able to develop a unique cost modelling and variance analysis system. This enables customers to see what margins they are achieving and ultimately where their profits come from.





## We have the tools that enable you to optimise and control your supply chain.

### Managing stock

When your customers want to increase their orders, it's imperative to understand whether the right raw materials are available to fulfil the order. Equally, if orders are decreased, you need to determine what to do with the surplus stock to cut wastage to a minimum.

Need to understand whether to order more stock, if excess stock should be sold on, or the best ways to cut wastage to a minimum? With SI's stock management software, shop-floor data capture provides the key to real-time and informed decision making. Every part of your business will be connected, so that everyone has the information they need, whenever they need it and in the way that they prescribe. For example, our active dashboards can be designed to display different sets of data for different areas of a business, from production team, QA through to sales, and even the boardroom.

Because SI's stock management software uses real-time data capture, you can analyse your stock position throughout the day, making informed decisions based on real-time data capture. You will know whether to order more stock, or if you need to sell the excess stock to another business, and how cut wastage to a minimum.

Our software comprehensively manages stock control and all product codes, together with shelf-life left on the product, stock rotation, quality and yield.

With SI, your business will have the data transparency required to deal with all your customer orders, no matter how much notice you are given.

The "one version of the truth" advantage SI's Plan to Produce and Available to Sell provides "one version of the truth" for processors and detailed information about:

- projected demand against raw material available;
- full traceability, including location, farm, field and even soil conditions;
- what grades are required to fulfil the demand;
- what needs to be graded and washed, to meet the customer requirements, based on those grades;
- whether there's enough raw material of the right grade, after grading and washing;
- whether you should process more raw material, and accept that this will also mean generating a surplus of product, or buy stock in from a third party.

**SI's software ensure that the location of every item and its current shelf-life is precisely recorded, throughout every stage of processing.**

# Planning raw materials

At SI we understand the many challenges Fresh Produce producers have when it comes to correctly planning the procurement of the right raw materials, to meet ever changing customer demands.

## Four steps aimed at delivering profitable growth

Whether it is dealing with the push of available raw material from growers or the pull from immediate customer orders or forecasted sales, our four-step approach is designed to ensure 100% order delivery, whilst minimising waste.

**Step 1 - Know.** Real-time knowledge of customer demand is critical to planning and processing. Through our SI hub we capture all the important data within your business, integrating your end-to-end process. This includes integration with your customers, suppliers and shop floor data capture, that gives you real-time information on individual product production.

With this knowledge updated throughout the day, you know what raw material you need to order and depending on the level of integration you can achieve with your suppliers or growers, this knowledge can be shared instantly. This means your suppliers can change deliveries quickly, helping you to fulfil your orders.

**Step 2 - Manage.** Because fresh produce processors work with perishable raw materials, it's essential to optimise the supply chain and have a clear understanding of lead times, from order to delivery. Managing this process effectively can be the difference between achieving 100% customer order fulfilment or shorting orders.

With all data held in the SI hub, we can provide customers dedicated visual dashboards or reports, that display 'one version of the truth' in real-time, from intake

right through to delivery. Management information can also be made available on mobile devices, touchscreens and PCs.

**Step 3 - Understand.** Having a clear understanding of the quality of raw material that's available to process and in stock, and what is arriving the same day, is critical to successful production planning.

With SI's digital QA, feeding information in real-time into the SI hub, processors know immediately if they have spoiled raw material and can quickly react to find replacement stock. Our QA system can also hold digital images of raw material, that can be shared with suppliers, helping to build better communication across the supply chain.

**Step 4 - Deliver.** Optimising production planning is key to achieving timely product delivery, whilst assuring the best possible freshness. When producers are armed with a far greater ability to forecast, react to trends and changes in daily demand, they can both fulfil customer orders and optimise customer product shelf-life.

As the SI Hub records a full range of data from production to QA and beyond, our customers can create reports on trends, suppliers, seasonal demands and much more. This helps them to ensure the right staff are available for more labour-intensive processing, whilst also being well informed for future new equipment investment plans.

## Traceability

Every supermarket has various weight and grade requirements for fresh produce. They will demand good shapes, consistent sizes and grades, together with full traceability about wherever raw material has been sourced from – right down to the farm, field location and soil conditions.

Our software not only provides all this traceability and evidence, but the information collected also can help producers to improve growing conditions for future batches. Strict traceability regulations are a major challenge for the fresh produce sector. Failing to comply leads to fines, damage to your business reputation and to your customer relationships.

**With 100% traceability, processors have the best chance of delivering 100% service.**

Due diligence and evidence-based traceability is difficult to prove when there is a reliance on manual checks. The time and dates for checks cannot be guaranteed, and often paperwork is completed retrospectively. But when quality assurance and traceability data is collected in real-time, the checks and balances are clear to see. The software also accounts for regulatory requirements and customer specifications, to ensure these obligations are met.

With automatic data capture in place, your business can quickly identify where any non-conformances are, flag them up for action and deal with them.

And in the eventuality of a product recall, your data will provide all the information required to efficiently control the process, identify the affected fresh produce, minimising both the time and cost for managing recalls.



# Controlling every step to meet consumers' fresh demands

As consumer demand for fresh convenience food continues to increase, there has never been more opportunity for processors in the fresh produce industry.

Delivering a quality experience for on-the-go consumers, requires flexibility, speed and control of production lines. Ensuring consistent quality is delivered for on-the-go consumers, requires flexibility, speed and control of production lines. This is particularly the case when dealing with more complex recipe-based products, involving multiple processes and ingredients, when combined to meet defined tolerances.

## From baton carrots to fresh spicy salads

No matter how complex or challenging the pack house processes or final products may be, SI's expert team works with processors to integrate their production lines and enable them to make the most of the advantages of shop-floor data capture and our modular software.

It all starts with stock control and production planning, to ensure the right raw materials and packaging products are available. For example, measurement and control of the washing and grading processes, for simple single-packed products such as baton carrots.

## Pre-defined recipe tolerances

But for more complex recipe-based products, we have developed specific recipe management modules that control the mix of each batch to pre-defined tolerances. From the issuing of raw materials to the control of the mixing and/or cooking processes, our software not only gets the recipe right, it also measures and reports on the processes themselves. This information can then be used to confirm everything from mixing times to cooking temperatures, providing the complete traceability that's required for audits.

With the stock levels for fresh and dry ingredients available to view in real-time, fed by centrally controlled from the SI hub, your operations team has all the information it needs to manage and order stock whenever it's required.

## Take control of part completed WIP mixes

Missing a key component of a recipe previously meant that producers would have to halt their processes. However, with SI, once you start a mixing process, you can now stop part-way through and create a work in progress (WIP) mix that can be issued back into stock until the missing ingredients are sourced.

Our specialist recipe software module has the capability to trace the quantities of raw materials, within a batch and mix at any stage, allowing producers to make complex recipe-based products to part mix. Once the final ingredients become available, processing can resume to complete the recipe mix.

## Right labelling, every time

With food scares relating to fresh recipe-based produce hitting the headlines, due to either incorrect labelling or allergen ingredient issues, having full traceability and the ability to quarantine batches is critical.

With SI's advanced controls, fresh food producers can pull off traceability reports in real-time and even create their own bespoke labels, using our specialist labelling module.

SI's central hub controls all print information for an individual label, manual processes and therefore the potential for errors are removed. This gives both the food processor and the retail customer, complete confidence in the end product.



With SI's clever software, if ingredients are unavailable, processors can halt recipes during a WIP mix, issue back into stock, then re-issue to production whenever stock levels are replenished.



# We think food... and so does our software.

Our food ERP solution, together with our modular software, enables our customers to run their perishable food businesses as efficiently as possible, increase profitability and exceed their customer expectations.

For more than 26 years, we have built up an enviable reputation for our world-class food ERP and MES, shop-floor data capture, production planning and sector-specific modular software.

At SI, everything we do is geared around helping our customers to run their perishable food businesses as efficiently as possible, whilst enabling them to fulfil their customer expectations. They rely on us to provide superior levels of control

throughout their businesses, to provide a real-time understanding of what's going on. By working with us, and using our specialist food software, they can make informed, effective decisions and finetune their operations in real-time.

At SI, we know that a business relationship is based on mutual trust and understanding. We work alongside our customers to get under the skin of their operations and define the very best solutions to fit with the way their food businesses work. The SI difference is our combination of a proven solution, created directly for the food production industry, and the unrivalled knowledge provided by our specialist team.



**We wholeheartedly recommend Systems Integration. They understand our business, they understand our model, and they understand how the food industry works. DB Foods**



we think food



**integreater**  
food processing software

# SI- the fresh choice for the fresh produce industry

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