SSI SCHÄFER

# SCP
# SCHAEFER CASE PICKING

Automatic selection and palletization
of mixed full-case orders

# Schaefer Case Picking: New boundaries are defined

**A New Paradigm in Full-case Picking**

The SCHAEFER Case Picking system (SCP) is a paradigm-changing, fullyautomatic case-picking system in the world that can handle almost all of your SKUs, and automatically select, palletize and stretch-wrap stable, cube-optimized, mixed-case pallets. The SCP is suitable for any retaildistributionprocess delivering mixed, full-case pallets directly to the store; even the most demanding environments – grocery, frozen, electronics and footwear. The SCP's simple linear process, ability to manage customerspecific pallet parameters, small footprint and highly-efficient picking process promise a strong competitive advantage over conventional systems.

**Defining new boundaries**

- Reduce order cycle-time through an entirely automated process; "rush orders" can be the next pallet processed
- Dramatically reduce manpower requirements and increase accuracy by replacing many warehousing tasks with an automated workflow
- Minimize product damage & shrinkage – and their associated costs and customer returns – through computer-controlled automated product processing and handling
- Reduce transportation costs by boosting outbound pallet density with patented pack-optimizing software that statistically optimizes and builds volume-optimized, stable and family-group-related pallets with state-of-the-art robotic technology
- Reduce energy consumption and freight costs through maximizing the use of your available transport space and optimization of route planning
- Increase your throughput by palletizing your orders at 750 cases/hour per workstation
- Overall the result is a very low cost-per-case

**Faster, Better, more efficient;**
**The new economic standard defined by the SCP**

**Pallet Storage** → **Layer Tray Creation** → **Tray Buffering**

# Automation from Beginning to End

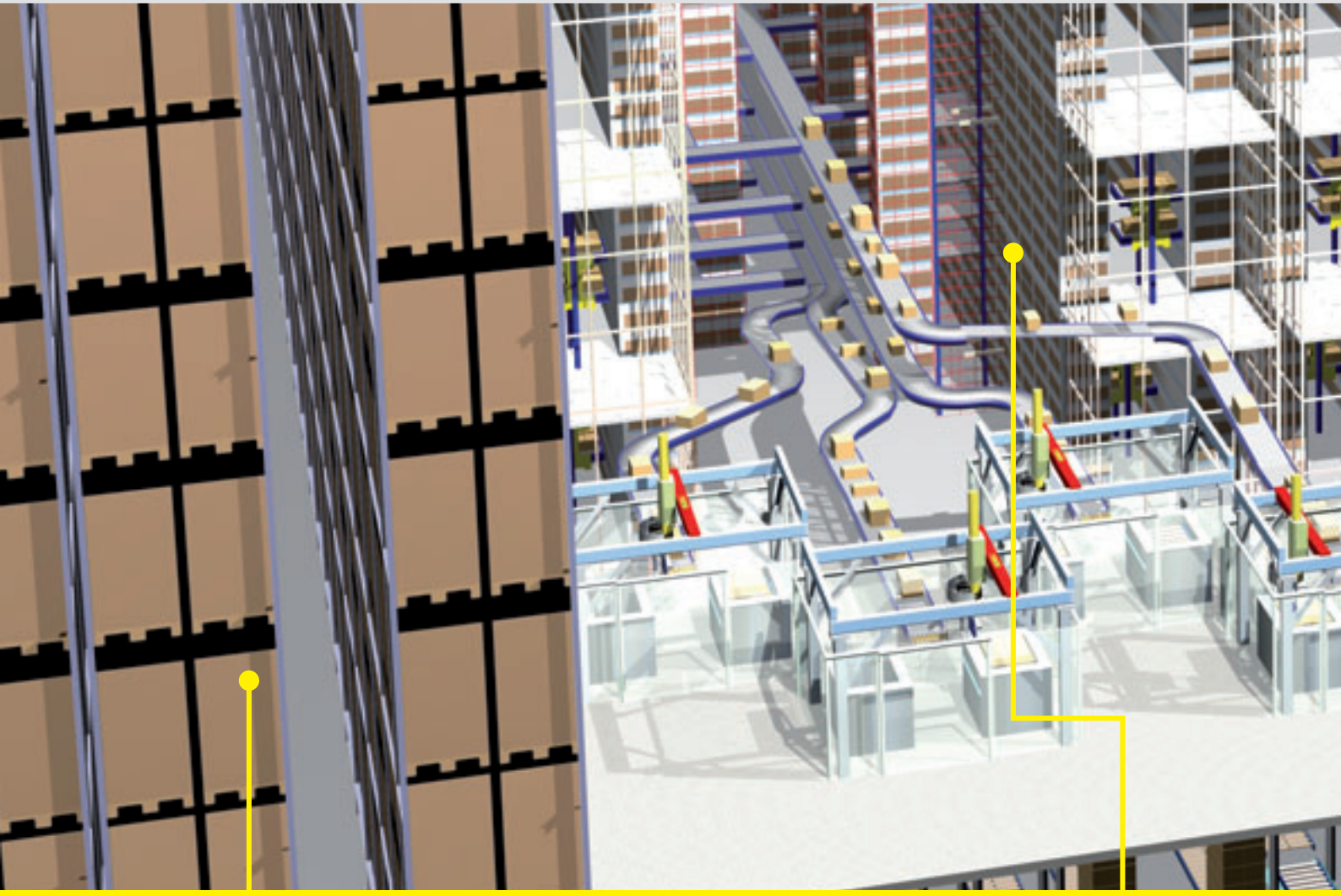
**Seamless automation from start to finish**
"Begin with the end in mind" – Reverse-process Thinking
SSI SCHAEFER's innovative SCP approach provides a seamless, automatic concept for mixed, full-case-pallet order selection. Beginning with the order data, the SCP system optimally designs and "builds" the order as virtual pallets by harnessing the power of our state-of-the-art packing software. The SCP then uses the output of this powerful software to call each carton to the palletizing robots in the exact sequence needed to achieve perfect use of the pallet's cube. SSI SCHAEFER's unparalleled technology can automatically select and deliver the precise quantity in the exact sequence and grouping your customer desires.
From goods-receipt to the unparalleled finesse in robotic pallet building, the SCP sets the new standard for the lowest cost-per-case, and the highest performance in the industry.

**SCP concept**

- Unique vision system optically recognizes products, eliminating the need for additional expensive barcode or RFID identification systems
- Automated replenishment system accommodates either manual, or automated replenishment delivery from the bulk warehouse
- Automated goods-in system de-layers manufacturer's pallets and stores layers of individual products on a tray without human intervention
- Highly-dynamic, vertical tray buffer minimizes system foot-print and manpower while maximizing the use of cubic space by automatically buffering the trays up to 24 m high without human intervention
- Automatic case-picking system picks every product for every pallet in a perfect family-group sequence that will optimize pallet cube and stability
- High-efficiency, state-of-the-art palletizing robots automatically palletize and stretch-wrap each order for highly stable, optimized pallets or roll-cages

**Single-case Selection from Layer Trays** → **Store-specific, Family-group-related Sequencing** → **Automatic Palletizing**

# SCP: The New Paradigm in Intralogistics



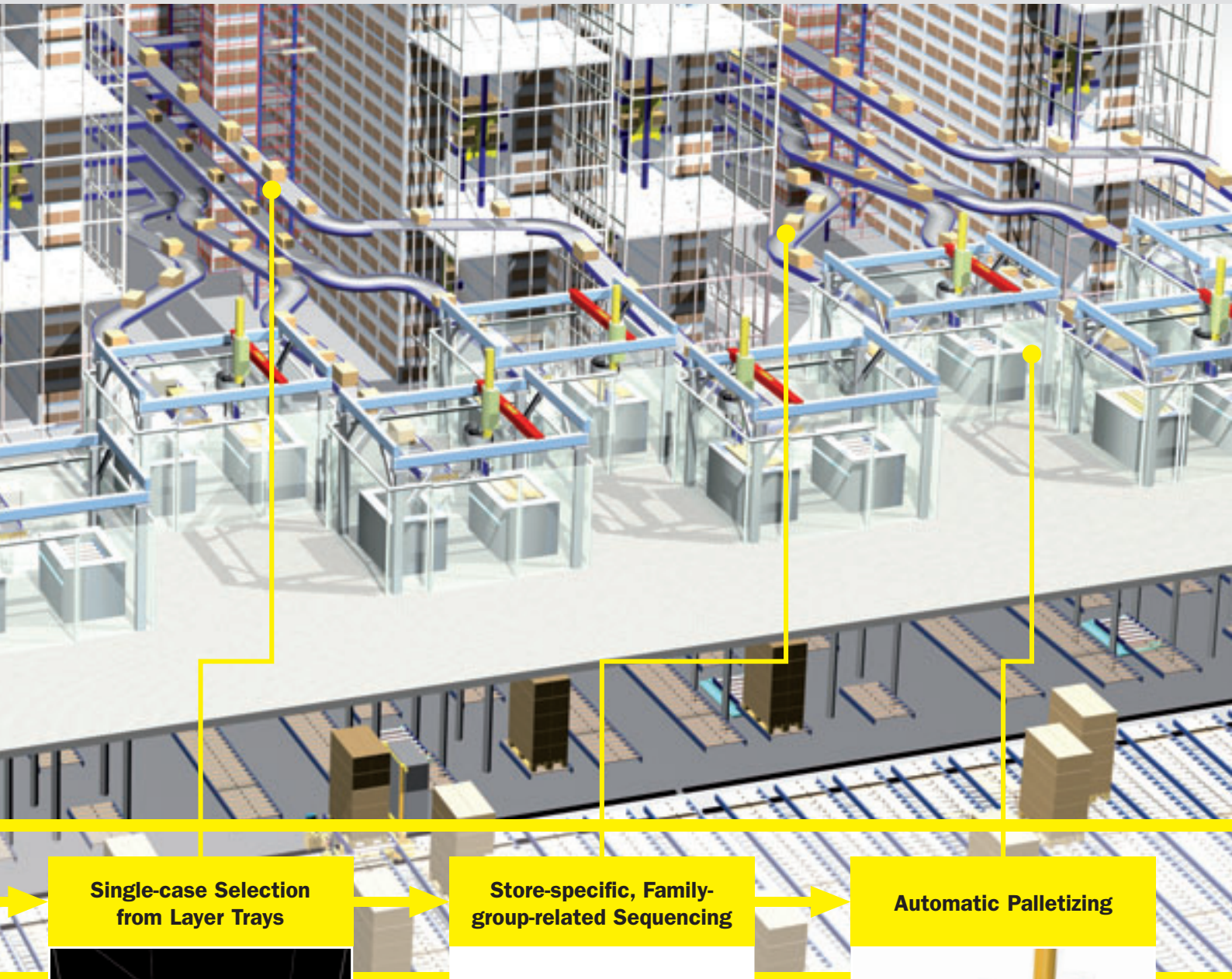
**Pallet Storage**

**Layer Tray Creation**

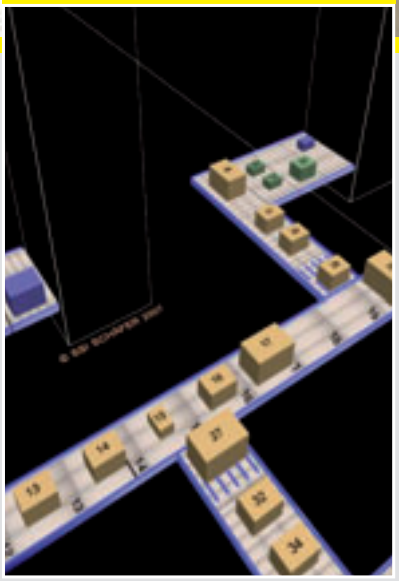

**Tray Buffering**

# Scalable Efficiency

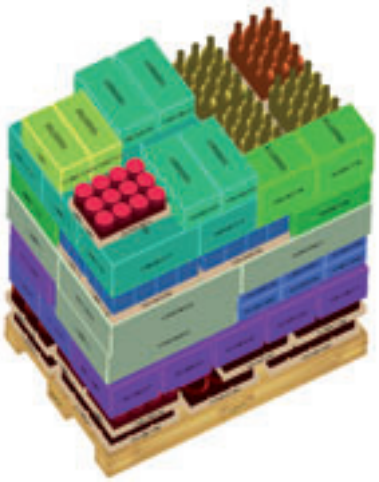
The modular design of the SCP system allows efficient solutions from 30,000 to 300,000 cases per day. Based upon a customer's unique project requirements, SSI SCHAEFER can tune system designs to meet specific customer requirements.



**Single-case Selection from Layer Trays**



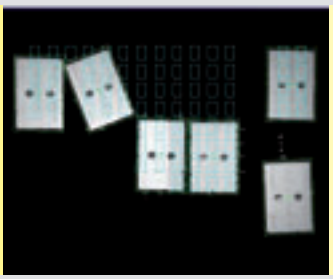
**Store-specific, Family-group-related Sequencing**



**Automatic Palletizing**

# Modular System Components

**Product recognition**
The product recognition process is based upon a combination of a visionbased, optical-recognition system, and the physical product characteristics (weight, size etc.). All data is collected in the teach-in process, and is used by the packing software to optimize pallet stacking patterns



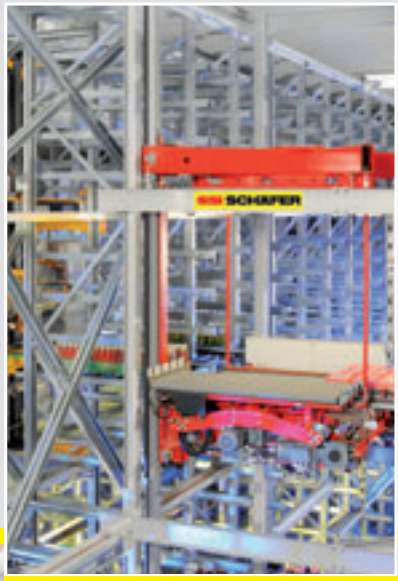
**Pallet Storage**

**Layer Tray Creation**

**Tray Buffering**

**Computer-controlled palletizing**
The information obtained with the vision system, in combination with the physical product characteristics are the input for the packaging software. The result is a high-density, stable, stacked mixed pallet.

**Single-case Selection from Layer Trays**




**Store-specific, Family-group-related Sequencing**

**Automatic Palletizing**

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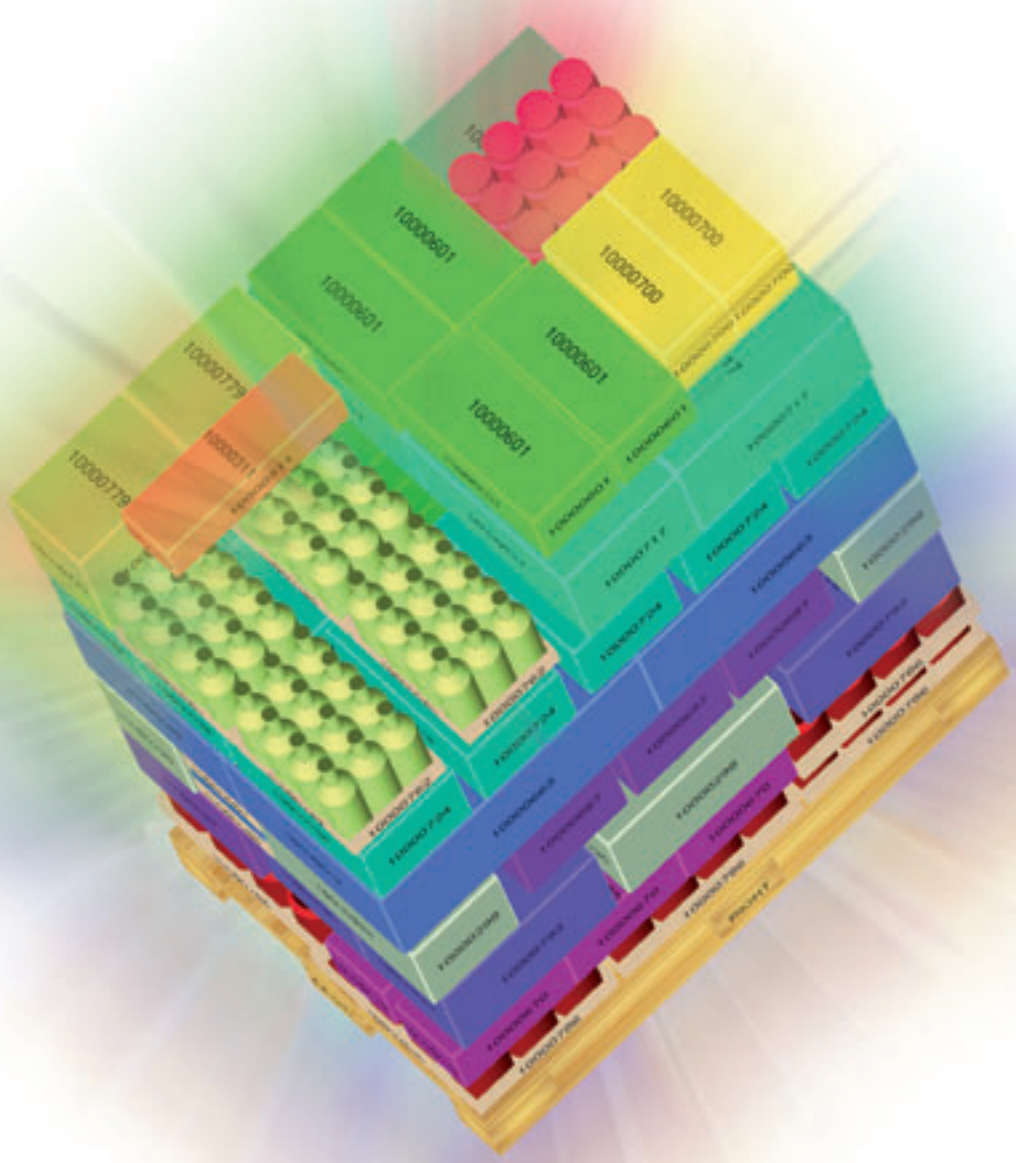
# SCP: Perfection in Automation





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