



Maximize Productivity and Accuracy With Jennifer™ The Best-Selling Voice Solution For Standard RF Terminals

Voice directed applications enable hands- and eyes-free warehouse operations, driving new levels of associate productivity and accuracy across picking and other tasks. Lucas Systems takes a unique process-centric approach to voice system design that is combined with Jennifer, the most flexible, configurable software in the industry. The result is better, more comprehensive voice applications that optimize your operations and accelerate your return on investment.

Process Design Drives Product Configuration

Instead of simply voice-enabling an existing process, Lucas delivers optimized voice systems using a collaborative, process-centric design approach. Through this approach we identify process improvement opportunities that drive incremental productivity, accuracy, and efficiency gains above and beyond what is possible with a standard voice-enabled system.

Working with your team, Lucas engineers identify ways in which voice can be used to maximize operating efficiencies. We use this optimal design to assemble your voice system using our modular software product, Jennifer.

Who is Jennifer?

Jennifer voice applications create a two-way conversation with associates who wear a headset connected to a standard mobile computer. Jennifer tells the associates where to go and what to do, and the associates speak back through their microphone to confirm their tasks.

Jennifer is the first modular voice product for the warehouse designed from the ground up to run on standard multimodal mobile computers. Jennifer easily incorporates customer-specific business rules, work flows, data capture needs, and reporting requirements. In addition to automating your hands-on processes, Jennifer includes the Engage™ Management Services Console which provides management dashboards, reports, and on-site configuration and management tools that help supervisors control and adapt warehouse operations.

Key Benefits

- Reduce errors 60-70%
- Increase productivity 10-40%
- Reduce training time by half
- Minimize returns and restocking
- Improve inventory accuracy
- Extend current WMS, LMS and other systems.

Jennifer™ Voice Applications

- Receiving
- Put Away
- Replenishment
- Picking
- QC/Audit
- Truck Loading
- Returns



MOTOROLA

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Jennifer™ - The Foundation for Optimized Voice Operations

Jennifer consists of a library of plug-in software modules that are assembled and configured for each customer. The individual Jennifer modules include pre-defined configuration and customization options that allow Lucas to rapidly deliver a system built to fit your ideal process design and business rules without custom development. In addition, Jennifer has a wide range of standard, on-site configuration options that can be managed by supervisory staff, rather than IT analysts, using the Engage Management Services Console.

The complete Jennifer system includes

- Jennifer Voice Client software
- Engage Management Services Console (MSC)
- Jennifer VoicePlus Server

Jennifer Voice Client

Warehouse workers use the Jennifer Voice Client software running on a standard, voice-enabled mobile computer of your choice. The Jennifer Voice Client provides a configurable voice-directed workflow combined with voice recognition, scanning, RFID or other means of task verification and real-time data capture. The voice-directed workflow may be driven by an existing WMS or a Jennifer VoicePlus Server.

Voice Client Application Features

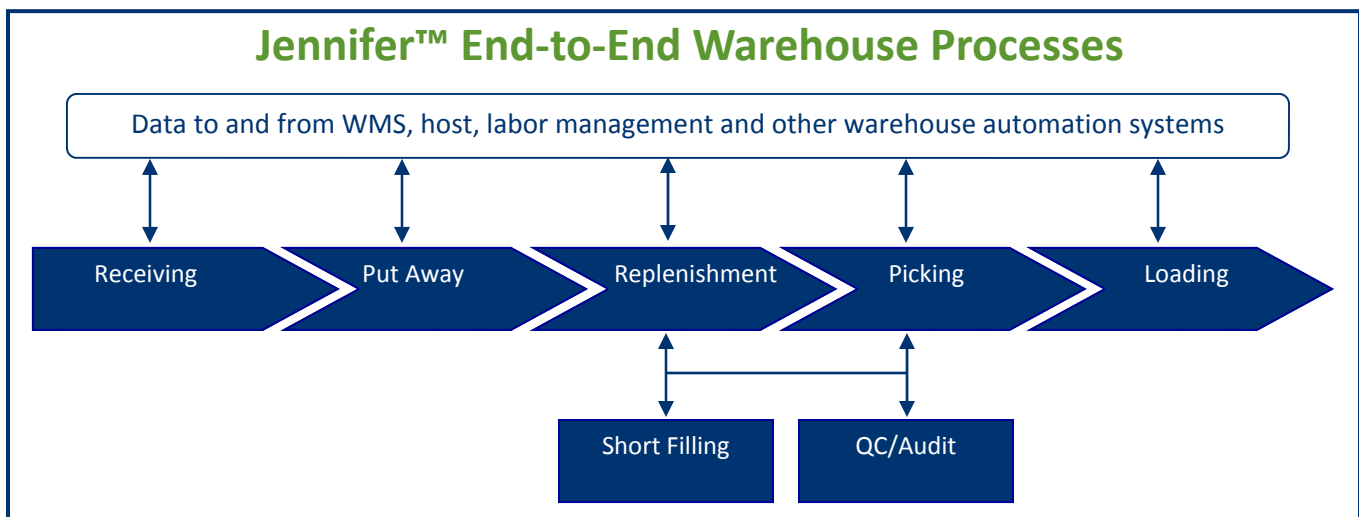
- Support for multiple **picking** processes: case, piece, pallet; pick and pass, put-to-store
- Allows on-demand or pre-defined batch and cluster pick
- Interleaved or stand-alone **cycle counting** and **replenishment** (system-directed or user defined).
- **Receiving and put-away** with combination of scan and voice
- User- or system-directed **truck loading**
- Range of navigation options – skips, reverse, undo
- Pre-defined exception steps – shorts, damage, wrong item in slot
- Multiple verification methods – check string, item number, UPC
- Variable check digits
- Alternative post-pick processing (stage, audit, load)
- Real-time messaging allows supervisors to send ad hoc messages to associates (available with Jennifer VoicePlus solutions)
- Full multi-modal data capture – Voice/scan/RFID for catchweight, lot, serial, etc.

Dialogue And Recognition Features

- Multiple User Levels
- Speaker Dependent/Independent Operation— Minimal initial voice training required
- Natural Speech Output – Jennifer (with text-to-speech automation for seldom-used words)
- Multi-lingual
- Configurable voice dialogues
- Flexible unit of measure prompts and heads-up messaging
- Adaptive dialogues adjust to user responses

Supported Mobile Computers*

- Motorola: MC3000, MC9000, WT4000 (including Voice only Wearable)
- Intermec: CK3, CN3
- LXE: MX7, MX8, MX9, HX2, HX3



Engage MSC

Jennifer's Engage™ Management Services Console (MSC) is a user-configurable rich internet application that provides managers and supervisors with real-time information about DC operations. It includes dashboards providing real-time operational overviews of production, productivity and other performance indicators, plus powerful tools for managing users, work assignments, operational processes, and voice application configurations.

In addition to configurable reporting and management capabilities, Engage provides management alerts triggered by specific events – shorts, production issues, and other exceptions—which may be delivered via email, text or other messaging technology. The optional Mobile Engage module delivers alerts and other information to a Web-based smartphone or industrial PDA device, giving managers anytime access to operational information, so they can get out on the floor and still stay in touch with operations throughout the day.

Engage MSC Features

- Dashboards providing one-screen insight into productivity and production.
- User and Group Management – manage security, permissions, dialogue prompt options
- Virtual Zone Manager – Create and manage alternative voice process flows
- Real-time Productivity Tracking and Speedometer Alerts (optional)
- Track and Manage Shorts, Mark Outs and Substitutions
- View and Manage Work Assignments (by activity, section, customer, associate, and other variables)
- View and Manage Waves/Routes/Loads across warehouse
- Pallet/Container Management
- Configure and Manage Equipment (picking carts, ridding equipment) and Equipment Inspection Checklists (edit questions, view history)
- Manage Checkdigits (including variable check digits) and Heads-up Prompts (special instructions used as part of the voice dialogue)
- Manage, Edit and Send Messages to users (optional)
- Configurable assignment creation rules
- Monitor voice client devices

Jennifer VoicePlus Server

The Jennifer VoicePlus Server integrates with your WMS/host and other warehouse systems, communicates with Jennifer Voice Clients, and provides overall management of voice processes, users and configuration options in concert with the Engage™ Management Services Console.

Jennifer VoicePlus Server Features

- Site-configurable assignment creation
- Flexible work distribution – Push to user, pull by user, combination
- Storage and management of user and group information, including security and permissions
- Storage and management of warehouse configurations, customer requirements, product information, equipment information
- Real-time capture and storage of process data – user productivity, tasks, exceptions, etc.
- Management and updates of voice client application files
- Management and tracking of voice client devices – status, health check, logging
- Configurable printing options for tote, case and pallet labels (pre-pick or on-demand), truck load map, driver manifest, etc.
- Standard integration components for batch and/or real-time integration with WMS, WCS, conveyor and wave control systems
- Two-way real-time integration with labor management systems

Server System Requirements

- Runs on standard Windows or Linux Server
- Supports MS SQL or Oracle DB
- Server hardware requirements are based on concurrent users, number of sites, and other factors.



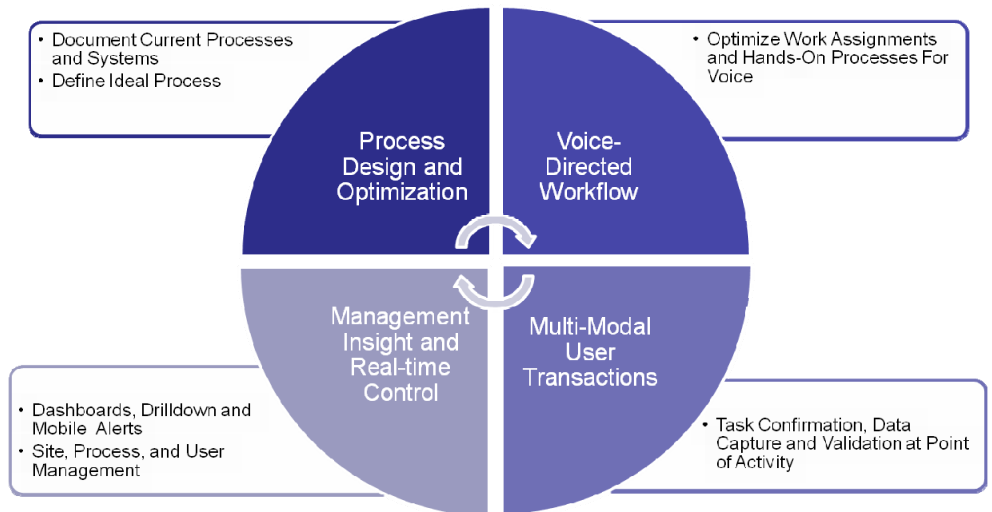
Engage MSC Wave Browser

Why Lucas? Unique Process Approach and Experience

Lucas Systems is the fastest-growing provider of voice applications for the DC, and the leading innovator of voice-application firsts for the warehouse: first to deploy on open, industry standard hardware terminals; first to provide end-to-end applications from receiving through shipping; first to provide QC/audit capabilities and voice-enabled equipment safety checklists.

Our collaborative, process-centric design approach identifies ways in which voice direction, voice recognition, automatic ID technologies (barcode scanning, imaging, RFID), and other automation and information systems can be leveraged to deliver the greatest possible operational improvements for your warehouse. Our unique approach and flexible product delivers productivity, accuracy, and efficiency gains above and beyond what is possible with a standard voice-enabled system.

Customers like Do it Best Corp., CVS, OfficeMax, C&S Wholesale Grocers, Owens & Minor, and others trust Lucas to provide solutions that greatly improve the accuracy and efficiency of distribution center associates because we truly understand their operations.



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