



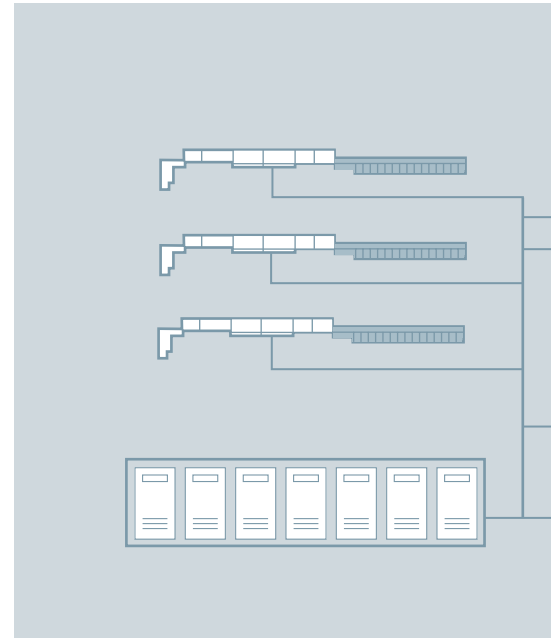
Open Reading Coding Architecture ORCA

The system platform for highly scalable and fault-tolerant reading and video coding applications

Postal Automation

SIEMENS

ORCA - The system platform for reading and video coding applications



Teaming with ARTread™, the Open Reading Coding Architecture (ORCA) follows the successful product platforms RC800, RC900 and RC1000. While ARTread provides a new versatile toolbox for all kind of recognition applications, ORCA is Siemens' new system platform for reading and video coding applications.

From attached readers to common reader pools

Having provided video coding pools since many years, ORCA now offers this pooling feature also for the reading function. Combining the reading resources of all machines in a sorting center into a common reader pool provides several advantages:

- Leveling the processing peaks of several machines in a site
- Fail-safe by eliminating the weak point of a reader computer directly attached to the machine
- Uniform treatment of all readers

The ORCA Reader Pool is the "house" where the ARTread toolbox "lives inside". It is the scalable infrastructure for integrating multiple readers (also 3rd party) for all kinds of reading tasks.

Benefits

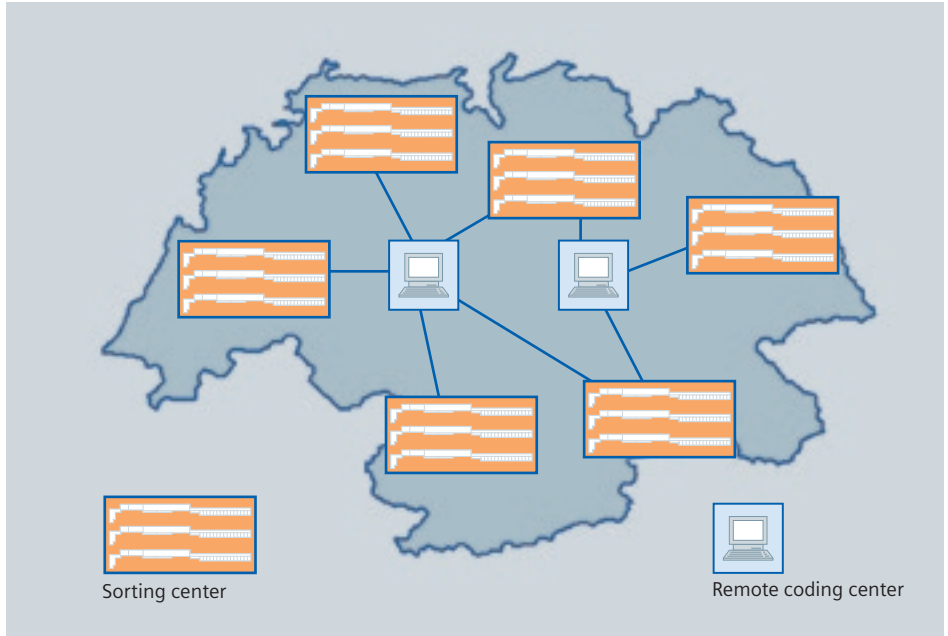
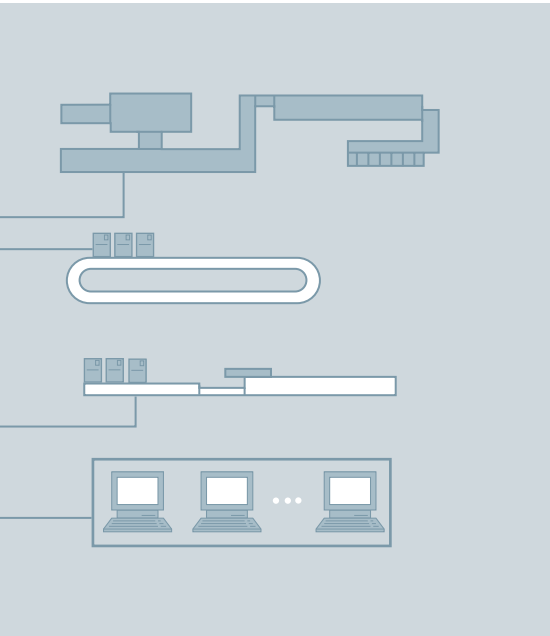
- Reduced computing hardware costs
- Higher availability of the reading function for each machine
- Easier maintenance and system management

Add computing power on demand

ORCA is a highly scalable system platform for all kinds of reading and coding applications, from systems with one sorting machine in a single mail center to a countrywide system of networked centers. This was achieved by the design principle "add computing power on demand" which also allows extending already installed systems seamlessly in terms of performance and functionality. Thus ORCA can grow together with the requirements of the customer.

Benefits

- Flexible increase of processing throughput
- Easy read rate improvements for all machines
- Common upgrade of all machines with new reading functions
- Shorter innovation loops



Fault-tolerant reading and coding system

ORCA provides high system availability and failover mechanisms for all central components of the system, especially for the workflow, but also for other vital functions like statistics, visualization or data storage.

As middleware the J2EE technology is used. J2EE clustering provides highly available and scalable services with fault tolerance. Equal functionality is shared on different hardware nodes.

If a node is not available and the application on that node cannot be used, another node provides the required functionality. If the previously failed node is available again, it is automatically added to the cluster again.

All data to be kept persistently (e.g. results, off-line data and configuration data) is stored in a database. The used ORACLE database is responsible to hold or create a consistent state of the data. Additionally, for systems with high availability requirements the data is stored on a Storage Area Network.

Benefits

- Enhanced automatic failover capabilities
- High availability and data consistency
- Standard ORACLE database for data storage and maintenance

System integration platform

ORCA is Siemens' platform for integration of 3rd party and legacy sorting machines, readers and video coding systems.

Siemens has more than ten years experience in implementing open interfaces and integrating other suppliers' systems. ORCA provides the standardized CEN OCR/VCS interface (CEN/TS 15448) and open interfaces for connection of sorting machines and external IT systems.

Benefits

- Security of investment by standard and open interfaces
- Support of CEN interfaces

Web-based monitoring & control

The ORCA user interface enables users to easily monitor and control the system and manage user data. It is a state-of-the-art Web application with no administration on the client. This leads to reduced installation and deployment efforts. Integration of different systems as a single application provides a consistent look and feel to the user. Via the Microsoft Internet Explorer as client software remote access with standard software and hardware is provided at all sites. This also allows remote access to all reading and coding systems from a centralized control room. The detailed status, performance values, current statistics and events can be monitored.

Due to the Web technology of the user interface, ORCA also offers the usage of mobile devices like a PDA giving the user full flexibility and independence of desktop computers. ORCA provides several elementary views especially designed for ergonomic PDA usage.

On status changes of the system the user can be alerted by receiving an e-mail.

Benefits

- Easy, intuitive system administration
- Fast reaction on problem situations
- Remote and mobile operability of the system
- Low installation and maintenance cost

From local systems to networked centers

ORCA systems at different sites can be interconnected using the image and result forwarding function. Thus a countrywide mail processing system will be established.

Several different scenarios can be implemented into the customer-specific solution.

Via distributed coding mail pieces are dispatched after outward coding. Inward coding is then done during the mail piece transport. Local address knowledge of the video coding operators can be used for inward coding in the inward mail center.

Image forwarding allows the implementation of **load balancing** scenarios between single sites, also in emergency situations. With **result forwarding** sorting based on ID tags is supported.

Centralized **remote video coding pools** (online and offline) allow optimization of coding resources and usage of lower cost areas.

Centralized **remote reading pools** (online and offline) provide recognition functions for small mail centers.

Benefits

- Faster mail dispatch with distributed coding
- Flexible adaptation to logistical requirements
- Optimization of resources (less processing peaks)
- Reduced maintenance and management cost

For further information, please contact:

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Secure your investment

Siemens' Open Reading Coding Architecture ORCA is the result of 30 years of experience in delivering video coding and image management systems to more than 30 postal operators all over the world. ORCA is your best choice in terms of:

- Optimized usage of reading and video coding resources
- Flexible system scalability and extendibility
- High system availability
- Efficient management and maintenance

The information provided in this brochure contains merely general descriptions or characteristics of performance which in case of actual use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract.

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