



IXARO Pager System

Version 1.2.3

Changes and Improvements



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Changes and Improvements

Main Components and Deployment

- Fully automated installation program for Windows-based servers: Ixaro pager system can be deployed effortlessly
- The entire system is delivered with required components and interfaces and deployed automatically. Individual components are activated using a license key. Individual components can be tested for a limited time and subsequently activated
- On Windows-based servers, Ixaro Pager System can be operated unattended and without a user logging on to Windows. The corresponding setup and configuration of the Windows services is handled by the fully automated installation program
- The versions for Linux- and Windows-based servers have been merged: The server component is now completely operating-system independent
- Handy tools for setting up and maintaining Ixaro Pager System Server are deployed by the installer. All administrative tasks can be performed directly on the server without installing third-party software

Performance/Stability

- Performance and stability at high loads have been significantly improved
- The server's core component is launched automatically. The launch is no longer delayed until the first access by a web client
- Log file rotation and log file data compression has reduced hard disk space requirements drastically
- The minimum time intervals between transmitted messages have been optimized. Sending multiple messages via a single transmitter is now faster
- The volume of network traffic between server and browser client has been reduced
- Latencies when interacting with the graphical user interface have been reduced

Functionality

- Introduction of Ixaro Webservice (REST API): Ixaro Pager System can be accessed in its entirety via well documented HTTP calls enabling it to be fully integrated into external systems. You can find detailed information here: <https://sandbox.ixaro.com/rest/>
- Truck and pager logs can be downloaded via the web interface for the current day, for the current month or in their entirety since deployment
- It is now possible to reserve pagers for planned truck arrivals. The planned arrival time can be set individually
- The status of planned truck arrivals is set automatically. The user can change the status manually if necessary
- An additional data field named "Custom Field" has been added. This data field can be shown or hidden, the name can be customized

- All timestamps in the logs are formatted in ISO 8601. The data can be sorted and filtered in Excel or other means of data processing
- The entire system including the logs, the database and the user interface are encoded in Unicode UTF-8. All languages and character sets are supported
- The timestamp of the most recent message to a pager is logged independently of the timestamp of the loading of a truck
- Users can be notified about new truck arrivals and planned truck arrivals via desktop notifications. An acoustic notification option is available, as well
- Gates can be configured to allow more than one truck at the same time. The maximum number of trucks that can be assigned to a gate at the same time can be set to a value between 0 and 99. The default value is 1
- For testing purposes, virtual transmitters can be configured to simulate a transmission time latency specified by the administrator

Ease of Use/User Interface

- The entire user interface has been revised and optimized for user ergonomics. The screen space is used more efficiently, all texts are much more readable, user interactions are more intuitive, the user interface's visual feedback is clearer, the color palette has been harmonized and standardized
- The main view only shows full timestamps including the date if the time is outside the current date. Current day timestamps are compacted to show the time only. This makes the view much clearer and more compact
- User interface latencies have been drastically reduced. Overall, the user has a more fluid experience interacting with the software
- Standardization of the date format to ISO 8601, date formats can be customized and localized
- The name of the current user is displayed in the main view
- When composing messages, the user is shown the total character length of the message to avoid truncating messages that would be too long to fully display on the pager. The user is warned visually if the length of 16 characters and the length of 64 characters are being exceeded
- When assigning pagers with IDs/names containing more than three characters, the most recent data is retrieved from the database and the input mask is pre-filled with this data. The user can accept or overwrite the data. With frequently returning trucks and visitors, time can be saved in data acquisition
- The mobile view has been optimized. All relevant data is fully visible and readable even on tiny displays
- The message form of the mobile view contains the key data of the truck to clearly identify the recipient. This prevents the user from accidentally slipping in the list and ensures that error-free work is possible despite the limited display area

- When using a mobile phone or tablet, the more compact, mobile view is automatically displayed. The user can still manually choose between the mobile and the full view
- If the data connection to the server is lost, an automatic attempt is made to re-establish the connection. No user interaction is required to re-connect
- The time displayed in the client's user interface is synchronized with the time on the server for all users
- Wherever possible, the keyboard input is focused on the relevant input field in advance
- When setting up TCP/IP-based transmitters, the TCP port no longer needs to be configured by the user. The system uses the respective default values in order to guess the port. Customized TCP ports can still be configured manually
- Configuring new transmitters has been simplified. The administrator only needs to maintain the essential parameters like the type and the IP-address of the transmitter
- After configuring a new transmitter, the backend is restarted automatically
- Connectivity to the server is automatically restored if the connection is lost

Security

- HTTPS is now fully supported. A self-signed certificate is provided by Ixaro. The customer's certificate can be integrated on request
- Passwords are now encrypted
- The web server's TCP port is no longer limited to 8080. The standard configuration allows access to TCP ports 80, 8080, 443 and 8443
- Update of the supplied runtime environment to Apache Tomcat 9.0.38, MariaDB 10.5.5. Switched from Oracle JDK to OpenJDK (free of Oracle license fees)

Transmitters and Receivers

- Integration of WFL 800 USB transmitters
- Integration of back channel receivers LR10 NET
- Integration of GSM/SMS modules GWG30: In addition to pagers, the drivers' mobile phones can also be added and managed by the user. Messages are automatically sent either via the pager transmitter to the pager or via the GSM/SMS module to the driver's mobile phone
- Connectivity to senders and receivers is automatically restored if the connection is lost

Localization/Languages

- The English translation of the software has been revised and expanded
- Additional languages can be added by editing a single localization file

Bug Fixes

- The backend caching has been revised: Concurrent processes no longer cause data conflicts
- Date entries with semicolons do not cause errors when exporting the log
- The restart of the backend can no longer be accidentally interrupted by the user
- All server responses are marked with the correct MIME type „JSON“
- A rare error when displaying the pager ID after assigning it to a ramp has been fixed
- The entire system was converted to Unicode UTF-8: Special characters and umlauts no longer cause errors
- Multiple translation errors have been fixed



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