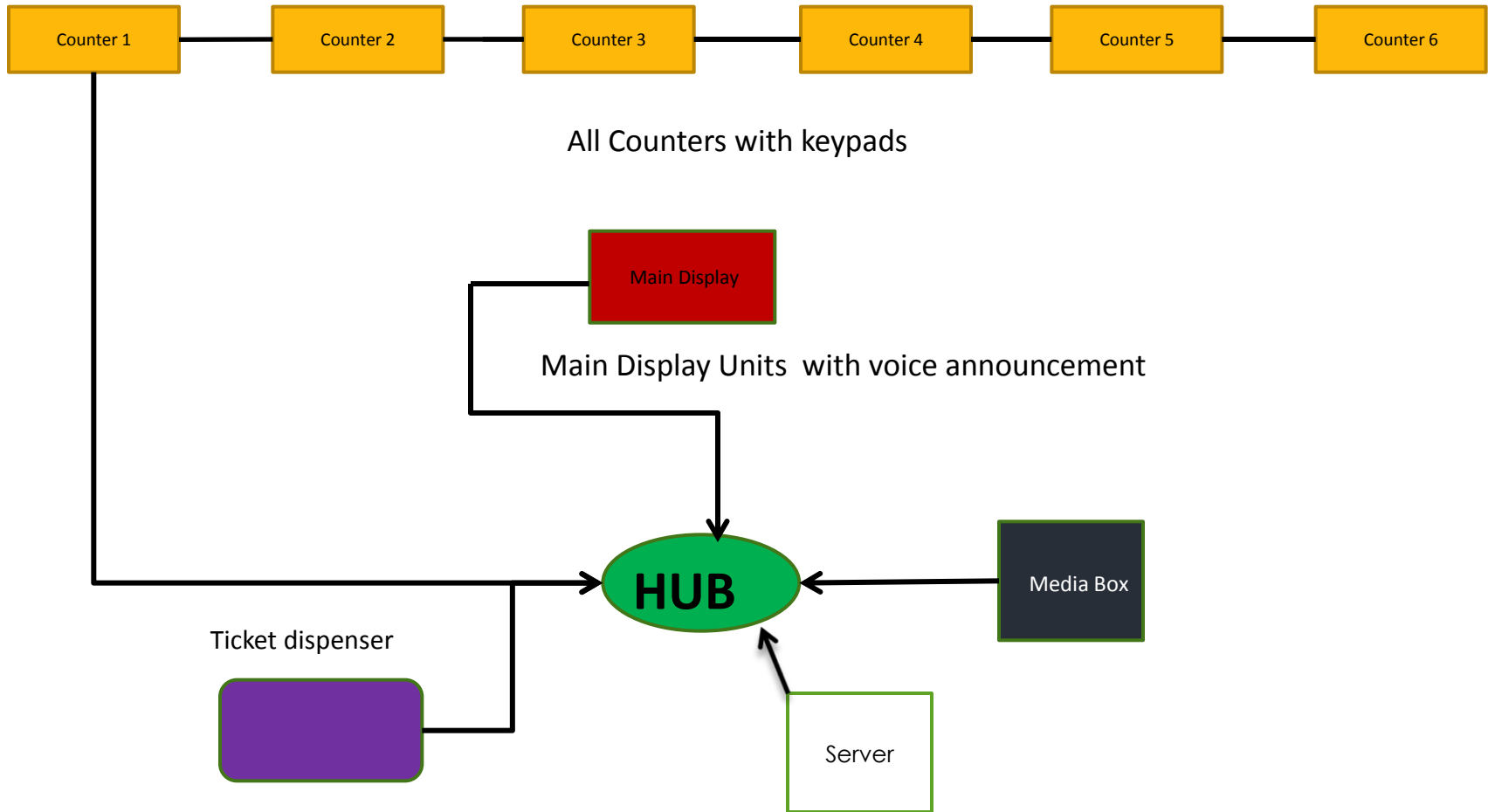




Jayex Queue Management Systems



Example Infrastructure

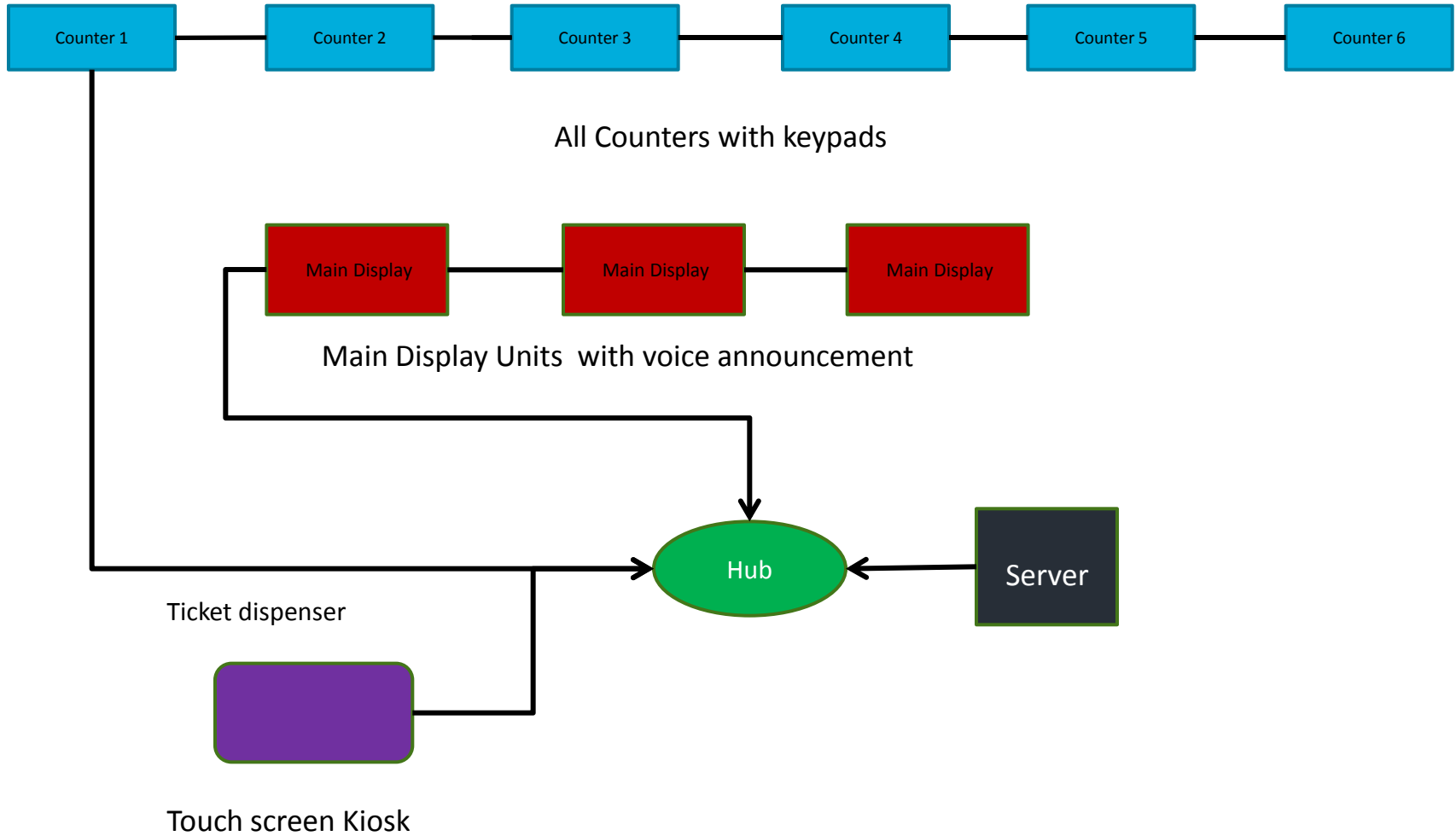


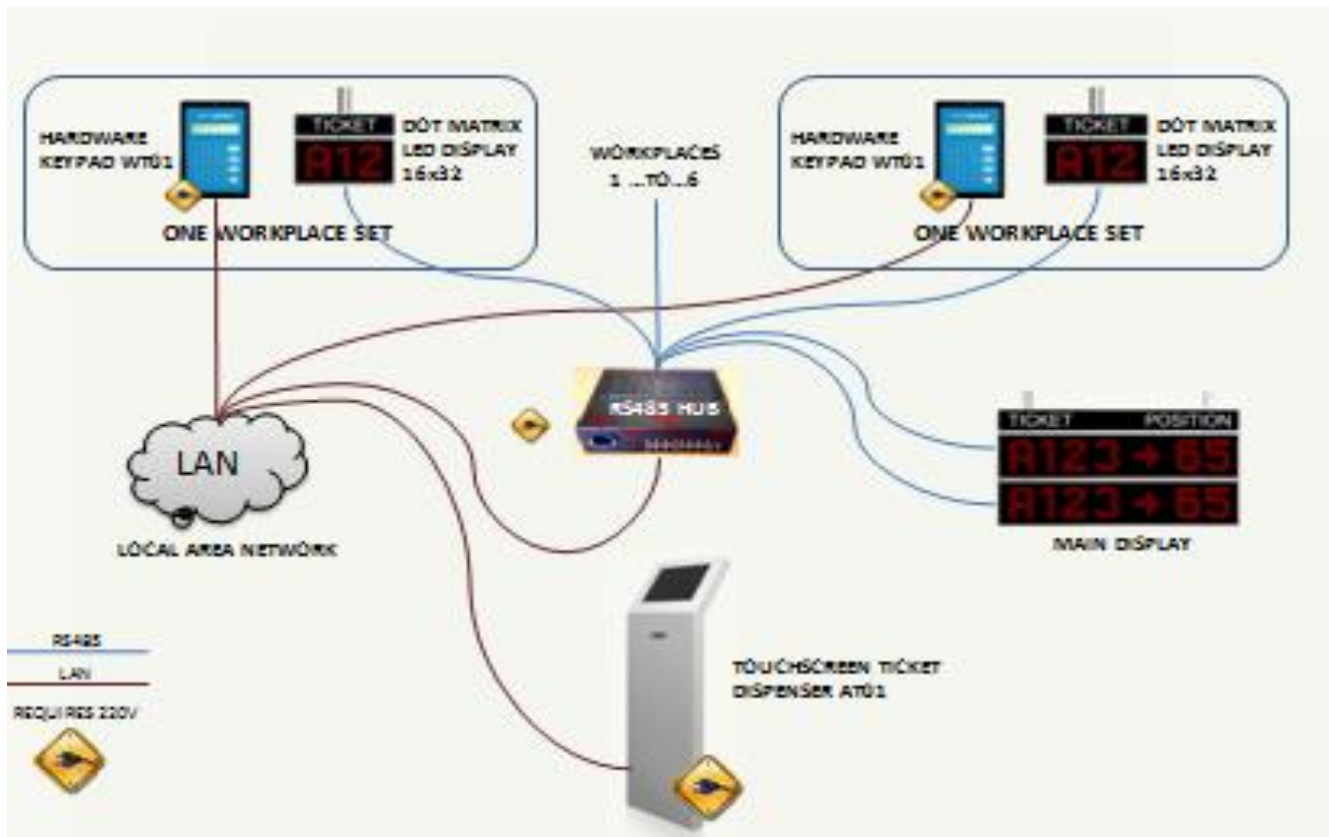
Example Queue System Overview

- ▶ A queue system which manages the customer's journey throughout their visit
- ▶ A ticket is issued to the customer from a touch screen kiosk, ticket is dependant on service required
- ▶ When a consultant is available, the ticket is called forward from a button pressed on the consultant's keypad. The call is displayed all the Display units with a voice announcement
- ▶ The customer goes to the counter called, consultant enters reason of visit of brand of service. Consultant then ends consultation
- ▶ The entire journey is recorded on the SQL database, which is a Windows PC. This PC is to be installed in a managers office for easy access to reports



Schematic Diagram





Proposed Solution (Flow Chart)

Kiosk

- Patient selects reason for visit from the touch screen options.
- A ticket is printed with a number, patient waits to be called.

Main Display

- An available nurse calls the next ticket.
- Displayed on the screen.
- Voice Announcement in English to notify the customer.

Reports

- All actions are recorded in the SQL database which is hosted on the server PC. Tickets issued, time of consultation, average waiting times, number of tickets seen per department, reasons for visit etc.
 - A number of reports can be collated based on the above criteria.
-



Advantages

- ▶ Structured Approach
- ▶ An unlimited number of queues and operations
- ▶ Up to 200 operators per system
- ▶ Support of a wide selection of service selection terminals (sensor and button types)
- ▶ Display of information on high-resolution panels and displays (LCD and plasma)
- ▶ Various management tools: software and physical control panels
- ▶ Detailed statistical data about the operation of the system
- ▶ Real Time Data
- ▶ Correct Information on Wait time
- ▶ Queue Length
- ▶ Average Wait Time
- ▶ Counter Operator Productivity



Additional Features

Multilanguage support

This important feature is applied to every part of the system: software interface for operator and administrator, ticket dispenser menu and displays, voice calling, information printed on ticket.

Virtual system segmentation

System has a possibility to play sounds and show messages on specified screens only. This feature allows to position several displays in one service hall and other displays in another and play gong or call by voice in separate halls independently.

Centralizes management and statistics

Organizations that have many branches in different locations may need to track service level centrally to improve quality and keep it that way. Centralization feature allows to track each branch in HQ and even compare branches!

WEB / phone registration

This allows customers to register their visit in advance and plan their time conveniently. A feature that every customer will evaluate.

Client identification by bar-code, magnetic cards, manual entry

Use this for your VIP clients.

A small yellow arrow pointing to the right, located at the bottom left of the page.



The Hardware



Functions of all hardware

The Hardware

- ▶ Main Display
- ▶ Counter Displays
- ▶ Ticket Dispensers
- ▶ Counter Keypads
- ▶ The Hub
- ▶ Cables (Cat5)



Main Displays



7 Segment Main display DM01R/G/B Features:

- 3+ 2 digits and arrow
- Available in 3 colours Red/Green & Blue
- 7 Segment LED
- RS485 interface
- Gong Calling
- Voice Calling
- Dimensions: 597 x 143 x 34mm



Main Displays LCD Screen



- Commercial grade LCD Screen (24", 32" 40")
- VGA connectivity
- 3 Years Swap Out Warranty



Counter Display

Features:

- Indicator colour - red/green/blue
- Number of information lines – 1
- 7 segment LED
- Electric power consumption - 8 W max
- Workplace segment display consists of a 3 character set indicating the called ticket number or the workplace number
- Connected to the system through RS-485 interface
- Gong Calling Only



Kiosks

- ▶ Monitor: 17" touch screen
- ▶ Printer: Thermal 80mm wide
- ▶ Built-in Queue Server
- ▶ Interface Ethernet, RS-485
- ▶ Mounting screws to floor screws(Elegant) or stand(Classic)
- ▶ Size 1340 x 430 x 300 (Elegant), 1290 x 410 x 250 (Classic)
- ▶ Weight 40 kg
- ▶ Council Branding optional



Keypad

- Staff login into keypad with unique code; indicates counter is open and records time staff logged in.
- Large button to call the next ticket number in the queue.
- LCD screen shows information on number of customers waiting in the queue, and for which department.
- Call next customer and see the ticket number called.
- Cancel call in progress if no customer arrives.
- View length of consultation.
- SOS – example: Irate customer.
- Close counter – end of staff shift.



Hub

This connects all the cables to one network.
Integrated LAN to RS 485 converter
15 V DC power over single CAT5
Led indicator power on

Parameters	Hub H485L12
RJ45 port quantity	12
Colour	Black
Interface	RS 485
Material	Tin Plate
Size	198 x 61 x 235mm
Weight	2kgs





The Software



Overview & Screen Shots

The Software

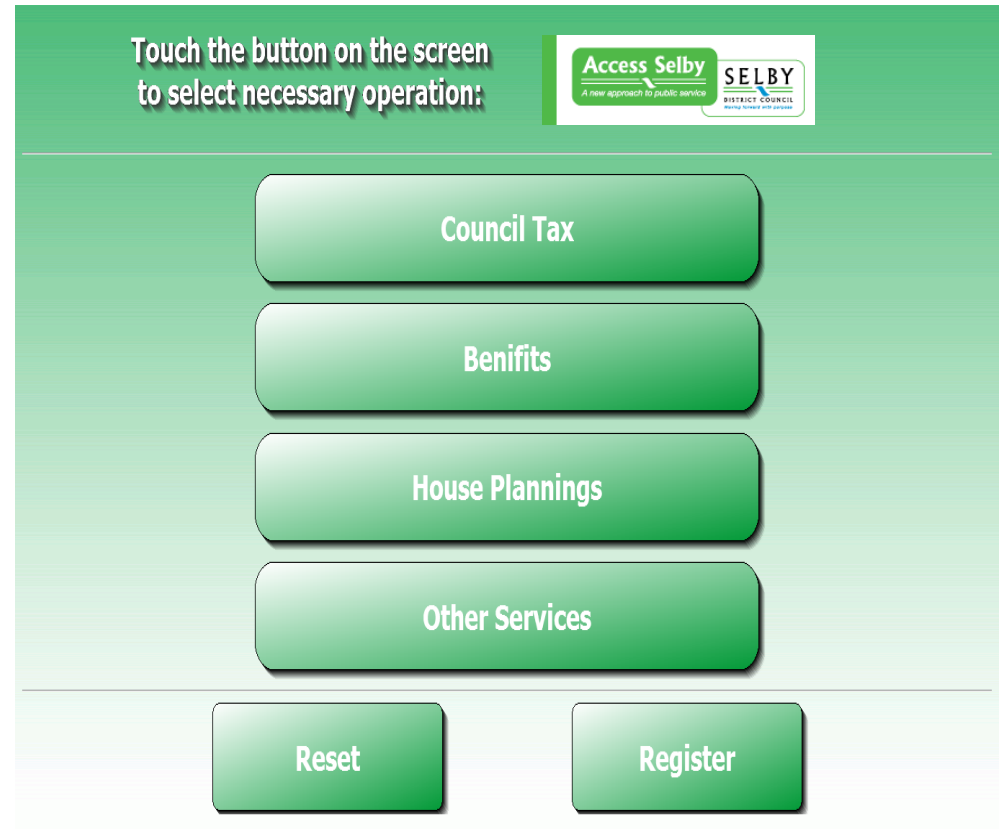
- Management software to configure the queue according to departments and services.
 - Configure Staff users and unique log in codes, reason codes, desk configuration.
 - Main Display configurable message; set from software.
 - Ticket information: name of company, special messages, average waiting times.
 - All transactions are recorded in an SQL database; time of ticket issue, time of consultation, close of consultation, reason for visit, user information etc.
 - Counter Call software allows you edit a ticket, delete from queue, rearrange the queue, advisor can call out of sequence.
-



Example: Touch Screen

This is the first thing a customer sees and feels.

- Multilingual options
- Multi level menus
- Different services
- Brent Council branding and logo



Example: Admin Page

Queue management system's configuration

File Settings

Main

Server parameters

Printer name: [dropdown] Config. port: 43001 Server port: 43000

Blink, s. (1..59): 30 Wait, s.: 10 Rep. call s. and times: 30 0

Gong: REMINDER

Delay time/count: 3 3 Tick. dig.: 3 Place. dig.: 2

Pronounce numbers
 Invitation
 Play gong before invitation
 Client sounds
 TM209 Printer
 Display scrolling
 READY/CALL mode
 Out of service mode
 Call unregged numbers
 Call only from assigned queues
 Barcode and forwarding to queue: [dropdown]

Multiple selection Concurrency
 Prefixes: No Queue Operation

Use number ranges
 Text prefixes
 Additional numeric prefixes
 Call booking
 Reg. and call silent

Auto redir.
 SID: 1 CODE39

Tickets per roll: 1200 IP

Additional ticket information

Everyday job / time: None Reset queue numbering (22:00:00) Shutdown the system

Simple terminals

RS232 port: [input]
 Wireless terminal RS232 port: [input]
 RS485 protocol

Color mode (called number color): Default Red Green Yellow

Ignore RS485 errors
 Absent clients delayed automatically
 Text msg. delay, s.: 60

RTF ticket templates
 RTF logo first
 High resolution RTF printing
 Reversed RTF printing

Display interfaces

Name

Insert Delete Edit Save Cancel

Read-Only localhost:C:\AKIS\Database\AKISDB_FB2.FDB

Save Cancel

Example: Display Page

Queue management system's configuration

File Settings

Displays

Displays

Display name

Display name:

Type

- Common
- Places
- Common rev.
- Information
- Get ready

Format: CC

Blink. Fmt.: CC

Text display

Always show place number

Narrow digits

Text messages

Scroll delay:

Messages

Clear inf. messages

Insert Delete Edit Save Cancel

Free indicators

Address	Port

Delete Refr.

Indicators

Nr.	Address	Port

Dot matrix Bold font

Color

- Red
- Green
- Yellow

Insert Delete Edit Save Cancel

Min. address: 1

Max. address: 600

Display port: 43010

Save Cancel

Scan Test

Clear all indicators

Indicator parameters

0	BRIGHT.	100%	0	ON TIME.	2,5s.
0	OFF TIME.	2,5s.			

Save Cancel

Read-Only localhost:C:\AKIS\Database\AKISDB_FB2.FDB



Example Queues

Queue management system's configuration

File Settings

- Main
- Displays
- Queues
- Operations
- Menu
- Places
- Operators
- Log

Queues

Nr.	Queue name	Abbr. name	Backup queue	Pref.
1	Queue1	Q1		-
2	Queue2	Q2		-
3	Queue3	Q3		-

Ticket template: Rise priority after, min.:

Avg. serving time: Delay automatically

Timetable: ... Start ticket number:

Request matter code ... End ticket number:

Max. ticket count: Internet registration interval, min.:

Max. tickets by week day:

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Avg. waiting time limit, min.: Avg. serving time limit, min.:

Level Delay forever Reg. locked

Read-Only localhost:C:\AKIS\Database\AKISDB_FB2.FDB



Example Software Log

Queue management system's configuration

File Settings

- Main
- Displays
- Queues
- Operations
- Menu
- Places
- Operators
- Log

Log

Reg. date/time	Virt. cl.	Peop.

Refr.

Calculate statistics for

- Selected ticket stack
- Current ticket stack
- All within interval

Start date: 15/06/2012 00:00:00

End date: 15/06/2012 23:59:59

Show clients: All

- Stat. by queue
- Stat. by oper.
- Stat. by place
- Stat. by op-r
- Matter code stat.

Client waiting time

- Avg.
- Min.
- Max.

Serving time

- Avg.
- Min.
- Max.

By workplace By operator

- Ticket list
- Client quantity by days
- Client counters

Backup DB

Restore DB

Serving hall state





Read-Only localhost:C:\AKIS\Database\AKISDB_FB2.FDB

Example Queue Ticket List

Ticket list

Nr.	Ticket num	Reg. time	Inv. time	Serv. time	Queue name	Operation name
1	1	15/06/2012 11:17:42	15/06/2012 11:20:29	15/06/2012 11:22:13	Queue2	Registration
2	2	15/06/2012 11:17:47			Queue1	Doctors
3	3	15/06/2012 11:17:50			Queue3	Other
4	4	15/06/2012 11:17:53			Queue3	Other
5	5	15/06/2012 11:17:56			Queue3	Other
6	6	15/06/2012 11:17:58			Queue3	Other
7	7	15/06/2012 11:18:01			Queue1	Doctors
8	8	15/06/2012 11:21:03			Queue1	Doctors
9	9	15/06/2012 11:21:06	15/06/2012 11:22:13		Queue2	Registration
10	10	15/06/2012 11:21:08	15/06/2012 11:22:21	15/06/2012 11:22:24	Queue2	Registration
11	11	15/06/2012 11:21:11			Queue1	Doctors
12	12	15/06/2012 11:21:13			Queue1	Doctors
13	13	15/06/2012 11:21:16	15/06/2012 11:22:33	15/06/2012 11:22:48	Queue2	Registration

Show waiting and serving times

 Info
  History
  Print
  Close

Example Virtual Keypad

The virtual keypad program emulates a hardware workstation terminal. Software has to be installed and run on a computer at workplace.

Minimum system requirements for a workstation computer to run the QMS AKIS Client program are:

- Computer capable of running MS Windows XP or newer operating system
- Operating Systems - MS Windows XP or newer version
- Minimum of 16 MB of free RAM memory for the program
- 4 MB of additional space on hard drive;
LAN adapter

