

# DSC

## Digital Selective Calling System

The screenshot displays the Jotron DSC Client interface, which is used for monitoring and managing Digital Selective Calling (DSC) messages. The main window is divided into several sections:

- Connections:** Shows the status of various radio channels, including Site A and Site B, with their respective frequencies (e.g., 172.16.6.229, 172.16.6.228, 172.16.6.241, 172.16.6.240).
- Received messages:** A table listing incoming DSC messages with columns for Time, #, Site, RSSI, Type, Destination, Source, and Details. The messages include urgency and safety calls, routine individual calls, and position requests.
- Send messages:** A section for outgoing messages, with columns for Time, Site, Type, and Status.
- Messages Report:** A detailed report window showing a list of messages with columns for Time, Count, Site, Type, Site (destination), Source, Details, Status, and Received. The report includes a summary of 11 messages and a detailed list of each message's characteristics.

Time	#	Site	RSSI	Type	Destination	Source	Details
2015-12-10 08:13:57	2	Site B	34	Urgency and safety call	All ships	Viking (0025762390)	F3E/G3E simplex (1000, Ch 16)
2015-12-10 08:12:50	2	Site B	35	Urgency and safety call	All ships	SelfMmsi (0025762390)	Position request (121)
2015-12-10 08:12:00	2	Site B	34	Routine individual call acknowledgement	SelfMmsi (0025762390)	SelfMmsi (0025762390)	F3E/G3E simplex (1000, Ch 67)
2015-12-10 08:11:48	2	Site B	34	Routine individual call	ColorSpeed (0025762390)	SelfMmsi (0025762390)	F3E/G3E simplex (1000, Ch 67)
2015-12-10 08:04:52	2	Site A	29	Urgency and safety call	Viking (0025762390)	SelfMmsi (0025762390)	Position request (121)
2015-12-10 08:04:09	2	Site A	29	Urgency and safety call	Viking (0025762390)	SelfMmsi (0025762390)	Test (118)
2015-12-10 08:00:04	1	Site B	47	Urgency and safety call	ColorSpeed (0025762390)	SelfMmsi (0025762390)	Test (118)

Time	Count	Site	Type	Site (destination)	Source	Details	Status	Received
2015-12-10 08:13:57	2	Site B	Urgency and safety call	All ships	Viking (0025762390)	F3E/G3E simplex (1000, Ch 16)	Received	34
2015-12-10 08:12:50	2	Site B	Urgency and safety call	All ships	SelfMmsi (0025762390)	Position request (121)	Received	35
2015-12-10 08:12:00	2	Site B	Routine individual call acknowledgement	SelfMmsi (0025762390)	SelfMmsi (0025762390)	F3E/G3E simplex (1000, Ch 67)	Received	34
2015-12-10 08:11:48	2	Site B	Routine individual call	ColorSpeed (0025762390)	SelfMmsi (0025762390)	F3E/G3E simplex (1000, Ch 67)	Received	34
2015-12-10 08:04:52	2	Site A	Urgency and safety call	Viking (0025762390)	SelfMmsi (0025762390)	Position request (121)	Received	29
2015-12-10 08:04:09	2	Site A	Urgency and safety call	Viking (0025762390)	SelfMmsi (0025762390)	Test (118)	Received	29
2015-12-10 08:00:04	1	Site B	Urgency and safety call	ColorSpeed (0025762390)	SelfMmsi (0025762390)	Test (118)	Received	47

# DSC

**Jotron Digital Selective Calling System (DSC) is an advanced shore station system, providing features and networking capabilities to meet the complex challenges of today's maritime environment**

The DSC system consists of client and server software applications that runs on the Windows™ Operating System and Jotron 7000 series VHF coastal radios and MF/HF radios from alternative manufacturers.

The Jotron vhf radios has a built-in digital DSC modem that guarantees reliable system operation and simplicity. Client/server software applications are used for receiving and sending DSC messages, acknowledge or relay distress alarms as defined by ITU-m493.

Runs on multiple Microsoft™ Windows versions: Windows 7, 10 and 11 Windows Server 2008, 2012, 2016, 2019, 2022

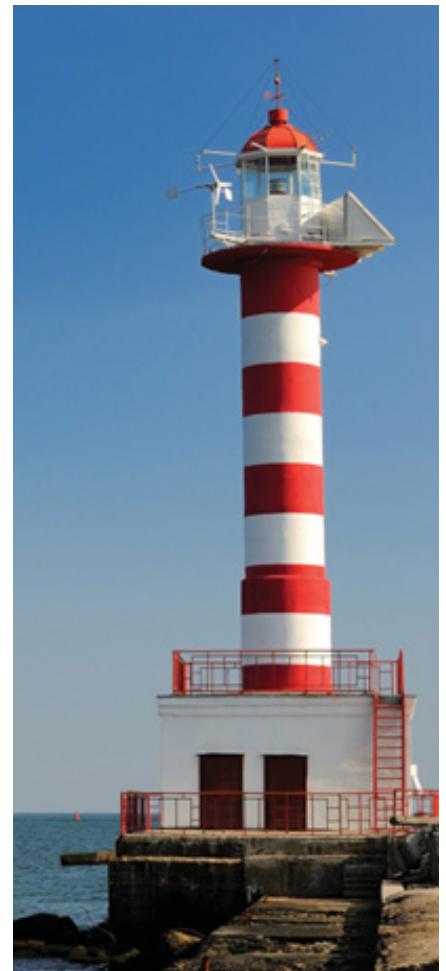
The system is designed to meet the requirements of Coastal Port and VTS Stations and cannot be used onboard ships and vessels without other equipment ensuring that the GMDSS requirements for Ship-Borne radio installations are met. poritio ratemque cusapiet pere landis dene con pratem si doleceritis.

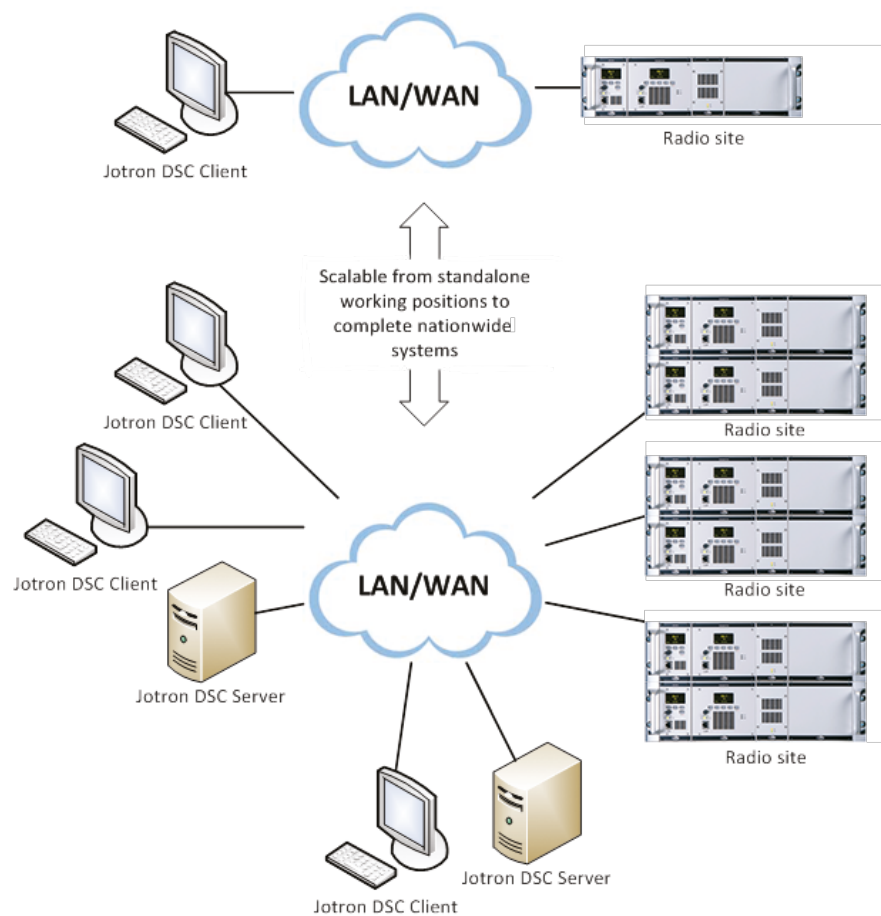
## Features

- Professional IMO and ITU compliant solution
- High reliability and simple system maintenance thanks to digital DSC modem built into Jotron radios
- Advanced message handling and archiving
- Interface to Jotron RRC-7700 system for VHF message handling
- Fully IP based system requires minimal network bandwidth. DSC messages are digitally processed at the Jotron radios, converted to IP and are sent to our DSC server.
- Possibility to share a single transmitter radio between DSC system and voice communication system. Transmitter will automatically switch to VHF channel-70 for sending a DSC message
- MF/HF capable using Jotron gateways towards analogue radios
- Configurable DSC message templates
- Scalable server/client architecture. Suitable for standalone working positions and expandable to large installations with multiple working positions and radio sites
- API towards VTMS systems for integration to customers systems
- Reliable communication within the system using industry-standard TCP/IP network
- DSC messages are archived in an SQL database. Archiving period is configurable and limited only by available storage capacity on the computer. Archived messages can be searched, printed or exported to Microsoft Excel
- System status monitoring and fault indication at working position

## Flexible Architecture

The architecture is flexible and scalable. Multiple clients can connect to a server to operate the same radio sites, a client can also connect to multiple servers at the same time.





## Specifications

### JOTRON DSC SYSTEM PARTS

Jotron DSC client (software component)

Jotron DSC server (software component)

TA-7650C, DSC enabled coastal transmitter unit

RA-7203C, DSC enabled coastal receiver unit

RGW-7700, DSC enabled gateway for MF/HF DSC

### COMPLIANT TO THE FOLLOWING DSC STANDARDS

ITU-R M.493-16

ITU-R M.1080

ITU-R M.821-1

# DSC

## Example operation

The screenshot displays the Jotron DSC Client interface. The main window shows a list of received messages with columns for Time, #, Site, RSD, Type, Destination, Source, and Details. Below this, a 'Send messages' section shows a list of sent messages with columns for Time, Site, Type, Destination, Source, Details, and Status.

A 'Messages Report' window is also visible, showing a detailed list of messages with columns for Time, Class, Site, Type, Destination, Source, Details, and Status. The report includes a summary of total messages and a list of individual messages with their respective details.

At the bottom, two smaller windows are shown: 'Send DSC message' and 'DSC message view'. The 'Send DSC message' window allows users to select a message template (e.g., 'Individual station call (100)', 'Safety (100)', 'Position request (100)', 'Urgency and safety call (100)', 'Routine individual call (100)', 'Routine group call (100)', 'Test call (100)', 'Position request (100)', 'Urgency and safety call (100)', 'Safety call to individual ship (100)', 'Safety call to all ships (100)', 'Urgency call to all ships (100)') and enter details like '1st telecommand', '2nd telecommand', 'Channel (frequency)', 'Position', 'Time', 'Telephone no.', and 'RSD'. The 'DSC message view' window shows the details of a selected message, including the 'Urgency and safety call' template, 'Individual station call (100)', 'Safety (100)', 'Source MMSI', 'Destination', '1st telecommand', '2nd telecommand', 'Channel (frequency)', 'Position', 'Time', 'Telephone no.', 'RSD', and a list of 'Site Name' and 'RSD' values.

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