ATC*ISS
ATC Information Support System
Complete, Updated and Accessible Realtime Information – At Your Fingertips
The Terma ATC*ISS is an integrated information system designed to meet the need of today’s air traffic controllers for structured and updated realtime information. Terma ATC*ISS is the perfect tool for collecting, organizing and serving relevant air traffic information, such as meteorological overviews and forecasts air traffic load data, runway condition, maps, NOTAM information, and much more.

ATC*ISS provides one single access point for information, improving air traffic safety, as well as working conditions and situational awareness for air traffic controllers. Terma ATC*ISS is an advanced information integrator. The system can drastically reduce the number of displays in any control tower as well as centers. The solution is fully scalable — from tower solutions (minimizing the number of displays) to large ATC center installations providing information to hundreds of concurrent users. Furthermore, the unique graphical design tool in ATC*ISS allows users to easily layout and format the graphical user interface according to their own desire. The user may define a wide range of parameters for the selection and presentation of available data and ultimately design his or her personal screen layout. This flexibility even allows a perfect mimic of familiar legacy systems, instruments or screen layouts to ease the stress on controllers during the transitional phase to a new information system.

The data sources for ATC*ISS can be more or less static documents, AIPs, charts or real-time dynamic data sourced from sensors, video, AWOS, AFTN or external international data bases like EAD. The Terma ATC*ISS fully complies with the highest standards of the industry and provides for full scalability and easy expansion.

ATC*ISS is in operation at several large civil and military ATC centers in Australia, Azerbaijan, Bulgaria, Denmark, Germany, Great Britain, and The Netherlands. ATC*ISS is in operation at tower installations in Great Britain, Denmark, and Norway.

Data Flow
To speed up the process of transition to the ATC*ISS, Terma offers optional simulation and training functionalities. ATC staff may go through a series of individual training sessions, each with individual data sets fed into the system either live from external sources, or from pre-installed training scenarios.

Staff will also be trained to use the ATC*ISS graphic design tool, enabling them to customize the user interface to local and personal needs and preferences.

**System Architecture**

The Terma ATC*ISS is built with COTS components, ensuring reliability, low installation and maintenance costs, as well as a short project development schedule. Designed on an open, LINUX/UNIX based client/server system architecture, ATC*ISS can be configured to any size of network – from small installations with few clients to large distributed national networks with hundreds of work stations.

### Main Benefits

- One access point to all relevant ATC information
- Supports a wide range of data types
- Meets the industry’s highest standards
- Improves operational efficiency and air safety
- Reduces stress while optimizing response time
- User-customized interface
- Short development and installation time
- COTS components used throughout the system
- Flexible and fully scalable system architecture
- Fast transition through efficient training programs
- Low installation and maintenance costs

**AFTN (met, bulletin, etc.)**

**AWOS (local weather)**

**FDPS (cfmu, etc.)**

**PLC (mechnical or electronic components)**

**Video**

**EAD**

**Maps and pictures**

**Documents (regulations, etc.)**

**Free text messages**

**Page layout**

**Restricted areas**
ATC*ISS®
At a Glance

User functions
- Page based GUI
- Real time on-screen update
- Selection by: Menu, Buttons, Soft Spots, Search
- Embedded language
- Alarms and alerts
- Free Text Message Board
- GIS
- Lists
- Support for: Mouse, Keyboard-pad, Touch input, On-Screen Keyboard

Screen layout examples from customers
1 Radio buttons to select
   SIDs & STARs
2 Fast keys
3 DF frequency selection
   & graphic display
4 Layered charts & maps
5 Menus
6 Dynamic graphics
7 Dynamic data items
8 Status line with indicators
9 Map Display
10 Chart Selection
11 PDF Display

Online editing
All functions integrated
WYSIWYG
Release scheduling
Item database
MAP creation

Offline input
PDF/HTML/TIFF/TEXT/CSV files
Jeppesen Aeronautical data
ICAO documents
Images (Scanner input, etc.)

System Architecture
Dual/Single servers
Central/Local servers
SNMP support
Recording/Replay
Printing
System Monitoring & Control

Controller Working Positions

Scanner
Data Support
Servers
Printer
External Systems

At a Glance

14:04:20
ENZV APP

1  Radio buttons to select
   SIDs & STARs
2  Fast keys
3  DF frequency selection
   & graphic display
4  Layered charts & maps
5  Menus
6  Dynamic graphics
7  Dynamic data items
8  Status line with indicators
9  Map Display
10 Chart Selection
11 PDF Display

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Terma AIR

Terma develops, produces and markets Radar Data Processing Systems, communication and information systems for the management of air traffic and communication between aircraft and control towers.

Terma is a global market and technology leader in this field. Today, more than 300 Terma AIR systems are in operation, worldwide.

The systems enable relevant information to be communicated and exchanged accurately, quickly, efficiently and automatically. This increases AIR operational efficiency, improves air traffic controller and pilot working environment, enhances controllers’ situational awareness, and contributes to air safety enhancement.

More information about Terma AIR and its products can be found on www.terma.com

Operating System:
UNIX/LINUX

System type:
Dual/multiple server, dual/multiple LAN. Client-server architecture.

Concurrent users/positions:
From 1 to 200+ in a single installation.

Response times for dynamic data:
Typically <1 second.

Cold start time:
Typically <5 minutes.

User input:
Trackball, Touch-screen, Mouse/Keyboard.

Display:
1024x768 to 1920x1200+ in true color.

HMI:
Customer adaptable.

Access Control:
Supervisor log in. User groups and user roles define which data and display pages may be accessed.

External interfaces (physical):
Serial (RS232, RS422, RS485), X2S, TCP/IP, relays/voltage measuring.

External interfaces data type examples:
AFTN (METAR, SPECI, TAF, SIGMET, AIRMET, ARFOR, SNOWTAM, NOTAM, Local-QNH, Area-QNH, Navigational warning, and more). NOTE: Data types for an installation are determined with customer. ATC*ISS can be interfaced to almost all types of data which can be transmitted on an AFTN network. Customer can perform modifications to the input data format syntax check after system delivery without the involvement of Terma.

Sensor data:
RVR, Runway Lighting, Surface Wind, AWOS, and more.

External systems:
ATIS, EAD, Weather radar, monitoring and control systems.
Control of third party systems from ATC*ISS and distribution of third party systems display output through X11, RDP or video digitizer (e.g. Radar, ASMGCS, EFMU Terminal).

Video:
Real time digital or analogue video.