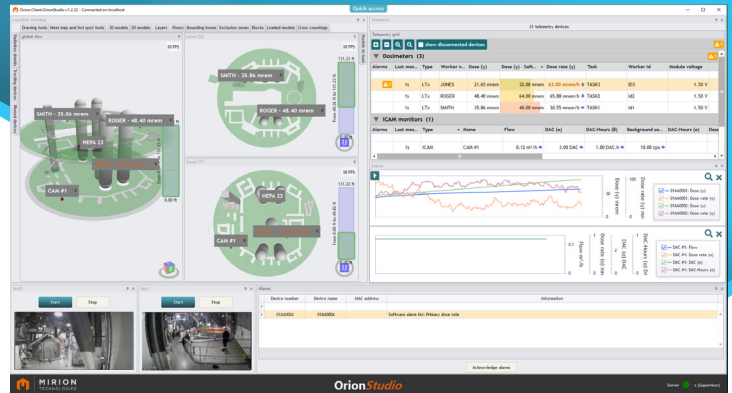




MONITORING

Orion™ Studio Software

Orion Real-Time Location System Component



Orion Studio Software is a Telemetry and Real-Time Location supervision tool for nuclear and industrial environments. It combines remote radiological monitoring through Wireless Remote Monitoring telemetry enabled instruments and location data from Mirion's Orion real-time location system enabled products. A comprehensive 3D environment permits the visualization of dosimeter and instrument movement, radiological hazards through dose rate heatmapping, identification of entry into high-hazard zones by geofencing, and other features specifically designed to support safety, efficiency, and critical path time improvement.



ORION STUDIO FEATURES

- Location tracking of dosimetry with real-time radiological data
- Location tracking of telemetry enabled radiological measurement instruments with real-time data
- Messaging to dosimeter, i.e., Contact RP or Leave Area
- Track other dose rate and area monitoring devices
- Asset and critical component location tracking
- Remote monitoring for area dose rate and other transmitting devices
- 2D and 3D Map Visualization of monitored areas
- Real-time geofencing/exclusion area monitoring
- Supports asset boundaries to alert removal from the monitored location
- Radiological data consolidation into dose rate heatmaps
- Virtual cross-boundary monitoring (counting in/out of areas)
- Supports location tracking and data visualization for Mirion and many other continuous air monitors
- Client/Server Deployment
- Operator ability to select specific regions of interest for visualization
- Operator ability to define specific areas or working groups to monitor
- Rapid identification of radiological alarm locations
- Visualization of specific teams or focus areas for job coverage
- IP Camera Support

DESCRIPTION

The Orion system enhances remote monitoring by combining WRM telemetry data and real-time location tracking with the optional use of four or more IP cameras. The software allows a user to monitor movement in real time together with radiological conditions. When used in a properly configured Orion network, location accuracy to 1 m, with low latency, is achievable.

Orion Studio is a client/server software solution that integrates the WRM radiological data (Dose, Dose Rate, Alarm Conditions, Airborne Concentration, flow rates, temperature, voltage, ppm/ppb, etc.) within 2D or 3D views. A customizable display layout can be prepared for specific areas of interest/focus to permit multiple operators to effectively cover individuals or work teams engaged in high-hazard tasks.

SPECIFICATIONS

Remote Monitoring Functions

- Supports multiple communication protocols (e.g., WRM2™, WRM3™, RAMSYS™, RadNet systems)
- Automatically categorize the transmitting devices to the appropriate monitor type (Dosimetry, Area, CAM, O2 Sensor, compatible chemical detectors, etc.)
- Software alarms (“pre-alarm”/warnings) to alert Orion Studio operators that levels are approaching alarm conditions
- Access control connectivity for auto-login/logoff features
- Continuous recording of alarm and fault conditions
- Ability to “pin” and display data from “static” monitors onto the 2D/3D drawing/map
- Support for grid views of radiological data or tile structures
- Charts and exportable data by device type, ID, etc. for data capture and trending

Real-Time Location Functions

- Visualize dose and dose rate data with real-time location on the 2D or 3D area representation
- Visual device alarms on the 2D or 3D area representation and the list view
- Create geofences for monitoring or excluding occupation in high-hazard areas
- Optional alarm and messaging to the dosimeter when crossing a geofenced area
- Create focus areas or work groups to support visualization of specific teams or locations for monitoring

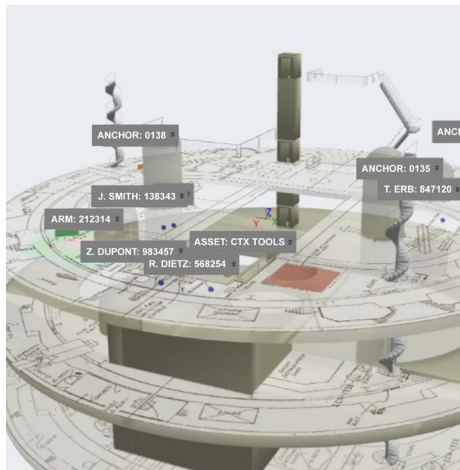
- Aggregate radiological dose rate data with location over time to form “heatmaps”
- Configurable display layouts supporting multiple monitors
- Save drawing view configurations for specific jobs or create standard layouts
- Import a variety of 2D and 3D file types for visualization

Server Requirements

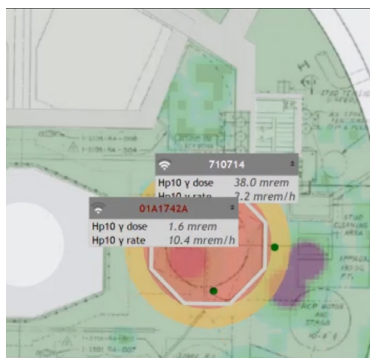
- Memory: minimum 8 GB/recommended 32 GB
- Processor: x64 Processor. 2.5 GHz or faster, minimum 4 cores/recommended 8 cores
- Hard disk: 500 MB of available hard disk space for installation. 1 GB or more for data recording
- Operating system: Windows Server 2016 or greater, .NET Framework 4.6 or greater

Client Requirements

- Memory: minimum 8 GB/recommended 16 GB
- Processor: x64 Processor. 2.5 GHz or faster
- Graphical card: GPU with DirectX 12 support, minimum 1 GB of GPU memory/recommended 4 GB
- Monitor resolution: 1920 x 1080 display or greater
- Hard disk: 500 MB of available hard disk space
- Operating system: Windows 10, .NET Framework 4.6 or greater



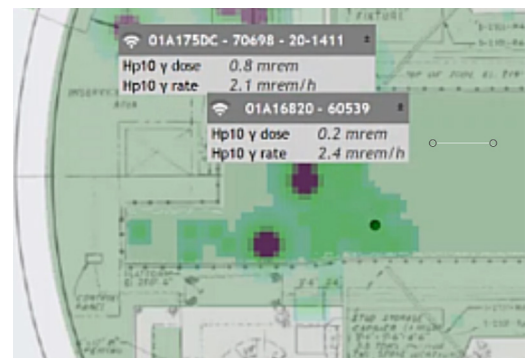
Remote Monitoring with Location



Geofence



Asset Tracking



Dose Rate Heatmap