SiYtE for Extreme Weather Insights & Alerts

SiYtE Smart Analytics

Purple Transform's mission is to harness AI to enable the critical national infrastructure to improve safety and maintain operations, using our Smart Analytics platform, SiYtE.

Impact of Extreme Weather

Extreme weather is a growing issue, causing **flooding, embankment instability and delays in operations** at a growing frequency. Many organisations are having to develop long term strategies to adapt to extreme weather conditions.

A significant challenge with the deployment of sensing systems is the ability to record and collect data remotely and in real time, given the **challenges of connectivity and power** on the rail corridor. Assessing conditions often means people going to site, which has safety, financial and carbon impact.
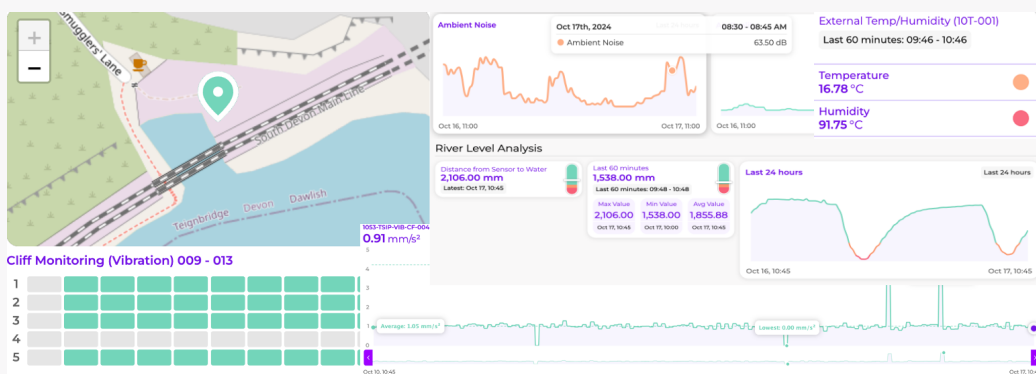
Given the breadth of effects of extreme weather, there is no one single detection system. The disparate sensing systems in use produce alerts in different formats, often requiring technical knowledge. This **complexity** hampers response, with data often inaccessible or hard to understand for extended teams and mobile responders.

SiYtE Smart Analytics for Extreme Weather Insights & Alerts

SiYtE combines analytics from **cameras, sensors and third-party data via APIs**. SiYtE has an integrated workflow tool that can create **flexible and consistent alerts** based on any defined criteria, via email, SMS, mobile app or into another system such as MICA. SiYtE assists asset teams in making data driven decisions to improve train performance:

- **Reduce complexity for responders:** Aggregate alerts into one simple format.
- **Reduce complexity for asset teams:** Aggregate data into combined dashboards/alerts
- **Provide context with alerts:**
    - Provide camera images with alerts, e.g. for water levels alerts from sensors.
    - Access public data, such as wave height from weather buoys and tide levels.
- **Remote access for asset teams:** Solutions using managed **IoT sensors** to connect systems as disparate as pumps, water levels, gate status and air quality.
- **Flooding alerting:** Connected solutions for under bridge and surface water flooding.

For more information or demonstration please contact info@purpletransform.com