

Update: ALERT2™ Source Address Management System (SAMS)

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What is a Source Address?

- Source Address is the numeric address of an ALERT2-transmitting site
- Range of possible source addresses is 0-65K; much greater than the number of ALERT Site IDs (1-8K; same as ALERT Sensor IDs)
- IDs will be reused throughout USA and world


Source addresses: Use existing ALERT site ID or new higher address

The dashboard features a sidebar with navigation links: Dashboard, Sites, Overview, **ETG @ Hampden (10011)**, Add Sensor, Groups, Add Site, Sensors, Alarms, Systems, Views, Data, Reports, Web, Insight, and Accounts.

The main content area displays a map with two site locations. The top site is labeled 'Site ETG @ Hampden (10011)' and the bottom site is labeled 'Site ETG @ Hampden (10011)'. Dashed blue arrows point from the 'Sites' link in the sidebar to these site details.


Site Details for Heritage Park (3090):

- Site: Heritage Park (3090)
- Site ID: 3090
- System: Heritage Park
- Latitude: 39.5415706
- Longitude: -104.9211083
- Elevation: 0 feet
- Client: UDFCD



Site Details for ETG @ Hampden (10011):

- Site: ETG @ Hampden (10011)
- Site ID: 10011
- System: ETG @ Hampden
- Latitude: 39.6527270
- Longitude: -104.7274610
- Elevation: 5749 feet
- Client: UDFCD



SAMS: Source Address Management System

- A web database of ALERT2 site source address, location, and owning agency
- SAMS checks if an ALERT2 source address is in use nearby
- Database is simple and self administered
- Hosted by OneRain today – can be hosted anywhere

SAMS Home Page

Alert2

Source Address Management System | Version 0.2.0

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ALERT2 Protocol Improves Data Collection Capabilities for Automated Flood Warning Systems (AFWS) and Environmental Monitoring

ALERT2 is the new standard protocol designed to replace ALERT (*Automated Local Evaluation in Real Time*). **ALERT2** provides a graceful transition of real-time data collection systems from providing slow, lean, error-prone environmental data to receiving fast, information-rich, error-free knowledge about events in the real world.

ALERT2 has many benefits

- ♦ Faster by more than 10 times; much greater system capacity
- ♦ Full error detection and forward error correction: good data or no data
- ♦ Use of time division multiple access (TDMA); GPS-accurate clocks and no more traffic jams
- ♦ Large identifier fields; many more site and sensor identifiers
- ♦ Unlimited message content; full engineering values, rich information
- ♦ Protocol can be extended to support custom messaging needs

Addresses



ALERT2 Source Addresses (SA) are the identifiers for a site.

Agencies



All ALERT2 Source Addresses are assigned by an agency. You can request an account for your agency by following the link: [Register your agency](#).

Once your agency has an account, you can add and manage source addresses for your agency.

[Privacy](#)

About



The easiest way to really get started with Alert2 is to check out the full docs and info at alert2.onera.in.net/about/.

SAMS Database

- Owner table
 - Agency identification
 - Login/password
 - Regional lat/long boundaries
- Site table
 - Source address
 - Lat/long coordinates
 - Owner agency identifier
 - Site information

Source Address Request

- Source Address and Owner Agency ID together uniquely define an ALERT2 site.
- SAMS suggests the next available Source Address for a new site request by the owner agency.
- User can also request a specific source address (could be existing ALERT site ID).
 - SAMS will give feedback if source address doesn't pass muster.

SAMS is Up and Running

- www.alert2.org has been available since 2013
- Full instructions available at the site: no special training required
- 14 agencies have registered accounts

Work in Progress

- Was launched in pilot form to manage source addresses already in use in ALERT2 systems.
- ALERT2 TWG chose initially not to manage time slots and frequencies.
- Known opportunities for improvement:
 - Absence of ALERT IDs makes ALERT-ALERT2 transition more difficult
 - Can't request a range of IDs – one-by-one only
 - Can't have more than one ID at same location (makes “warehousing” IDs difficult)

TWG-requested SAMS Updates

- Single site entry with warning; user override option.
 - If user accepts the ID, system automatically emails agencies within 1000 miles of potential conflict.
- Bulk load of Source Addresses with conflict checking.
- SAMS API – Automated interface with outside programs. Sample uses:
 - Request a new Source Address, report IDs by agency
- SSL certificate for alert2.org
- Public access to all published documents relating to standard.

Future Directions

- Need some sort of common toolset to organize growingly complex networks
- Example: Ventura County's frequency/TDMA database
- DWR grant project in SCAN region will provide community and TWG more knowledge
- Final tools don't exist, improved tools will emerge from managing real world issues
- Meanwhile, at least we have a place to keep track of IDs we're putting out there now

Thank you. ???

