

EARS-X contains fewer features and has less processing capacity than EARS-SAS versions. It is maintained for use by organizations that do not have the SAS software.

The major analytic features and differences between EARS-X and EARS-SAS are as follows:

- EARS-X accepts 3 data structures and EARS-SAS v5.1 accepts 5 structures: See the Data Requirements section on the EARS homepage for more information on this topic.
- EARS-X accepts data as Excel files only; EARS-SAS accepts the following file types: SAS, Excel spreadsheets, Access tables, and various delimited text file types.
- EARS-X is limited in the size of the dataset it can accept by Excel 2003 specifications (~75,000 observations); EARS-SAS is limited by your computer's processing capacity which can typically handle datasets approaching millions of records)
- EARS-X permits stratification by only 1 variable, while the EARS-SAS v5.1 permits 3 stratification variables.
- EARS-X treats missing values as follows:
 - Observations with missing count/rate values are assigned count/rate values of zero and the zero value is used by aberration detection algorithms; EARS-SAS v5.1 keeps values as missing and does not allow missing value to be used in algorithm calculations
 - Missing dates do not appear as gaps in your data and counts/rates on the dates before and after the missing dates will be connected on the time series; EARS-SAS v5.1 shows missing values as gaps in time series.
- EARS-X only permits analysis by "daily" and "weekly" units of time; EARS-SAS permits bi-weekly and monthly analyses too.
- EARS-X has three algorithm options: the c1-mild, c2-medium, and c3-ultra algorithms. C4-healthcare is only available in EARS-SAS v5.1.
- All 3 available algorithms in EARS-X always run and their output is always displayed; EARS-SAS v5.1 permits selection of which algorithms are run as well as the setting of thresholds to filter which algorithm results are displayed in output.