GWSDAT (GroundWater Spatiotemporal Data Analysis Tool)

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The GroundWater Spatiotemporal Data Analysis Tool (GWSDAT) is a user-friendly software application developed by Shell for the analysis and visualisation of visualise trends in environmental (groundwater) monitoring data. In this presentation we will discuss the underlying software architecture and demonstrate GWSDAT functionality which includes:

- Linking GWSDAT to Microsoft products for a user friendly application entry point (e.g. Excel, PowerPoint, Word) and automatic report generation (R packages: RExcel and rcom).
- Graphical User Interface (R packages: tcltk and rpanel).
- Time series trend detection (R packages: sm, Kendall and zoo).
- Methods for visualising and handling Spatial data (R packages deldir, sp, splancs and maptools).
- Smoothing and spatial plot animations for spatiotemporal trend detection.

GWSDAT Screenshot.