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The Fishnet Approach to Data Quality Control at SRNL

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Savannah River Site Meteorological Monitoring Program

- SRS is a DOE Nuclear Facility located in Aiken, SC.

- The SRS Meteorological Monitoring Network consists of:
  - *8 Area Towers (2 instrument levels)*
  - *3 Research Towers (multiple instrument levels)*

- Data available in real-time

- Meteorological data used in multiple applications onsite:
  - *Emergency Preparedness & Response*
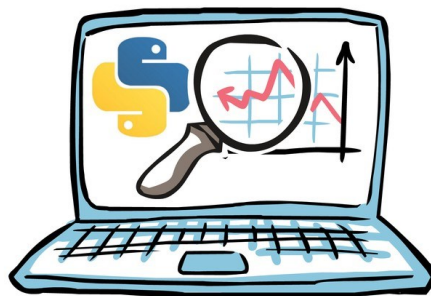 - *Nuclear Facility Safety and Design (DSAs, etc.)*
  - *Research*

Streamlining the data QC and QA process

Extract Data
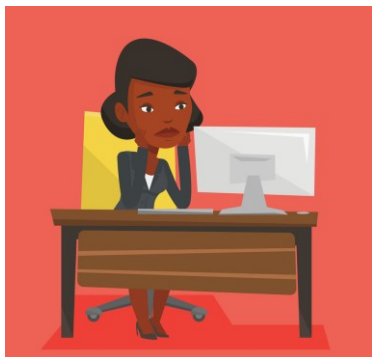
Visual inspection

Add QA flags and send to database

What should a good QA/QC software tool provide?

Software Tool

- Reduces Effort/Manual Labor
- Robust Method
- Easy Data Visualization
- Provides Insight
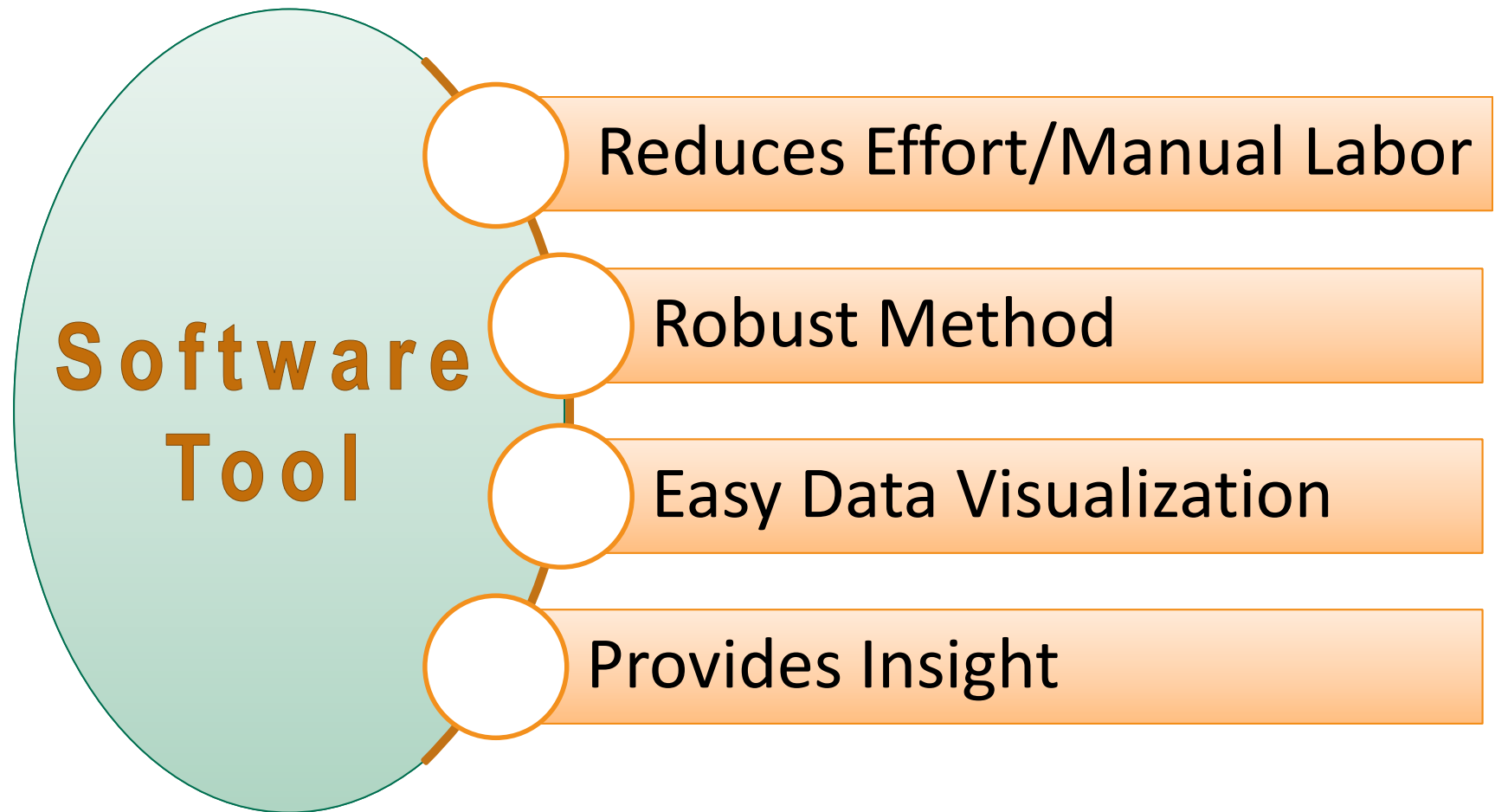
Fishnet is developed

- *FISHNET – combs through the 'sea' of data, "pulls out" suspect data while allowing the good data to "pass through".*

  - *One single so...nd/or edit data flags that are ...*
  - *Automatically ...*
  - *Provides diffe...*
  - *Considers mo...*

Drama...QA
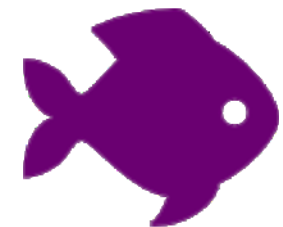
Example of Fishnet Screen

Color Coding Aids for Place Keeping

Main Benefits of Fishnet

- Reduces the time needed to complete QA

- Facilitates identification of periods of suspect data and subtle errors

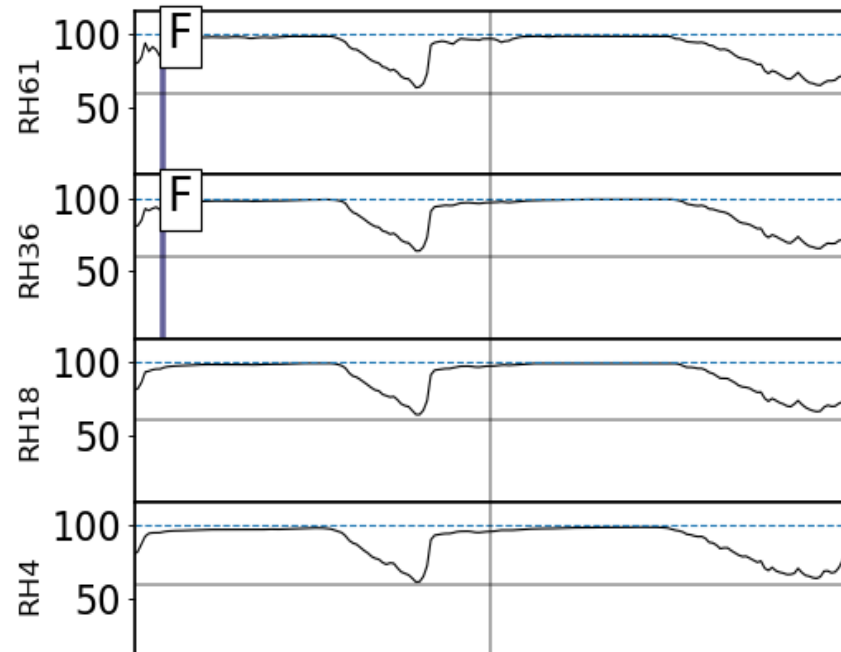- Unifies the process and allows educated assessment and decisions
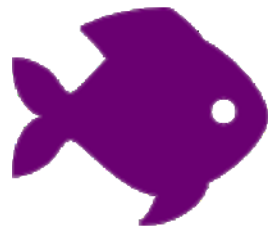
Future Work

- **Improve rules and range checks**
- **Add checks for constant values**
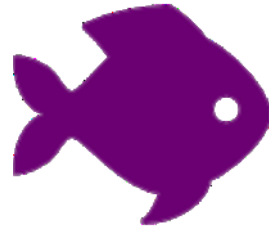

Temperature Inversions

RH Sensor saturation

Machine learning?

Questions?

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