# MyStationPerformance.Com


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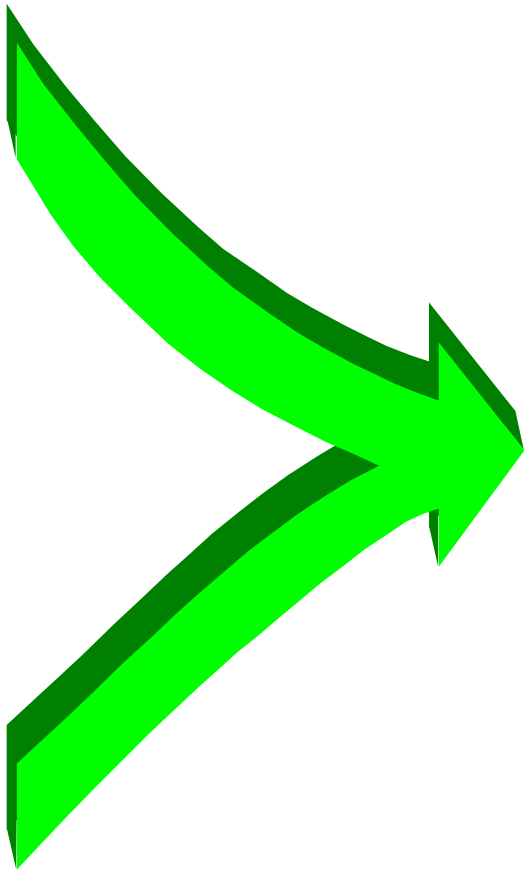
# Why?

- Performance problems sometimes persist for extended periods
- Some sites have limited on-site analysis capability
  - Lack automatic warning system
  - Lack long term trend analysis capability

# Key Design Features

# Benefit

- Web-based
- Aggregate analysis
- Dynamic
- Comprehensive
- Graphical
- User-Friendly
- Interactive
- Artificial Intelligence



**Quickly Identify Performance Problems**

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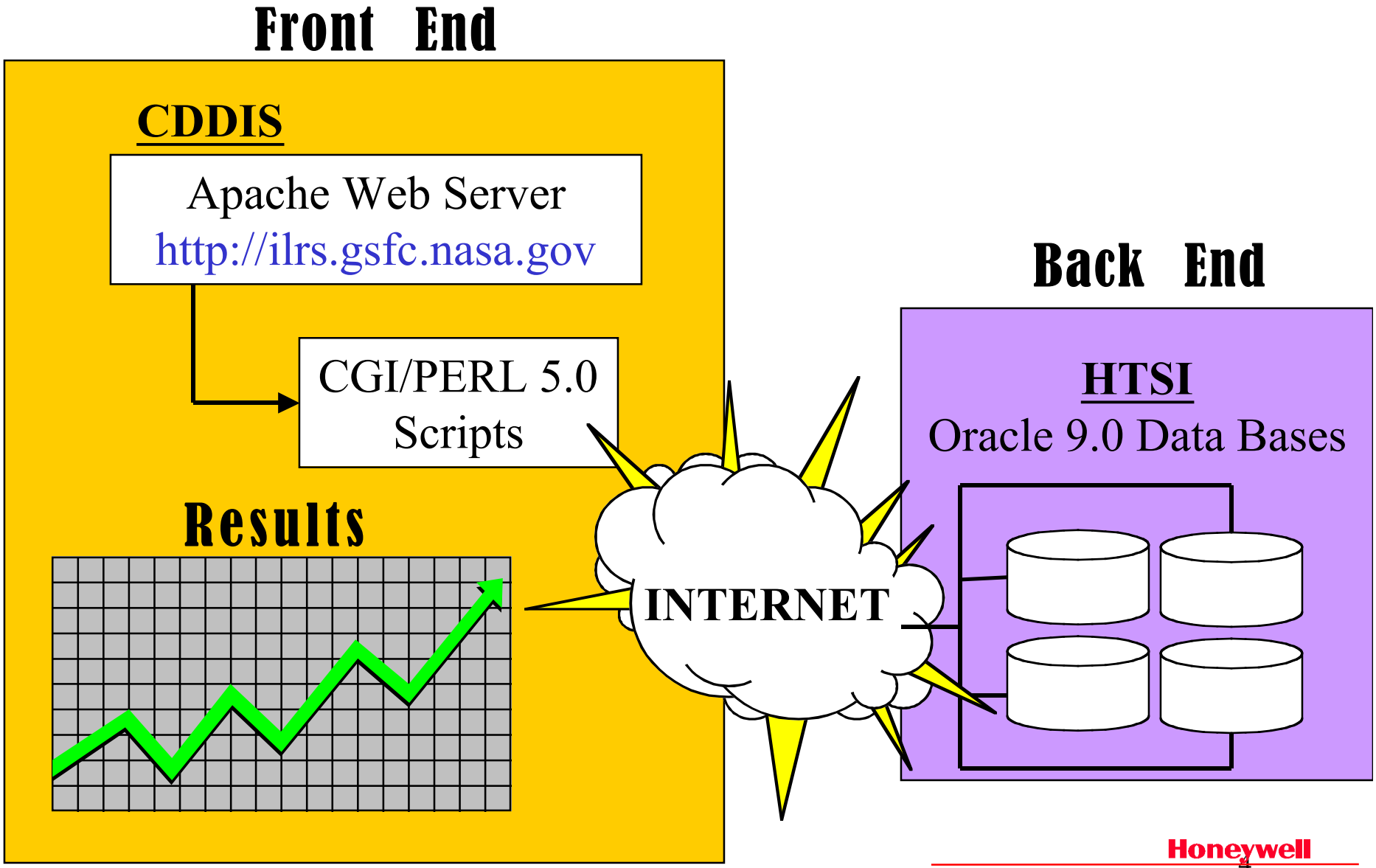
# Computer System Architecture

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# Types of Data Bases

- Normal point data base (1995 to the present)
  - On-site processing statistics (RMSs, system delay, full-rate observation, etc.)
  - Met. Data
  - Data Latency
- Bias reports (LAGEOS, GPS, LEOs)
- BEST Calibration Practices
- Symptoms/causes of performance problems
- Site Logs

# Site Performance Main Page

- Choices via pull down menus
  - My Metrics
  - My Symptoms/Causes
  - Best Practices
  - My Site Log

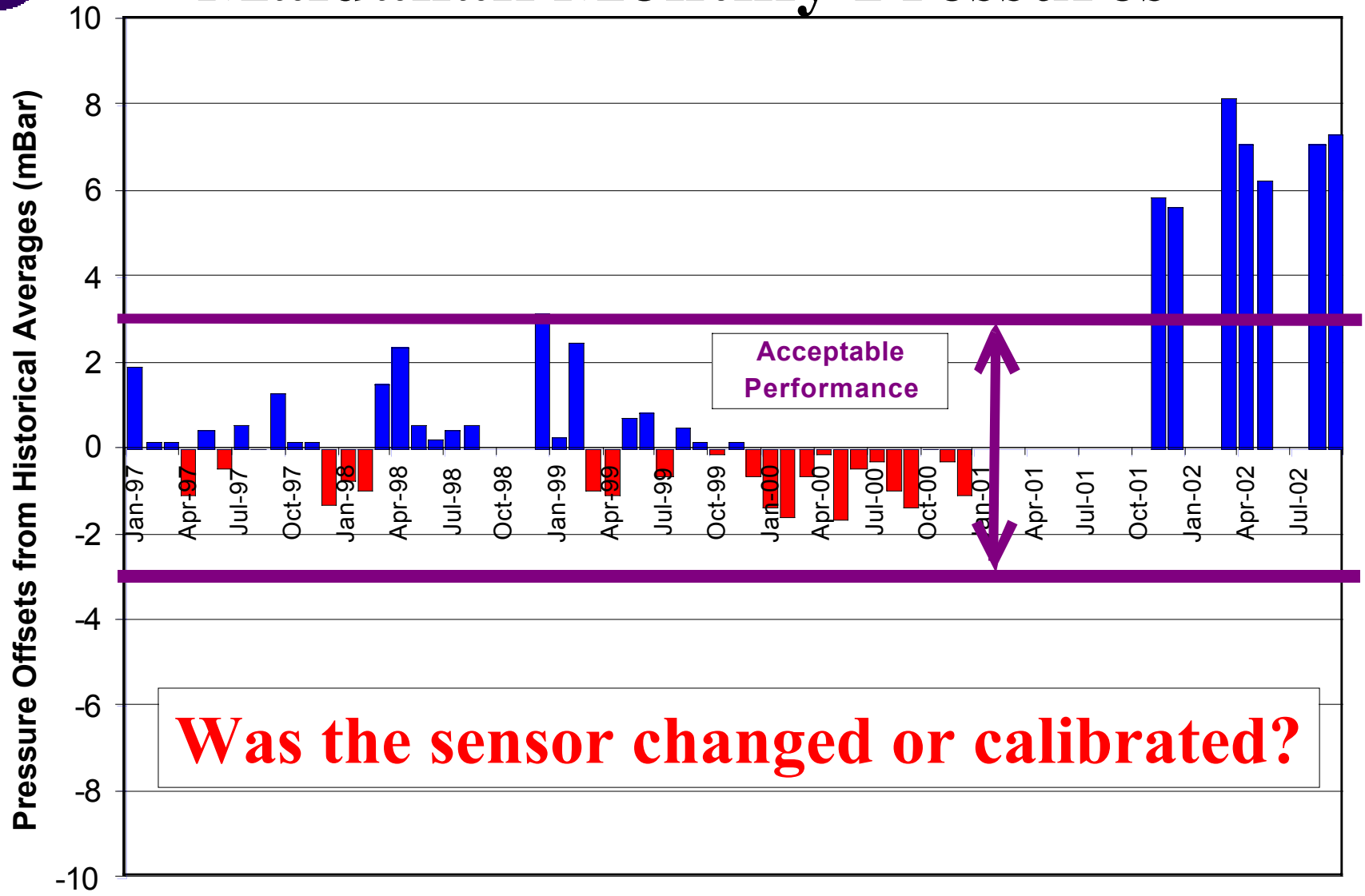
# My Metrics

- Choices via pull down menus
  - Site
  - Satellite(s)
  - Performance Categories
    - Data Quantity
    - Data Quality
    - Operational Compliance


# My Metrics Example

- **Site: Maidanak (1864)**
  - **Satellite(s): all**
    - **Category: Met. Data**
      - **Sub-Category: Pressure**
        - » **Chart: Monthly Time Series**

# Maidanak Monthly Pressures

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# My Symptom/Causes Example

- Symptom – excessive range bias (i.e. >5 meters)
  1. Was calibration nominal (YES/NO)?
  2. Was subsequent data OK (YES/NO)?
  3. Was this a daylight pass (YES/NO)?

**Answers 1. YES, 2. YES, 3. NO**

**Potential Causes**

- **Midnight Crossing Bug in software/procedures or**
- **Operator Error**

# BEST Practices

- Choices via pull down menus
  - Laser
  - Counter
  - Detector
  - Telescope/Mount
  - Total System Calibration

# BEST Practices Example

- Category: Counter

  Type: Time Interval

  Manufacturer & Model: SR620

  **BEST Practices**

  – Maintain strict environmental temperature control
  – Minimize noise on the incoming timing signal with good grounding and shielding
  – Allow for adequate warm-up time
  – Use an external oscillator
  – Calibrate or Cluster

# Conclusions

- Very ambitious project
- Will need to conduct this in phases
- Will require support and feedback from the community, especially the Networks and Engineering WG
- We will provide periodic updates
- **Sites should continue doing their own diagnostics and system characterization tests**