

# OPS SQL / Drinking Water Treatment Plants

## Here is the central storeroom for all your information

A database designed specially for Water Utility Data Management. It has all the tools you need to manage your processes, including industry specific: Calculations, CT calcs, 15 minute turbidity algorithms, Reports: MOR, CCR, Filter Turbidity

**What do you want to track?** Dosages, surface loading rates, detention times, calculations... Create the variables that are unique to your process. Build a database that not only defines a name, units and tracking frequency, but the tabs show describe various attributes of the variable. This allows you to control the use of the data for any requirement you or regulatory agencies may desire.

**Options** include data approval and PDA Controls. **MDL Rules** are applied to how results are reported. **Interfaces** define automatic data entry. Regulatory and control **Limits** can be applied for reporting and statistical analysis. **QC** is used to create control chart graphs. **Lists** give you standardization for reporting text. **Equation** has over 140 Water specific math functions.

### Variables to track

- Parameters
- Calculations
- Text
- Chain of Custody
- Audit trail

### Data in

- SCADA
- Laboratory
- PDA
- Tablet PC
- Manual
- Bench Sheets

### Information out

- Reports MOR, CCR, QC, Turbidity...
- Analysis Trend, Correlation, Probability

## The Power of Information

Bring all your SCADA, Laboratory and operator log data together and transform it into information.



**Edit/View Variables**

Info... Var # 529

Name: Coagulant Day Tank Usage Units: Lbs

Track every: Day Type: Parameter  Read-Only

Options: User Defined MDL Rules List LIMS Interface

Description Limits Optional Print Quality Control Equation **Interface**

Signal Tag (Node:Tag.Field) Statistic Scale Factor

COAG\_AID:DAY\_TNK\_LVL.PNT ? Inventory 571.3261

Start Time Stop Time Filter

00:00 (hh:mm) 23:59 (hh:mm)  Same Day as Start  Day After Start

Low Range None High Range None Deadband None

Filter Data

Collect data when: Node: Tag.Field

? = 0

SUPER (1/16/2005 7:06:25 AM) VARID : 98

# Data In

To manage your processes, the information you'll need comes from three sources: **SCADA, Laboratory and Field**. Much of the data input can be automated saving both time, and, more importantly, errors. Data integrity is further enhanced by approval controls and audit trail. Besides the Interfaces to SCADA and Lab files, OPS provides PDA and Tablet PC solutions. Manual data entry is made efficient by providing a variety of data entry forms which can be easily be customized and assigned to personnel based on the security level and job function.

Operation's Midnight Report									
Tuesday, September 23, 2003									
Daily		Year to Date		Chemical		Dosages			
Plant Influent	40.00	MG	Return Water	6,854.31	MG	Alum	0.00	mg/L	
Total Blender Flow	42.69	MG		7,262.87	MG	Coagulant-aid	0.00	mg/L	
Plant Effluent	41.88	MG	Plant Eff - Res Fill	9,999.00	MG	PAC		mg/L	
Water Diverted to ERB		MG		7,507.37	MG				
Current Level		Comb							
Reservoir #1	20.91	Feet	Tot						
Reservoir #2	20.41	Feet							
Reservoir Theoretical Detention Time									
Chlorine Contact Time									
Current		Prev							
Electric Meter #2 (New MCC)									

Filter Solids			
06/20/01			
	FLETTSS	BWTSS	SlagTSS
Sample & Tare	0.8810 g	0.9230 g	1.1150 g
Tare	0.8770 g	0.8760 g	0.8760 g
Solids	0.0040 g	0.0470 g	0.2390 g
Sample Volume	200.00 ml	50.00 ml	50.00 ml
Suspended Solids	20 mg/L	940 mg/L	4,780 mg/L
Signature _____			

# Add-on Modules/Interfaces

**LAB Cal** is a scheduling program that displays Lab orders on a calendar, shows tests to be run and records chain-of-custody.

**GnR Server** runs an NT service that allows automatic publishing of OPS SQL reports and graphs.

**Pocket OPS** allows you to use collect data from the field on a PDA. Then simply sync the data to the OPS SQL database.

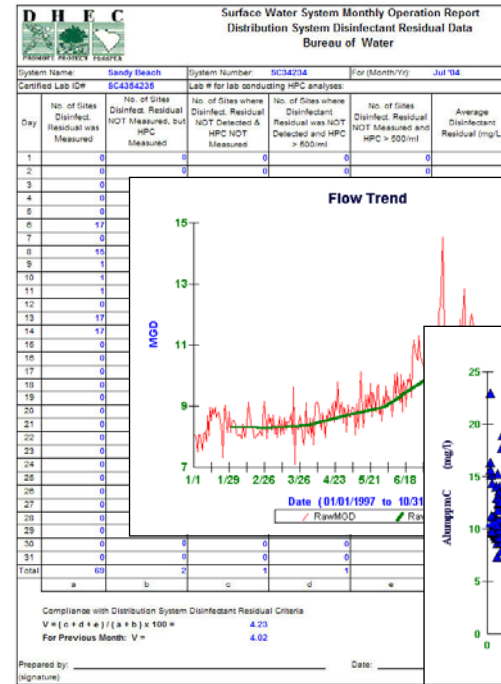
**OPS SQL Remote** allows remote users to collect data on any disconnected PC or Tablet PC. Data entry forms and *LAB Cal* sampling work just like they do in *OPS SQL*.

**SCADA Interface** allows you to build a bridge to your SCADA/HMI/HIST to automatically summarize and collect this data.

**LIMS Interface** allows you to build a bridge to your Laboratory Information Management Software or even to an outsourced commercial lab.

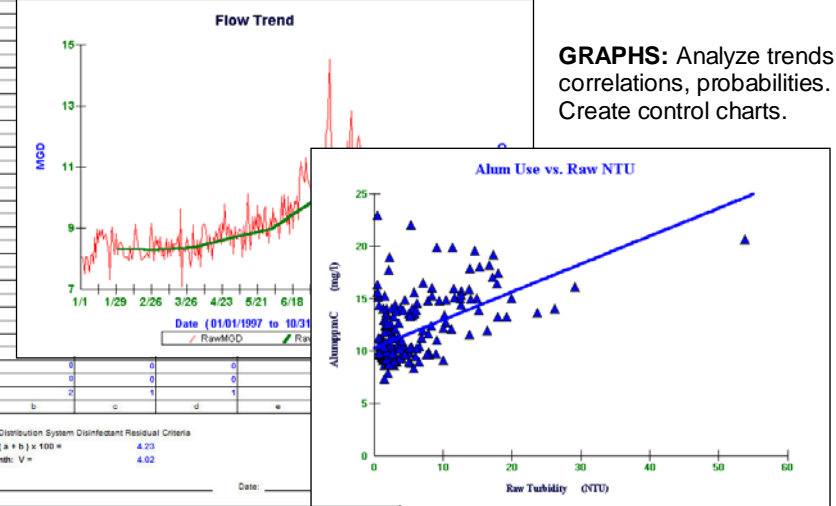
# Information out

Now you can turn information into action and improved performance of your operation. Most of your regulatory report templates are already in the program.



**REPORTS:** Ad hoc reports can be designed in minutes. Your people can get the information they need when they need it.

**GRAPHS:** Analyze trends, correlations, probabilities. Create control charts.



# Products

**OPS SQL Enterprise** for large operations needing more than 10 concurrent users, running Oracle or MS SQL Server and managing one or multiple facilities.

**OPS SQL Professional** for medium to large operations needing 1-10 concurrent users, running Oracle or MS SQL Server and managing one or multiple facilities.

**OPS SQL Express** for small to medium size operations needing 1-5 concurrent users, managing one or more facilities, tracking up to 32000 variables per facility database, with data storage requirement of less than 2-gigabytes per facility. MSDE database supplied.

**OPS SQL Lite** for single computer operations, tracking less than 300 variables in a single 2-gigabyte facility database, no security requirements. MSDE database supplied.