WIMS 7.5 Update



Multi-facility management and improved analysis tools

Hach WIMS has always provided a wide range of tools to easily generate reports, create useful dashboards, and perform in-depth analysis. These tools make your data meaningful so you can quickly see your key performance indicators, evaluate your chemical and power usage and generally assess the efficiency of your operations.

Enhanced with even more powerful tools, WIMS 7.5 brings new Statistical Analysis (SPC) tools and new, comprehensive ways to look at your data from across multiple facilities. Other new features included are better visibility for Entry Limit Exceedances and Daily Limit Violations with new highlighted background colors

New Statistical Process Control (SPC) Tools: SPC concepts help to identify when a process variation occurs due to outside forces or if they are inherent to the process. Now it is even easier to differentiate process variations so you can dig deeper to find the root cause when warranted. The tools consist of new reports and a number of new charts to help you visualize your process to detect outliers, analyze data for predictions, see how variables influence each other, etc.

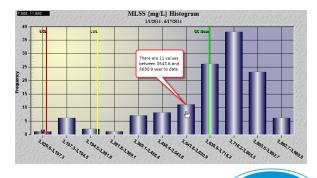
A correlation heat map shows what variables correlate to the variable being analyzed to gain better insight into how specific parameters relate to each other.

0.890.3143.149	MLSS Individuals Gra 102004 - 1/01/2014	ph
4200		10
4000		
3800		not a man
1 3600 / ·		
3400		
3200		× 10
3	e 12 18 18	24 24 27 30
5 1400-	6 12 15 18 Moving Range Chart	
120	Moving Range Chart	
1400	Moving Range Chart	
1400	Moving Range Chart	
1400	Moving Range Chart	
1400 1200 1000 800	Moving Range Chart	•
1400 1200 1000 800 600	Moving Range Chart The value changed by 400 from the 50% 400 from the 50% 400 Moving Range Graph.	

Sele	cted Independent Variable		Date Setting	S		OK	
	V4018 Eff BOD Duplicate		Start Date	5/1/2013 🕂 🗸	May 2013		
Offse	et 0 day(s) forward depen	ident variable's data	End Date	5/31/2013	May 2013	Cancel	
✔ F	Remove Dependent Calculated Var	riables					
A	dd Remove	Remove All	Refresh				
	Variable	Linear Regression		geometric		Exp	
	valiable	Equation	Coeff of Cor	Equation	Coeff of Cor	Equation -	
1	V4018 Eff BOD Duplicate	Y = 0.937890 * V4018 +2.2	2294 0.964575	Y = 1.328633 * V4018^(0.91777	0.922591	Y = 11.954809 * exp(0.	
2	V1021 MLSS	Y = - 0.070807 * V1021 +28	4.47 0.733320	Y = 25,199,751,704,133,800,000	0.634341	Y = 10,069.762307 * e>	
3	V1022 Total MLSS Mass	Y = - 0.003396 * V1022 +28	4.47 0.733320	Y = 1,584,539,964,000,050,000,	0.634341	Y = 10,069.762307 * e>	
4	V1023 MLVSS	Y = - 0.088373 * V1023 +29	9.17 0.714984	Y = 111,697,318,993,034,000,00	0.611917	Y = 12,996.647234 * ex	
5	V1035 Aeration Basin Energy	Y = - 0.037993 * V1035 +10	1.15 0.632263	Y = 4,648,780.580373 * V10351	0.582186	Y = 128.990962 * exp(-	
6	V1031 Aeration Basin Dissolved 0	Y = 11.029547 * V1031 +0.	3763 0.607843	Y = 13.061873 * V1031^(0.6874	0.459367	Y = 12.223725 * exp(0.	
7	V4081 Effluent pH	Y = 44.491037 * V4081 -28	9.26 0.541145	Y = 0.000001 * V4081 * 8.46160	0.509981	Y = 0.005258 * exp(1.1	
8	V4017 BOD Standard GGA	Y = 0.572854 * V4017 -83.5	5679 0.418652	Y = 0.000329 * V4017^(2.11967	0.315922	Y = 2.637953 * exp(0.0	
9	V1151 Final Clarifier Blanket Heig	Y = 4.509926 * V1151 +5.4	6870 0.411913	Y = 8.707182 * V1151^(0.63344	0.379801	Y = 13.238195 * exp(0.	
				11 3 000005 114004 014 04005	0.070110	M 0.007007 x (0.0	
10	V1001 RAS Flow	Y = 32.359936 * V1001 -34	137 0.366733	Y = 7.032695 * V1001^(1.84629	0.378140	Y = 3.887927 * exp(0.5	

The individuals-moving range (I-MR) chart creates a picture of how the system changes over time.

The histogram shows the frequency of certain data values in a bar chart – this graph shows that most of the data for MLSS is between 3600 – 3893. Perhaps a discussion is needed?



Be Right'

New tools for working across multiple facilities: Multi-facility queries have been added to make it easier to view data from across facilities. Multiple facility databases can now be easily interrogated to create reports, aggregate variables for analysis and to get a high level view across facilities by looking at pertinent statistics like min, max and averages.

The example below shows all Flow data for any facilities we have in New Mexico.

Date Settings			Options						
		1				Get	Results Loa	d Settings Set	ve Setting
	/2014 🔄 • /2014 🔄 •	1 2012014	> Output F	ormat Nanow	٠	-			ve Setting
Facilities C Current Facility Where Add Citeria Vie	C All Facil	ites 🖙 Where Clause		Variables Add Crite Name Ut	tria View 9 (E. 1%Flow%)	iqi.			As
Bank Line	ToFord	5.00	- Char						
	t To Excel		File		DØW	Time	Value	Test	Value
Facility	VaNum	Variable Name	Units	Date 07/01/2014	DOW	Time 12:00.6M	Value 0.0120		Value
Facility Albuquerque				Date 07/01/2014 07/01/2014	DØW Tue Tue	Time 12:00 AM 12:00 AM	Value 0.0120 2.542	Text 0.012 2.542	Value
Facility 1 Albuquerque 2 Albuquerque	VaNum 1011	Variable Name WAS Flow	Units MGD	07/01/2014	Tue	12:00 AM	0.0120	0.012	Value
Facility 1 Albuquerque 2 Albuquerque 3 Albuquerque	VarNum 1011 4001	Variable Name WAS Flow Effluent Flow	Units MGD MGD	07/01/2014 07/01/2014	Tue Tue	12:00 AM 12:00 AM	0.0120 2.542	0.012 2.542	Value
Facility 1 Albuquerque 2 Albuquerque 3 Albuquerque 4 Albuquerque	VaNum 1011 4001 1	Variable Name WAS Row Ethuent Row Influent Row	Units MGD MGD MGD	07/01/2014 07/01/2014 07/01/2014	Tue Tue Tue	12:00 AM 12:00 AM 12:00 AM	0.0120 2.542 2.610	0.012 2.542 2.610	Value
Facility Albuquerque Albuquerque Albuquerque Albuquerque Los Alamos	VarNum 1011 4001 1 1001	Variable Name WAS Flow Ethuent Flow Influent Flow RAS Flow	Units MGD MGD MGD MGD	07/01/2014 07/01/2014 07/01/2014 07/01/2014	Tue Tue Tue Tue	12:00 AM 12:00 AM 12:00 AM 12:00 AM	0.0120 2.542 2.610 1.7500	0.012 2.542 2.610 1.75	Value
Facility Albuquerque Albuquerque Albuquerque Albuquerque Los Alamos Los Alamos	VarNum 1011 4001 1 1001 4001	Variable Name WAS Flow Effuent Flow RAS Flow Effuent Flow Effuent Flow	Units MGD MGD MGD MGD MGD	07/01/2014 07/01/2014 07/01/2014 07/01/2014 07/01/2014 07/02/2014	Tue Tue Tue Tue Wed	12:00 AM 12:00 AM 12:00 AM 12:00 AM 12:00 AM	0.0120 2.542 2.610 1.7500 2.675	0.012 2.542 2.610 1.75 2.675	Value
Facility Albuquerque Albuquerque Albuquerque Albuquerque Los Alamos Los Alamos Los Alamos Los Alamos	VaNum 1011 4001 1 1001 4001 1011	Variable Name WAS Flow Ethuent Flow PAS Flow Ethuent Flow WAS Flow	Units MGD MGD MGD MGD MGD MGD	07/01/2014 07/01/2014 07/01/2014 07/01/2014 07/02/2014 07/02/2014	Tue Tue Tue Tue Wed Wed	12:00 AM 12:00 AM 12:00 AM 12:00 AM 12:00 AM 12:00 AM	0.0120 2.542 2.610 1.7500 2.675 0.0110	0.012 2.542 2.610 1.75 2.675 0.011	Value
Facility 1 Albuquerque 2 Albuquerque 4 Albuquerque 4 Albuquerque 5 Los Alamos 6 Los Alamos 9 Los Alamos	VaNum 1011 4001 1 1001 4001 1011 1001	Variable Name WAS Flow Ethunt Flow PAS Flow Ethunt Flow WAS Flow RAS Flow RAS Flow	Units MGD MGD MGD MGD MGD MGD MGD MGD	07/01/2014 07/01/2014 07/01/2014 07/01/2014 07/02/2014 07/02/2014 07/02/2014	Tue Tue Tue Tue Wed Wed Wed	12:00 AM 12:00 AM 12:00 AM 12:00 AM 12:00 AM 12:00 AM 12:00 AM	0.0120 2.542 2.610 1.7500 2.675 0.0110 1.7500	0.012 2.542 2.610 1.75 2.675 0.011 1.75	Value
Facility 1 Albuquerque 2 Albuquerque 4 Albuquerque 5 Los Alamos 7 Los Alamos 8 Los Alamos 9 Los Alamos 9 Los Alamos 9 Los Alamos 9 Los Alamos	VarNum 1011 4001 1 1001 4001 1011 1001 1 1011	Vaidble Name WAS Pow Ethuent Row RAS Row Ethuent Row WAS Pow RAS Flow Influent Row	Unks MGD MGD MGD MGD MGD MGD MGD MGD MGD	07/01/2014 07/01/2014 07/01/2014 07/02/2014 07/02/2014 07/02/2014 07/02/2014 07/02/2014	Tue Tue Tue Wed Wed Wed Wed	12:00 AM 12:00 AM 12:00 AM 12:00 AM 12:00 AM 12:00 AM 12:00 AM 12:00 AM	0.0120 2.542 2.610 1.7500 2.675 0.0110 1.7500 2.750	0.012 2.542 2.610 1.75 2.675 0.011 1.75 2.75	Value
Facility 1 Albuquerque 2 Albuquerque 3 Albuquerque 4 Albuquerque 5 Los Alamos 6 Los Alamos 9 Los Alamos 9 Las Cruces 1 Las Cruces	VarNum 1011 4001 1 1001 4001 1011 1001 1 1 1	Variable Name WAS Row Ethuent Row PAS Row Ethuent Row WAS Row RAS Row Infuent Row Infuent Row Infuent Row	Unks MGD MGD MGD MGD MGD MGD MGD MGD MGD MGD	07/01/2014 07/01/2014 07/01/2014 07/02/2014 07/02/2014 07/02/2014 07/02/2014 07/02/2014 07/02/2014	Tue Tue Tue Tue Wed Wed Wed Thu	12:00 AM 12:00 AM 12:00 AM 12:00 AM 12:00 AM 12:00 AM 12:00 AM 12:00 AM 12:00 AM	0.0120 2.542 2.610 1.7500 2.675 0.0110 1.7500 2.750 2.750 3.200	0.012 2.542 2.610 1.75 2.675 0.011 1.75 2.75 3.2	Value
Facility 1 Albuquerque 2 Albuquerque 3 Albuquerque 4 Albuquerque 5 Los Alamos 9 Los Alamos 9 Los Alamos 10 Las Cruces 11 Las Cruces 12 Las Cruces	VaNum 1011 4001 1 1001 4001 1011 1001 1 1 1 1	Variable Name WAS Row Ethuant Row Influent Row RAS Row Ethuant Row MAS Pow RAS Row Influent Row Influent Row Ethuant Row	Units MGD MGD MGD MGD MGD MGD MGD MGD MGD MGD	07/01/2014 07/01/2014 07/01/2014 07/02/2014 07/02/2014 07/02/2014 07/02/2014 07/02/2014 07/02/2014 07/03/2014	Tue Tue Tue Tue Wed Wed Wed Thu Thu Thu	1200 AM 1200 AM 1200 AM 1200 AM 1200 AM 1200 AM 1200 AM 1200 AM 1200 AM 1200 AM	0.0120 2.542 2.610 1.7500 2.675 0.0110 1.7500 2.750 2.750 3.200 3.115	0.012 2.542 2.610 1.75 2.675 0.011 1.75 2.75 3.2 3.115	Value
Facility 1 Albuquerque 2 Albuquerque 4 Albuquerque 5 Los Alamos 8 Los Alamos 8 Los Alamos 9 Los Alamos 9 Los Alamos	VaNum 1011 4001 1 1001 4001 1011 1001 1 1 1 1	Vaiable Name WAS Plave Ethant Row Influent Row RAS Plave Ethant Row Influent Row Influent Row Influent Row Ethant Row Ethant Row RAS Row	Units MGD MGD MGD MGD MGD MGD MGD MGD MGD MGD	07/01/2014 07/01/2014 07/01/2014 07/02/2014 07/02/2014 07/02/2014 07/02/2014 07/02/2014 07/02/2014 07/03/2014 07/03/2014	Tue Tue Tue Wed Wed Wed Thu Thu Thu	12:00 AM 12:00 AM 12:00 AM 12:00 AM 12:00 AM 12:00 AM 12:00 AM 12:00 AM 12:00 AM 12:00 AM	0.0120 2.542 2.610 1.7500 2.675 0.0110 1.7500 2.750 3.200 3.115 1.7500	0.012 2.542 2.610 1.75 2.675 0.011 1.75 2.75 3.2 3.115 1.75	Value

Data can be viewed on the screen, copied to the clipboard, or exported to Excel.

To learn more about these new features and about additional ways to get even more out of your Hach WIMS system, ask your Hach representative about Hach's comprehensive training program.

For more information contact: your local sales representative, <u>www.hach.com</u> (search for WIMS), or call us at 800 677 0067.

FOR TECHNICAL ASSISTANCE, PRICE INFORMATION AND ORDERING: Tel: 800-227-4224 | E-Mail: techhelp@hach.com To locate the HACH office or distributor serving you, visit: www.hach.com

© Hach Company, 2012. All rights reserved. In the interest of improving and updating its equipment, Hach Company reserves the right to alter specifications to equipment at any time.

