

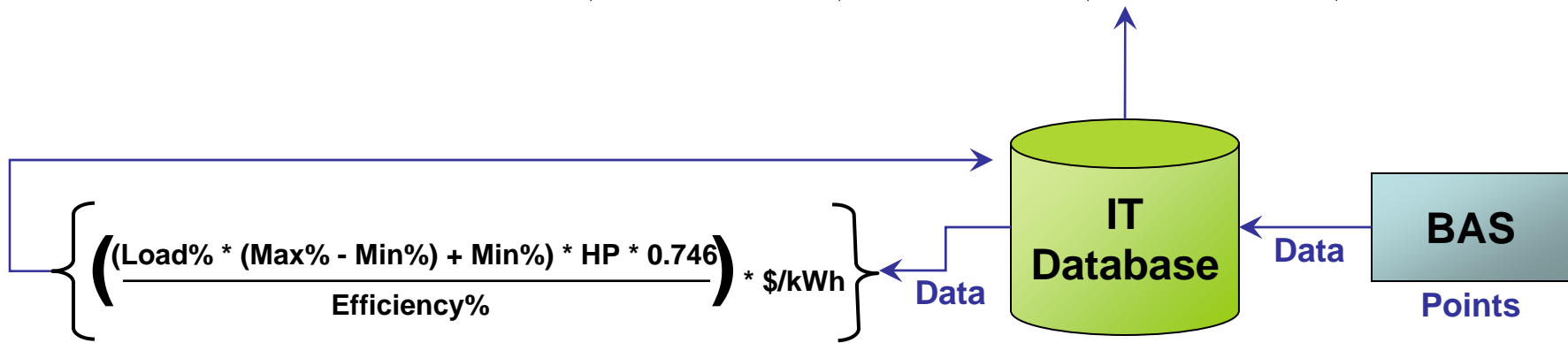
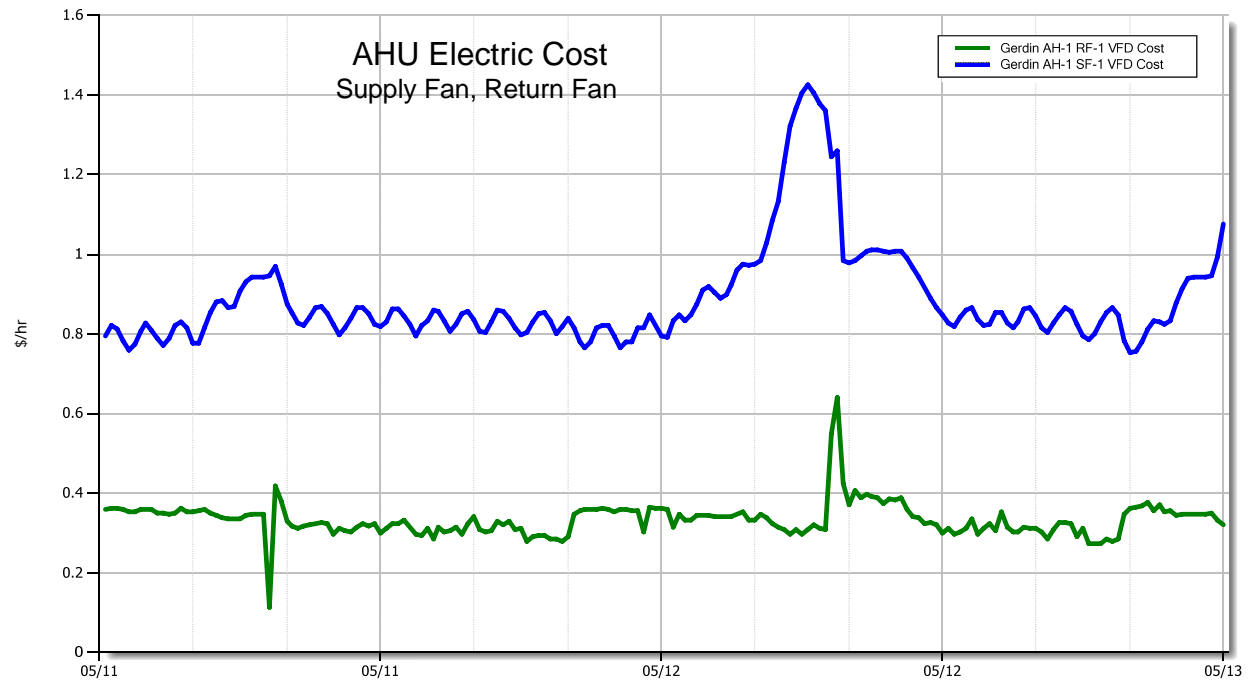


# Turning Virtual Points into Tangible Values

Bill Gnerre  
Interval Data Systems

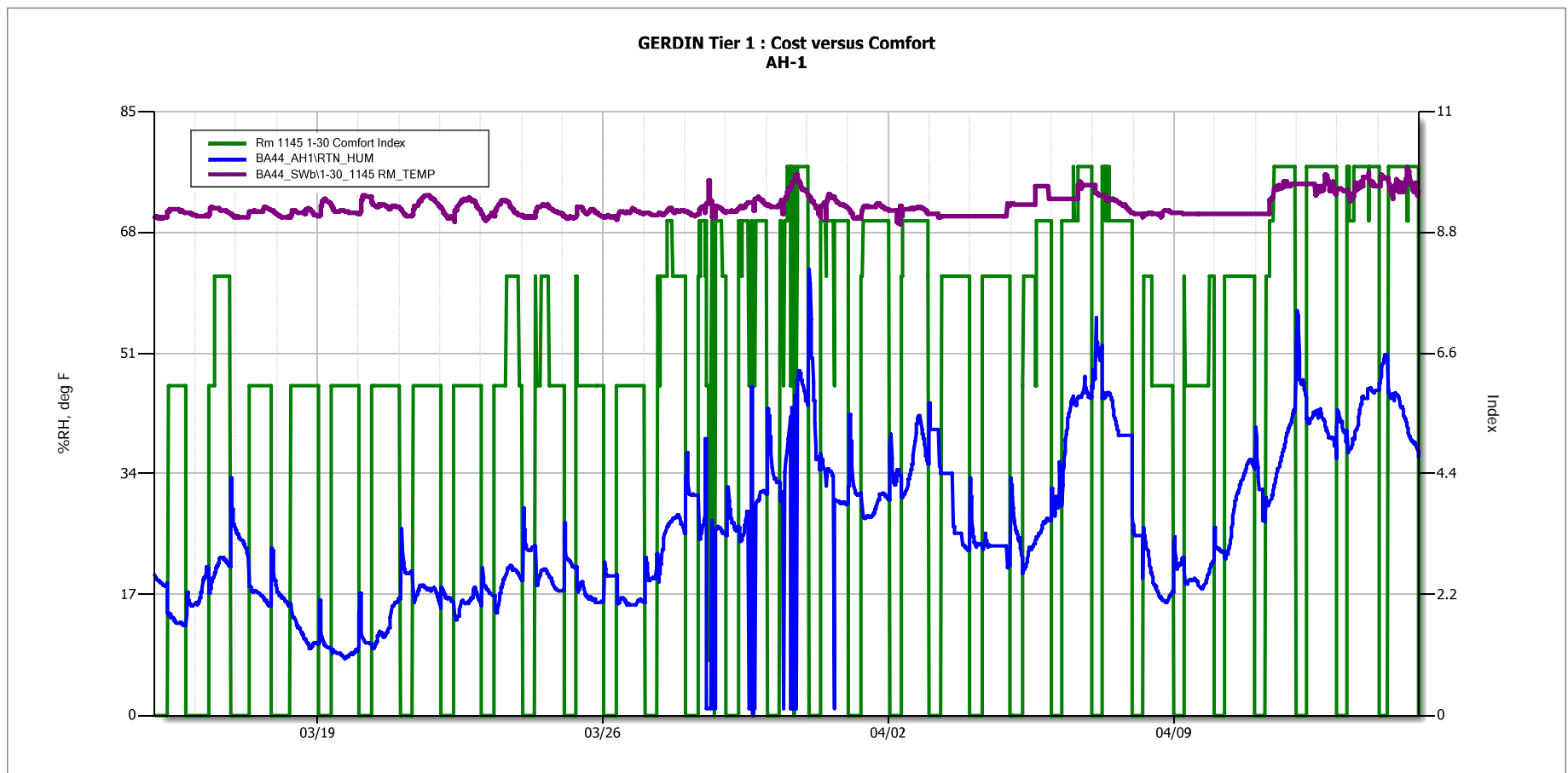
- Virtual Points
  - Traditional points used for new purposes
  - Information points created by IT applications
- Tangible Values
  - Benefits the business of running the facility
  - Quantitative operational/financial benefits
  - Qualitative operational/management benefits

- Collect all operational data
- Build on top of raw operational data
- Make information available to everyone



Equation

### Historical record of comfort/IAQ delivered



Building report with monthly summary of comfort and cost information

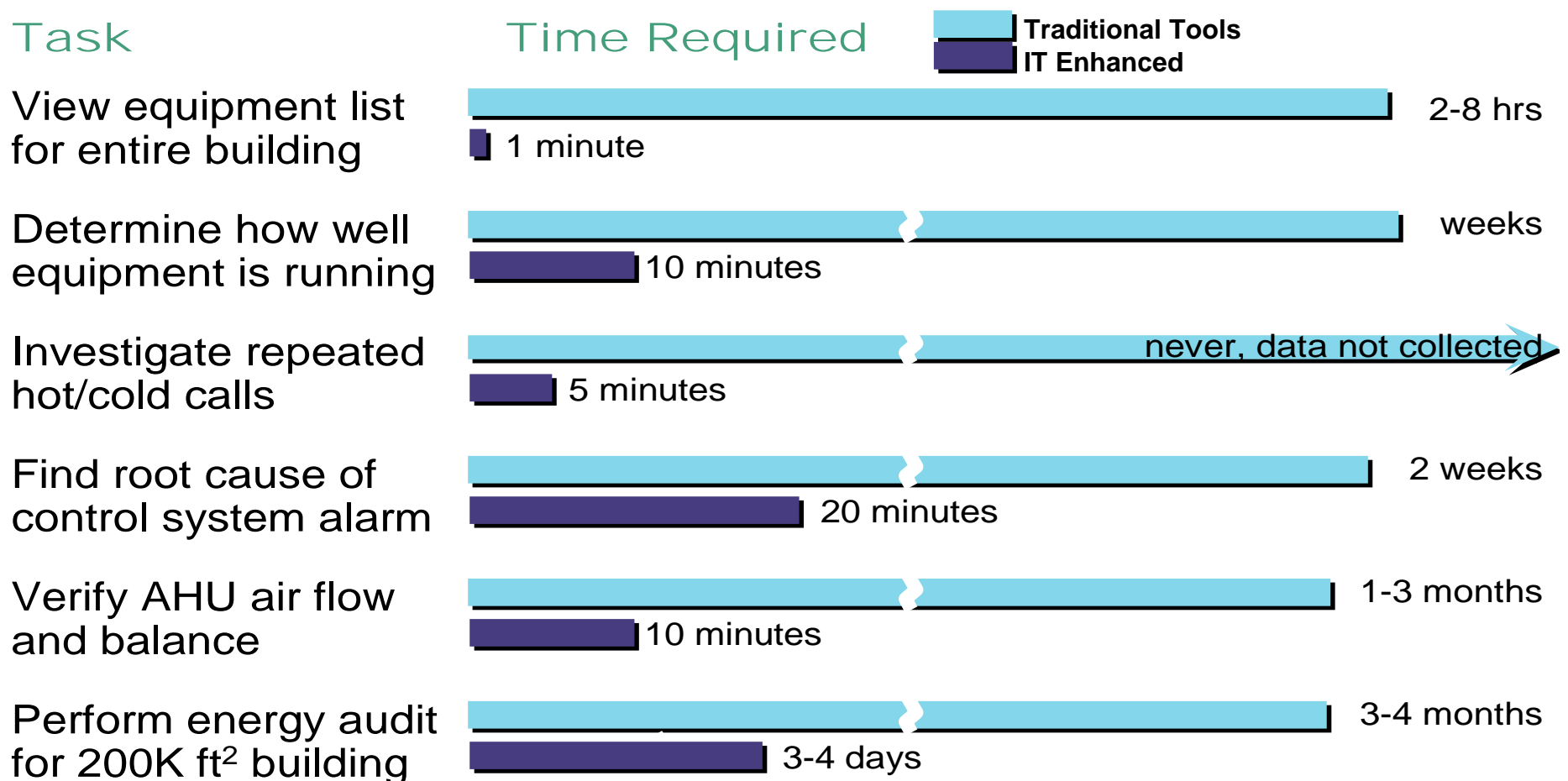
Other metrics:

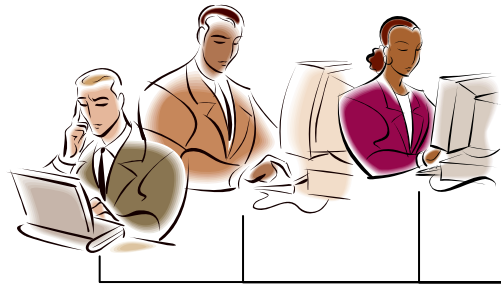
- MBTU/sqft,
- MBTU/room,
- MBTU/AHU
- \$/hour,
- \$/ton,
- \$/ton-hour
- \$/sqft,
- \$/department

Summary Building Cost v Comfort Report						
Gerdin						
From 2/1/2006 to 3/1/2006						
Occupancy Conditions						
	This Month		Last Month		Change	
<b>Comfort Index</b>						
Avg CI	6.0		6.4			-6%
<b>Weather</b>						
Avg Temp	27.8 Deg F		35.0 Deg F			-21%
<b>Building</b>						
Gross Square Feet	73,198 GSF		73,198 GSF			0%
Utility By End Use						
<b>Electric</b>	<b>kWh</b>	<b>Cost</b>	<b>kWh</b>	<b>Cost</b>	<b>kWh</b>	<b>Cost</b>
Air Handling Motors	27,920	\$ 1,895.80	26,222	\$ 1,780.49	6%	6%
Pump Motors	12,000	\$ 814.82	12,000	\$ 814.82	0%	0%
Unspecified	129,512	\$ 8,793.89	99,734	\$ 6,771.94	30%	30%
	<u>169,433</u>	<u>\$ 11,504.51</u>	<u>137,957</u>	<u>\$ 9,367.25</u>	<u>23%</u>	<u>23%</u>
<b>Chilled Water</b>	<b>Ton-Hrs</b>	<b>Cost</b>	<b>Ton-Hrs</b>	<b>Cost</b>	<b>Ton-Hrs</b>	<b>Cost</b>
Supply Air Cooling	946	132	713	\$ 99.42	33%	33%
Unspecified Cooling	(173)	\$ (24.08)	(142)	\$ (19.82)	22%	22%
	<u>774</u>	<u>\$ 107.91</u>	<u>571</u>	<u>\$ 79.60</u>	<u>36%</u>	<u>36%</u>
<b>Steam</b>	<b>Lbs</b>	<b>Cost</b>	<b>Lbs</b>	<b>Cost</b>	<b>Lbs</b>	<b>Cost</b>
Supply Air Heating	132	1,519	100	1,149	0	32%
Space Reheat	94	137	107	1,237	-13%	-89%
	<u>226</u>	<u>\$ 329.25</u>	<u>207</u>	<u>\$ 302.21</u>	<u>9%</u>	<u>9%</u>
<b>Total</b>	<b>MBtu</b>	<b>Cost</b>	<b>MBtu</b>	<b>Cost</b>	<b>MBtu</b>	<b>Cost</b>
Total Cost		\$ 11,941.66		\$ 9,749.05		22%
Total / SqFt	8.03	MBtu/SqFt	6.53	MBtu/SqFt	23%	
Total / HDD	659	MBtu/HDD	635	MBtu/HDD	4%	
Total / CDD		MBtu/CDD		MBtu/CDD		
Total / HDD / SqFt	8.997	Btu/HDD/SqFt	8.675	Btu/HDD/SqFt	4%	
Total / CDD / SqFt		Btu/CDD/SqFt		Btu/CDD/SqFt		



### Massive productivity gains

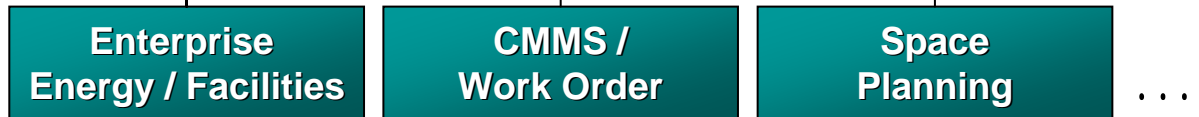




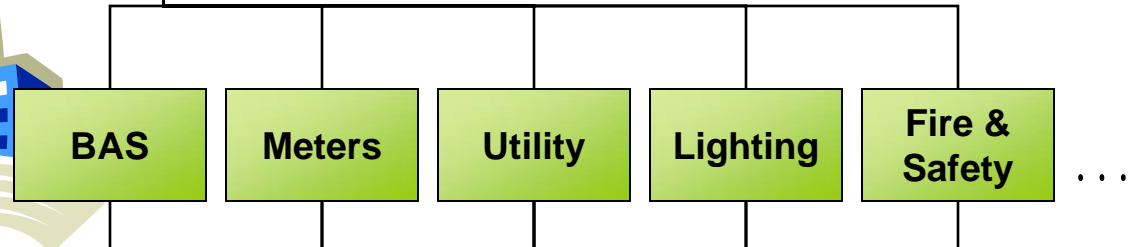
## Enterprise Users

(Facilities, Management, Dept. Heads, Finance, Engineers, Technicians, Operators, etc.)

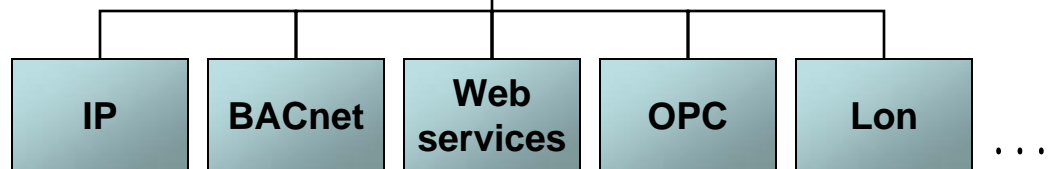
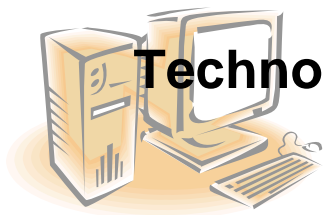
## Business Systems



## Building Systems (Engineering/Operational)



## Technology Standards





## Contact Information

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