



*The importance of taking a  
systems approach to CO<sub>2</sub>  
installations*

Louis Morris, Parker – Micro Thermo Technologies™

# Where are we with CO2

*Micro Thermo Technologies™*

- 80 locations with CO2
- 5 different rack manufacturers
- 10 different grocery chains in Canada and United States
- Ice rinks, warehouses (coolers, freezers), ripening rooms

# System Approach?

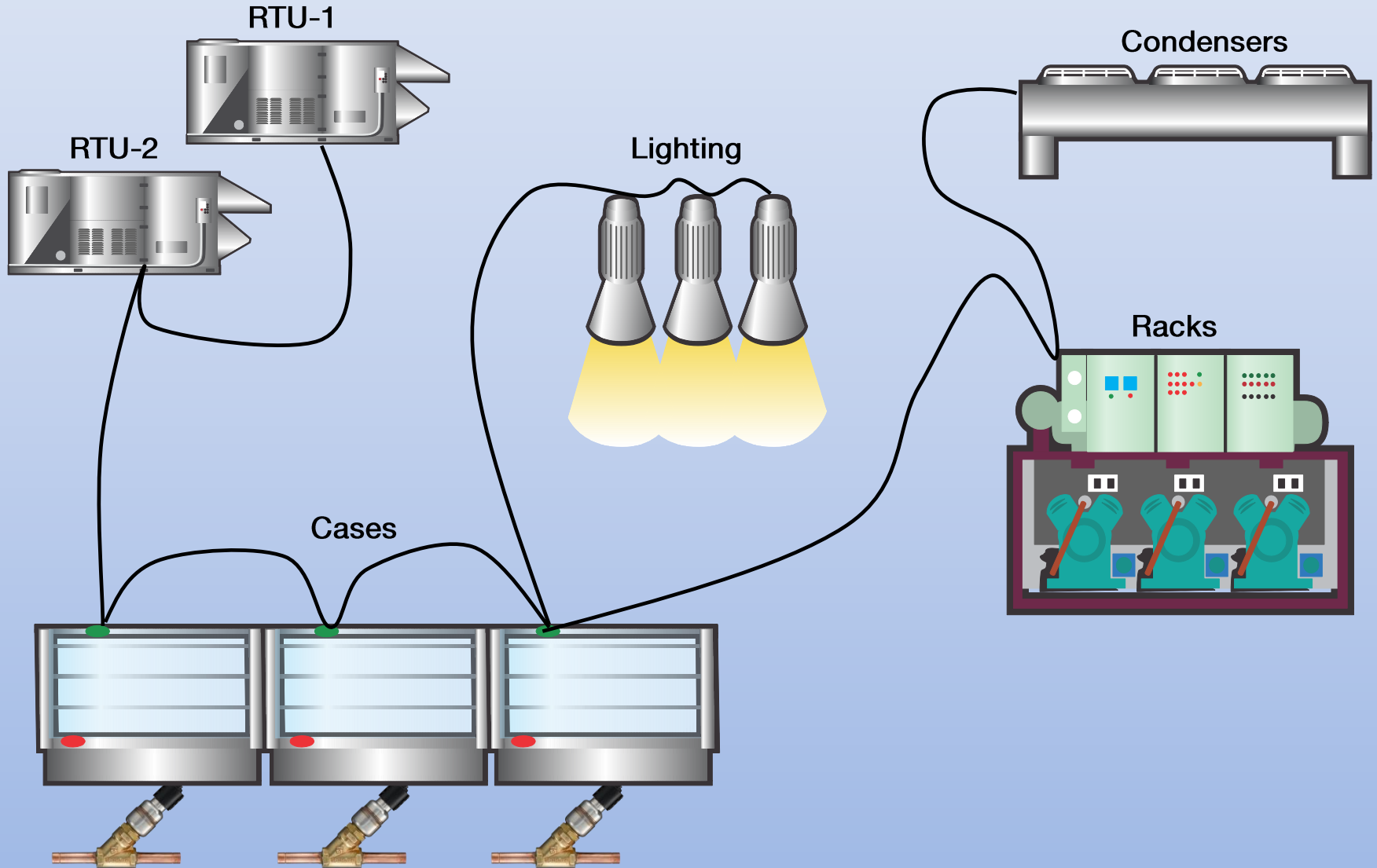
*All Subsystem have an influence on each other.*



- 40,000 sqft store
- 105 cases
- 15 coolers/freezers
- Direct expansion with stepper motor valves
- Transcritical CO2 system
- One main RTU with reclaim

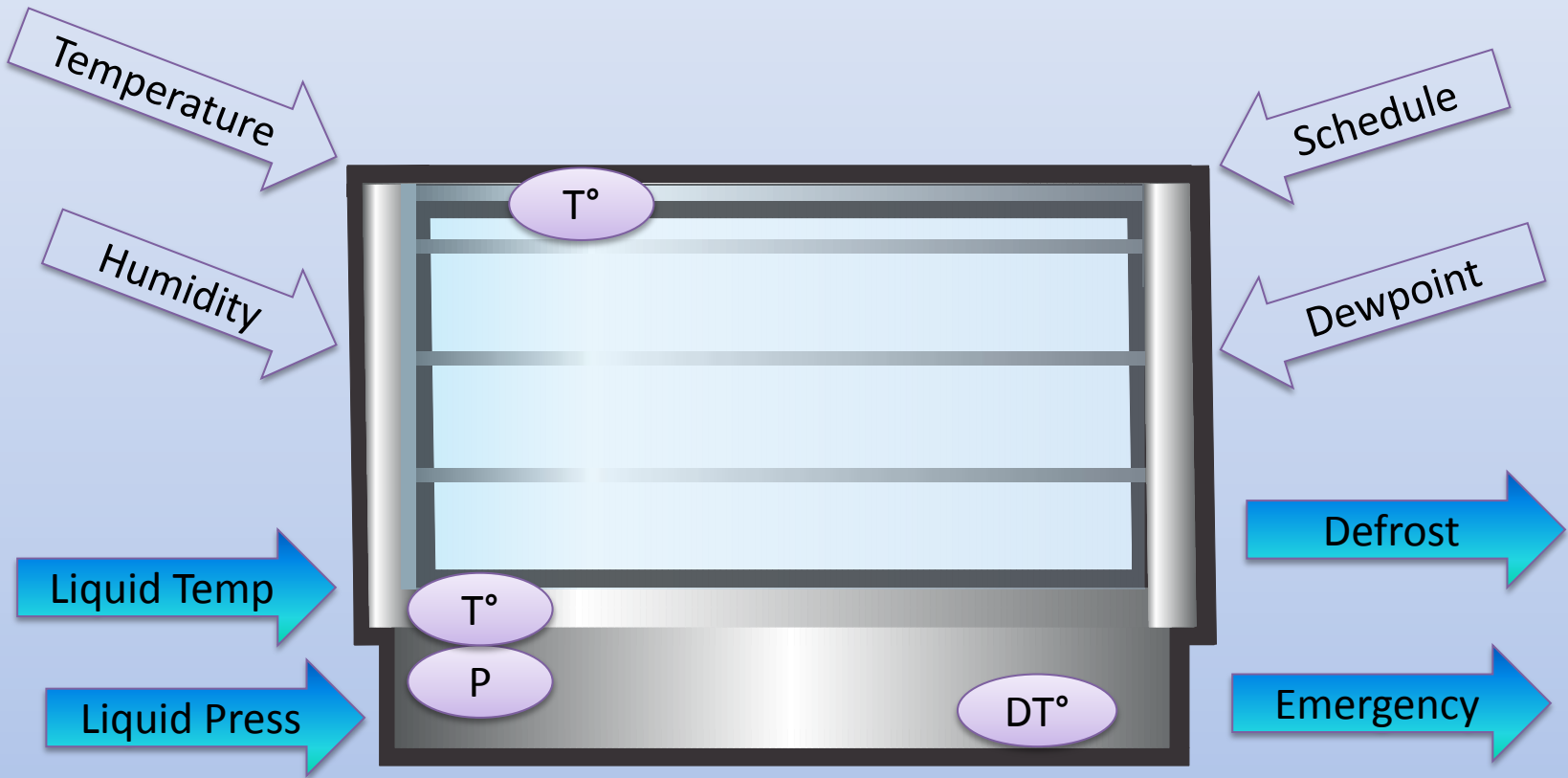
# Systems controlled in IGA Terrebonne

*All Subsystem have an influence on each other.*



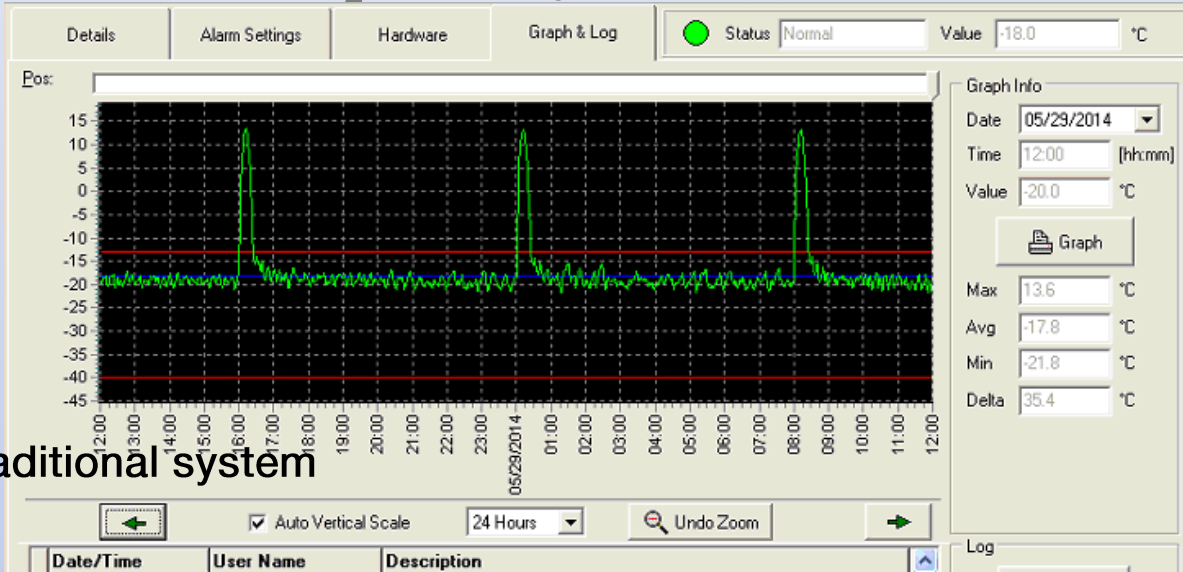
# What is analyzed?

*With CO<sub>2</sub> the goal is to be predictive*

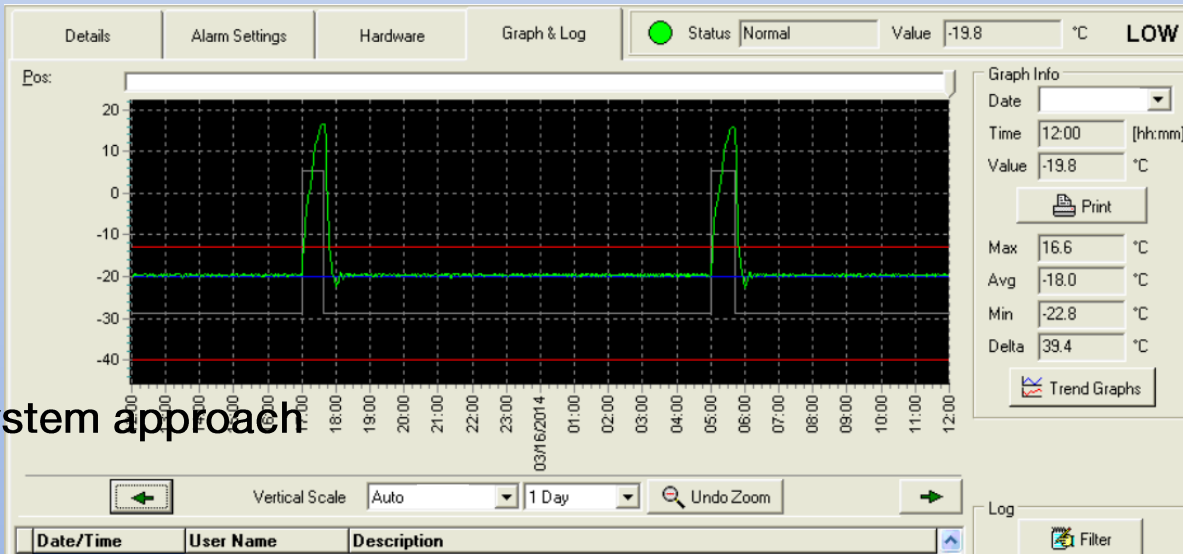


# More accurate control

*CO<sub>2</sub> and a system approach can make the difference*



Traditional system

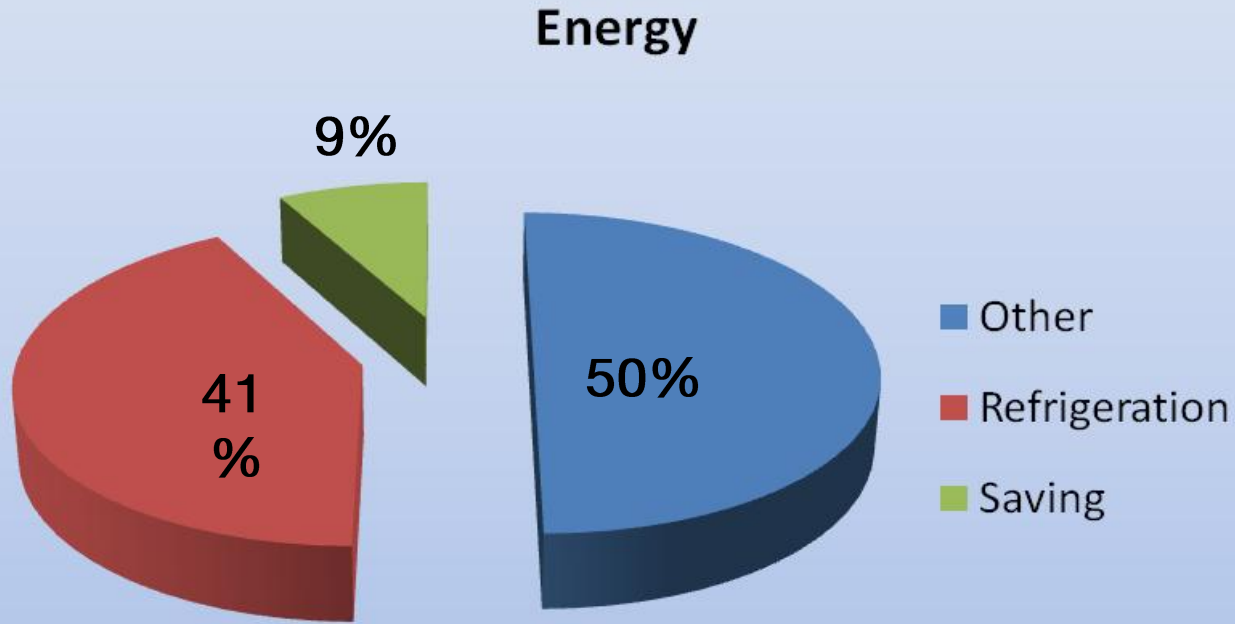


with  
 2  
 CO

system approach

# Energy Reduction

*CO<sub>2</sub> and a system approach can make the difference*





## Basic needs to reach it

*CO<sub>2</sub> and a system approach can make the difference*

- Transcritical CO<sub>2</sub>
- Distributed intelligence
- Case control
- Electronic valves
- Fully integrated systems
- Reliable network



business case

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**natural refrigerants**

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Thank you very much!