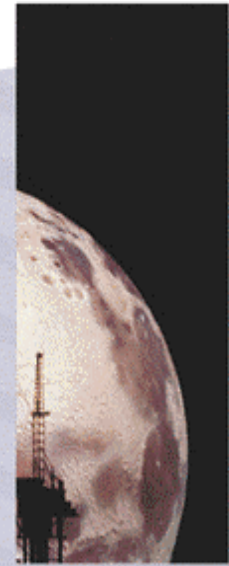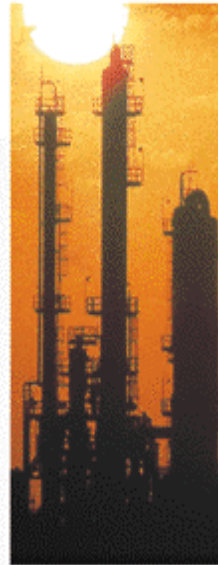# Rockwell Automation

A Process Application

Our Customer's Challenge

- Remote oil production facility-- swamp!

- Surrounded by H2O, no landline phones

- Operates automatically, unattended

- Environmental conditions-- fisheries

Our customers require integrated automation solutions to gain a competitive advantage

The Solution: Rockwell Automation

- Recognized reliability

- Highly modular, integrated components

- Flexible, inter-operable systems that interface to proprietary systems

- The industry standard for automation solutions

- Maximizing existing investments

National Energy Group

- The Application:
  - Remote monitoring of analog & digital sensing devices & alarm autodialing over cellular telephone

- The Scope:
  - The Verbatim/Cellularm is programmed to monitor eight points:
    - float & pressure switches on oil & saline H2O tanks
    - temperature of separation vessels
    - compressor shutdown

Process Requirements Overview

- Alarm reporting system should be installed at the site to monitor oil production & oil/saline water separation operating parameters & automatically report any alarm condition to the company's computer control center

- Remote & hostile environment mandates wireless communication system for the alarm reporting function

- Self-contained, rugged unit to mount into small, unclimatized building with cellular antenna mounted on roof

- Alarm signal activates a computer screen showing the location & type of fault; if not acknowledged within 5 minutes, automatically places a call to production operator in a digitally recorded voice message describing the condition of alarm--operator dispatches maintenance crew to site
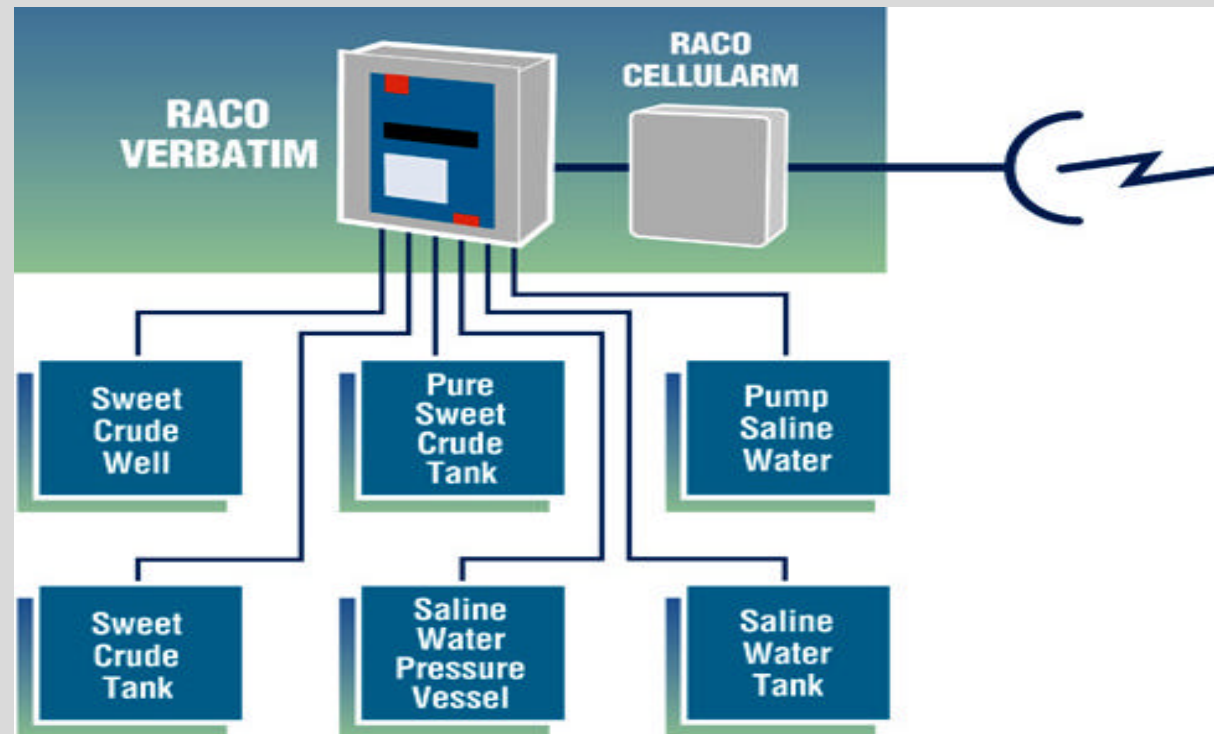
Benefits of RA Control System

- When the central computer control is notified via the Verbatim/Cellularm system, the signals are relayed to the responder which signals Allen-Bradley SLC-500 PLC

- The PLC actuates the fault screen on a PC-based control computer via an Allen-Bradley View Panel

- Authorized personnel can call the Responder from any touch tone phone anywhere and operate up to 8 remote devices

- If no alarms activate over time, the control computer operator calls the Verbatim to verify system/or listen to built-in microphone to hear background noises
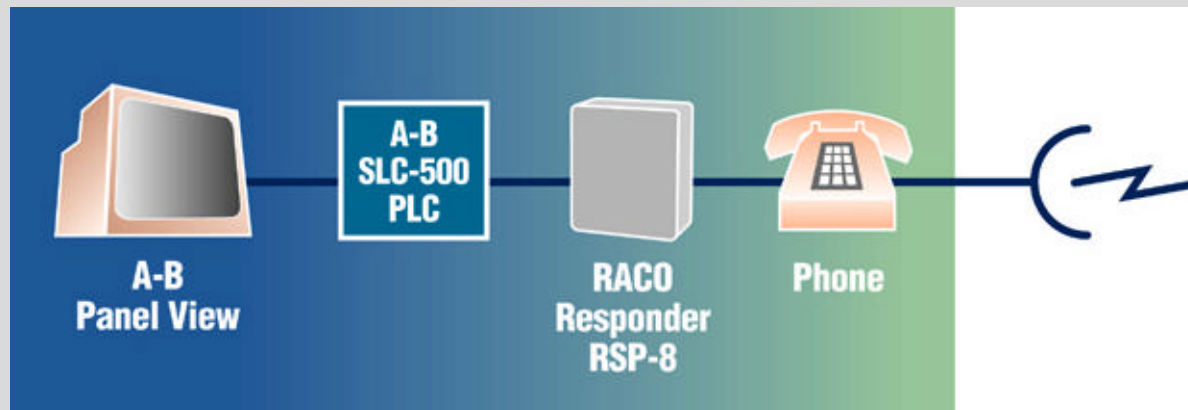
System Overview

- RACO Verbatim Alarm Autodialer

- RACO Cellularm cellular communications system

- RACO Responder signals Allen-Bradley SLC-500 PLC

- Allen-Bradley Panel View

- Call in status reports from public telephone lines

- Easy touch-tone remote programming

Overall System Layout

Atchafalaya River Basin

Oil Site Layout
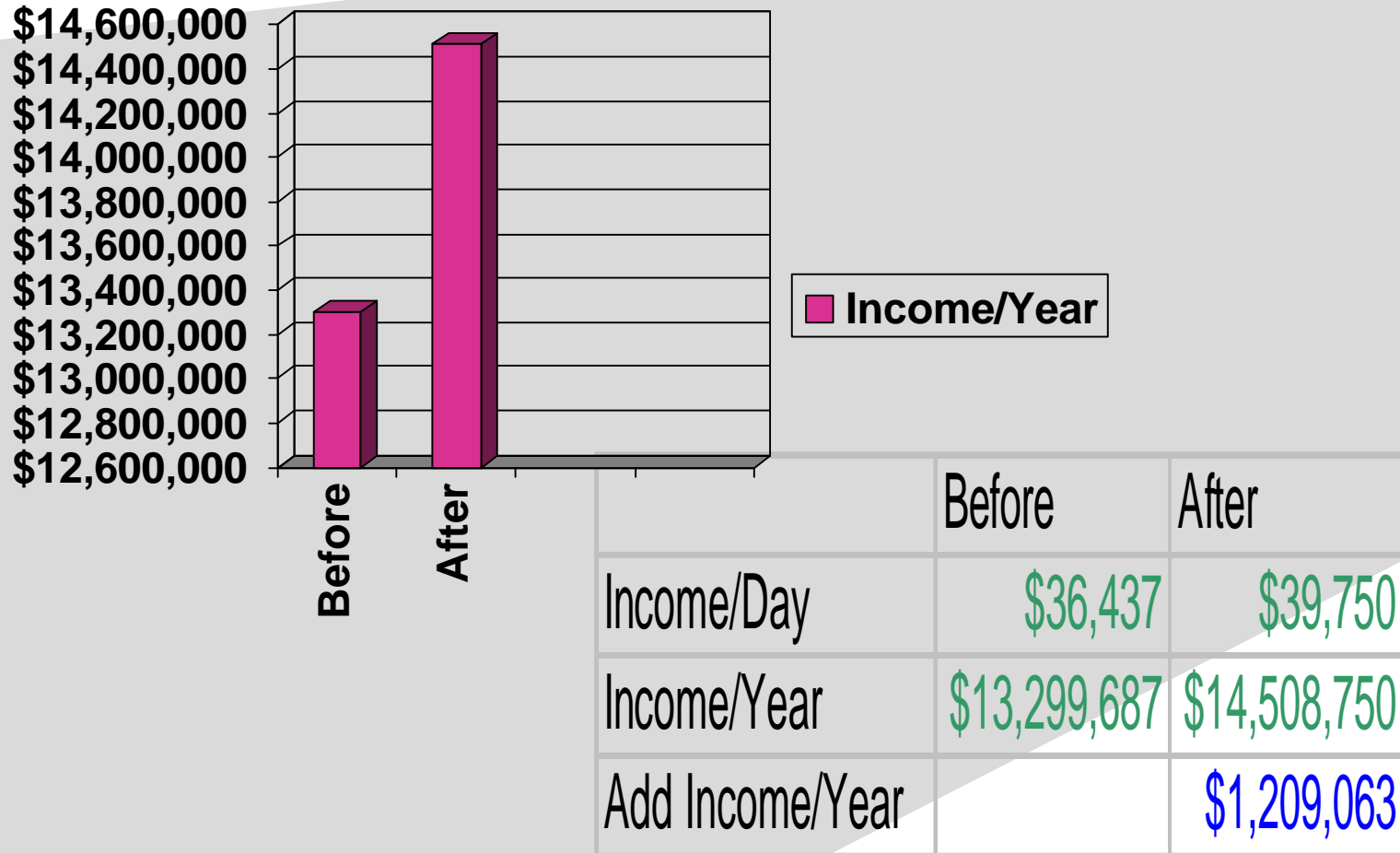
Control Integration
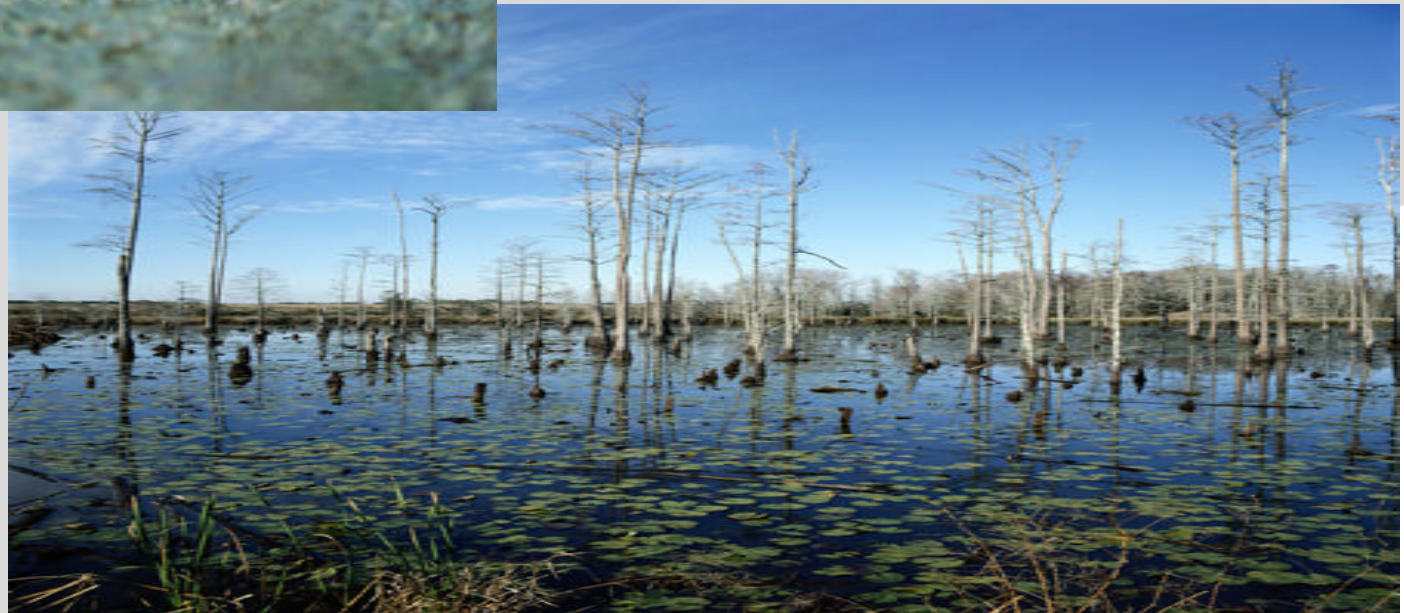

Central Production Facility

Bayou Sorrell, LA

Productivity Features

- Productivity increased from 10-12 hours of downtime a week to less than 2

- Oil production at this well is worth $40K/day

- Decreased personnel time checking on site

- Future scalability to link & automate other wells in area

Graphic

	Before	After
Income/Day	$36,437	$39,750
Income/Year	$13,299,687	$14,508,750
Add Income/Year		$1,209,063

Atchafalaya River Basin, LA

Summary

- Verbatim reporting system up & working in less than 4 days

- Easy-to-use touch tone programming/reprogramming

- Increased productivity results--$

- Decreased manual labor time boating to site

- Scalable to link/automate all oil well production in area