





## **ABOUT OUR COMPANY**

MCS AUTOMATION TECHNOLOGY WAS ESTABLISHED IN 1997 BY A MAJOR THAI OWNED COMPANY AND WAS INCORPORATED TO PROVIDE THE BEST TOTAL SOLUTION FOR CUSTOMERS. OUR SOLUTIONS ARE USING PROFESSIONAL AND HIGHLY APPLICATION OF ADVANCED INDUSTRY INFORMATION TECHNOLOGY. MCS AUTOMATION TECHNOLOGY IS COMMITTED TO THE SUCCESS OF IMPROVING CUSTOMER SERVICE AND PRODUCT KNOWLEDGE DEVELOPMENT.

# ABOUT OUR COM PANY

#### **OUR VISION:**

To be South East Asia's foremost provider in developing the integration with customer-oriented services, progressive organizations, and innovative product / technology / engineering solutions.

#### **OUR MISSION:**

To be a leading company representative in the Industrial Information Technology System and Application Software developer of automation controls product arena.

#### **OUR AREA OF EXPERT:**

We are covering the entire process from cost estimating, planning and scheduling, system conceptualization, process engineering, detailed engineering, procurement and fabrication, project management, safety management, project control, construction and installation, commissioning, training, and implementation. Our specialized field includes of:

- Terminal Automation System (TAS)
- Building Automation System (BAS)
- Software to Fit the Application
- Process Control & Instrumentation (Factory Automation)
- Fire Protection System and Management
- IT & Networking System
- E-Automation

### TERMINAL AUTOMATION MANAGEMENT SYSTEM

- 1. TRUCK / LORRY LOADING AUTOMATION SYSTEM
- 2. MARINE / SHIP LOADING AUTOMATION SYSTEM
- 3. RAIL LOADING AUTOMATION SYSTEM
- 4. PIPELINE / BY PRODUCT LOADING AUTOMATION SYSTEM

### TYPICAL OF FEATURES

#### 1. ACCESS SECURITY

- Security of Access Control to Terminal
- Security of System
- CCTV System

#### 2. SYSTEM HOST INTERFACE

- Support to Interfaces with ERP System Such as SAP
- Support to Interfaces DCS/SCADA or Manufacture Execution System(MES)

#### 3. DATABASE MANAGEMENT

- Customer Master file
- Truck Master file
- Carrier Master file
- Driver Master file
- Product Master file
- Tank Master file
- Etc.(If necessary)

#### 4. ORDER MANAGEMENT

- Order Entry
- Order Delivery
- Planning & Scheduling
- Deliver Confirmation
- Quota Load Setup
- Scheduled Load Setup
- Top-Load Setup
- Etc.(If necessary)

#### 5. LOADING OPERATION

- Automatic generation Loading Advise Note/ Driver Instruction
- Manual generation Loading Advise Note/ Driver Instruction
- Automation Assign Compartment
- Seal Management
- Pre-Loading Activities Monitoring
- Loading Automation and Monitoring (Volume / Weight)
- Loading Alarm Reporting
- Blending Management
- Product Conversion
- Unit Conversion
- Gain / Loss Calculation
- Etc (Loading procedures can be provided to support other methods)

#### 6. INVENTORY / TANK FARM MANAGEMENT

- Product Transfer Operations
- Product Measurement
- Internal transfers (tank-to-tank)
- Tank, Pump and Valve control and Monitoring
- Etc.(If necessary)

#### 7. SAFEGUARDING / INTERLOCKING / SAFETY SYSTEM

- Grounding System
- Overfill Protection System
- Light Indicator
- Arm Position Sensor Switch
- Arm Down Sensor Switch
- Dead man Switch
- Emergency Shut Down(ESD)
- Etc.(If necessary)

#### 8. SUPPORT / SYSTEM MANAGEMENT

- Backup Restore
- Remote Diagnostic
- Event Log
- Alarm
- Terminal Parameters Configuration
- Database Management
- Remote Online System

#### 9. E - AUTOMATION AND ENTERPRISE CONTROL SYSTEMS

The system can provide real time data over web browser based data access via internet/corporate intranets.

Our system and technologies that have aided this change include:

- Common database formats SQL, Oracle
- Open systems platforms
- Client/Server technologies

#### 10. MAN MACHINE INTERFACE (MMI) FEATURES

- Real Time Control and Monitoring of Automation Loading
- Real Time Control and Monitoring of Pump
- Real Time Control and Monitoring of ATG
- Real Time Control and Monitoring of Safeguarding/ Interlocking/Safety System
- Journal Viewer Report
- Alarm Alert System
- Etc.(If necessary)

#### 11. QUEUE / TRAFFIC MANAGEMENT

#### 12. AUTOMATIC PUMP SEQUENCE CONTROL



#### **TERMINAL AUTOMATION SYSTEM (TAS)**

TAS provides a dynamic mechanism to enhance the quality flow of data between the major functional areas of the terminals. TAS is envisioned as a complete and system integration linking mission-critical functional areas of the Lorry, Marine, and By-Product among Oil, LPG and Petroleum terminal with interactive tools and information processing.

#### **BUILDING AUTOMATION SYSTEM (BAS)**

This will optimize the start-up and performance of HVAC equipment, Electrical Appliance, Access & Security Control, and Fire Protection / Alarm Systems. BAS greatly increases the interaction of mechanical subsystems within a building, improve occupant comfort, lower energy cost, operational cost, and maintenance cost use and allow off-site building control.

## PROCESS CONTROL & INSTRUMENTATION (FACTORY AUTOMATION)

The oil and gas industry includes storage tanks, transfer to pipelines oil and gas processing and storage before and after processing. MCS has the expertise to design and manufacture the right process complete system for the job. Our controller solutions incorporate and leverage the knowledge gained by our experience in oil and gas industry. In addition, the system will identify various states in the production flow, such as there being no product or defective product on the line. This information is then forwarded to the host system which utilizes it to speed up or slow down the production line, or initiate the rejection of a particular part on the production line.

#### SOFTWARE TO FIT THE APPLICATION

Customer involvement is critical to software success. Many customers are more comfortable talking about the User Interface of an application than underlying requirements. This will get examples that talk about what the user does rather than underlying business rules.

#### FIRE PROTECTION SYSTEM AND MANAGEMENT

Fire detection systems are automatic electronic equipment that uses a variety of sensors to detect combustion by-products and heat from fires. They are designed to offer early warning of fires to allow occupants time to escape.

#### IT & NETWORKING SYSTEM

The emerging of IT & Networking technologies is to achieve greater efficiencies throughout the Petroleum and industrial field. Improving sense and response capabilities and industrial security across upstream and downstream operations requires innovative processes, knowledge, and new technologies.

#### **E-AUTOMATION**

The system can provide real time data over web browser based access via internet / corporate intranets. Our system and technologies that have aided this change include: common database formats (SQL, Oracle, etc.), Open systems platforms, client / server technologies.



## OUR SER VICES

#### **PROJECT UNDER WARRANTY**

After commissioning project, we also provide around the clock services for our maintenance staff to stand by during the warranty period. Our business provides whatever you need during the life plant, spare parts, and maintenance repairs services technical engineers for on field services. With our excellent team services, we will travel to your field location to protect valuable equipment stored outside from damaging elements, corrosive salt air, drastic temperature, or dew point changes.

#### **PROJECT AFTER WARRANTY**

We are now offer expanded services to existing and potential new customers. With a reasonable fee, our company offers site survey, evaluation and recommendations for the upgrade path, onsite training as well as hands-on training at the site, installation and commissioning, scheduled periodic maintenance, and repair service. Our new service packages are for both first-time customers and long-time users.

#### **PROJECT IMPROVEMENT**

It is one of our company's core competencies - proven in numerous projects - to integrate and optimize multi facility and multiphase project. The scope of engineering services is covering from conceptual & feasibility studies, integrated field development studies, front end engineering design, detail engineering package, and procurement management. We provide input to continuous improvement of projects and modification procedures and processes.