



real time visual control...

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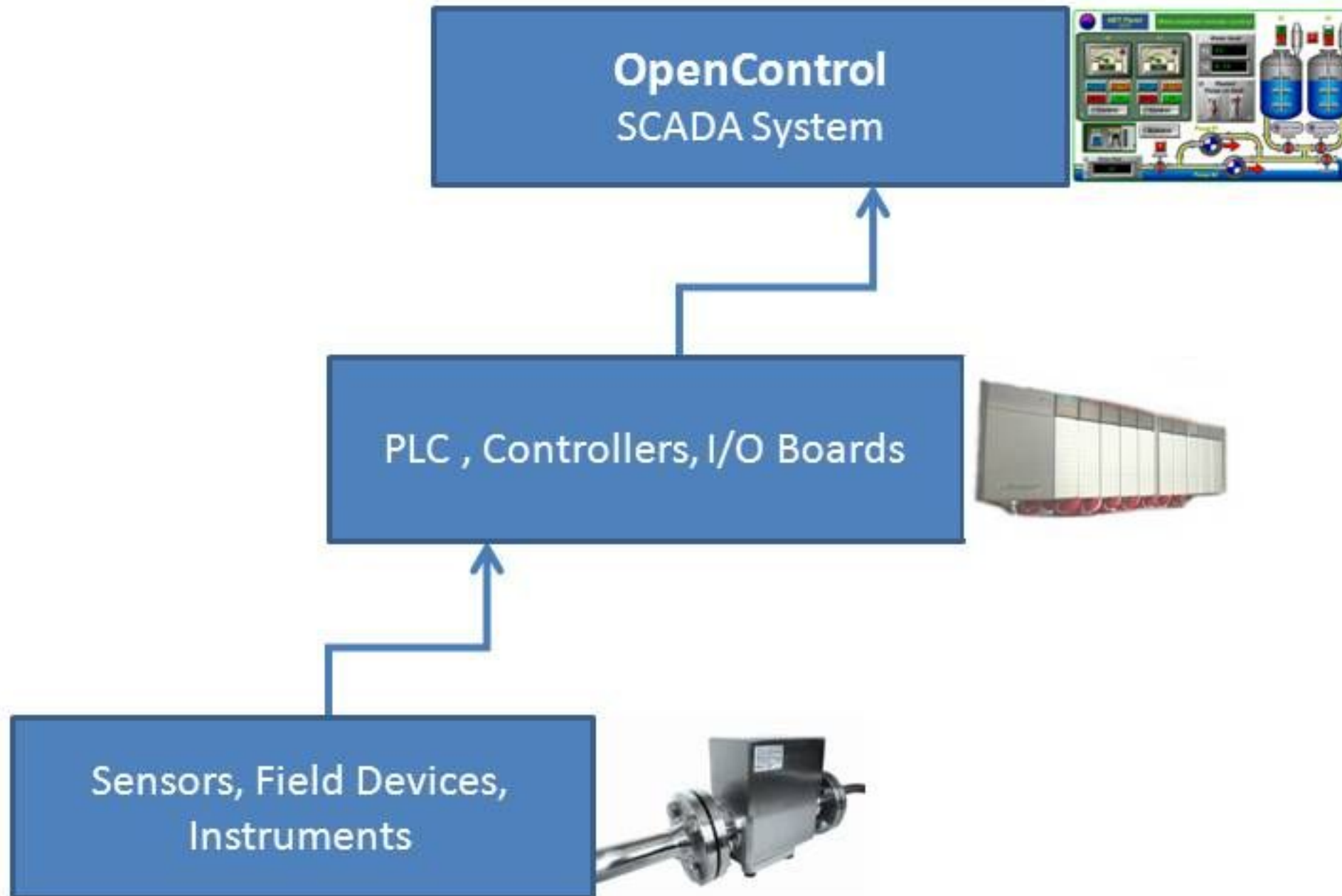
Buraq Integrated Solutions



Introduction

- OpenControl V 1.0 was released in September 2009 as National ICT R&D funded project.
- OpenControl is a high end Supervisory Control and Data Acquisition (SCADA) Software for monitoring and control of industrial processes.
- OpenControl is a crucial tool for Process Control & Industrial Automation that provides Human Machine Interface (HMI).
- OpenControl software provides real-time and dynamic information in standard graphical form for mission critical industrial applications.
- OpenControl software connects and communicates with Programmable Logic Controls (PLCs), Field Instruments and Sensors.

Introduction





OpenControl

- General Public License (GPL) Product
- Development using:
 - Java
 - MySQL
- OPC Compliant
- Client/Server Architecture
- Linux Supported
- Lines of code: 80,000+
- Modules: 8
- Development time: 1.5 years
- Team size: 25+



Why Open Source?



- There were no professionally developed Real-time HMI components available
- The open source HMI software were mostly developed by the individuals
- No success stories & strong clientele
- Core architecture of existing deployed software is not scalable
- No any industrial automation standards & compliance
- Security & safety standards of industry were not followed

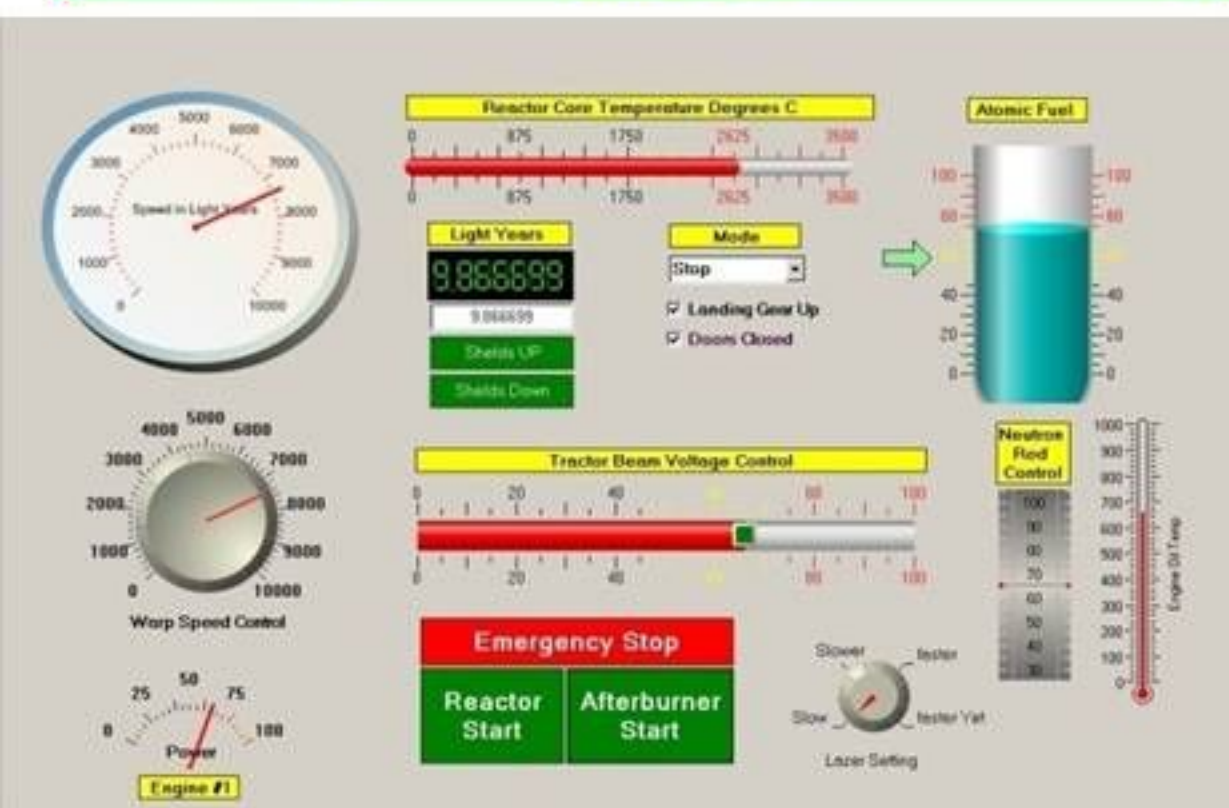
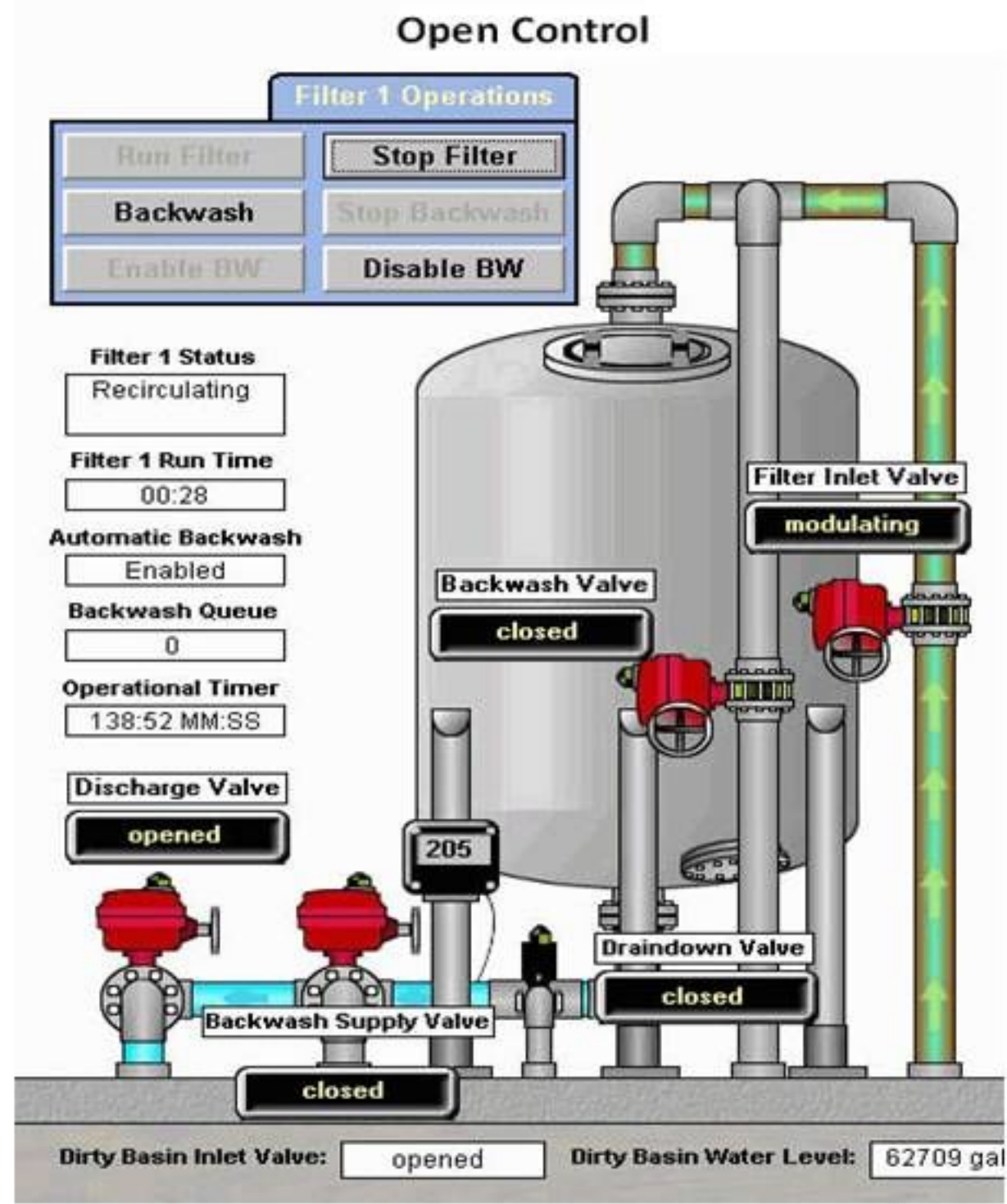
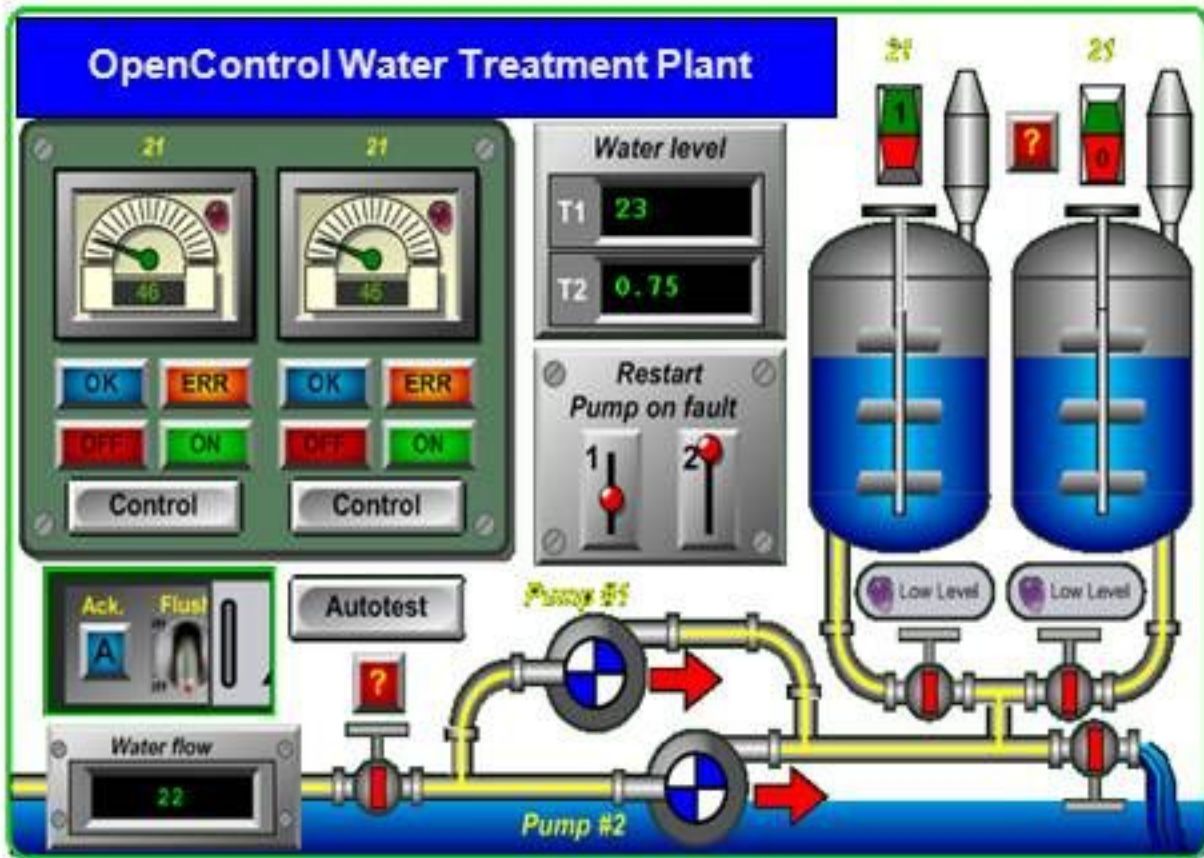


Our Solution

OpenControl can manage:

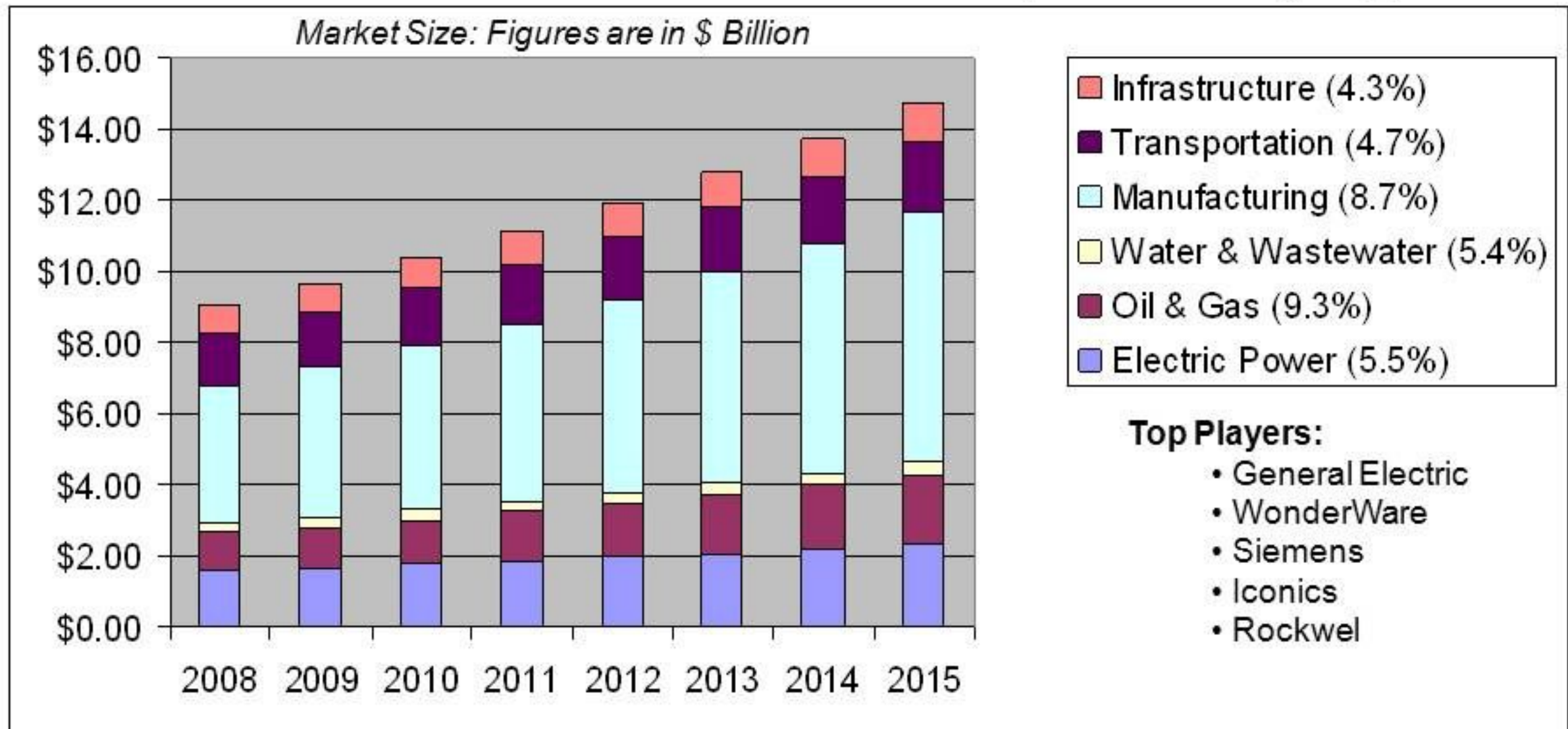
- Industrial Processes:
 - Manufacturing, Production, Fabrication, Mixing, Blending & Refining, Filling, Recipes, etc.
- Infrastructure Processes:
 - Water/Wastewater Treatment, Pumping Stations, Oil and Gas Pipelines, Electrical Power Transmission and Distribution, Civil Defense Systems, Traffic Lights, Telecommunication System etc.
- Facility based Processes:
 - Multi-storey Buildings, Airports, Ships, Hospitals, Cool Rooms, Clean Rooms etc.

Our Solution



Opportunity Identification

- Industrial Automation Software is multi Billion Dollar Industry worldwide
(source ARC Advisory Group)

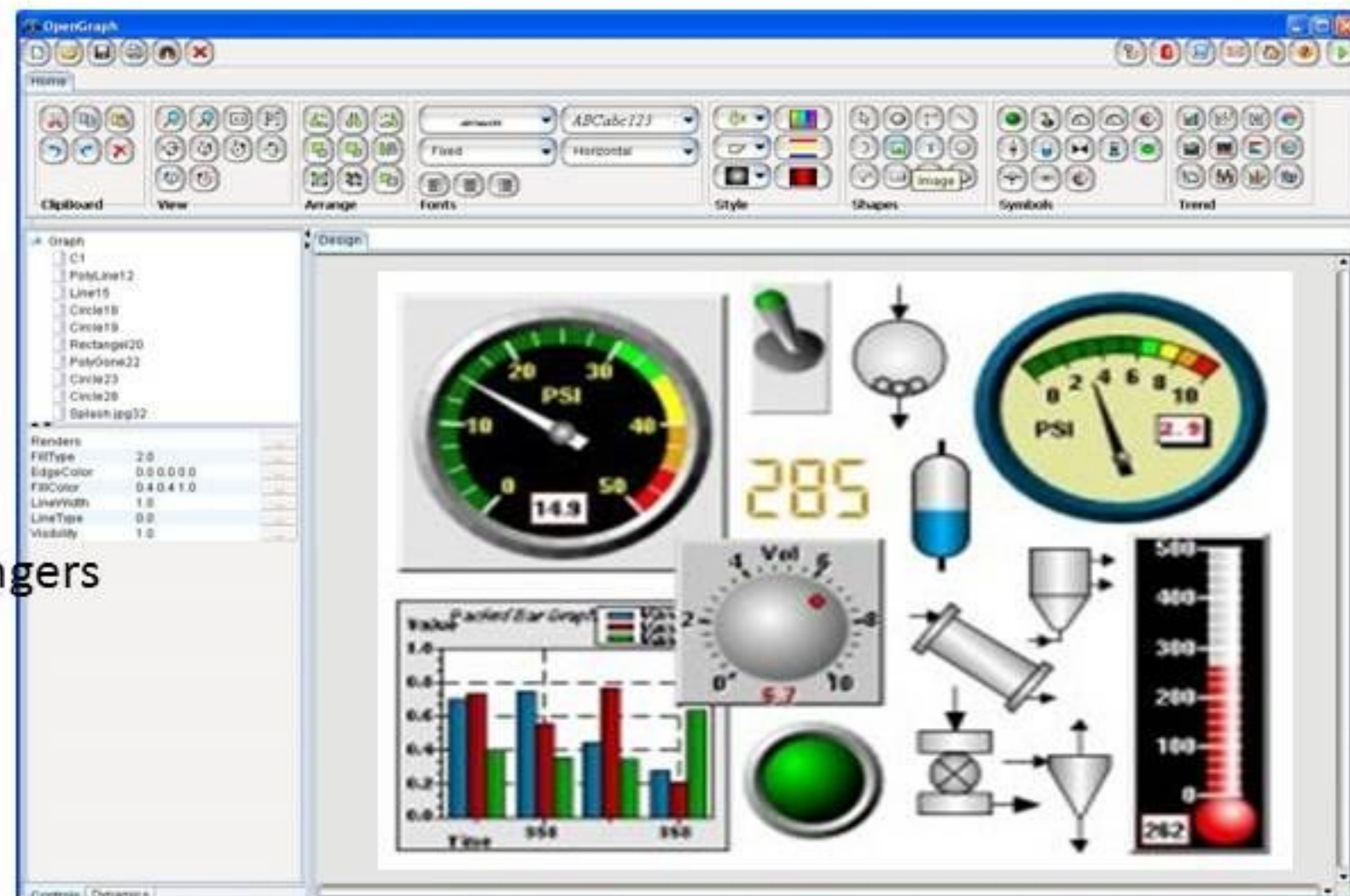


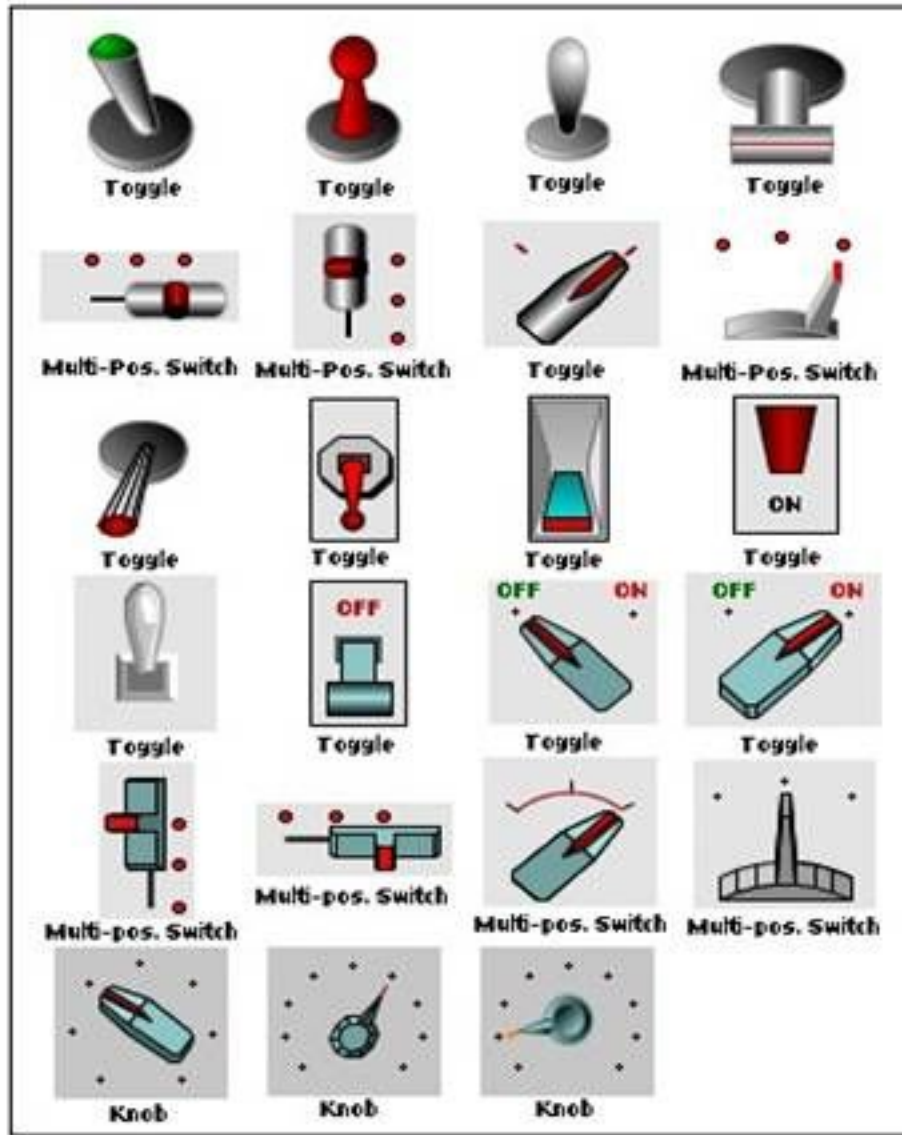
- North America, Europe, Middle East & North Africa dominate the existing market as active customers
- China Railways – One of the largest SCADA project worth \$512 Billion. The China Ministry of Railways company expects a 6-year return on investment

OpenControl

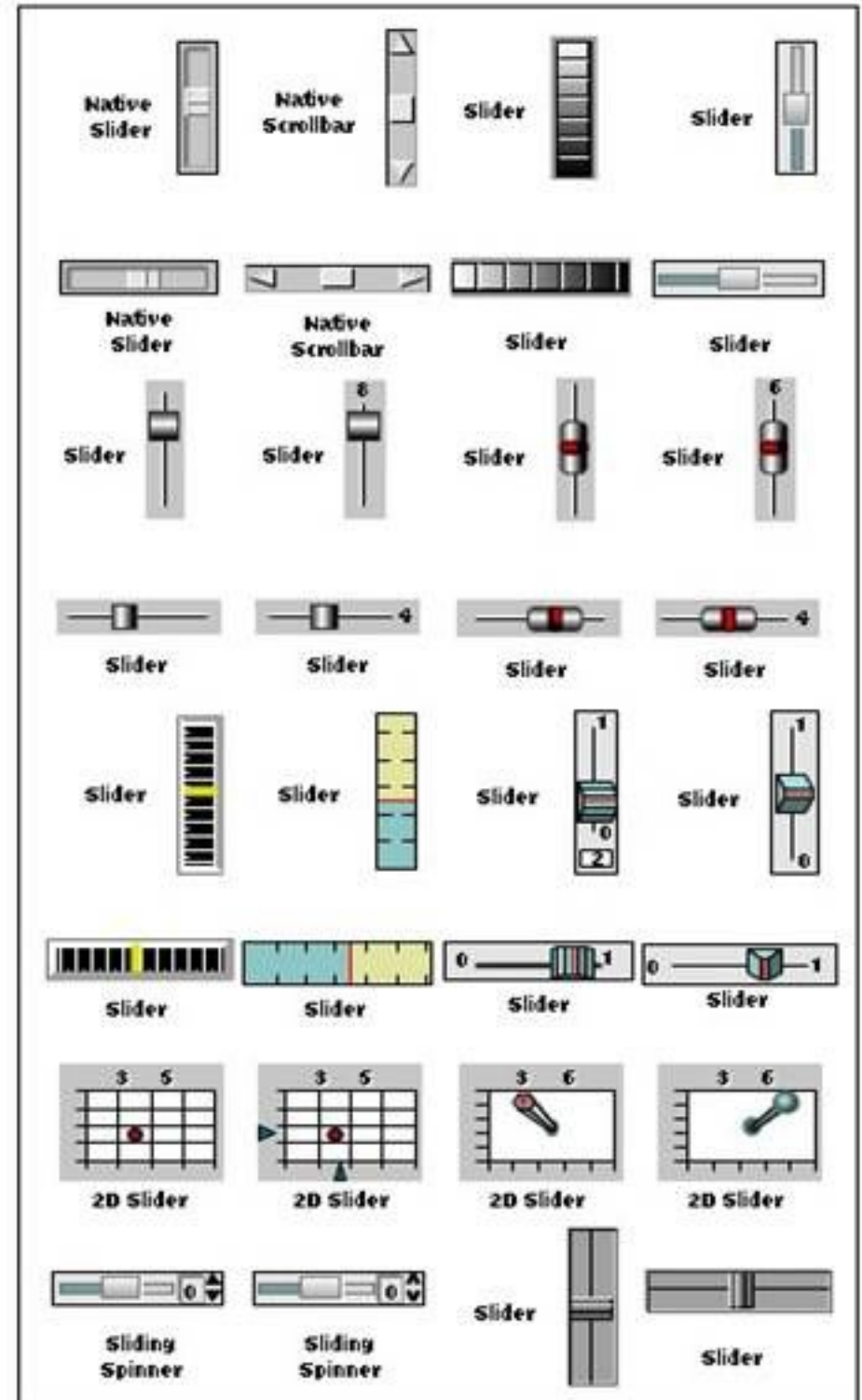
Industry simulation with the help of different shapes, symbols, widgets and dynamics

- » Dials & Meters
- » Knobs
- » Toggles & Switches
- » Sliders & Joysticks
- » Buttons & Indicators
- » Process Control Equipment
- » Process Control Gauges & Indicators
- » Tanks, Columns & Heat Exchangers
- » Motors, Pumps & Fans
- » Valves
- » Pipes & Lines
- » Special/Misc Widgets



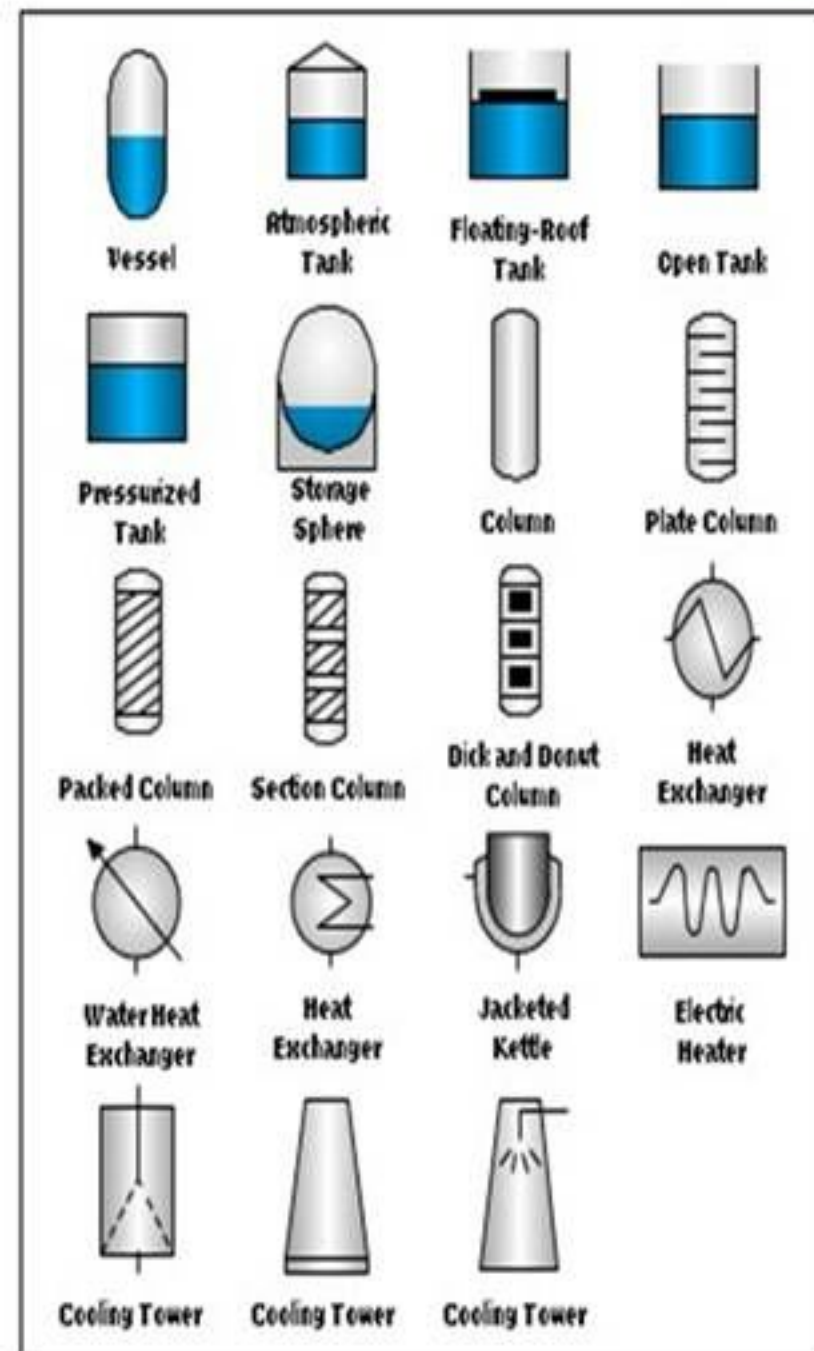


Toggles and Switches

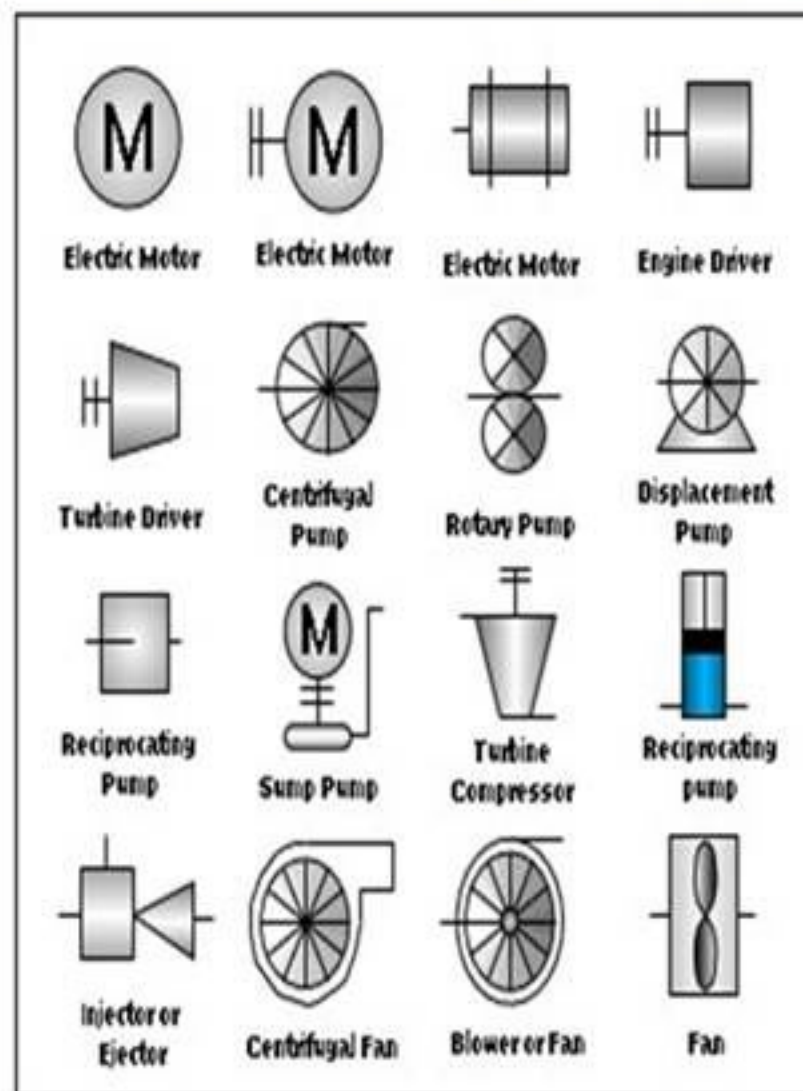


Sliders and Joysticks

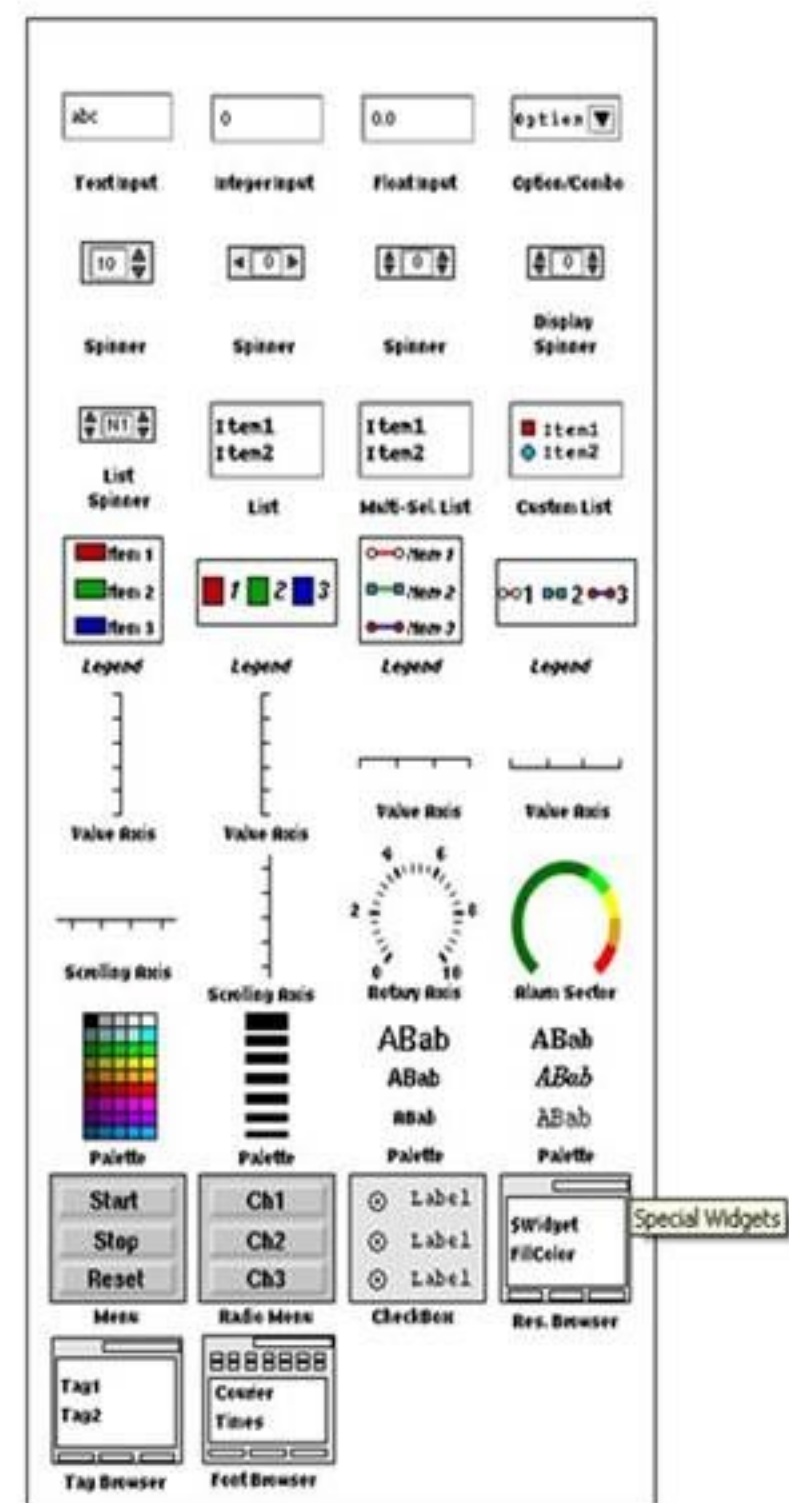
Includes the standard process control symbols with embedded dynamic behavior.

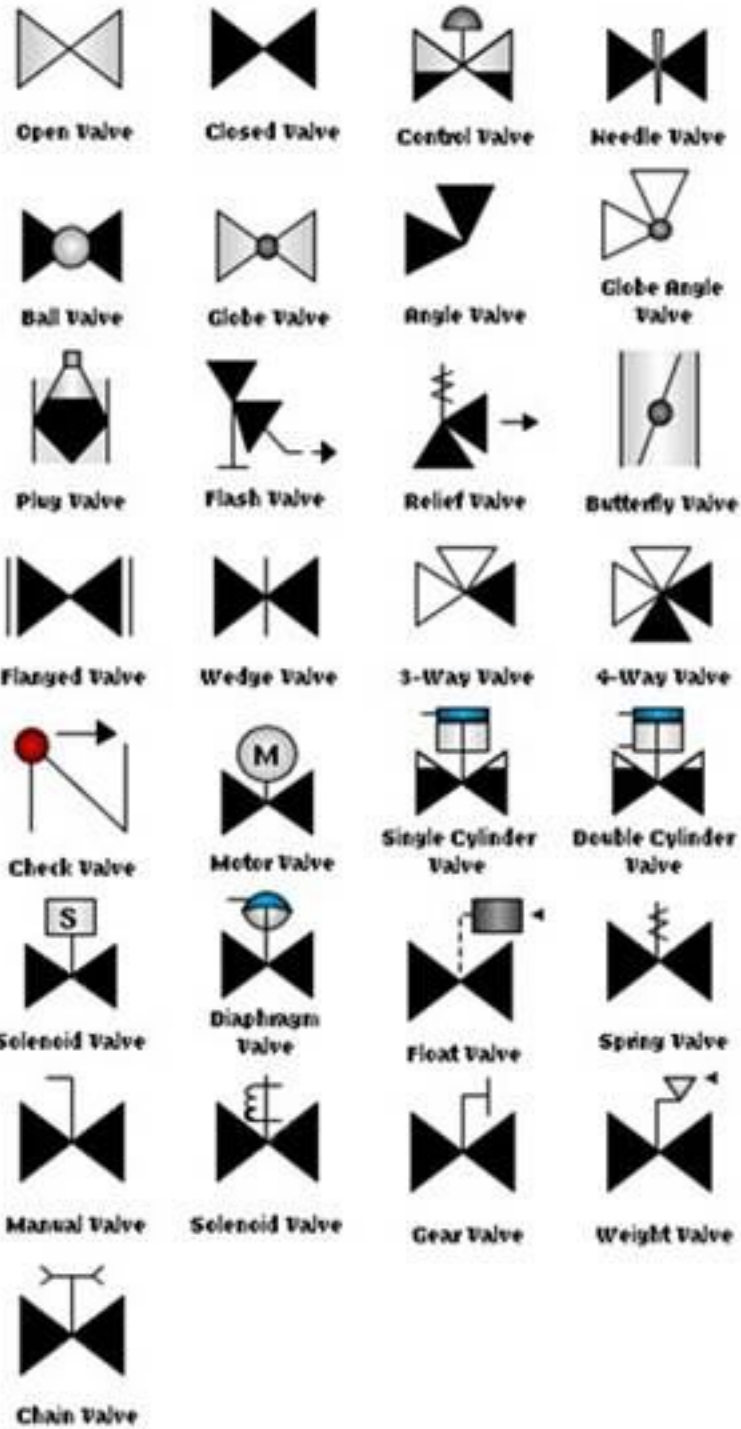


Tanks, Columns and Heat Exchangers

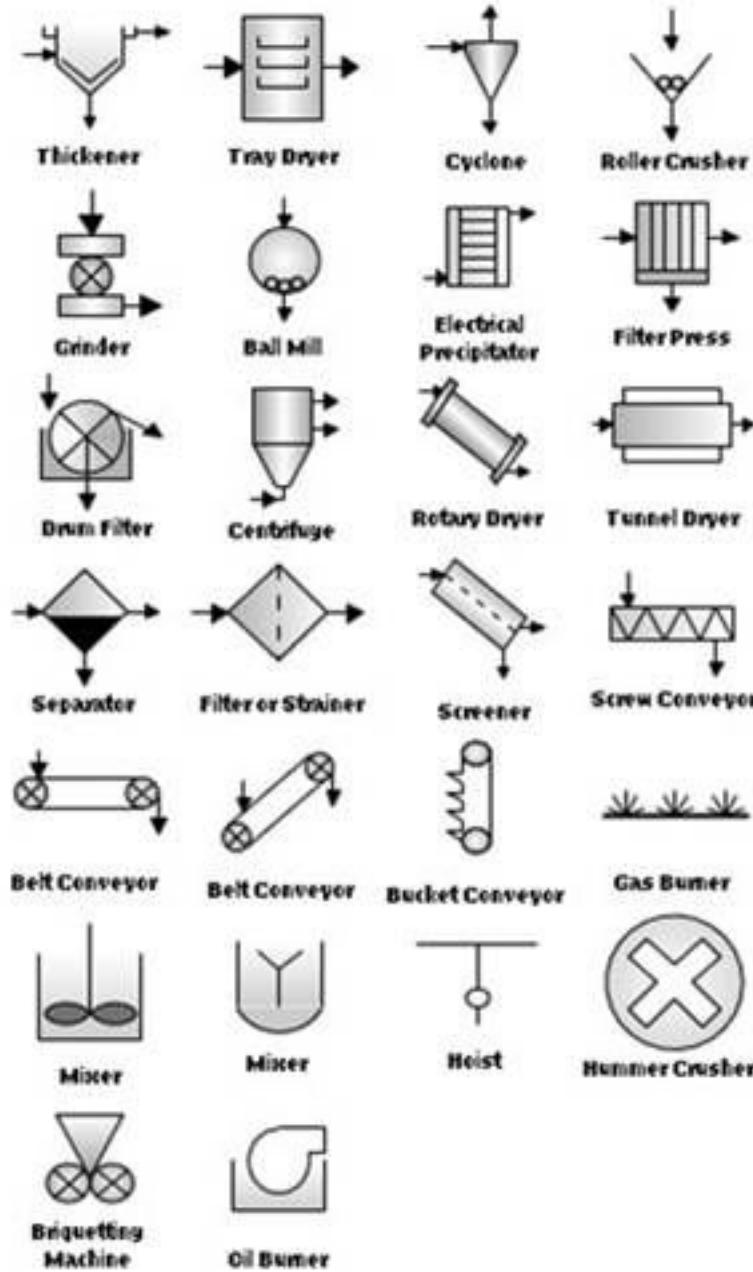


Motors, Pumps and Fans

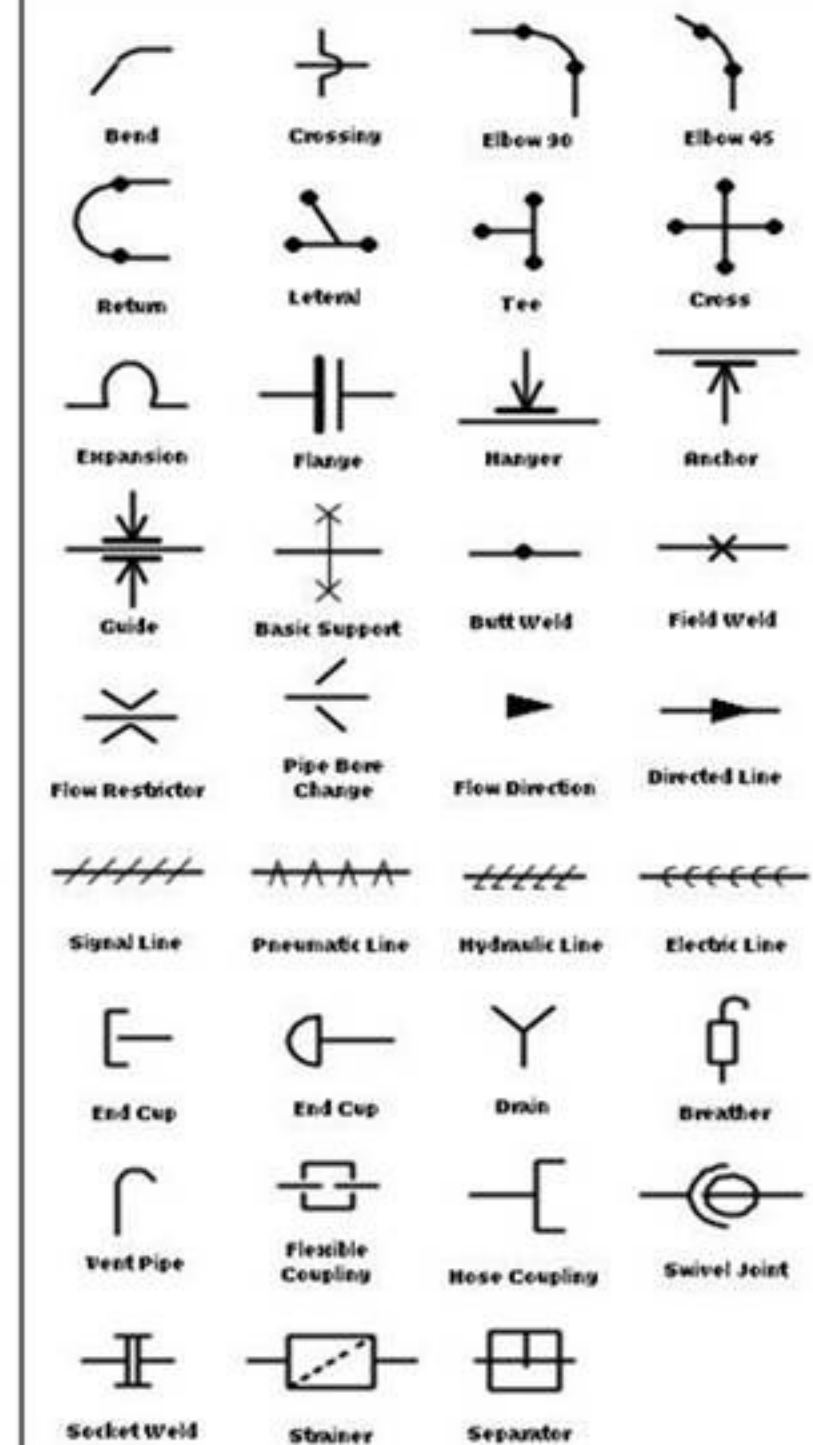




Valves

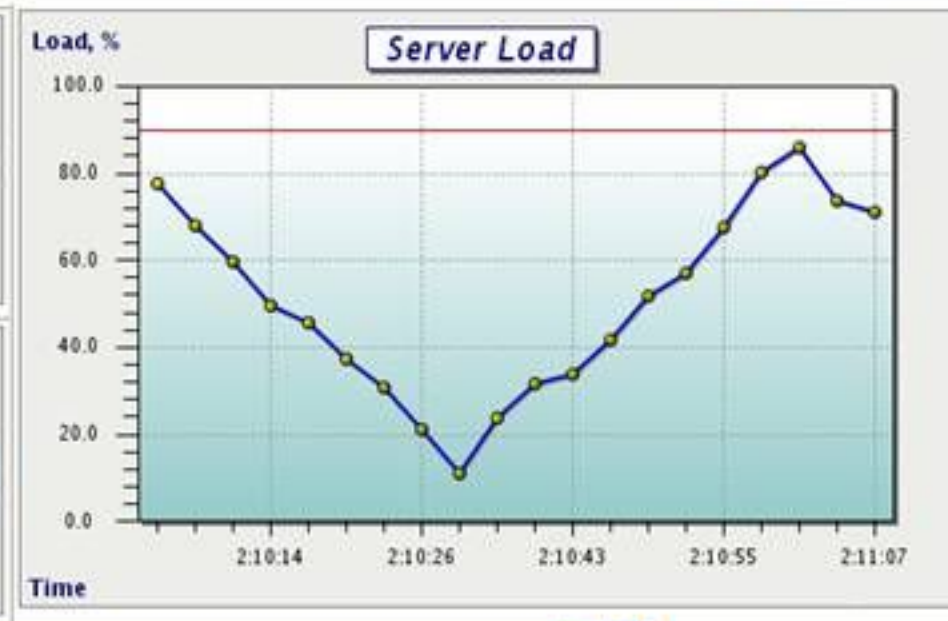
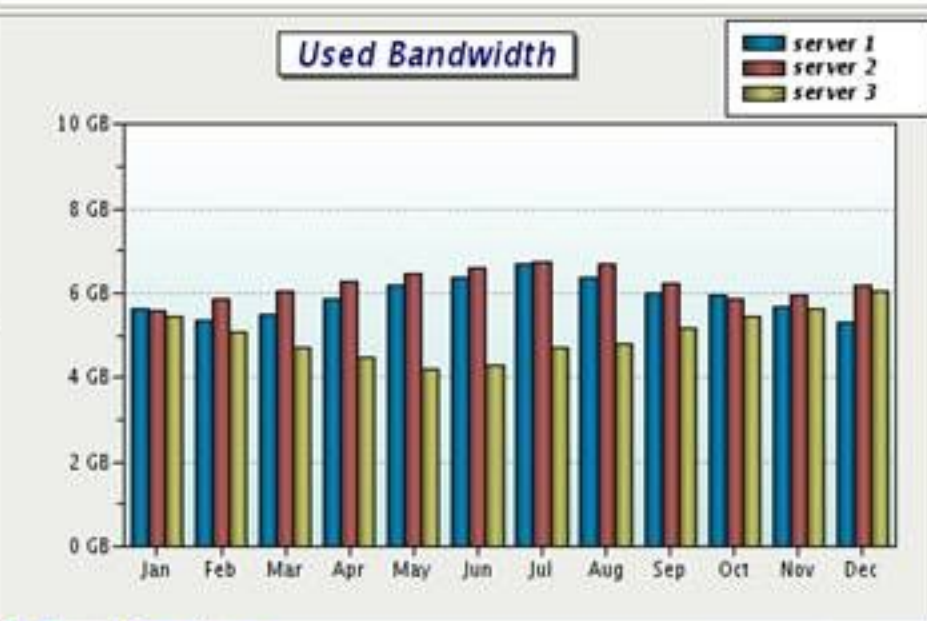


Process Control Equipment



Pipes and Lines

Open Trend & Alarm



Open Alarm Viewer

Home Refresh Help Exit Acknowledge Global Ack Delete Delete All

Alarm Viewer

Recent Alarms Historical Alarms

Date/Time	Type	Name	Tag Name	Value/Dif	Severity	Quality	Message	Acknowledgem
2009-06-02 09:23:02	Limit	SULPHURIC	Channel_0_User_Def	0.009421819	Critical	192	lohi message sul	Required
2009-06-02 09:23:02	Deviation	TEST	Channel_0_User_Def	872.0	Catastrophic	192	lohi deviation message test	Required
2009-06-02 09:23:02	Limit	TEST	Channel_0_User_Def	48.0	Critical	192	lohi limit message test	Required
2009-06-02 09:22:58	Limit	HCL	Channel_0_User_Def	0.82438214	Catastrophic	192	lohi message hcl	Required
2009-06-02 09:22:58	Limit	MIXTURE	Channel_0_User_Def	20.004639	Critical	192	lohi message limit Mixture	Required
2009-06-02 09:22:58	Limit	SULPHURIC	Channel_0_User_Def	0.44344157	Critical	192	lohi message sul	Required
2009-06-02 09:22:57	Deviation	TEST	Channel_0_User_Def	819.0	Catastrophic	192	lohi deviation message test	Required
2009-06-02 09:22:57	Limit	TEST	Channel_0_User_Def	45.0	Critical	192	lohi limit message test	Required
2009-06-02 09:22:53	Limit	HCL	Channel_0_User_Def	0.97923012	Catastrophic	192	lohi message hcl	JAVED
2009-06-02 09:22:53	Limit	MIXTURE	Channel_0_User_Def	39.2655	Catastrophic	192	lohi message limit Mixture	JAVED
2009-06-02 09:22:53	Limit	SULPHURIC	Channel_0_User_Def	0.6835348	Critical	192	lohi message sul	JAVED
2009-06-02 09:22:52	Limit	TEST	Channel_0_User_Def	41.0	Critical	192	lohi limit message test	JAVED
2009-06-02 09:22:48	Limit	HCL	Channel_0_User_Def	0.947270662	Catastrophic	192	lohi message hcl	JAVED
2009-06-02 09:22:48	Limit	MIXTURE	Channel_0_User_Def	2.2709394	Low	192	lo message limit Mix	JAVED
2009-06-02 09:22:48	Limit	SULPHURIC	Channel_0_User_Def	0.02965525	Critical	192	lohi message sul	JAVED
2009-06-02 09:22:48	Deviation	TEST	Channel_0_User_Def	721.0	Catastrophic	192	lohi deviation message test	JAVED
2009-06-02 09:22:48	Limit	TEST	Channel_0_User_Def	39.0	Critical	192	lohi limit message test	JAVED
2009-06-02 09:22:43	Limit	HCL	Channel_0_User_Def	0.9943462	Catastrophic	192	lohi message hcl	JAVED
2009-06-02 09:22:43	Limit	MIXTURE	Channel_0_User_Def	0.21913764	Critical	192	lohi message limit Mixture	JAVED
2009-06-02 09:22:43	Limit	SULPHURIC	Channel_0_User_Def	0.21913764	Critical	192	lohi message sul	JAVED
2009-06-02 09:22:43	Deviation	TEST	Channel_0_User_Def	828.0	Catastrophic	192	lohi deviation message test	JAVED
2009-06-02 09:22:43	Limit	TEST	Channel_0_User_Def	36.0	Critical	192	lohi limit message test	JAVED
2009-06-02 09:22:38	Limit	HCL	Channel_0_User_Def	0.96717789	Catastrophic	192	lohi message hcl	JAVED
2009-06-02 09:22:38	Limit	MIXTURE	Channel_0_User_Def	29.449152	Critical	192	lohi message limit Mixture	JAVED
2009-06-02 09:22:38	Limit	SULPHURIC	Channel_0_User_Def	0.66381353	Critical	192	lohi message sul	JAVED
2009-06-02 09:22:38	Deviation	TEST	Channel_0_User_Def	869.0	Catastrophic	192	lohi deviation message test	JAVED
2009-06-02 09:22:38	Limit	TEST	Channel_0_User_Def	32.0	Critical	192	lohi limit message test	JAVED
2009-06-02 09:22:34	Limit	HCL	Channel_0_User_Def	0.97917296	Catastrophic	192	lohi message hcl	JAVED
2009-06-02 09:22:34	Limit	MIXTURE	Channel_0_User_Def	8.772794	Medium	192	lo message limit Mixture	JAVED
2009-06-02 09:22:33	Limit	SULPHURIC	Channel_0_User_Def	0.18136518	Critical	192	lohi message sul	JAVED
2009-06-02 09:22:33	Deviation	TEST	Channel_0_User_Def	899.0	Catastrophic	192	lohi deviation message test	JAVED
2009-06-02 09:22:33	Limit	TEST	Channel_0_User_Def	30.0	Critical	192	lohi limit message test	JAVED
2009-06-02 09:22:28	Limit	HCL	Channel_0_User_Def	0.99492489	Catastrophic	192	lohi message hcl	JAVED
2009-06-02 09:22:28	Limit	MIXTURE	Channel_0_User_Def	3.1376188	Low	192	lo message limit Mix	JAVED
2009-06-02 09:22:28	Limit	SULPHURIC	Channel_0_User_Def	0.040762367	Critical	192	lohi message sul	JAVED



Strengths & Opportunities



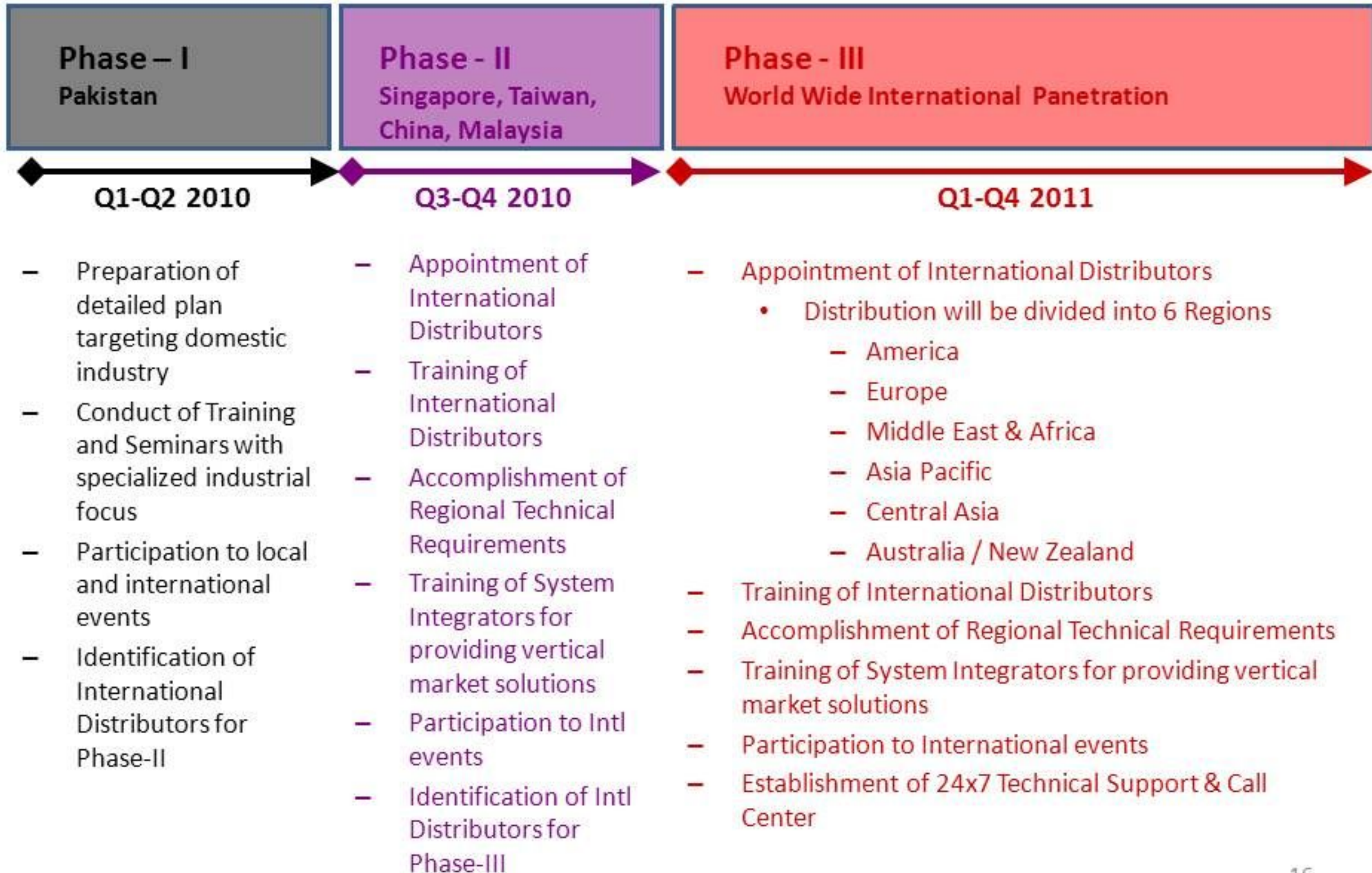
Strengths

- Relevant Experience of >10 years
- Software Developed & Released
- Reference sites are made
- Cost Effective Solution for global market
- Competitors don't have Linux based version
- Prepared Marketing & Training Material
- Appointment of Local Partners
- Localization & Regional Training Programs
- Understanding of industrial needs for further development
- Formation of Center of Excellence for Industrial Automation at NUST

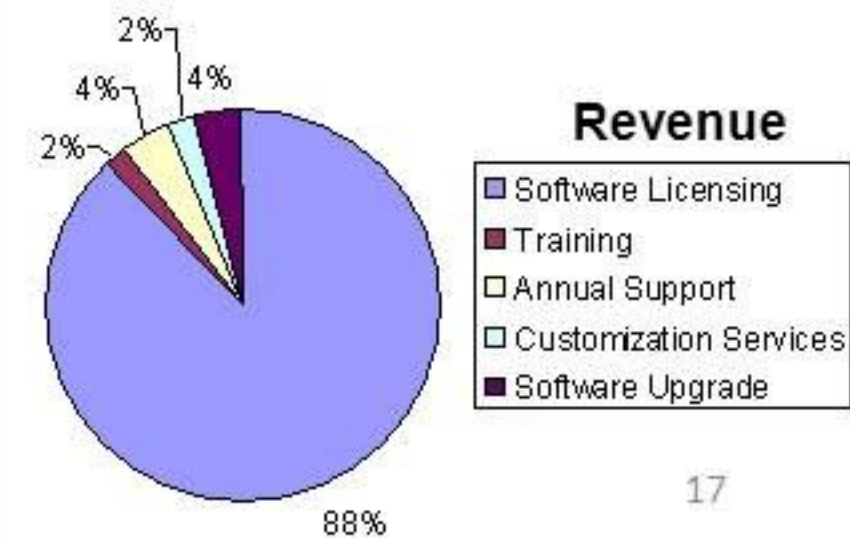
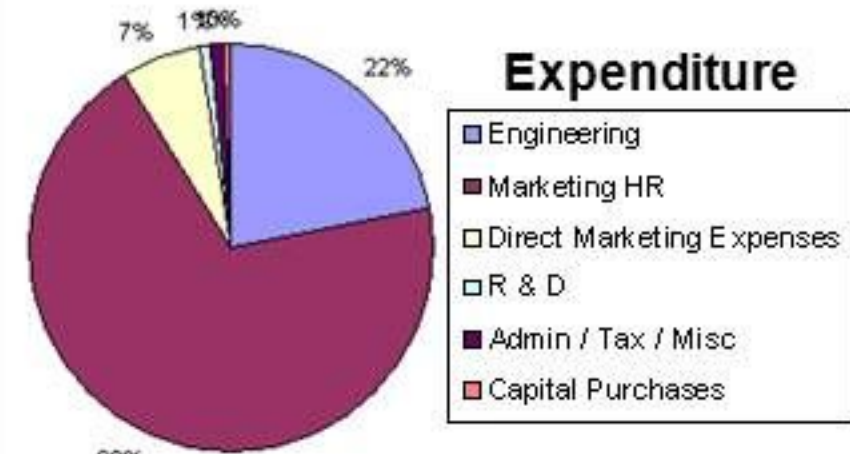
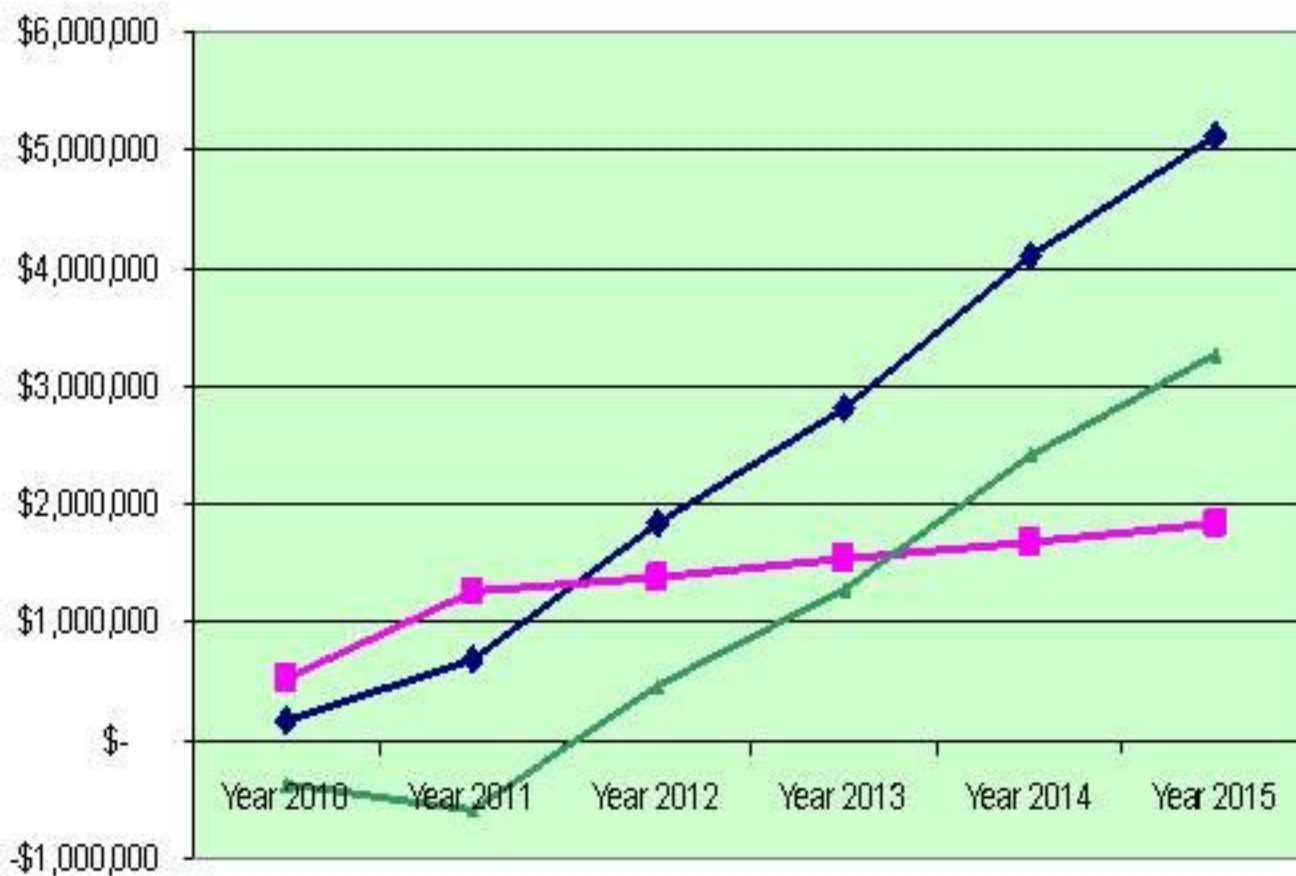


Opportunities

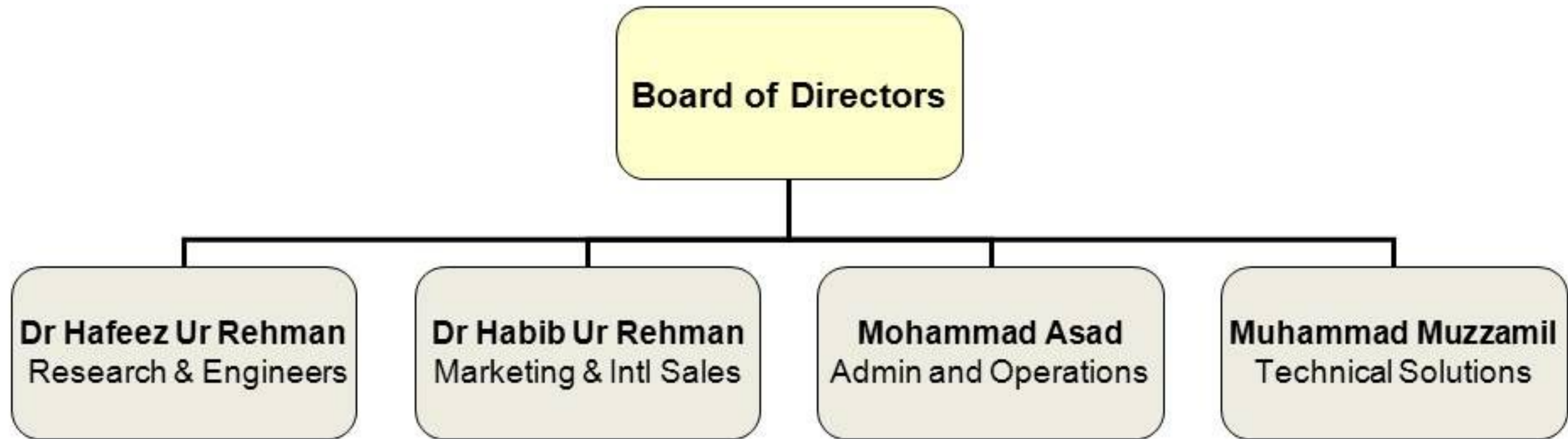
- SCADA market size is enormously growing
- Competitors have expensive products to license, implement, get trained, get support and maintain
- Global expansion & partnerships



Financial Analysis



- Organizational Experience: >10 years of Industrial Automation



- Board of Advisors

- HRH Prince Engr Amr Al Faysal; BoD Faysal Bank Limited
- Brig (R) Dr Mukhtar Hussain; Company Sr. IT Manager, FFC
- Engr Dr Hossny Aziz; Senior Planning Consultant
- Engr Abdul Rehman; Engineering Consultant
- Aslam Mehmood; Industrialist
- Akhtar Hussain; Financial Analyst



Future Plans



Formation of 'Process Control & Automation Center' to perform the following actions:

- Act as 'Centralized Resource Center' and 'National Forum'
- Establishment of Centers of Excellence at Universities for SCADA/OpenControl training
- Induction of OpenControl as lab tool for the Universities
- Training of Teachers / Lab Staff regarding
 - Field Instruments
 - Sensors
 - Controls
 - OpenControl
 - Telemetry
 - Safety Standards
- Liaison with Industry for Research/Commercial Projects



Want more information?

visit

www.buraq.com/opencontrol