

## Architectural Control System/Upgrade/Retrofit

### Original Glasstech Architectural Control System

Since its inception in 1971, Glasstech has utilized Motorola control technology, initially the 6800 series and later the 6809 series. Many 6809 systems are still in use today, but the technology has been overtaken and components are difficult to replace or service. New and improved control systems are now available and Glasstech has partnered with Rockwell Automation to offer the state-of-the-art Allen-Bradley Logix™-based solution.

### The new control system is a complete solution featuring:

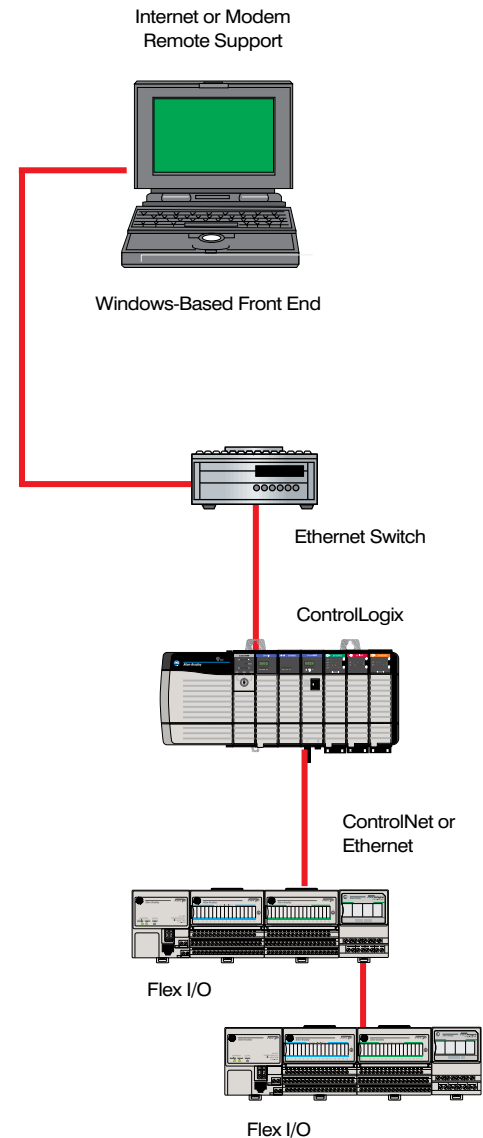
- ControlLogix™ or CompactLogix™ processor
- Flex I/O on ControlNet or Ethernet
- Optional Powerflex drives
- RSLogix5000 programming software
- Optional Panelview™ Plus operator interface

### Why Upgrade?

With the new control system, Glasstech's customers will have:

- Improved cycle time/increased production
- A single automation solution with widely accepted standard
- Long-term, stable solution
- Minimized spare parts inventory
- Local support and worldwide spare parts availability through Rockwell Automation distributors
- Minimized production downtime during retrofit with Glasstech streamlined retrofit process
- Standard PLC solution
  - Additional diagnostics for less downtime while troubleshooting
  - Supports Rockwell Automation integrated architecture/Factory Talk strategy
  - Simplified process modifications
  - Process and quality data available from additional packages like PlantMetrix/Historian

### Architectural Retrofit System Diagram



# Architectural Control System/Upgrade/Retrofit Technical Features

## ControlLogix™ Upgrade

New Allen-Bradley System	Old 6809 System
<b>Software</b>	<b>Software</b>
<ul style="list-style-type: none"> <li>• Modem and software included as standard for remote diagnostics and program downloads</li> <li>• All programs downloadable from WBFE</li> <li>• Improved glass heating time based for more constant cycles and better optics</li> </ul>	<ul style="list-style-type: none"> <li>• Not available</li> <li>• Programs stored on chips or need to be downloaded from external computer</li> <li>• Typically not available</li> </ul>
<b>Hardware</b>	<b>Hardware</b>
<ul style="list-style-type: none"> <li>• Standard off-the-shelf Allen-Bradley hardware</li> </ul>	<ul style="list-style-type: none"> <li>• Custom hardware from Glasstech</li> </ul>
<b>Operator Interface</b>	<b>Operator Interface</b>
<ul style="list-style-type: none"> <li>• Color Graphics HMI</li> <li>• Recipes stored on hard drive; contains more description information</li> <li>• Historical information can be printed or saved on hard drive for later review</li> <li>• Production monitor standard – includes number of loads in, loads out, time in cycle, time out of cycle and time in don't load</li> </ul>	<ul style="list-style-type: none"> <li>• Text-based system</li> <li>• Recipes stored on 6809 board; allows for only one field of information</li> <li>• Typically information is either logged to printer or lost</li> <li>• Production monitor typically not available</li> </ul>

## Main WBFE Screen

The main screen contains the most typically changed parameters and feedback:

- Cycle mode and part run
- Remaining cycle time
- Location of glass in furnace
- Zone temperatures
- Access to other screens



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