

### Description

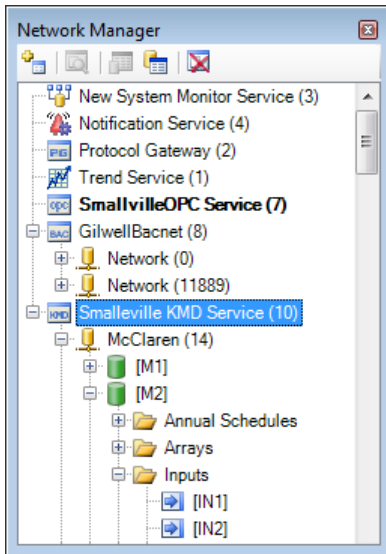
TotalControl Design Studio is an Advanced Operator Workstation for configuring a building automation system. Built on XML and the Microsoft® .NET Framework, this program is just one part of a powerful suite of software tools from KMC Controls.

With TotalControl Design Studio you can:

- ◆ Build operator graphic pages and then publish them for internet browser access
- ◆ View or change controller operation
- ◆ Manage alarms and notifications
- ◆ Set up and view historical trend data
- ◆ Set schedules
- ◆ Edit Control Basic programs

### Standard Microsoft Windows interface

Quickly locate controllers, objects and points from an expandable list of controllers and devices.



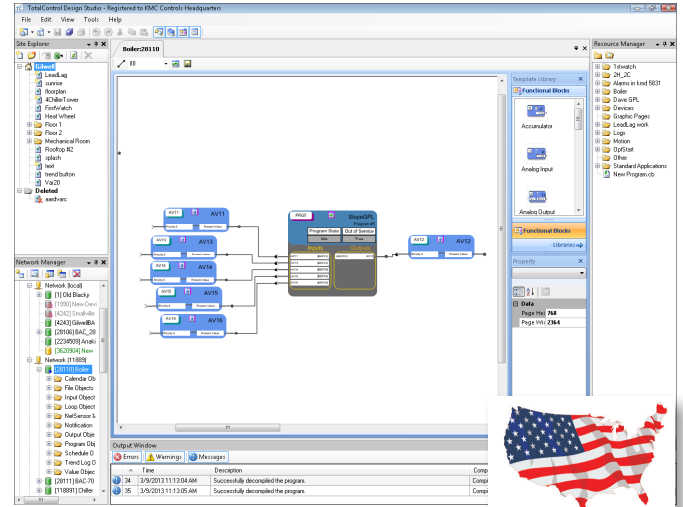
*Objects and points in the Network Manager list*

### Transfer data between protocols

The Protocol Gateway service transfers values between different types of TotalControl supported BAS protocols with one or more defined processes. The processes are set up with the Protocol Gateway Manager in Design Studio

### Set up kiosk displays

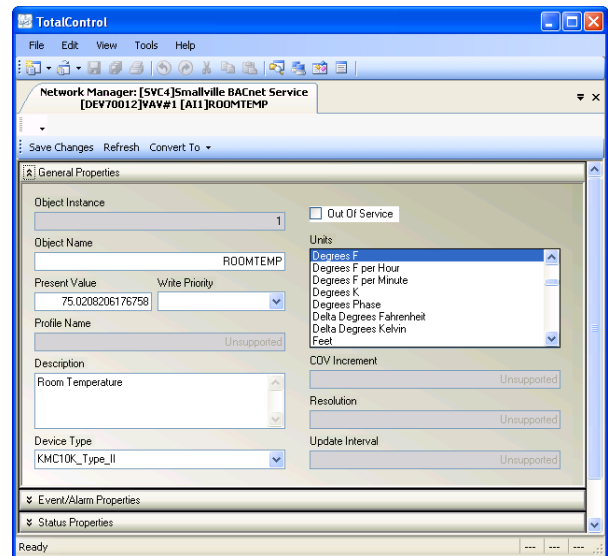
A kiosk is a designated computer that automatically displays selected graphic pages. Pages selected for the kiosk are displayed in a browser window as a continuously running slide show.



Still... Made in the U.S.A.

### Configure controllers

Individual devices and controllers are configured with standard Windows text fields and drop-down lists.



*Controller configuration tab*

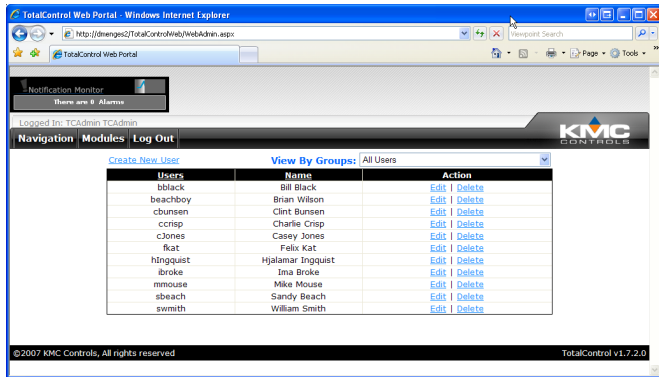
### Scheduling

Schedule special holidays, maintenance schedules and special days for up to a full year

- ◆ Schedule recurring daily activities with weekly schedules
- ◆ Use annual schedules to override weekly schedules during holidays and special events

## Internet browser site access

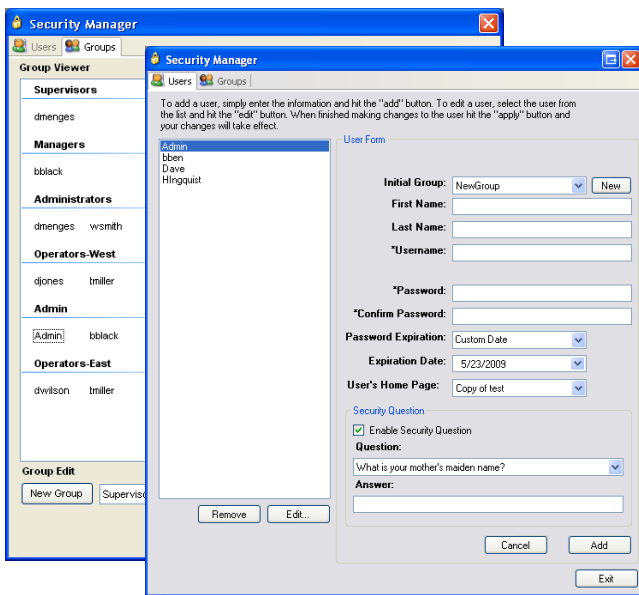
Once the site is configured and the graphic pages are constructed, operators manage the site with an internet browser access. Design Studio is not required for daily operation.



TotalControl Web Admin Module

## Security

TotalControl security locks out tampering and still allows authorized operators to make changes.



TotalControl Security Manager

## Supported protocols

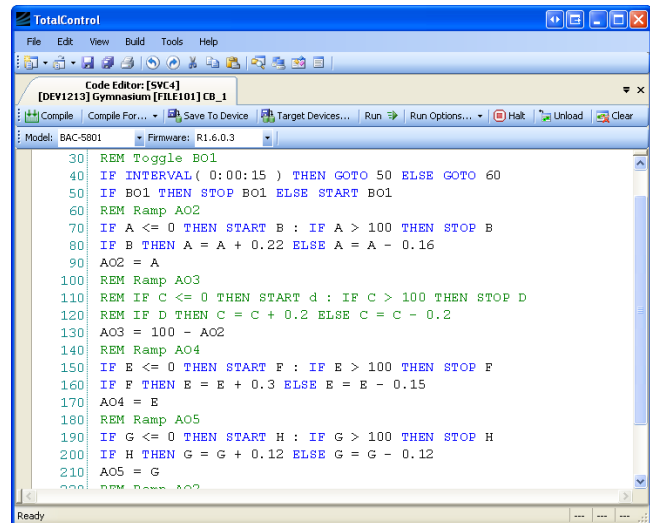
Design Studio—through a connection to TotalControl Building Services—supports the configuration of controllers operating on the following building automation systems.

- ◆ BACnet-IP, 8802.3, Foreign Device, BBMD
- ◆ KMDigital-Tier 1 and Tier 2 connected to Tier 1 controllers
- ◆ OPC as an OPC data acquisition client

## Program with Control Basic

The TotalControl Code Editor is the tool with which Control Basic programs are entered and edited in KMC controllers.

- ◆ Automatic line numbering for Control Basic
- ◆ References by line number automatically updated after renumbering
- ◆ Color-coded text
- ◆ Automatic keyword display
- ◆ Off-line programming

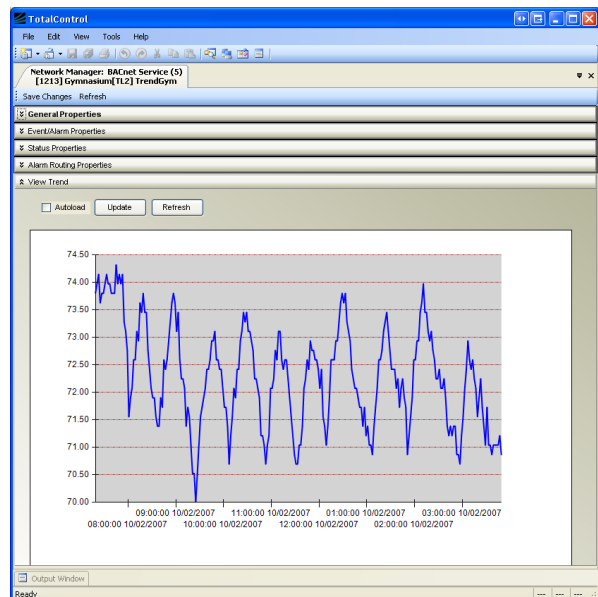


Control Basic Code Editor

## Configure trends

Configure TotalControl to collect trend data from either controller based trends or by direct polling of a point and storing the data in the SQL database. TotalControl supports the following types of trends.

- ◆ Controller trends
- ◆ Database trends
- ◆ PC trends

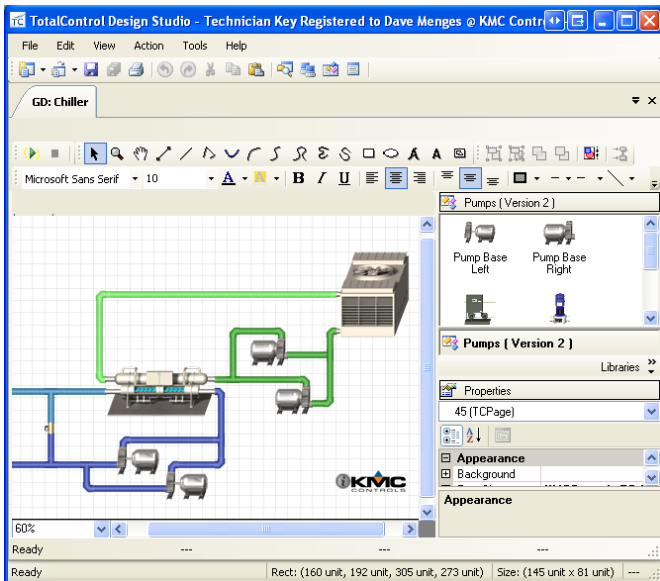


A controller trend display

## Create custom graphic pages

Design Studio includes an extensive graphics library of HVAC components with which you can build operator interface pages and then publish them for internet browser access.

- ◆ Add motion and proportional positioning displays with animation files
- ◆ Control the system with interactive controls
- ◆ Animated components display boiler operation, fan motion, damper position, gas heat and electric reheat
- ◆ Display static components such as arrows, piping, duct work, and sensors
- ◆ Display point values with dynamic text and gauges
- ◆ Import standard graphic formats to display site and floor plans
- ◆ Add links from site and floor plans to each piece of equipment



*TotalControl Graphics Designer*

## Site back up and restore

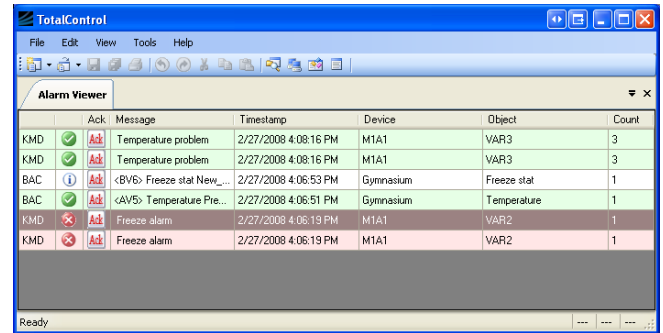
With TotalControl Design Studio you can save a backup file of the entire site, archive operational data or restore data to the site database.

- ◆ Back up the entire site including all configuration settings and web pages.
- ◆ During installation, use a backup file to transfer configuration setting and graphic pages from another site.
- ◆ Set up scheduled backup processes to periodically archive the information in the site SQL database.

## Alarm management

Use Design Studio to set up alarms to notify key operators of critical events.

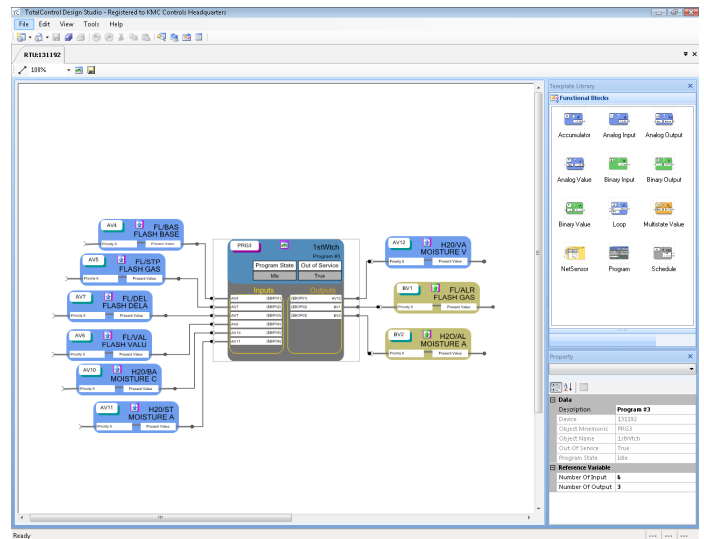
- ◆ Configure for viewing and management from a browser.
- ◆ View and acknowledge alarms.
- ◆ Set up custom e-mail notification for key operators. Notification includes custom messages in e-mail text.



*Design Studio Alarm Manager*

## Graphical Programming Language

Graphical Program Language is a visual method of linking inputs, outputs, value objects, and other supported BACnet objects to GPL compliant Control Basic programs. Design Studio installs GPL templates for most BACnet Advanced Application Controllers from KMC Controls.



*GPL Diagram Sheet*

## Computer system requirements

TotalControl Building Services require a computer that meets the following specifications.

- ◆ Windows 8 Professional
- ◆ Windows 7 Professional
- ◆ Windows 7 Ultimate
- ◆ Windows Server 2003 SP2
- ◆ Windows Server 2008 SP2
- ◆ Windows Server 2012 R2
- ◆ Windows Vista Business
- ◆ Windows Vista Ultimate
- ◆ Windows® XP Professional SP3

TotalControl Building Services will operate on 32-bit or 64-bit computers or versions of Windows.

A complete list of computer requirements are listed in the document *Installing TotalControl* which is available to our partner organizations.

### BTL Advanced Operator Workstation

TotalControl Design Studio, when used as part of TC-BAC Building Services, is a BACnet Testing Laboratory listed Advanced Operator Workstation.



## Ordering information

Job site name required at time of order.

Model number	Ordering description
TC-STUDIO	TotalControl Design Studio, HW-KEY included
TC-STUDIO-A	TotalControl Design Studio. Additional copy when purchased with TC-STUDIO, HW-KEY included.
HW-KEY	KMC Controls USB Hardware License Key

**KMC Controls, Inc.**  
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