

# SAGEON



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**ISSUE HISTORY**

<b>Issue</b>	<b>Page(s) Altered</b>	<b>Description</b>	<b>Date</b>
1	All	Initial Release	MF 8/05/2004
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3	All	Update contact details	NF 9/28/2016

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## 1. Introduction

The Sageon Site Monitor (SSM) is an auxiliary module for the Sageon™ DC Power Plant. The SSM provides additional I/O for the power plant enabling users to monitor the status of additional equipment through the Sageon system. The SSM includes twelve digital inputs and eight analog inputs for monitoring devices such as site security (door and window magnetic switches), AC Inverter status and alarms, Generator status (fuel level, oil pressure), and HVAC status and alarms. Also included are four voltage free (dry), Form C control output relays. The control relays can be automatically activated in response to an event on any of the SSM digital or analog input (configurable by the user), or operated manually from a PC running SageView™.

## 2. Applications

The SSM provides a simple, integrated solution to many common application challenges eliminating the need to purchase separate monitoring equipment. Using the remote communication capabilities and SageView software, the Sageon system can be remotely monitored, allowing the appropriate response to site events.

Typical applications include:

- Integration of site alarms
- Integration of Inverter status
- Individual load monitoring
- Integration of auxiliary equipment status

## 3. Example Installation

In this example the auxiliary site equipment is integrated into the site monitor. The I/O for this application include:

Analog Inputs

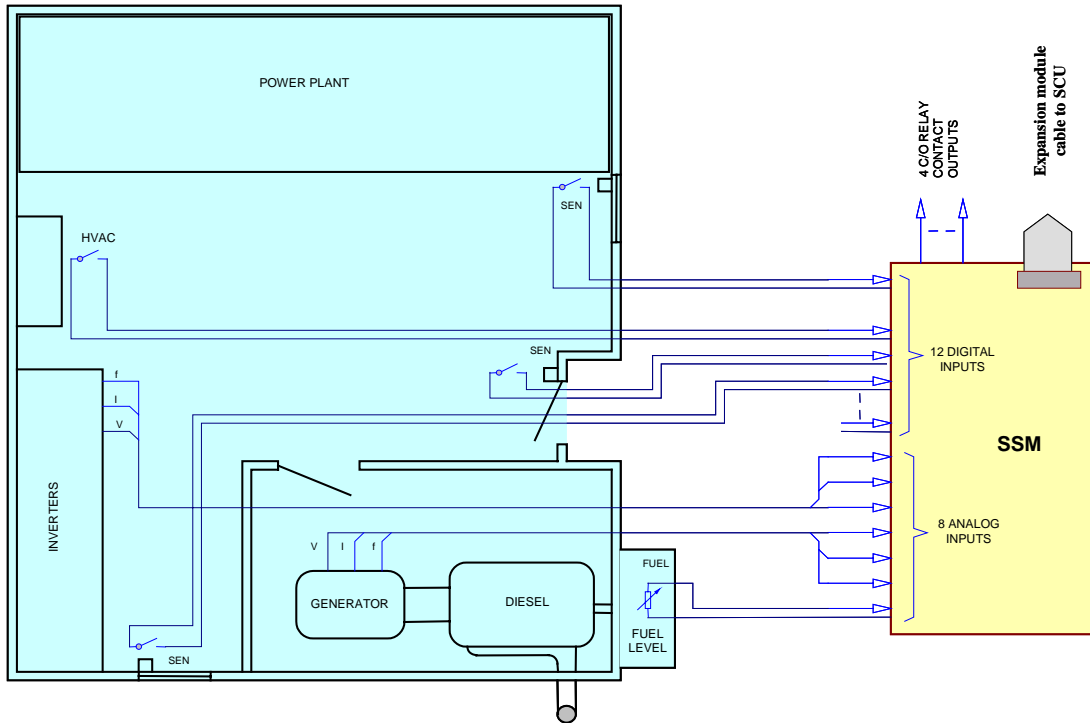
- Generator fuel level
- Generator output voltage, current, and frequency
- Inverter output voltage, current, and frequency

Digital Inputs

- Window and door opening sensors
- HVAC alarms

Digital Outputs

- NOC alarm generation
- Local alarms
- Strobe lights



#### 4. System Configuration

The SSM is easily configured using the SageView program included with each Sageon™ DC Power Plant. The Site Monitor configuration screen is pictured below and provides a simple, intuitive user interface.

	User Name	Out1	Out2	Out3	Out4	Alarm	High	Low	Scale	Units
Analog 1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.0	0.0	0.0	
Analog 2		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.0	0.0	0.0	
Analog 3		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.0	0.0	0.0	
Analog 4		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.0	0.0	0.0	
Analog 5		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.0	0.0	0.0	
Analog 6		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.0	0.0	0.0	
Analog 7		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.0	0.0	0.0	
Analog 8		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.0	0.0	0.0	
Digital 1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Tick for Normally Closed Input			
Digital 2		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Digital 3		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Digital 4		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Digital 5		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Digital 6		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Digital 7		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Digital 8		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Digital 9		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Digital 10		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Digital 11		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Digital 12		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				

SiteMon Enable  
 Manual On:  
 Out1     Out3  
 Out2     Out4

Buttons: Write to SM, Save to Disk, Read from SM, Print, OK, Cancel

Each input has a user-defined label field (up to 8 characters) to describe its function. If a label field is left blank, the corresponding input is treated as not used. Analog input fields also include a two-character field for the description of the units of measure as well as high and low alarm thresholds. Scaling factor for analog inputs are set-up for 0 volts (0% F.S.) to 4 volts (100% F.S.). The type of digital input source (normally open or normally closed) is user definable by selecting the appropriate check box. Each discrete output can be automatically generated based on any combination of discrete and analog inputs.

## 5. Electrical Specification

### Analog inputs

Number of inputs:	8
Input Range:	0 to +4Vdc Full Scale, Over-voltage and reverse polarity protected.
Configuration:	Scaling factor, low and high alarm levels are user programmable.
Electrical Isolation:	Non-isolated. Each analog input source must be isolated.

### Digital inputs

Number of inputs:	12
Source type:	Voltage free (dry) contact closure
Active state:	User defined (active open or active closed)
Electrical Isolation:	Non-isolated. Each digital input source must be isolated.

### Digital outputs

Number of outputs:	4
Output type:	Voltage free (dry) 1 Form C relay contacts
Output rating:	1A@30VDC

### General

Power Source:	Self powered from the Sageon Interface Board
Plant Connection:	16 conductor cable to the Sageon Interface Board
Maximum Distance:	30 feet (9.14 meters)

## 6. Physical Specification

Module Dimensions: 5.11" x 9.37" x 3.14" (130 x 238 x 80) (DxWxH)

