

# Daktronics Dynamic Message Sign

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Device Driver Specification.

10/13/2017



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## Table of Contents

1	Document Versions.....	4
2	Referenced Documents.....	5
3	Manufacturer .....	6
4	IPSecurityCenter Versions.....	7
5	Operating Systems .....	8
5.1	Client Side Functionality .....	8
5.2	Server Side Functionality .....	8
6	Models / Firmware Versions .....	9
	M3 Controller.....	9
	VL-6200 Sign.....	9
7	Hardware Configurations.....	10
8	Driver Package .....	11
9	Driver Features.....	13
9.1	Dynamic Message Sign.....	13
9.1.1	Device Connection and Online States.....	13
	DC1.0 Device Online Status.....	13
	DC2.0 Authentication.....	13
9.1.3	Properties.....	14
	Current Message.....	14
	Poll Rate .....	14
	Community.....	14
	SNMP Timeout .....	14
9.1.4	Methods.....	15
	9.1.4.1 Blank Message .....	15
	9.1.4.2 Activate Message .....	15
9.1.5	Events.....	16
	9.1.5.1 Message Activated Result .....	16
	9.1.5.2 Message Blanked Result .....	16
	9.1.5.3 General Operational Error .....	16
10	Installation .....	18
10.1	Prerequisites .....	18
10.2	Driver Installation.....	19
10.3	Additional Installation Details.....	19

10.3.1	Device Configuration.....	20
10.3.2	Driver Compatibility .....	21

## 1 Document Versions

Version	Date	Name	Change
<b>1.0</b>	2017-09-26	MR	Document Created.
<b>1.1</b>	2017-10-13	MR	Document pdated to reflect CNL code review changes.

## 2 Referenced Documents

Document	Version	Description
<b>Driver Project Requirements (DDK-PR)</b>	1.0	The Daktronics Dynamic Message Sign driver must conform to all the requirements detailed in this document.
<b>Driver Connection and Online States Requirements (DDK-DC)</b>	1.0	The Daktronics Dynamic Message Sign driver must conform to all requirements in this document detailed in the section: <a href="#">Device Connection and Online States</a>

### 3 Manufacturer

**Name** Daktronics



**Website** <https://www.daktronics.com>

**Description** Since 1988, Daktronics has led the way in DMS product development. Vanguard® products fit any ITS application and offer industry-critical reliability, legibility, and serviceability.

## 4 IPSecurityCenter Versions

The driver must be compatible with the following IPSecurityCenter versions:

IPSecurityCenter Version	Supported
5.3	<input checked="" type="checkbox"/>

## 5 Operating Systems

### 5.1 Client Side Functionality

Operating Systems	Supported
Windows Server 2012	<input checked="" type="checkbox"/>
Windows 10	<input checked="" type="checkbox"/>

### 5.2 Server Side Functionality

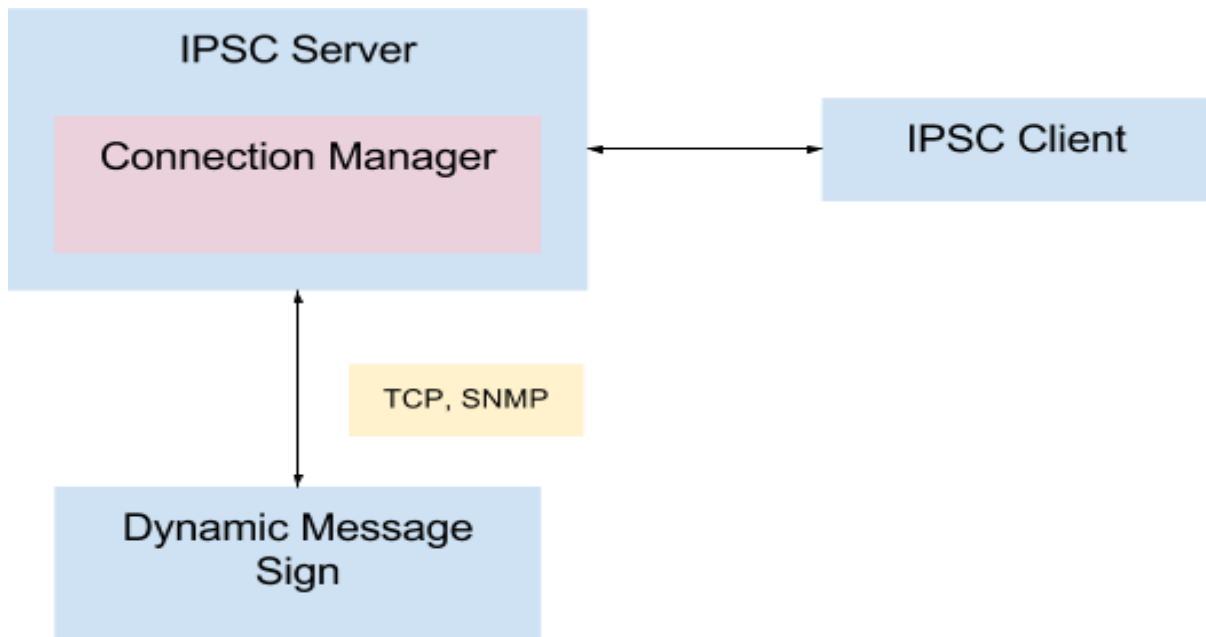
Operating Systems	Supported
Windows Server 2012	<input checked="" type="checkbox"/>
Windows 10	<input checked="" type="checkbox"/>



## 6 Models / Firmware Versions

Model	Versions	SDK
<b>M3 Controller</b>		NTCIP Protocol 1201 and 1203
<b>VL-6200 Sign</b>		NTCIP Protocol 1201 and 1203

## 7 Hardware Configurations



## 8 Driver Package

The driver package is named: CNL.IPSecurityCenter.Driver.NTCIP.SIGN.[BUILD-VERSION].ipsc



## 9 Driver Features

### 9.1 Dynamic Message Sign

#### 9.1.1 Device Connection and Online States

The full requirements for these features can be found in the [Device Connection and Online States Requirements](#)

Feature	
<b>DC1.0 Device Online Status</b>	Sdk/Query Device
<b>DC2.0 Authentication</b>	Community

## 9.1.2 Properties

General requirements for properties can be found in [Driver Project Requirements](#).

Name	Type	Description	Default Value & Ranges
<b>Current Message</b>	string	The message currently being displayed on the sign.	Default:
<b>Poll Rate</b>	int	How often (in milliseconds) IPSecurityCenter checks the signs general operational status.	Default: 60000 Min: 0 Max: 2147483647
<b>Community</b>	string	A string that allows access to the device.	Default: administrator
<b>SNMP Timeout</b>	int	Timeout for SNMP messages, in milliseconds	Default: 10000 Min: 100 Max: 2147483647

### 9.1.3 Methods

General requirements for methods can be found in [Driver Project Requirements](#).

#### 9.1.3.1 *Blank Message*

Clears the content on a sign

Returns void.

##### Parameters

Name	Type	Description	Default Value and Ranges
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#### 9.1.3.2 *Activate Message*

Activates a message permanently from the message library by submitting the message identity to be activated.

Returns void.

##### Parameters

Name	Type	Description	Default Value and Ranges
<b>Message Index</b>	int	The index of the message to pull from the permanent message library for display (0 to 65535).	Default: Min: 0 Max: 65535
<b>Message Duration</b>	int	The duration of the message to be displayed, in minutes (0 to 65535, where 65535 is treated as infinite).	Default: 65535 Min: 0 Max: 65535

## 9.1.4 Events

General requirements for events can be found in [Driver Project Requirements](#).

### 9.1.4.1 Message Activated Result

Raised when a new message has been activated or failed to be activated.

#### Performance

The driver must be able to handle 4000 events per hour.

#### Event Properties

Name	Type	Description
Message ID	int	The ID of the message to be activated.
Success	bool	True if the message was successfully activated, false otherwise.
Error Details	string	If there was an error activating the message, information about the error will be contained here.

### 9.1.4.2 Message Blanked Result

Raised when the sign has been blanked or failed to be blanked.

#### Performance

The driver must be able to handle 4000 events per hour.

#### Event Properties

Name	Type	Description
Success	bool	True if the message was successfully blanked, false otherwise.
Error Details	string	If there was an error blanking the message, information about the error will be contained here.

### 9.1.4.3 General Operational Error

Raised when a general operational error has been detected that does not prevent the operation of the sign.

#### Performance

The driver must be able to handle 4000 events per hour.

#### Event Properties



Name	Type	Description
<b>Category</b>	string	The category of the error that was encountered.
<b>Error Status</b>	string	The status of the error in question

## **10 Installation**

### **10.1 Prerequisites**

There is no SDK to install for this integration.

## 10.2 Driver Installation

- Start the IPSecurityCenter™ client and any supporting services
- Open the Device Driver Manager from the System Configuration
- Click the ***Install*** button
- Select the Daktronics Dynamic Message Sign Driver Package in the Open file dialog
- Wait for the driver to be uploaded

The driver packages should be listed in the Device Driver Manager.

## 10.3 Additional Installation Details

We are not using the Vanguard SDK. Just NTCIP standards.

### 10.3.1 Device Configuration

- Right click in a folder (e.g. Devices) in the System Configuration: **New** → **Device On** → **Server**
- Click **Next** on the introduction
- Select **Daktronics** in the **Device Manufacturer** list
- Select **Dynamic Message Sign** in the Available Devices list
- Click **Next** to enter the device details: Enter the Daktronics Dynamic Message Sign hostname or IP address, the port (use 0 to use the default port), and user name and password if integrated security is not being used.
- Click **Next** and **Finish** to add the device.
- Enable the device to bring it online.

Additional Configuration Details

### 10.3.2 Driver Compatibility

The following devices are known to be incompatible with the Daktronics Dynamic Message Sign.

Model
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