

Using Studio Mobil Access (SMA)

Studio Mobile Access (SMA) enables your Studio application to send Alarms and Process information to cell phones, PDAs, and other mobile devices.

SMA is somewhat different from the traditional Thin Client solution, however. When you create your Studio application for an operator interface, you do not want to worry about details like creating additional screens that would fit on a cell phone. SMA takes care of these details and provides an easy-to-use interface for getting alarm notifications and tag values on almost any mobile device.

How It Works

When you enable the Mobile Access feature in your Studio application project and then run your application, Studio creates a Collaboration Data Object (CDO) on the server and periodically refreshes it with alarm notifications and whatever tag values you choose to make available. (CDO is a Microsoft .NET technology that is used to share data between programs. It was previously known as Active Messaging.)

Once the SMA data object is in place, an ASP-powered Web application parses the data and builds lightweight pages for mobile browsers. As long as the Web server — typically Microsoft IIS, because it must support ASP — and network are properly configured to allow access, all you need to do is point your browser to the Web application and log on.

The connection between your Studio application and the SMA data object goes both ways, so you can also acknowledge alarms and write new tag values through the Web application. These actions are recorded by the SMA data object and then passed back to your Studio application.

Licensing

One SMA Client is included with Studio runtime license (**purchased after 2009/06/12**). That means the SMA Web application will allow only one user to connect at a time. If you want the Web application to accept more users, then you must upgrade your license to include additional SMA Clients.

Enabling and Configuring Mobile Access

To enable Mobile Access and configure the data to be served:

1. In Graphics tab of the Workspace, open the **Web Pages** folder.



2. Double-click the **Mobile Access** icon, and the Mobile Access Settings dialog box is displayed.

The 'Mobile Access Settings' dialog box is shown. It has a title bar with a close button. The settings are organized into sections: 'Enable Mobile Access' (checked), 'LogOn Access Level' (0), 'Alarms' (Refresh Rate: 60 Seconds, Ack Access Level: 0), 'Process' (checked), and a table for tag processing. The table has columns for 'Tag Name', 'Description', and 'Write'. The first row shows '2' in the 'Tag Name' column and an empty checkbox in the 'Write' column. At the bottom, there are 'Refresh Rate' (60 Seconds) and 'Write Access Level' (0) settings, and 'OK' and 'Cancel' buttons.

Tag Name	Description	Write
2		<input type="checkbox"/>

3. Select **Enable Mobile Access**.
4. In the **LogOn Access Level** text-box, type the user security level needed to log on to the Web application.
5. The Web application will show all active alarms to all logged-on users; there is currently no way to show or hide specific alarms. You can set the user security level needed to acknowledge alarms, however, and it may be different from the level needed to log on. In the **Ack Access Level** text-box, type the required level.
6. To have the Web application show tag values, select **Enable** in the **Process** group-box.

7. For each tag you want to show:

- In the **Tag Name** column, type the name of tag or double-click to open the Object Finder and select the tag.
- In the **Description** column, type a description of the tag. This description is displayed only in the Web application and it may be different from the tag's existing description in the Application Tags datasheet.
- In the **Write** column, select the checkbox to make the tag writeable from the Web application.

8. In the **Write Access Level** text-box, type the user security level needed to write new tag values. This applies to all tags that are made writeable.

9. You may choose to decrease the data **Refresh Rate** to improve application performance, especially in non-critical applications where alarms are uncommon and/or tag values do not change frequently. The refresh rates for Alarms and for Process information can be adjusted separately — in the corresponding Refresh Rate text-box, type the new rate in seconds.

10. Click **OK** when you are done.

The following screenshot shows Mobile Access enabled with a selection of tags:

Mobile Access Settings

☒ Enable Mobile Access LogOn Access Level: 0

Alarms

Refresh Rate: 60 Seconds Ack Access Level: 0

Process

☒ Enable

	Tag Name	Description	Write
2	Pressure	Pressure Set Point	<input checked="" type="checkbox"/>
3	Temperature	Temperature Set Point	<input checked="" type="checkbox"/>
4	Level	Level Set Point	<input checked="" type="checkbox"/>
5	Motor	Main Motor	<input checked="" type="checkbox"/>
6			<input type="checkbox"/>

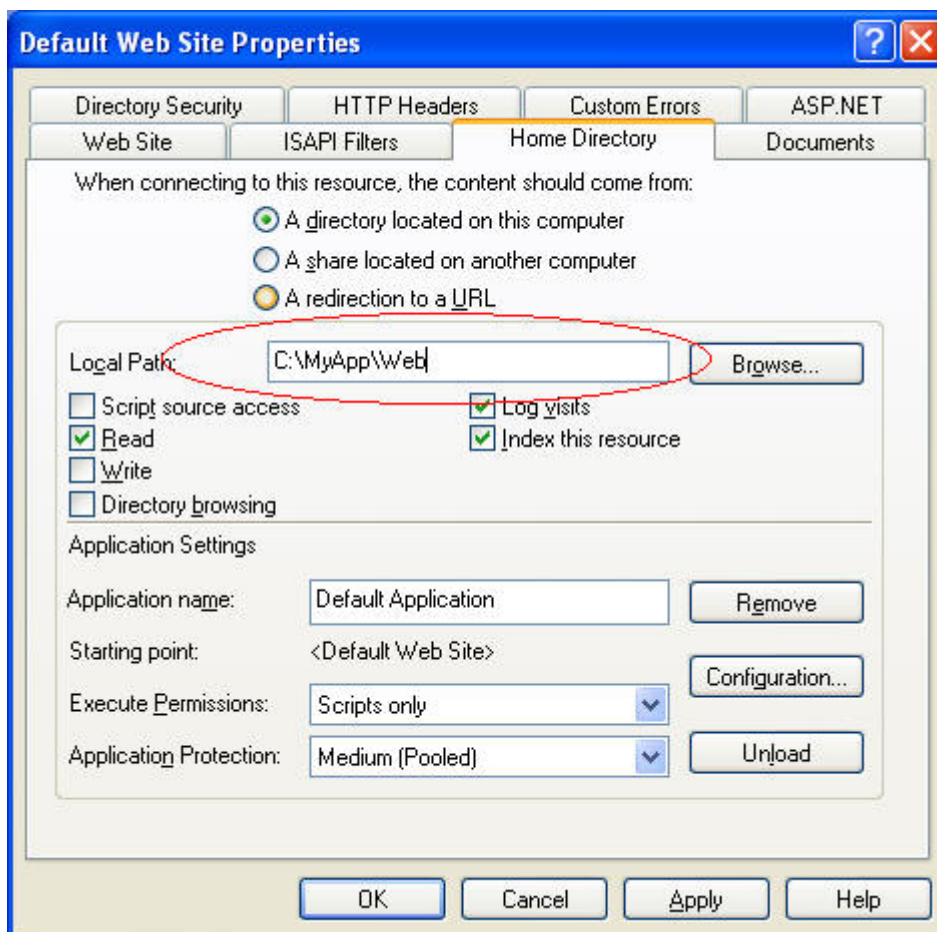
Refresh Rate: 60 Seconds Write Access Level: 0

OK Cancel

Installing and Configuring IIS

Studio Mobile Access (SMA) uses Collaboration Data Objects (**CDO**) and Active Server Pages (**ASP**) to build pages for mobile browsers. The mobile browser does not need to support Java®, Flash™, or any other advanced features because the pages are built entirely on the server-side and then sent to the browser as simple HTML. The Web server, however, must support CDO and SMA, and that typically means it must be Microsoft IIS running on Windows.

The two things you must be sure to do are enable support for ASP and set the server's home directory. If you're developing your Studio application to also support Thin Client, then the home directory should already be set to the \Web folder in your application directory:



If you're not supporting Web Thin Clients, however, then you may set the home directory to be the \Web\SMA folder. Either will work.

Accessing the Web Application

Once you've enabled Mobile Access, configured IIS, and run your Studio application, you can access your application by entering the URL in your mobile browser:

- If the IIS home directory is set to the **Web** folder in your Studio application directory, then the URL is

`http://server_address/SMA/LogOn.asp`

- If the IIS home directory is set to the **Web\SMA** folder in your Studio application directory, then the URL is

`http://server_address/LogOn.asp`

Log On Page

The first page is a standard security login, similar to the LogOn dialog box in your Studio application. Log on with your Studio username and password (*not* your Windows user account), and then SMA Main Menu is displayed.



The screenshot shows a web browser window displaying the 'LogOn' page. At the top left is the 'InduSoft' logo with the tagline 'Web Ready' and 'The Best For Automation'. Below the logo, the title 'LogOn' is displayed. There are two input fields: 'User:' and 'Password:'. Below these fields are two buttons: 'LogOn' and 'Reset'.

Main Menu



The main menu has three options:

- Click **Alarms** to see and acknowledge alarms.
- Click **Process** to see and change tag values.
- Click **Log Off** to log off from the Web application.

This menu is also displayed in the Alarms and Process pages described below.

Alarms

The screenshot shows the InduSoft logo at the top left. Below the logo, the title "Alarms" is displayed. Underneath the title, there are three links: "Home" (underlined in purple), "Process" (underlined in blue), and "Log Off" (underlined in purple). Below the links is a table with four columns: State, Message, Type, and Time.

State	Message	Type	Time
✓	Pressure HiHi Alarm	HiHi	13:34
⚠	Temperature HiHi Alarm	HiHi	13:33

The Alarms table shows the currently active alarms in your Studio application. To acknowledge an alarm from your mobile browser, simply click on the alarm **Message**.

Process



Process

[Home](#) [Alarms](#) [Log Off](#)

Description	Value
Pressure Set Point	65
Temperature Set Point	67
Level Set Point	46
Main Motor	On

You can use the Process table to configure set points, turn pumps on and off, send messages to users — anything that involves writing to tags. To write to a tag, simply click on the tag value.

Tip: By default, a user session will automatically expire after 10 minutes (600 seconds) of inactivity. If you want a user to be able to stay logged on, then open the file \Web\SMA\config.inc in your application directory and change the parameter logonExpiration to the desired period in seconds.

For example, if you want a user to stay logged on for up to four hours, then change the parameter to:

logonExpiration = 14400

Please note that as long as a user is logged on, he counts against the number of SMA Clients in the runtime license. If too many users stay logged on for extended periods, then you may run out of available connections.