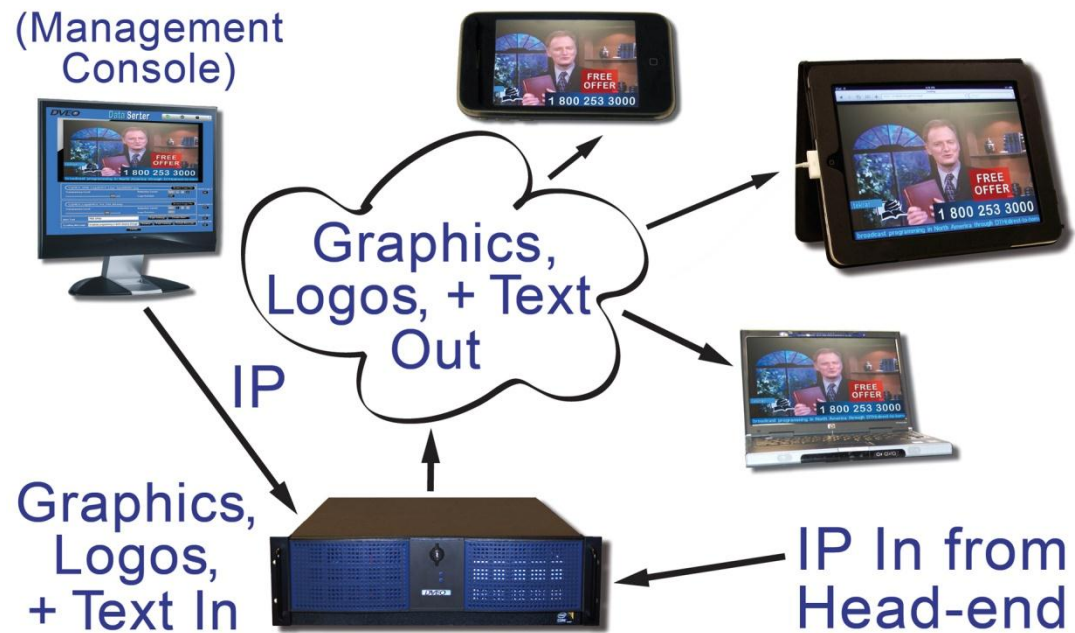




Ad Serter™ IP/SDI Manual



30th March 2018

For sales information and technical support contact:



11409 West Bernardo Court
San Diego, CA, USA 92127

Phone: (858) 613-1818

Fax: (858) 613-1815

support@dveo.com

<http://www.dveo.com>

Table of Contents

Introduction	3
Package Contents.....	3
Hardware Setup	3
Software Setup	4
How to Start/Stop Application.....	4
Main Screen – How to Control Video Recording, Screen Shot and Streaming.....	5
How to Insert Logos and Images.....	6
How to Insert Alert Text.....	7
How to Insert Scrolling Text.....	8
Settings Screen.....	9
SDI/IP Settings.....	10
Black Box Video Recorder Settings	11
Audio Enable / Disable	11
Bit Rate Settings.....	12
Video Resolution Settings	12
Resource Settings – Logo	13
Resource Settings – Alert Text	13
Resource Settings – Scrolling Text	14
Schedule Viewing Dialog	15
Schedule Dialog.....	16
Web UI Login Page	17
Status Tab.....	17
Resource Tab:.....	19
Interface Tab:	20
Blu-Ray Drive.....	21
Analog Video / Audio to SDI Converter – Optional Accessory.....	22
Warranty	23

Introduction

DVEO's Ad Serter™ IP/SDI is a real time software-based system that inserts real time data, ads, graphics, logos, and text anywhere on SD or HD live streams with any degree of transparency. The system enables Instrument companies, and content providers to mark video with real time data and “brand” their video content with images that are not easily removed.

Graphics can be created in several formats, although bitmaps and .png are preferred. The position of the graphics, transparency, and fade characteristics can be configured via the management console.

Package Contents

Check your package for the following items:

1. Ad Serter IP/SDI Server (3 RU)
2. Power Cord
3. Manual

Hardware Setup

1. Remove the Ad Serter IP/SDI from the box.
2. Connect the system to the A/C power. There are two power cords required for two power supplies, for power supply redundancy. If only one power supply is connected, it will give a warning tone. You can disable this warning tone by pressing the red button in the front Power supply panel. – This is not recommended. *Always connect two Power cords.*
3. Connect your network cables from the system to a switch.
4. Connect a monitor and keyboard.
5. Connect SDI signals as shown here.
6. Power up the system.



Software Setup

1. The software is configured for four shortcuts for channels named C1 to C9 in Task bar.



How to Start/Stop Application

Make sure that SDI Inputs are connected to SDI Input marked.

Make sure that Network Adaptors are properly configured for your network environment.

Click on HD to start HD Channel and on SD to start SD Channel. Please do not use more than one instance of any channel.



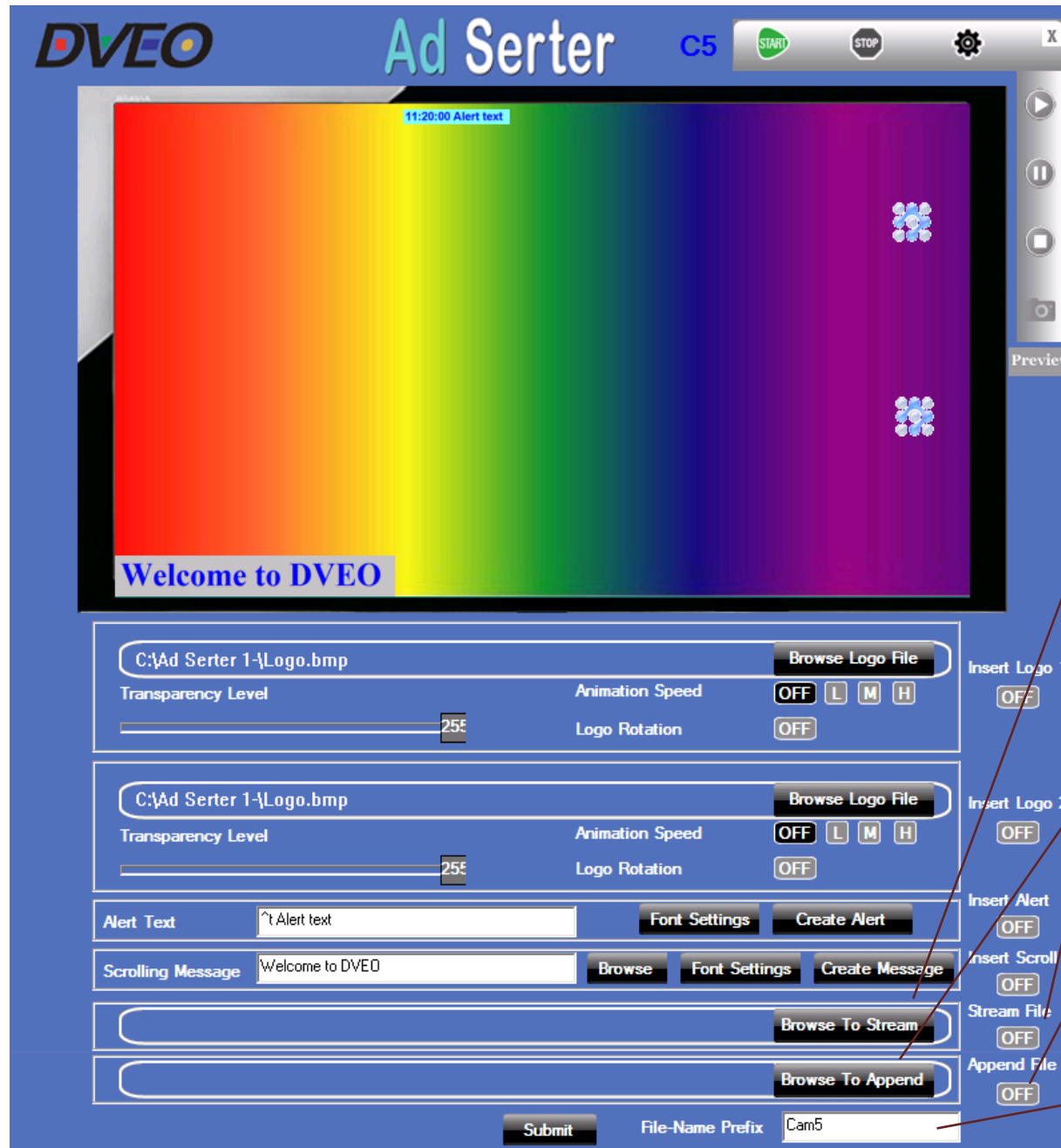
Start Button will start/resume Data, Logo Insertion process and video Streaming

Stop Button will stop Logo Insertion process and Video Streaming

Settings Button will show further settings for program

Click on Settings button to configure Inputs and bit rates. Refer to Page 10 for Settings Screen.

Main Screen – How to Control Video Recording, Screen Shot and Streaming



Record Buttons

Select Start / Pause / Stop to control Video Record functions. Files will be recorded in Images Folder with File Name Prefix Specified below.

Screen Shot Button

Click to perform Screen Capture. Image will be stored in Images folder.

Streaming File Name

Select previously recorded file to stream to SDI and to Network. File must have same video format as selected in Settings Screen.

Stream File On/Off

Pressing Stream File ON will enable file streaming.

Append File Name

Select previously recorded file to append new video recording to. File must have same video format as selected in Settings Screen.

Append File On/Off

Pressing Append File ON before starting new video recording will enable a new video record to be appended to the Append File Name.

File Name Prefix

Pressing Submit will apply Create Alert, Create Message changes to incoming stream.

How to Insert Logos and Images



Logo Position

User can drag and release Logo Image at desired position in screen. The Settings menu also provides an alternate way to position the logo.

Logo Path

Please browse the Logo file path. Logo Images can be in bmp or png format.

Logo Transparency

User can select transparency for Logo. If value is 0, Logo will be invisible. If value is 255, Logo will be opaque.

Logo Animation Speed

Rotation is ON - It is used for Rotation speed only for PNG.
Rotation is OFF - It is used for Fade-in & Fade-out effect speed for PNG, BMP.

Submit

Pressing Submit will apply all changes made on this screen and Set up screen to incoming stream.

How to Insert Alert Text



Alert Text Position

User can drag and release "Alert Text" Image at desired position in screen.

Alert Text - Input

Please enter text for Alert Message. Ad Sertter accepts International languages like Arabic, Japanese, Turkish, etc. You can enter up to 3 lines of Alerts. To start a new line use - "\n" – without quote mark. (Shift "6" and small "I").

Create Alert Text

Once Alert Text is entered and font settings are applied, please click on "Create Alert" to apply new changes.

Font Settings

To change font type, size, color and background color. If no background color is required, select "Cancel" after selecting your font. This will create transparent text.

How to Insert Scrolling Text



Scrolling Text Position

User can drag and release "Scrolling Text" Image at desired position in screen.

Scrolling Message - Input

Please enter Scrolling Message. Ad Sarter accepts International languages like Arabic, Japanese, Turkish, etc.

Browse – Text File

Please select Text File for scrolling Message. Ad Sarter supports International languages like Arabic, Japanese, Turkish, etc.

Font Settings

To change font type, size, color and background color.

Create Message

Once Scrolling Message is entered and font settings are applied, please click on "Create message" to apply new changes.

Settings Screen

 **SETTINGS**

SDI/IP Settings

Source SDI SDI Card (1)

Destination SDI SDI Card (2)

Destination 192.168.1.95

Destination IP 224 . 1 . 1 . 1

Destination Port 10000

Transmitting Options

☒ All Time ☐ Recording Time

Serial Port COM1

Baud Rate 115200

Bit Rate (Kbps)

Average 3000

Max 4000

Min 2000

Black Box Recorder

Max File Duration 3 in Hours

Factors 2 Multiple Times

Minimum Free Space 10299.683 in MB

Video Resolution

480i 720p 1080i Custom

Video Width 1920

Video Height 1080

Video Parameters

Program No. 1

Frame Rate 50

Video Format

☒ Progressive ☐ Interlaced

☒ Audio Enable

Resources

Logo 1 Logo 2 Alert Scroll

Position X 54

Position Y 819

Width 200

Height 130

Transparency 239

Rotation Interval 1

Rotation Count 10000

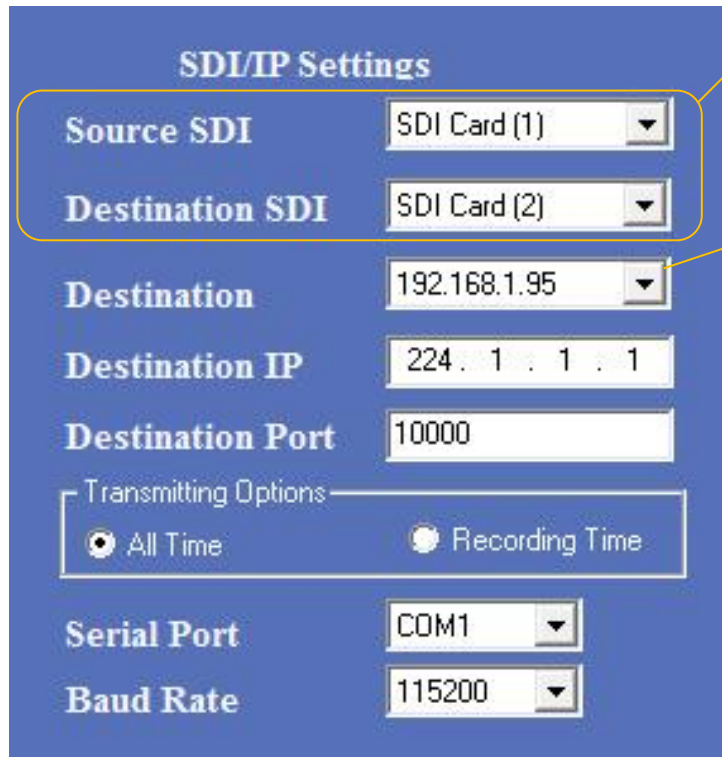
Schedule Settings

To set schedule, click here.

Submit

Schedule

SDI/IP Settings



SDI/IP Settings

Source SDI SDI Card (1)

Destination SDI SDI Card (2)

Destination 192.168.1.95

Destination IP 224.1.1.1

Destination Port 10000

Transmitting Options

☒ All Time ☐ Recording Time

Serial Port COM1

Baud Rate 115200

SDI Interface

At the back of Ad Serter SDI ports are marked as IN / Out 1, 2, 3, 4
For SDI In C1, Select SDI card (1), For SDI Out, Select SDI Card (2)
For SDI In C2, Select SDI card (3), For SDI Out, Select SDI Card (4)

IP Interface

Please select Destination adaptor port. Make sure that you have plugged the Network cable in the appropriate Network adaptor. Enter Multicast UDP address and Port Number for streaming video.

Transmit Option

Video streaming over IP can be All Time or at Recording Time Only. Select the desired option.

RS 232 Interface Optional

At the back of the Ad Serter, RS 232 ports are marked as COM1, COM2.

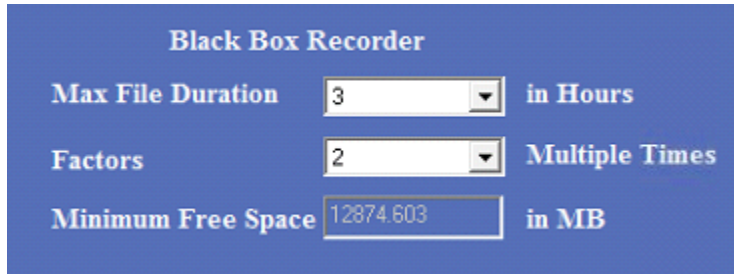
For HD Channel, Select Serial Port as COM1.

For SD Channel, Select Serial Port as COM3.

As a default setup, C1 shortcut is programmed with SDI In (1) / SDI Out (2),

C2 shortcut is programmed with SDI In (3) / SDI Out (4).

Black Box Video Recorder Settings

A screenshot of the 'Black Box Recorder' settings window. The window has a blue background and contains three settings: 'Max File Duration' set to 3 in a dropdown menu with 'in Hours' to its right; 'Factors' set to 2 in a dropdown menu with 'Multiple Times' to its right; and 'Minimum Free Space' set to 12874.603 in a text box with 'in MB' to its right.

Black Box Recorder		
Max File Duration	3	in Hours
Factors	2	Multiple Times
Minimum Free Space	12874.603	in MB

Video Recorder

The system is configured for Video Recording with maximum continuous duration of 8 Hours. After 8 hours, please Stop the Ad Serter application, close it, and Restart the application. It is also recommended to Power Off and On the system on a regular basis – every 24 hours.

To enable video recording even when the disc is full, Maximum file duration is programmable. Select Maximum file duration and Safety Factor. This will calculate Minimum space required on the hard drive to record files based on video bot rate, File duration and Safety factor specified.

When the space on the hard drive is reducing, the system will delete files from the C:\Ad Serter HD\Recordings folder for HD channel, and D:\Ad Serter SD\Recording for SD Channel, until the space indicated in Minimum file space becomes available. It is recommended to use a high factor to make sure that the Windows Operating system does not run out of the space required for its operation.

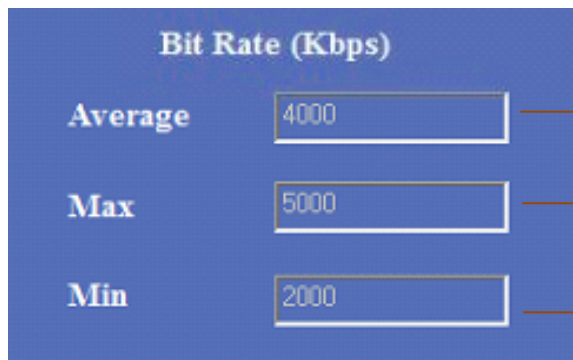
Audio Enable / Disable

A screenshot of the 'Audio Enable' button. It is a blue rectangular button with a white checkmark icon and the text 'Audio Enable' in white.☒ Audio Enable

Audio Enable / Disable

When SDI input does not contain audio, or when Audio is not being recorded or streamed, you can disable audio by unchecking the Audio Enable Button. This will help in reducing recording file size. This can be checked or unchecked when Ad Serter is in Stopped Mode.

Bit Rate Settings



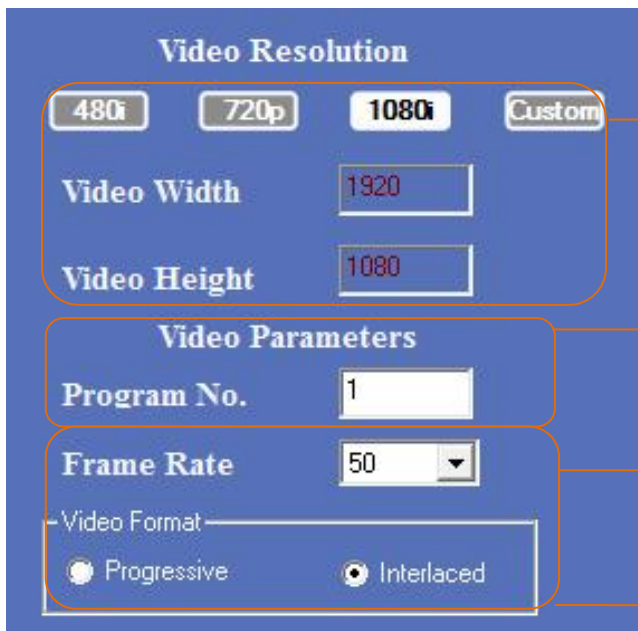
The Bit Rate Settings interface is a blue panel with the title 'Bit Rate (Kbps)'. It contains three input fields: 'Average' with the value 4000, 'Max' with the value 5000, and 'Min' with the value 2000. Arrows point from each field to its corresponding description on the right.

Average Bit Rate – The recommended values: 1080i HD: 4000 – For SD: 480i - 1500.

Maximum Bit Rate – The recommended values: 1080i HD: 5000 – For SD: 480i - 2000

Minimum Bit Rate – Currently this is not in use.

Video Resolution Settings



The Video Resolution Settings interface is a blue panel with the title 'Video Resolution'. It features four buttons at the top: '480i', '720p', '1080i' (which is selected), and 'Custom'. Below these are two input fields: 'Video Width' with the value 1920 and 'Video Height' with the value 1080. A section titled 'Video Parameters' contains a 'Program No.' input field with the value 1, a 'Frame Rate' dropdown menu with 50 selected, and a 'Video Format' section with two radio buttons: 'Progressive' and 'Interlaced' (which is selected). Arrows point from the '1080i' button, the 'Video Width' and 'Video Height' fields, the 'Program No.' field, the 'Frame Rate' dropdown, and the 'Interlaced' radio button to their respective descriptions on the right.

Video Resolution

Width and Height values of input will be displayed appropriately.

Program Number

Must be same as input stream program number to detect and process stream correctly. For SDI Input, Keep it 1. This Program number will be used in Video IP streaming also.

Frame Rate and Video Format

Must be same as input stream frame-rate to detect and process stream correctly.

For HD 1080i 59.94, Select 59.94 and Interlaced => For HD Channel Only

For HD 1080i 50, Select 50 and Interlaced => For HD Channel Only

For NTSC - 480i – Select 59.94 and Interlaced, => For SD Channel Only

Resource Settings – Logo

Resources	
Logo 1	Logo 2
Alert	Scroll
Position X	1580
Position Y	585
Width	90
Height	27
Transparency	219
PNG Interval	0
PNG Rotation	10000

Logo Image Settings

Logo Position X & Y are current position for Image of Logo. Width and Height are read-only.

Logo Transparency – Please select value of Transparency between 0 (Full Transparent Logo) to 255 (Solid Logo)

PNG Logo Interval – For PNG Logo, if Rotation is ON then Logo will be invisible for given interval (in seconds) after completion of rotating cycle.

PNG Logo Rotation – Number of times rotating cycle will be executed.

Resource Settings – Alert Text

Resources	
Logo 1	Logo 2
Alert	Scroll
Position X	91
Position Y	264
Width	32
Height	32
Transparency	250

Alert Text Settings

Alert Text Logo Position X & Y are current position for Image of Alert Text. Width and Height are read-only.

Alert Text Transparency

Please select a value of Transparency between 0 (Full Transparent Text) to 255 (Solid Text).

Resource Settings – Scrolling Text

Resources

Logo 1 Logo 2 Alert Scroll

Pixel To Move 1

Scrolling Speed 1

Scrolling Repetition 10000

Position Y 950

Transparency 200

Scrolling Text Direction

☒ Right To Left (English, French)

☐ Left To Right (Arabic, Hebrew)

Actual Speed of Scrolling Text = The value of Pixel To Move / The value of Scrolling Speed.
As per given values in Screen, 1 pixel of Scrolling Text Image moved in 1 frame of video.

Number of times Scrolling Message will be repeated.

Please select the vertical position for scrolling Text.

Scrolling Text Transparency

Please select value of Transparency between 0 (Full Transparent Text) to 255 (Solid Logo Text).

Scrolling Text Direction

Please select reading direction as per selected International Language.

Schedule Viewing Dialog

Scheduler for Data Server

Done To add a schedule Double click date. To modify the schedule information Double click on that schedule

Year: 2012

Calendar view: Week or Month

Month View

Monthlv Schedule

Occurring Only Once Schedule

Daily Schedule

Weekly Schedule

Highlight Current Day

Navigation Next/Previous Schedule

Monday	Tuesday	Wednesday	Thursday	Friday	Sat/Sun
January 30	31	February 1 12:00AM Monthly	2	3	4
5	6	7 01:02PM Only Once	8 03:04PM Daily	9 03:04PM Daily	10 03:04PM Daily
11 03:04PM Daily	12 03:04PM Daily	13	14	15	16
17 10:05AM Weekly	18	19 10:05AM Weekly	20 10:05AM Weekly	21 10:05AM Weekly	22
23	24	25	26	27	28
29 00:07AM Monthly	30	31	March 1	2	3
4	5	6	7	8	9
10	11	12	13	14	15

Schedule Dialog

Modify Schedule - 04/05/2012

Schedule Name:

Type of Scheduling:

☐ Only Once ☒ Daily ☐ Weekly ☐ Monthly

Start Date: End Date:

Start Time: End Time:

Logo 1

Logo Path:

Logo Position X: Logo Width: PNG Rotation:

Logo Position Y: Logo Height: PNG Interval:

Logo Transparency:

Logo Animation: ☒ OFF ☐ Slow ☐ Medium ☐ Fast

Logo 2

Logo Path:

Logo Position X: Logo Width: PNG Rotation:

Logo Position Y: Logo Height: PNG Interval:

Logo Transparency:

Logo Animation: ☐ OFF ☐ Slow ☒ Medium ☐ Fast

Alert

Alert Text:

Alert Position X: Alert Text Width:

Alert Position Y: Alert Text Height:

Alert Transparency:

Scrolling Text

Scroll Text:

Pixel To Move: Scrolling Speed:

Scroll Text Position Y: Scrolling Repetition:

Scroll Transparency:

Scrolling Text Direction:

☐ Right To Left (English)

☒ Left To Right (Arabic)

☒ Insert Logo ☒ Insert Logo ☒ Insert Alert ☒ Insert Scrolling Message

Repeating Schedule as per selected type

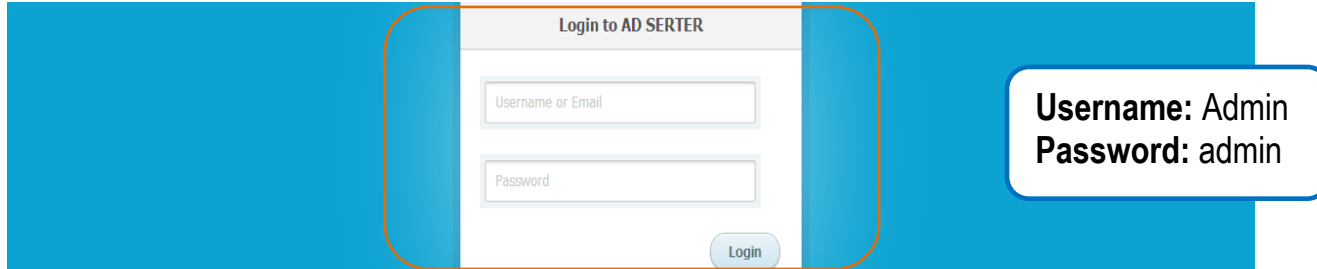
Start and End Date -- Period for schedule to be active

Duration for schedule to execute

Web UI Login Page

Start Internet Explorer browser with IP Address of PC (where CC Application is running) with Port Number 8000.

- `http://localhost:8000`
- (e.g. `192.156.336.876:8000`)



The login page features a blue background with a central white login box. The box contains two input fields: 'Username or Email' and 'Password', followed by a 'Login' button. A callout box on the right provides the default credentials.

Login to AD SERTER

Username or Email

Password

Login

Username: Admin
Password: admin

Status Tab

DVEO Broadcast Division AD Sertter IP-ASI-SDI DVB COMPLIANT												
STREAM CONTROL												
STREAM CONTROL RESOURCES INTERFACE SCHEDULE SYSTEM STATUS LOGS												
	CONTROL	INPUT	LOGO 1	LOGO 2	SCROLLING TEXT	ALERT	APPEND FILE	STREAM FILE		RECORD FILE	PAUSE	CAPTURE
C1	STOP		ON	ON	ON	ON	ON	ON		START	ON	ON
C2	STOP		ON	ON	ON	ON	ON	ON		START	ON	ON
C3	STOP		ON	ON	ON	ON	ON	ON		START	ON	ON
C4	STOP		ON	ON	ON	ON	ON	ON		START	ON	ON
C6	STOP		ON	ON	ON	ON	ON	ON		START	ON	ON
C7	STOP		ON	ON	ON	ON	ON	ON		START	ON	ON

1. **STREAM CONTROL:** Controls streaming out providing active input as per selected Interface (IP/SDI)
2. **INPUT:** shows status of input stream, if it is not ok then check input connections as per input interface
3. **LOGO:** Controls whether Logo is drawn on video out, it should be configured from RESOURCES tab before activation
4. **SCROLLING TEXT:** Controls whether scrolling (CRAWL) is visible on video out, it should be configured from RESOURCES tab before activation
5. **ALERT:** Controls whether Alert is drawn on video out, it should be configured from RESOURCES tab before activation
6. **APPEND FILE:** Pressing Append File ON before starting new video recording will enable a new video record to be appended to the Append File Name.
7. **Stream File On/Off:** Pressing Stream File ON will enable file streaming.
8. **Record File, pause:** Select Start / Pause / Stop to control Video Record functions. Files will be recorded in Images Folder in D Drive with File Name Prefix.
9. **CAPTURE:** Click to perform Screen Capture. Image will be stored in Images folder.

Resource Tab:

The screenshot shows the AD Senter IP-ASI-SDI web interface. The top navigation bar includes 'STREAM CONTROL', 'RESOURCES' (active), 'INTERFACE', 'SCHEDULE', 'SYSTEM STATUS', and 'LOGS'. The left sidebar lists channels C1 through C7. The main content area is divided into several sections:

- LOGO 1**: Includes fields for LOGO FILE (Browse), FADE IN / OUT (OFF, Slow, Med., Fast), LOGO ROTATION (ON), TRANSPARENCY (255), POSITION X (1749), POSITION Y (723), WIDTH (100), HEIGHT (100), ROTATION COUNT (10000), and INTERVAL (0).
- LOGO 2**: Similar fields to LOGO 1, with POSITION X (1677) and POSITION Y (111).
- SCROLLING TEXT**: Includes SCROLL MESSAGE (Welcome to DVEO Haseeb), BROWSE TEXT FILE (Browse), FONT (Verdana), SIZE (72), FONT COLOR (0000FF), PIXEL TO MOVE (4), BACKGROUND (C0C0C0), REPETITION (10000), POSITION Y (981), TRANSPARENCY (255), and TEXT DIRECTION (LEFT TO RIGHT).
- ALERT**: Includes ALERT MESSAGE (C1 ^t Alert text - Welcome), FONT (Arial), SIZE (48), FONT COLOR (0000FF), POSITION X (702), BACKGROUND (80FFFF), Y (12), and TRANSPARENCY (255).
- APPEND FILE**: Includes APPEND FILE (Browse) and FILE-NAME PREFIX (CAM 1).
- STREAM**: Includes STREAM FILE (Browse).

A large blue 'Submit' button is located at the bottom center of the interface.

Logo 1 & 2

User can drag and release Logo Image at desired position in screen. The Settings menu also provides an alternate way to position the logo.

Scrolling Text Position

User can drag and release "Scrolling Text" Image at desired position in screen.

Alert Text - Input

Please enter text for Alert Message. Ad Senter accepts International languages like Arabic, Japanese, Turkish, etc. You can enter up to 3 lines of Alerts. To start a new line use - "^" – without quote mark. (Shift "6" and small "I").

Append File Name

Select previously recorded file to append new video recording to. File must have same video format as selected in Settings Screen.

File Name Prefix

Pressing Submit will apply Create Alert, Create Message changes to incoming stream.

Streaming File Name

Select previously recorded file to stream to SDI and to Network. File must have same video format as selected in Settings Screen.

Interface Tab:

INTERFACE

STREAM CONTROL RESOURCES **INTERFACE** SCHEDULE SYSTEM STATUS LOGS

SOURCE SDI SDI Card (11) **DESTINATION** 10.1.1.82

DESTINATION SDI SDI Card (12) **DESTINATION IP** 224.1.1.1

DESTINATION PORT 55004

VIDEO PARAMETERS

PROGRAM NO. 1 **VIDEO RESOLUTION** 1080i

FRAME RATE 59.94 **FRAMES PER SECOND** **WIDTH** 1920

VIDEO FORMAT INTERLACED **HEIGHT** 1080

☒ **AUDIO ENABLE**

BLACK BOX RECORDER

MAX FILE DURATION 4 (In Hours)

FACTORS 1.5 (Multiple Times)

MINIMUM FREE SPACE 20599.365 (In MB)

TRANSMITTING & COM OPTION

TRANSMITTING OPTION All Time

SERIAL PORT COM1

BAUD RATE 115200

BIT RATE (Kbps)

AVERAGE 5000

MAXIMUM 8000

MINIMUM 3000

Submit

SDI Interface

At the back of Ad Sertter SDI ports are marked as IN / Out 1, 2, 3, 4

For SDI In HD, Select SDI card (1), For SDI Out HD, Select SDI Card (2)

For SDI In SD, Select SDI card (3), For SDI Out HD, Select SDI Card (4)

IP Interface

Please select Destination adaptor port. Make sure that you have plugged the Network cable in the appropriate Network adaptor. Enter Multicast UDP address and Port Number for streaming video.

Video Resolution

Width and Height values of input will be displayed appropriately.

RS 232 Interface Optional

At the back of the Ad Sertter, RS 232 ports are marked as COM1, COM2.

For C1 Channel, Select Serial Port as COM1.

For C2 Channel, Select Serial Port as COM3.

Average Bit Rate – The recommended values: 1080i HD: 4000 – For SD: 480i - 1500.

Maximum Bit Rate – The recommended values: 1080i HD: 5000 – For SD: 480i – 2000

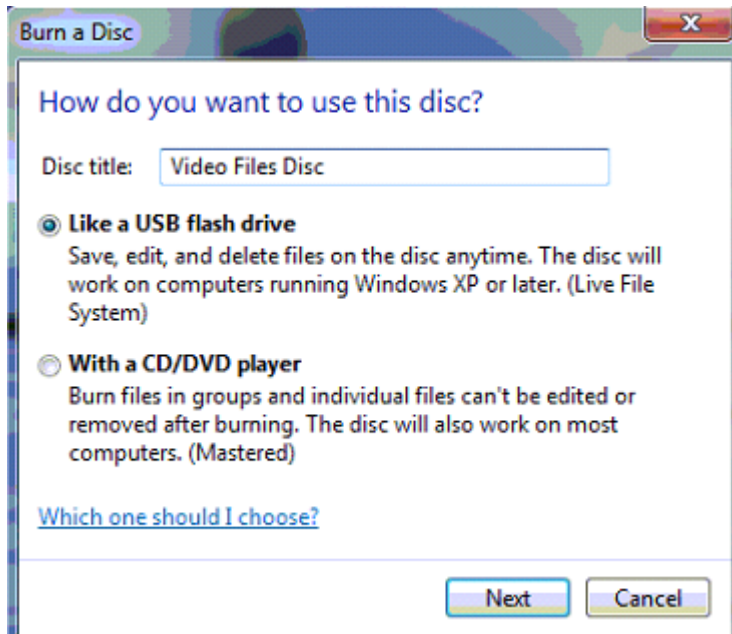
Minimum Bit Rate – Currently this is not in use.

Note:

When Ad Serter is running, please make sure that no other Windows activities are running like copying files, transferring files to Blu-Ray Disc or to USB drive, or any other activities whatsoever. Any other activities will affect video streaming and video recording operation.

Do not add any new software to the Ad Serter system. Please do not enable any Windows Updates or any other services. Running any other services or any other program will void the warranty of the Ad Serter.

Blu-Ray Drive



Blu-Ray Drive

Ad Serter uses LG Blu-Ray Drive.

Caution: Blu-Ray operation MUST NOT be performed when the system is recording or streaming video, or when the system is not in Stop mode for both HD and SD channels.

When you insert a new Blu-Ray Disc, a dialogue box will pop up. Select the "Like USB Flash Drive" option to transfer your files on Blu-Ray drive. Use normal Windows drag and drop operation to copy files when the Ad Serter is not running.

Analog Video / Audio to SDI Converter – Optional Accessory

In Order to connect Composite output SDI camera, Optional Analog to SDI converter can be used. Below is the information on HD-700A.

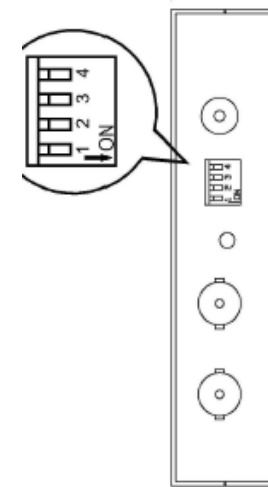
HD-700A Audio Cable - For Analog audio
Use Red – Audio R, White Cable - Audio L



HD-700A Switch configurations
SW4 -> ON -> Down All time

For Analog Audio,
Switch 3 -> ON -> Down position

For Composite Video,
SW1 -> SW 2 -> OFF -> Up Position

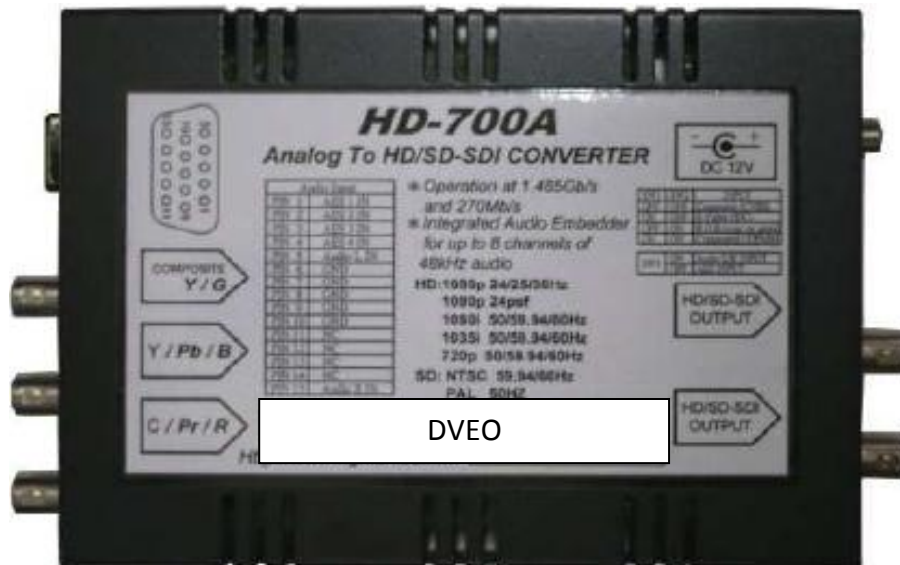


Connect Power Supply

From SD Camera – Analog
Composite Output

Not connected for SD –
Composite Output Camera

Not connected for SD –
Composite Output Camera



To Ad Serter SD-SDI
Input

Optional –to SDI
Monitor

Please refer to HD-700A
Manual for details

Warranty

Computer Modules, Inc. warrants that DVEO products are free from defects in material and workmanship and will conform to published specifications for one year from date of shipment. The warranty is in lieu of any other warranty, expressed or implied. In no event will sellers be liable for special or consequential damages as a result of any alleged breach of this warranty provision. Our liability will be limited to replacing or repairing, at our option, any defective units, which are returned, freight prepaid, to our plant. Equipment or parts that have been subject to abuse, misuse, accident, alteration, neglect, unauthorized repair or installation are not covered by this warranty. Computer Modules will have the right of final determination as to the existence and cause of defect. Except for the expressed warranties stated above, all warranties are disclaimed, including implied warranties of merchantability and fitness for a particular purpose.

Service Policy

Any product which fails to perform according to specifications will be repaired free of charge during the warranty period. There will be a service charge for all repairs after the warranty has expired and for any repairs during the warranty period, which are not covered by the warranty.

To return a product for repair, call Computer Modules, Inc. at **1-858-613-1818** for a Return Material Authorization (RMA) number. The product should be carefully packaged and shipped prepaid showing the RMA number on the shipping label. Include a short statement of the problem; return address information and the telephone number of a technical contact for further information. In the case of non warranty repairs, a purchase order for repair charges must also be included.

Life Support Policy

DVEO products are not authorized for use as critical components in life support devices or systems without the expressed written approval of the president of Computer Modules, Inc.

Aircraft or Spacecraft Policy

DVEO products are not authorized to be installed in, or used or contained within, any aircraft or spacecraft whatsoever without the expressed written approval of the president of Computer Modules, Inc.