



# Schedules and Timetables (Schedule)

The digital signage software **FrontFace for Public Displays** and the interactive kiosk software **FrontFace for Touch Kiosks** can be extended by plugins that add additional functionality. This way you can e.g. display special content types, integrate external data sources or systems and add entirely new features to the software.

## Description:

The Schedules and Timetables Plugin allows you to display calendars, schedules and/or occupancy plans for rooms either for an individual room or an overview for all rooms. The (live) data for the plugin can be provided by one of the following data source types:

- **Excel file** (version 2007 or higher)
- **Exchange calendar** (via EWS = Exchange Web Services)
- **Lotus Notes database** (via Lotus Domino server using Domino XML (DXL))
- **iCalendar / ICS format** (e.g. from Google Calendar)

Meeting Room		Sample Company LLC
8:30 AM	Sales Meeting <small>Data Loss - only</small>	Room 201
9:00 AM	-	
11:15 AM	Accounting Training Session A2 <small>Please remember to bring in our own laptop</small>	Room 513
1:30 PM	-	
12:30 PM	Trainee Welcome Reception <small>Introduction into the organization for new trainees</small>	Room 555
2:00 PM	-	
3:00 PM	Annual Marketing Meeting <small>Please contact Mr. Schmidt for further information</small>	R185
5:00 PM	-	
6:00 PM	After Business Club <small>We're ready for a barbeque and hope you'll join us for an hour or two!</small>	Reception Area
8:00 PM	-	

## Installation:

Please refer to the user manual of *FrontFace for Public Displays* or *FrontFace for Touch Kiosks* on detailed information on how to install a plugin.

**Notice:** If you have previously downloaded and installed the trial version of the plugin, you have to install the full version over the existing trial version in order to get the full version running. The procedure is exactly the same as for installing a new plugin. If you already used the trial version of plugin in your project, all settings will remain after installing the full version!

**Notice:** In order to work correctly, this plugin requires the following minimum versions of *FrontFace*:

- *FrontFace for Public Displays*: min. 3.7.2
- *FrontFace for Touch Kiosks*: min. 2.0.7

### **Setup and Usage:**

Create a new playlist page (*FrontFace for Public Displays*) or a new menu button (*FrontFace for Touch Kiosks*) and then add a “*Plugin*” as content and select “*Schedule*” from the list.

In order to update the displayed appointment data, simply update the Excel file, the Exchange calendar, the calendar on the Lotus Domino server or an iCalendar. Once the playlist page is shown/loaded, the new appointments will become visible. It is not required to republish or redeploy your *FrontFace* project!

### **Data Source Configuration:**

You have to select either an Excel file that serves as data source, an Exchange calendar, a Lotus Domino calendar or an iCalendar ICS file. In addition to that there is also a “*Demo Data Source*” available that generates five sample appointments automatically. You can use this data source to test the plugin in case you do not have a real data source yet or if you just want to experiment with the plugin. For configuration details on the specific data sources, please see below:

### **Exchange Setup:**

You have to make sure that *EWS (Exchange Web Services)* is enabled on your Exchange server since this serves as interface for the plugin.

Please enter login, password and domain (optional) for the Exchange user in the plugin's settings dialog. If you leave the credentials empty, the default credentials of the currently signed-in Windows account will be used (only supported for on-premise Exchange servers). In case your server does not support "autodiscover", please also enter the full URL to the EWS (Exchange Web Services). In case of Office 365, this URL is e.g.:

<https://outlook.office365.com/EWS/Exchange.asmx>

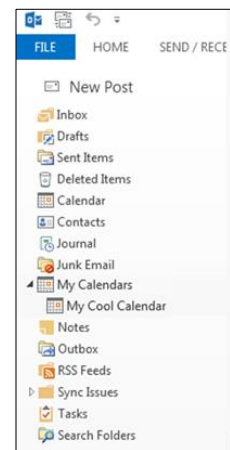
You will also have to specify the Exchange server version you are using (e.g. "Exchange Server 2013").

- **Calendar from the user's mailbox:**

By default, the main calendar of the user whose credentials you entered will be queried.

In order to use a different calendar from the user's mailbox, please enter the path to the calendar. E.g. if the calendar you want to display is located in Outlook under "**My Calendars\My Cool Calendar**", you have to enter:

**My Calendars\My Cool Calendar**



- **Calendar from a Public Folder:**

In order to access a calendar that is stored in a *public folder*, you have to enter the path to the calendar with the `$PublicFoldersRoot` prefix. E.g. if the calendar you want to display is located in Outlook under "**All Public Folders\My Public Folder\My Cool Calendar**" you have to enter this path:

**\$PublicFoldersRoot\My Public Folder\My Cool Calendar**

- **Calendar from a Resource:**

To directly access a "resource" (e.g. the calendar of a room) which is not implemented as "public folder" but as a separate mailbox without a login, simply enter the e-mail address of the resource as "path to the calendar". Please also make sure that you set the appropriate access rights for the user with which you connect to the Exchange server and that this user has been added as "delegate user" for the resource ([see Microsoft TechNet for details](#)).

**Notice:** In case you are getting the error message "*Fatal error while loading Exchange data! The request failed. Could not establish a trust relationship for the SSL/TLS secure channel.*" you have to make sure that your player PC trusts the SSL certificate of the Exchange server. Please open the EWS URL in the Internet Explorer on the player PC. You will get a warning message telling you that there is a problem with the Web page. Click on "continue" to show the Web page. In the address bar of the Internet Explorer a problem with the SSL certificate is now indicated by a red shield icon. You now have to add the certificate of that site to the list of trusted certificates on the player PC. When you afterwards access the EWS URL once again in the Internet Explorer, no warning message will appear and also the FrontFace player application will be able to successfully connect to the Exchange server using EWS.

### **Lotus Domino Setup:**

You need a Notes database on a Lotus Domino Server (Domino 5 or higher) which can be accessed using Domino XML (DXL) over HTTP. It is required that the user account that is used to access the database does have a HTTP password in the Domino Person document. If possible, you should activate HTTP basic authentication. The plugin also supports the session-based authentication with cookies that is used by the Domino Web Access but generally it is recommended to use basic authentication in combination with this plugin.

If you want to access the personal calendar in the mailbox of a Notes user, the Domino Server URL (“URL to Lotus Domino Server”) which you have to provide in the plugin configuration dialog is:

<http://server-name/mail/username.nsf>

Apart from login and password you also need to specify the authentication method that is being used (see above).

Generally, any Notes database that contains appointment data can be integrated since the required files for “start date/time”, “end date/time”, “subject” and “location” can be configured individually. You have to provide the XPath expressions that refer to the fields in the `ViewEntry` elements of the `DXL ReadViewEntries` method (see [http://www.ibm.com/developerworks/lotus/library/ls-Domino\\_URL\\_cheat\\_sheet/](http://www.ibm.com/developerworks/lotus/library/ls-Domino_URL_cheat_sheet/) for details).

For the personal calendar of a user’s mailbox, these are default XPath expressions:

Field	XPath Expression
ViewEntry Field StartDateTime	<code>entrydata[@name='134']</code>
ViewEntry Field EndDateTime	<code>entrydata[@name='146']</code>
ViewEntry Field Subject	<code>(entrydata[@name='147']//text) [1]</code>
ViewEntry Field Location	<code>(entrydata[@name='147']//text) [2]</code>
ViewEntry Field Additional	
ViewEntry Field Logo	

**Hint:** In order to view the XML document to which these XPath expressions refer to, you can simulate the HTTP request that is performed by the plugin by entering the following URL in your browser:

`http://server-name/mail/username.nsf/$Calendar?ReadViewEntries`

### **Excel Setup:**

In case of using an Excel file, it is recommended to provide the UNC file name (e.g. “\\SOMESEREVER\folder\my-excel-file.xlsx”) so that both the player/kiosk PC as well as your local PC can access the file on the same location.

Please make sure that the Excel file has at least one worksheet that resembles the format of the included `Excel Sample Data.xlsx` file. The index of this worksheet has to be specified in the settings dialog as well. If you want to provide your appointment data in a different format you can do that but you will have to write a Visual Basic macro that converts your structure into the required format on a different worksheet which then serves as the actual “data source” for the plugin. You have to make sure that all date-related fields are formatted as “Date” while all time-related fields are formatted as “Time”; otherwise, the plugin is not able to parse the date correctly.

### **iCalendar (ICS) Setup:**

The iCalendar format is a standardized format for the exchange of appointment and calendar data which is supported by many systems and applications. You can either provide a path (local path or an UNC network path) or a URL (http:// or https://) to an ICS file.

If you want to use a Google Calendar, you have to make the calendar “public” first (see <http://support.google.com/calendar/answer/37083> for details) and then request the ICAL-URL which you can then enter in settings dialog of this plugin.

### **General Configuration:**

**Caption:** The main title text that is shown on the screen (optional).

**Sub Caption:** A smaller title text that is shown optionally below the main caption.

**Caption Alignment:** Defines the alignment of the captions (left, center or right).

**Show Additional Text:** Defines if below the subject text of an appointment also the additional text is shown. You can also select if the text should always cover only a single line (it may be cut off then) or if longer text shall be wrapped into multiple lines.

**Filter for Room/Location:** You may apply a filter to only display appointments that are assigned to a specific room. E.g. if you have three rooms and a display in front of every room but only a single Excel file or Exchange calendar to manage the appointments for these rooms, you can apply a different filter for each screen. The filter is either the exact name of the room or you can use the \* character as wildcard.

**Show Location Name for every Appointment:** If this option is selected, the location name/room of every appointment is shown for each appointment. This is useful if you have multiple rooms but only one screen that shows the appointments for all rooms in a single table/list.

**Show Appointment Logo/Picture:** If this option is set, the logo/picture of an appointment will also be shown.

**Show Expired Appointments:** If this option is set, appointments that are in the past are also shown. Otherwise, only current or future appointments are shown.

**Data Source Update Interval:** Defines the update interval (in seconds) after which the data source is queried again. If any changes have been detected, the screen will be updated automatically.

**User Defined Text if there are no Appointments:** In case a data source does not return any appointments you can define a text message that is then shown. If you define no text, an empty screen or an empty calendar will be shown instead.

**Do not show any Error Messages:** Prevents that any error messages appear on the screen in case something goes wrong (e.g. data source cannot be accessed). During the initial setup we recommend to not activate this option in order to get detailed information on the screen in case there is a problem while accessing the data source.

## Style & Design Configuration:

**Font Family:** The font face that is used by the plugin for all texts.

**Font Color:** The default text color.

**Caption Color:** The color of the caption and the sub caption.

**Accent Color:** The background color that is used to highlight the current appointment in the table/list.

**Background Color:** The background color of the entire plugin. You may select “transparent” here for more customized designs. For a more advanced styling of the plugin we recommend to select a transparent background color and then create a playlist page using a layout such as “Overlay (center)” (*FrontFace for Public Displays*) which allows you to place a picture or video in the background.

**Background Accent Color 1:** Background color 1 for accents.

**Background Accent Color 2:** Background color 2 for accents.

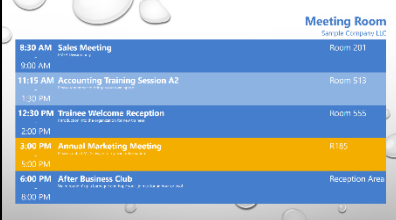
**Grid Color:** The color of the grid lines of the appointment table/list view.

**Padding:** A value (in pixel) that you can use to define a border around the plugin.

## View Configuration:

### Grid/Table View:

*The Grid/Table View shows a table/list of the appointments on the screen (similar to an agenda view).*



Meeting Room	
8:30 AM	Sales Meeting Room 201
10:00 AM	Accounting Training Session A2 Room 513
11:15 AM	Accounting Training Session B2 Room 513
12:30 PM	Trainee Welcome Reception Room 555
2:00 PM	Annual Marketing Meeting R100
3:00 PM	Annual Marketing Meeting R100
5:00 PM	After Business Club Reception Area
6:00 PM	After Business Club Reception Area
8:00 PM	

**Items per Page:** Determines the number of appointments that is shown in the table/list on a single page. In case there is not enough space on the screen, the overflowing appointments will get cut off.

**Paging Duration:** If there are more appointments than the number of items per page you have specified, a paging mechanism is used to display all appointments. The paging duration determines the duration in seconds for a page with appointment data before the next page is shown. In addition to that, also a paging indicator is shown that informs the user about which page is currently shown, e.g. “page 2/3”.

**Show End Time:** If this option is set, not only the starting time but also the end time of every appointment is shown. You can choose to show the end time in a separate column or below the begin time.

**Show Date for every Appointment:** If this option is set, the date for every appointment will also be shown. You can choose to show the date either in a separate column or right above the begin time.

**Show Border:** This setting allows you to hide all borders of the grid, to show the full grid borders or to show only the horizontal lines between the appointments.

**Use Alternating Row Colors:** If this option is selected, the previously define background colors (accent 1 & 2) will be used to highlight the table rows.

**Highlight Current Appointment:** If this option is set, the current appointment will be highlighted using the previously defined accent color.

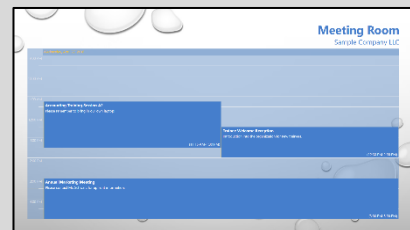
**Offset (Today + n Days):** This offset is used to determine for which day the appointments are shown (relative to the current day). An offset value of “0” shows the appointments of today while a value of “1” shows the appointments of tomorrow.

**Time Window (Today [+ Offset] + n Days):** The time window defines how far you want to look into the future for appointments. When using an offset value of “0” and a value of “1” for this setting will show any appointments for today and tomorrow.

**Scaling Factor:** You can use the scaling factor to modify the font size of the plugin. A value smaller than “100” will make the font size smaller while a value larger than “100” will increase the font size.

### Calendar: Day View:

*This view shows a calendar for a single day as known from popular applications such as Outlook.*



**Time Window Begin:** Defines the time when the view for the day starts.

**Time Window End:** Defines the time when the view for the day ends.

**Show Current Time Indicator:** If this setting is enabled, the current time will be highlighted in the vertical time ruler by colored indicator.

**Offset (Today + n Days):** This offset is used to determine for which day the appointments are shown (relative to the current day). An offset value of “0” shows the appointments of today while a value of “1” shows the appointments of tomorrow.

### Calendar: Week View:

*This view shows a calendar for a week as known from popular applications such as Outlook.*



**Time Window Begin:** Defines the time when the view for the day starts.

**Time Window End:** Defines the time when the view for the day ends.

**Show Work Days Only:** If this option is selected, only the work days (Monday - Friday) will be shown on the screen.

**Offset (Today + n Weeks):** This offset is used to determine for which week the appointments are shown (relative to the current week). An offset value of “0” shows the appointments of the current week while a value of “1” shows the appointments of next week.



### Calendar: Month View:

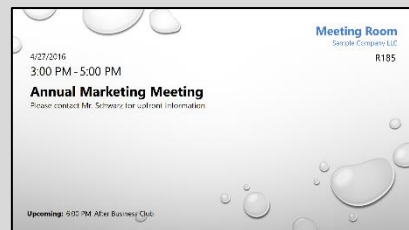
*This view shows a calendar for a month as known from popular applications such as Outlook.*



**Offset (Today + n Months):** This offset is used to determine for which month the appointments are shown (relative to the current month). An offset value of "0" shows the appointments of this month while a value of "1" shows the appointments of next month.

### Single / Door Sign:

*This view only shows a single appointment plus an optional preview of the upcoming appointment and may be used e.g. as digital door sign.*



**Show Date for every Appointment:** If this option is set, not only the time but also the date of the appointment will be shown on the screen.

**Show Preview of Upcoming Appointment:** If this option is set, the next (upcoming) appointment will also be shown on the screen as preview.

**Offset Days:** This offset is used to determine for which day the appointments are shown (relative to the current day). An offset value of "0" shows the appointments of today while a value of "1" shows the appointments of tomorrow.

**Next Appointment Pre-run:** In order to make an appointment appear on the screen before it actually becomes due, it is possible to define a pre-run in minutes. E.g. if a value of 15 is set, an appointment that begins at 14:00 will already appear on the screen at 13:45.

**Scaling Factor:** You can use the scaling factor to modify the font size of the plugin. A value smaller than "100" will make the font size smaller while a value larger than "100" will increase the font size.

### Using placeholders and special syntax:

You can use placeholders to dynamically integrate values and the special information into text elements.

In the Caption and Sub Caption field you may use the {DATE} placeholder to embed the current date. Alternatively, you can also use {DATE+/-n} to show a date relative to today (e.g. {DATE+1} will show the date of tomorrow).

In the subject field and the additional text field of an appointment it is possible to hide text that will then not be shown on the screen by putting the text into curly brackets (" {...}").

In case of the Exchange and iCalendar data source, there is no separate field for specifying a logo/picture for an appointment. However, you can use the following syntax to encode the path/URL of the picture in the additional text of the appointment (body text): {LOGO:http://...}. It is possible to provide a file system path or a URL to the image file.



**Help and Support:**

If you need help or technical support when using this plugin or the *FrontFace* software, you can contact our support. For more information, please visit: <http://www.mirabyte.com/en/support/>