Configuring Visio Logger as a Full Featured Kiosk

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What is a Visio Logger Kiosk ?

A Visio Logger Kiosk is a fully configurable graphically oriented data entry point for visitors to your facility.

Once you have created the set of data you want to capture – you can easily configure the system as an automated stand alone kiosk where your visitors provide that data using the keyboard, clicking the mouse, and optionally using an electronic signature pad, while guided through the process with exactly the images and graphics that you choose to use.

The Visio Logger Kiosk is a *mode* of operation. In other words – once you've defined your data fields – you can begin gathering data from your visitors in multiple ways:

- The simple data gatherer interface is typically used when a signature pad is in place and the computer monitor and keyboard is facing staff who are actively "checking" people in and out while managing the lobby
- The automated check-in/check-out system also uses the simple data gatherer interface – but is used in situations where the visitors should not see the data being collected, but communicate with the system entirely through a signature pad
- The Kiosk interface is used when a computer monitor, keyboard, and mouse are available to dedicate to the task and when visitor interaction with staff is not required to complete the data entry task

All three of these operational modes are available with a few simple mouse clicks and you can switch between them at will, even using different modes on separate machines as appropriate.

It is the third of these that we will setup and configure in this document.

Configuring a Visio Logger Kiosk

Note that the Kiosk mode is operational when Visio Logger is running as a "Client".

By "Client" – we mean when the system is launched by a *non*-Administrative user on the computer. The reason for this is that all configuration of Visio Logger is done by someone with administrative privileges. For example, the ability to define fields, change the database, and so on, can be denied to users based on the local administrative privileges policy.

Therefore, the "Run as client" option is available from the menu so that an administrator can make these changes – and then test the look and feel without having to restart Visio Logger as a non-administrative user. Note that during installation, an option to have Visio Logger start as a kiosk when the computer is started is provided, and that, at any point, it can be launched as a kiosk with the following command line:

    visioLogger.exe /kiosk

To follow along with this documentation, it is best to run Visio Logger as administrator (right click its icon and choose "Run as Administrator") , then, after any changes, choose Tools – Run as client from the main menu.

Choose your background based on your monitor's display resolution

You can use any size image for your kiosk background. Typically, though it's not required, the computer is dedicated to this task. Therefore, if your background is the same resolution as your monitor, the entire screen is in use for this purpose. You should also "Auto-hide" the taskbar, by right clicking on it, choosing "Properties", and then turn on Auto-Hide.

First – we choose a background based on the current *Process*.

A "Process" is the highest level grouping of column (field) definitions for your data. Recall that Visio Logger can have any number of processes – and switching among them changes the set of data that you want to work with – either for data definition, data collection, or data viewing.

In the main menu, specify Edit – Choose Process (or Edit – New Process if you want to create a new one). If we choose to create a new process, the dialog shown in Figure 1 appears.
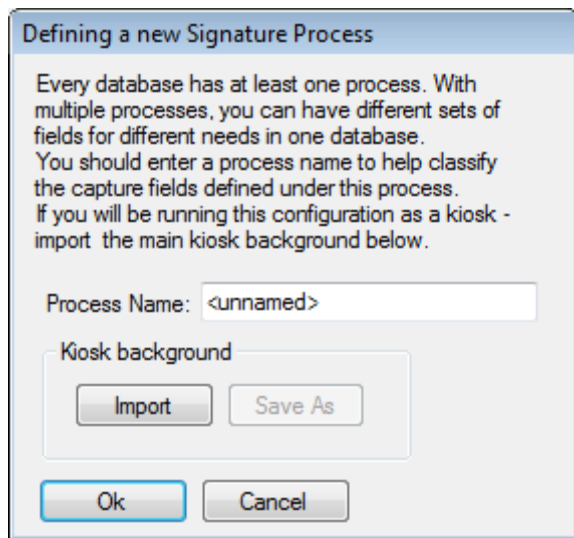

Figure 1 Creating a new process

You should provide a meaningful name for this process – it should reflect something about the set of fields you will later define. We will use the value "Admissions" for this process.

Since our goal is to setup a kiosk – we click Import in the Kiosk background group. This allows you to navigate to any image which will comprise your background. For our purposes, the sample background images that come with windows work well. These are 1024x768 pixels in resolution, therefore, for the dedicated computer used to run this kiosk – we would set it's resolution to the same.

Note that our background image is actually imported into the database. This means that you can configure your kiosk on any computer, the images we reference or navigate to in these exercises don't have to be on the actual kiosk computer at run time.

You can create or find any image (jpeg, png, bmp) that you'd like for this purpose. For our Admissions process, we've selected the whale sample image as below.

Figure 2 Admissions process main background

Define your data pages and columns

To create the columns of data we want to capture – we choose Edit – Columns from the main menu. For our kiosk – we are going to have 3 pages[1] of information, Student Name is alone on the first page, Then we'll ask for the students date of birth on page 2, and finally, provide a few options for the reason for visit on the final page. We will also define an Action field which will provide the time duration information to track the amount of time the student waited before being helped.

The first page definition is as in Figure 3.

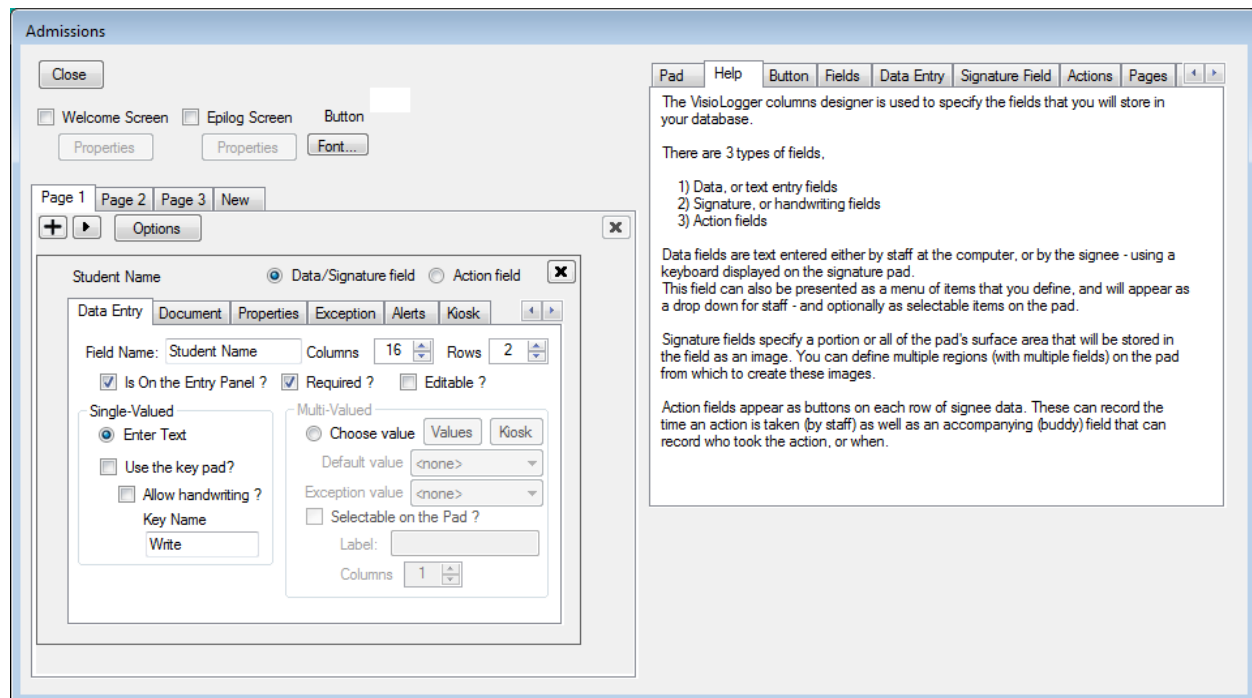[1] A "page" is just any group of columns you want to keep together.

Figure 3 Defining data columns

We simply type in the field name in the Data Entry tab and ensure that "On the Entry Panel ?" is checked. Other types of data include a Signature Field, if a signature pad is present (which can also be a "generalized" image, used, for example, with the image capture integration tool to contain a picture of the student), or a document field, which can contain a copy of any document for this student.

The Required setting is also checked for this field. If it were not, the student could just press Enter on this page and proceed to the next.

Note the far right tab in the "Student Name" column definition – this is where we specify additional images to be used in Kiosk mode that indicate (to the visitor) what input is expected.

Visiting that tab, we import an image to be used for this prompt. We've also specified that it should be placed "Above" the entry field that the visitor will type into.
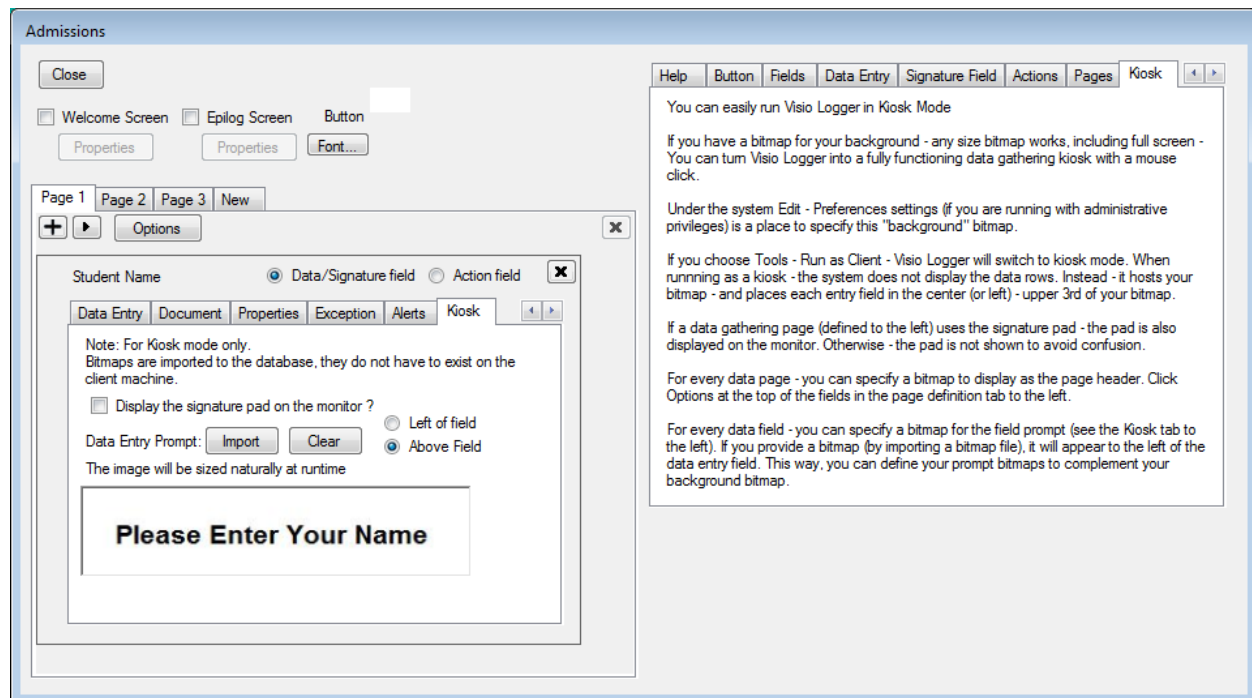
Figure 4 Creating a kiosk column prompt

Even though "Please Enter Your Name" *looks* like text – it is in fact a simple image created in MS Paint to illustrate the point. This could be any graphic from whichever tool is available and familiar to you. It can also be any size desired to convey as much information as you need.

> **Note:** As you are defining these fields and prompts, the location of the prompts will move based on their number and the size of the bitmap prompts. To ease the creation of your prompt bitmaps (ideally – you probably want them to merge seamlessly into your background), there is a special run-mode of Visio Logger to help in creating them. This is discussed in detail in "Generating Bitmaps for your Kiosk".

Page 2 of our data definition is the same, except that the field name is "Date of birth" in this case.

Page 3, shown in Figure 5 is where we've defined a "Reason for Visit" entry which will be displayed as a "Menu", as well as the "Action" that helps track the length of time that the student waited to be helped.

Note that "Choose Value" is selected in the "Multi-Valued" group *and* that "Required ?" is selected for the Reason for Visit column. This means that the data captured here will always have exactly one of a predetermined set of values (which are specified by pressing the Values button). This brings powerful features into play with the use of Alerts based on this value. For example, the visitor has selected a value – based on that value and/or the amount of time elapsed since the visitor first signed in, the background color of the collected row (as seen in "Viewer" mode, i.e., on any other computer in the facility) can be highlighted to denote a special condition.
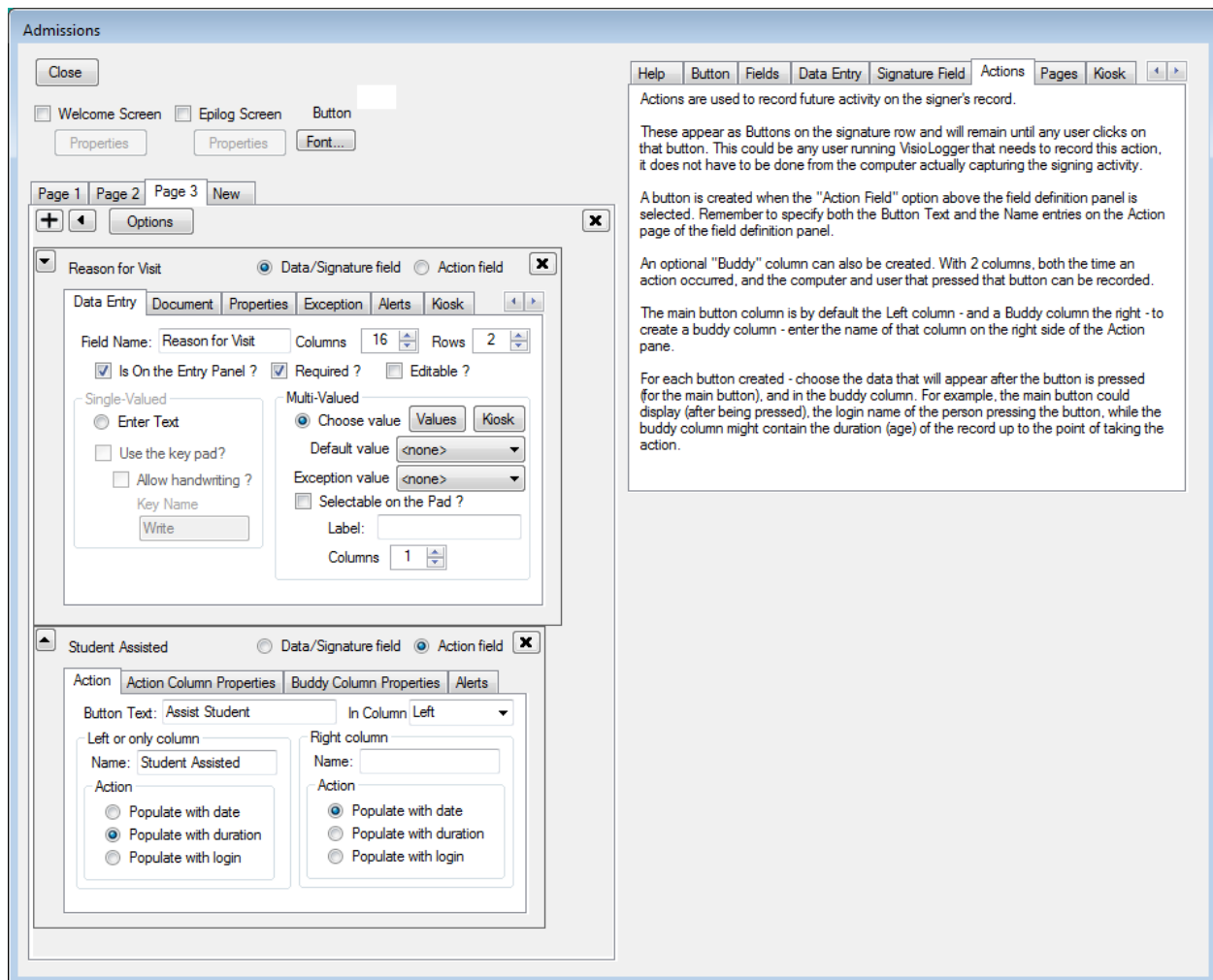
Figure 5 Menu option and Action definition

Also note the "Kiosk" button to the right of the "Values" button in Figure 5. This is where we define the "menu" of the specified values by creating a special background for this column, and choosing regions on that background for each option available.

To illustrate, note that our values in this case are: (Initial application,Status of application,General). There could be any number of these values as desired.

First – we take one of the sample windows backgrounds – and, using MS Paint, add a few descriptive regions to the image and save it. Our image looks like:

Figure 6 Sample kiosk menu background

Now, in Visio Logger, in the "Reason for visit" field definition (Figure 5), we press "Kiosk" on the right side of the "Data Entry" tab. This brings up the "Kiosk Menu Editor".

The first task here is to click Background and navigate to our kiosk menu background. Having done this, the Kiosk Menu Editor is as in Figure 7.
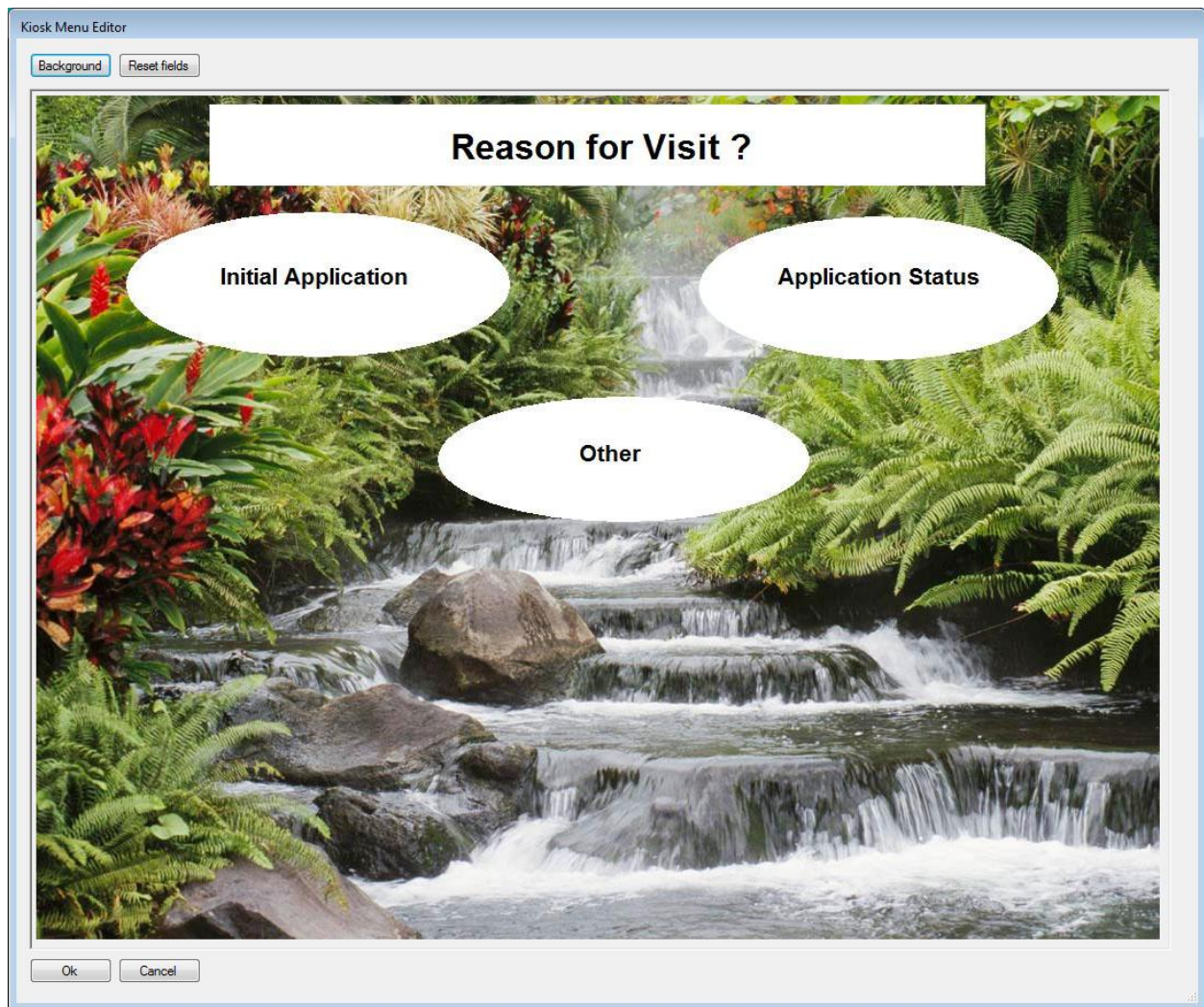
Figure 7 Kiosk Menu Editor

Now all we need to do is, with the mouse, click and drag out regions on the image that "select" the options. For example, a rectangle is dragged around the "Initial Application" region. Once that is done, right click within the resulting rectangle, and choose "Options", and finally, select "Initial Application" from the available menu item names. See Figure 8 for an example.

Note that you can add new options at any time, just re-edit your kiosk menu background and specify where these are on the background.

Menu selection occurs when the visitor clicks within one of the regions thus define. If the visitor clicks outside any of the regions – they hear a ding and the kiosk remains on this page. When an option *is* selected, the kiosk either proceeds to the next page – or cycles for the next visitor.
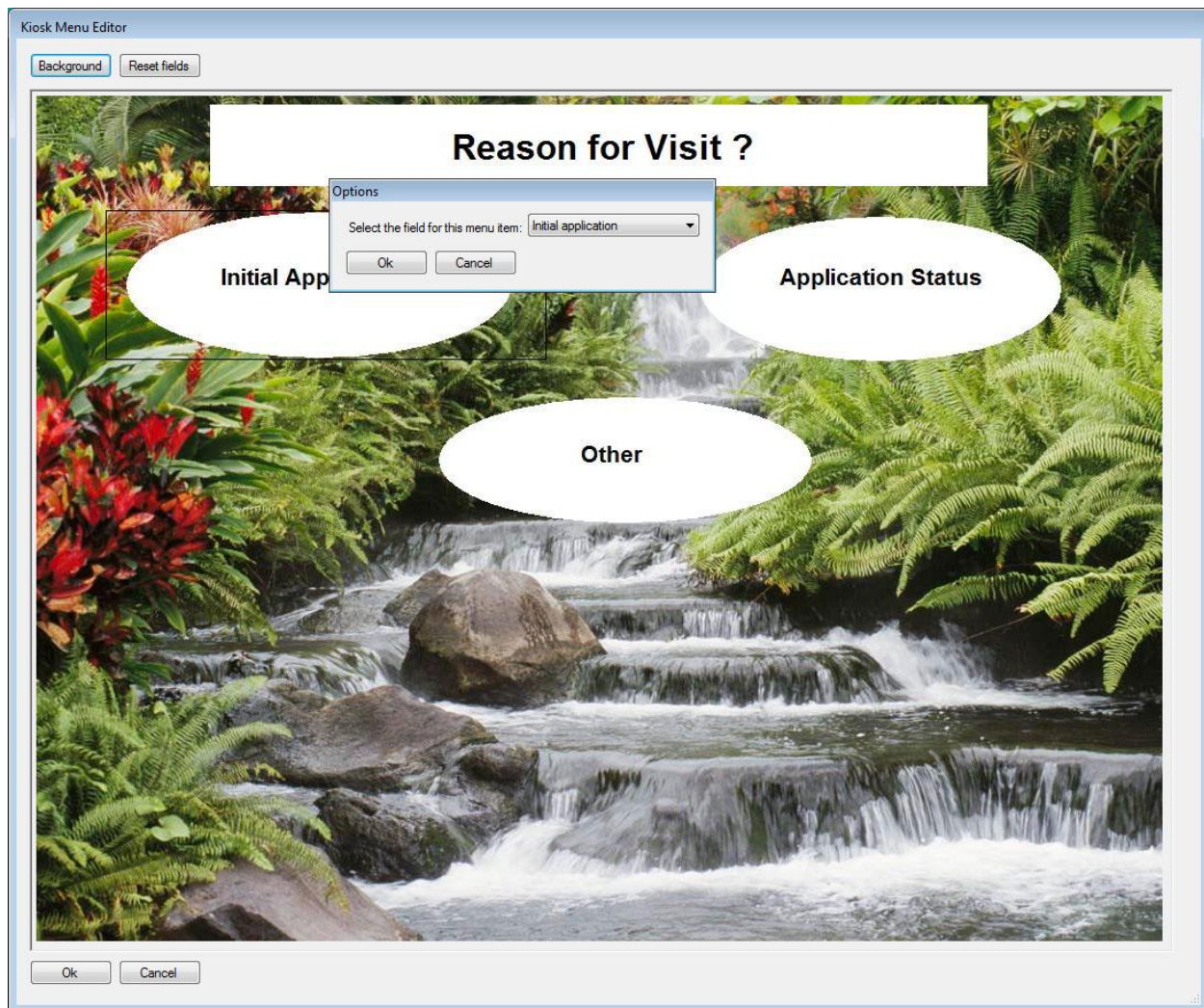
You can continue defining as many pages, each containing as many columns as you'd like. Note, however, that if you are using a menu column (as above) – it must be alone (except for Actions – which the visitor does not see or enter) on a page.

Page level kiosk options

In Figure 3, just under the "Page 1, Page 2…" tabs – there is an Options button to specify settings for the "Page" level of data entry.

Pressing this button – you can specify a "Kiosk Page Header" – which is any image you have available that would appear in the upper 1/3 of your kiosk (Centered) while this particular page of columns is being entered by the visitor.

Please do not confuse "Background Image" or "Background Text" in these Page Options dialogs with Kiosk mode – these two settings refer to the background of an LCD Electronic Signature pad and what should be displayed there while this page is active.

Record level kiosk options

As each visitor ends their activity with the Kiosk – the system "cycles" and waits for the next visitor. There are two points within each cycle – when it first begins – and just before it ends. For these points, we use the terms "Welcome" and "Epilog" respectively.

When the "Welcome Screen" option is selected (Figure 3), the Properties button below it becomes enabled. Pressing that, you can set the "Kiosk Welcome Header" image for kiosk mode. Again, the Welcome Screen Properties dialog has options for an image or text to be shown on a signature pad, these are not relevant here.

Note that the "Welcome Screen" image can be used to provide instructions to the visitor. For example, "Press the space bar to continue", and is intended as the resting point for Kiosk mode when you don't want your visitors to immediately see the first "page" of data to be gathered.

> **Tip:** Visio Logger has a rich set of "Integration" points as described in the "Using Visio Logger" document. An example use of these would be to create a simple "Before Signature" tool that can replace this welcome screen image based on contemporary information, day of week, for example.

The "Epilog Screen" option, also shown in Figure 3, is very similar to the "Welcome Screen", except that it only displays for a configurable number of seconds *after* the visitor has finished entering their data, and before cycling to the "Welcome Screen" (if enabled), or to the first page of data. This is a perfect place to show instructions, such as "Please be seated", or "Thank you", to the visitor.

Process level kiosk options

All Visio Logger data is organized, at the highest level, within a "Process". A Process is simply a container within the database that allows you to maintain multiple "sets" of columns while keeping these sets separate from each other in both Viewer (data inspection), and data gathering modes.

Visio Logger in Kiosk mode takes advantage of this separation by allowing the definition of a "Super" kiosk entry point. This is a front end screen whose sole purpose is to dynamically "choose" the process that will then be presented to the visitor for their data entry.

For example, if a facility has a common lobby for multiple departments – visitors to the lobby would effectively choose (behind the scenes) the department they are visiting by clicking on this front end screen. As far as the visitor is concerned – this front end is just part of the Kiosk experience. From the perspective of the facility, only one database (and physical Kiosk computer) need be defined, and, from that of each department, their data is conveniently separated out from that of all of the other departments.

Imagine, for example, such a Kiosk could be setup in the atrium of a shopping mall – and every store could have its own unique kiosk which is data separate from every other store, yet a single physical computer would be required to accomplish this.

To access Process level kiosk options, choose Edit – Preferences from the main menu (as Administrator).

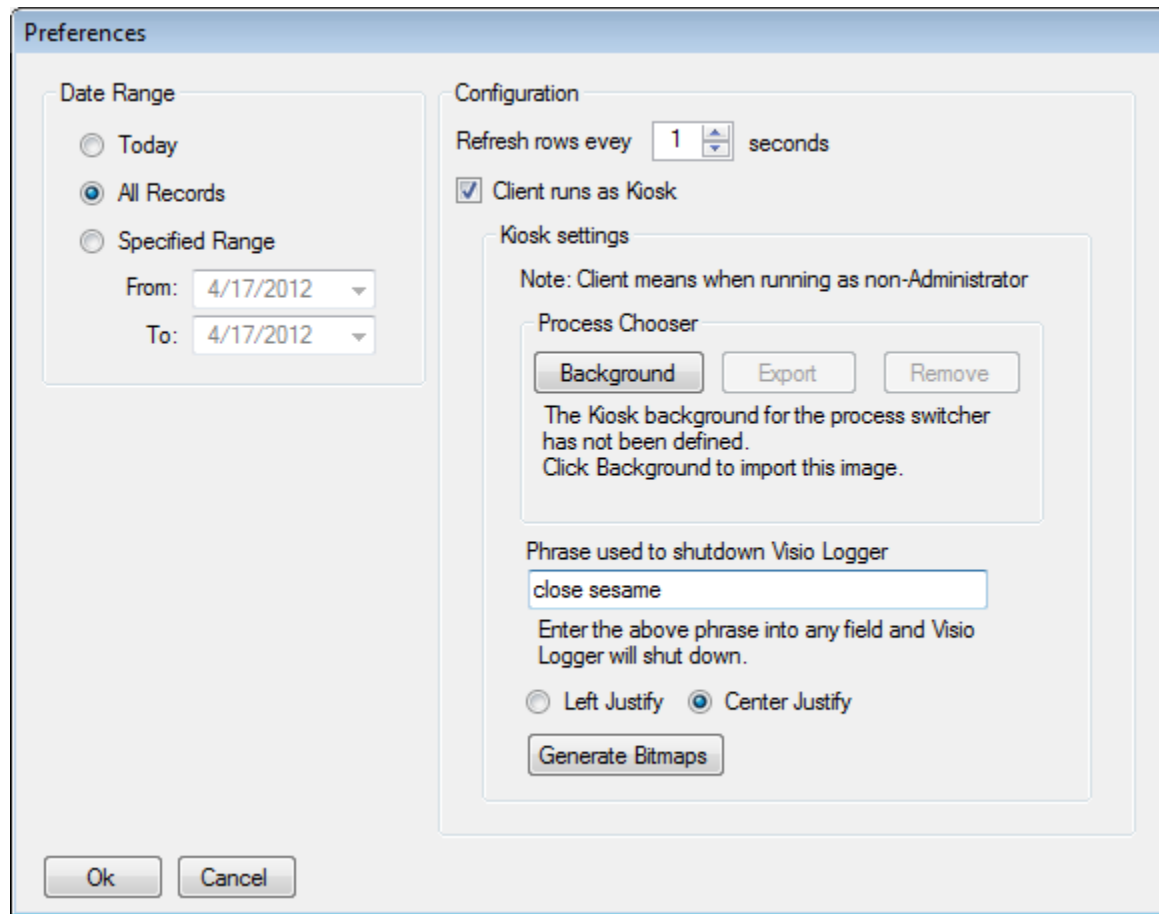The dialog as shown in Figure 9 is displayed.

Figure 9 Preferences

If the user is not an administrator – they would only see the Date Range group in the above dialog.

This is where Visio Logger is configured to be a Kiosk every time it is started with non-administrative rights. Note that when Visio Logger runs when the current user logged into the machine does not have administrative privileges, then that instance of Visio Logger is considered the "Client" in the terminology of the current discussion.

Before discussing the "Process Chooser" described above – we briefly explain the other options under Configuration.

Left Justify and Center Justify indicate whether your Kiosk field prompts (images) and field entry controls (where the data is gathered) appear in the left side of the Kiosk, or centered. You can, for example, Left justify these if you want to reserve the right side for any additional information (conveyed, of course, upon the images you've defined throughout your kiosk).

The "Generate Bitmaps" button allows you to turn on a special bitmap or image configuration tool that can be used to help you create your bitmaps for kiosk mode. This tool is described in the following section.

> **Tip:** Choose Left or right justify before creating your bitmaps – if, when you create your bitmaps, they merge with your main background – if you change this justification, it will cause them to appear misaligned with the background.

The "Phrase used to shutdown Visio Logger" is a text value that, when entered into any of the fields by a user of the kiosk, will cause Visio Logger to shut down.

This is necessary because, by design, Visio Logger does not present any user interface (other than, of course, the configured Kiosk fields and images) to the user and therefore, there is no way to choose "Exit" to close Visio Logger. In the above example, if a user were to type "close sesame" into one of the data fields, Visio Logger will close.

The Process Chooser

If you click Background in Figure 9 and import an image used for this purpose, Visio Logger will always display the image as the entry point to the Kiosk. This also means that, after every visitor has finished data entry, the system will "cycle", or come to rest, back at this image. This is as opposed to cycling to the beginning of a particular set of columns.

Therefore, the process chooser is in effect whenever this image exists. To turn it off (and have a single process always used), click Remove to delete the image from the database. In which case, the particular active process is configured via File – Choose Process in the main menu (this, and all other settings are remembered between subsequent runs of Visio Logger).

After clicking Background – and importing the appropriate image into the database, Figure 9 will then appear as in Figure 10
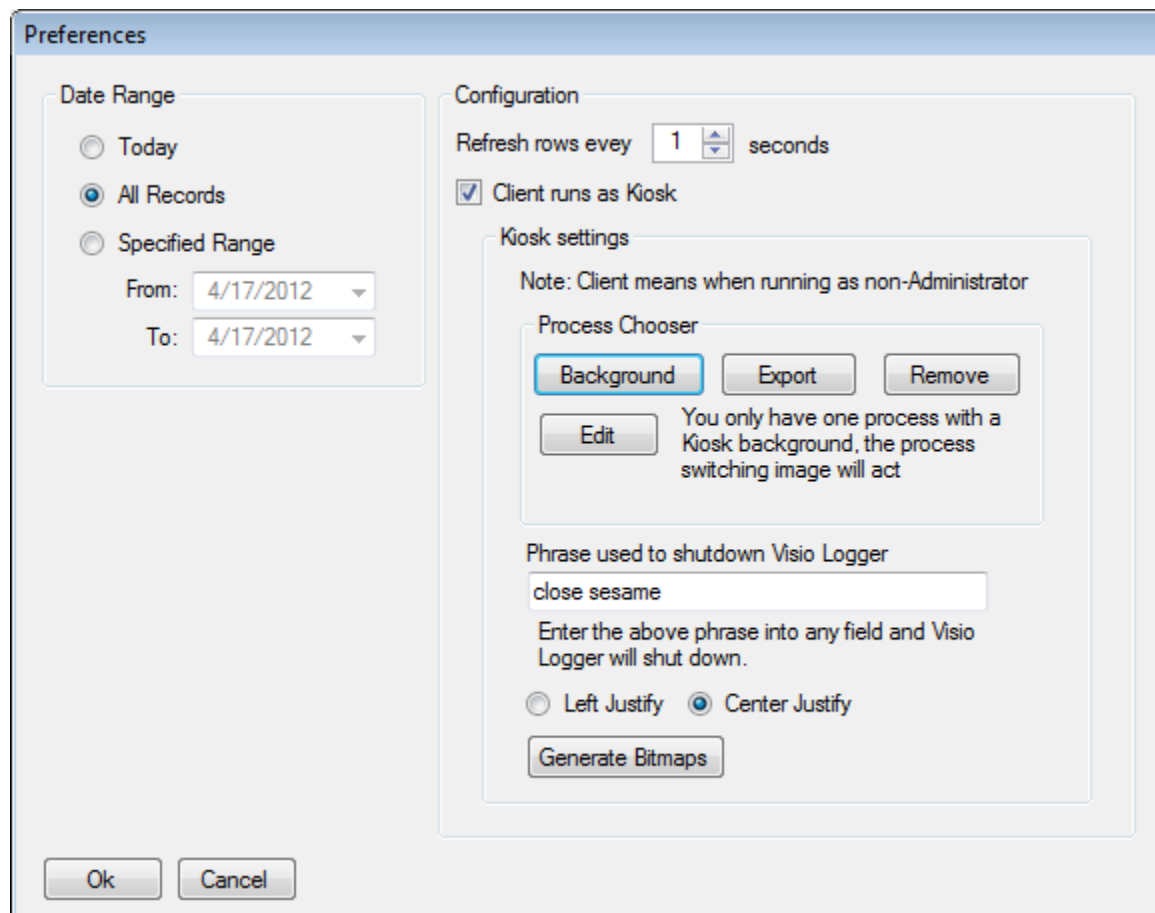
Figure 10 Process chooser background specified

Whenever Edit is visible in the Process Chooser group of options, you will know that the Process Chooser is active for your Kiosk.

When you click Edit – you are presented with the Kiosk Menu Editor as shown in Figure 7. The concept is exactly the same as described for the Kiosk Menu as it pertains to a data field, however, in this case, the "options" you are choosing are the names of the Processes that have been defined for this database, plus, the "Shutdown phrase" that is also specified in the Configuration settings.

To recap that discussion, the Kiosk Menu Editor shows the appropriate image – you click and drag out regions on that image that will cause a "selection", and you specify the value of that selection (process name) in the options (available by right-clicking) for the region. If that option is the Shutdown Phrase, clicking on that region while Visio Logger is running in Kiosk Mode will shut it down.

> **Tip:** If you add or remove processes to your database – do not forget to go back into the Kiosk Menu Editor and specify the region(s) on your image that will select that process – or to remove the regions related to any removed process.

> Also – you can turn off any Process by specifying "<none>" as the "selected value" for any region and, by the same token, turn it back on at any time in the future.

Finally, you can create a small region on your background (where a user is not likely to click), and choose the special value "<shutdown>" to provide a way to close Visio Logger when running as a kiosk.

Generating Bitmaps for your Kiosk

Arriving at a pleasing and professional looking Kiosk is largely a matter of finding and mixing the bitmaps (images) you want to appear throughout the process.

Visio Logger can help you do this by actually creating bitmaps from the *portion* of the main background bitmap (selected by pressing Import as in Figure 1), of the appropriate *size* for every image displayed throughout your Kiosk.

Once you have these "template" bitmaps – edit them with any graphical editor, save them somewhere, and then re-import them in the appropriate places.

Here is the step by step guide to taking advantage of this tool. To follow these steps, you will need to be running Visio Logger with administrative privileges on the computer. Note – however, that you can do this from *any* computer – it does not have to be the dedicated Kiosk machine.

> **Tip:** You can easily create plain white bitmaps in MS Paint by running it (Programs – Accessories – Paint), and choosing Image – Attributes from its main menu. Choose a width and height, and do File - Save As to create an empty bitmap of the desired size(s). These will be used as placeholders in the following discussion.

1. Import your main Kiosk background. Recall that this should be of the same dimensions as the monitor used in your Kiosk.
2. Edit/Create your columns – Choose Edit – Columns from the main menu.
   a. Decide whether you will display a Welcome Screen – which is the entry point for the Kiosk. If so …
      i. Check "Welcome Screen" and then press Properties under it. In the resulting dialog, choose the "Kiosk Welcome Header" tab and import a blank bitmap of the desired size. Note that this bitmap will be centered on your main background while the system is waiting for a visitor to approach the Kiosk. The system will wait at this point until a key is pressed or the mouse is clicked. This image *can* be as large as desired – therefore, it can either hide the main kiosk background – or supplement it.
   b. Choose whether you will show an Epilog screen – if so …
      i. Import your "Kiosk Epilog Header" image. This is the same as the Kiosk Welcome Header except that it automatically goes away after a period of time
      ii. Choose the duration of the Epilog Screen display. Allow enough time for the visitor to read any instructions on it, but consider that another visitor may also be awaiting their turn at the Kiosk.
   c. For each page – decide if you will show a "Kiosk Header" – if you do, click "Options" just under the "Page #" tab in the columns definition main dialog.

i.   In the Kiosk tab for the "Page # Options" dialog, import an empty (or any) dialog
                 of the desired dimensions and click Ok.
        d.   For each column on a given page – which is a Single-Valued data entry field, find the
             "Kiosk" tab in the column definition panel and within it Import a "prompt" bitmap of the
             desired size. Also – choose whether you want this prompt to appear to the left of, or
             above the actual data entry field while the Kiosk is running. If you do not define a
             prompt image – a text prompt will be shown, and typically, these are hard to read
             against the main kiosk background.

             Note that you may need to scroll the tabs for the column definition panel left or right to
             find the appropriate settings page.

             Note also that you *can* provide a prompt image when your field is a "Signature Field" as
             opposed to a "Data Entry" field, and you can specify whether an image of the signature
             pad appear on the Kiosk while signature data is being requested.
  3.   Choose Edit – Preferences and select Left Justify or Center Justify (options under Process
       Chooser are not relevant to this discussion).
  4.   Ensure that "Client runs as Kiosk" is checked ON
  5.   Press the Generate Bitmaps button – and in the subsequent dialog, click ON "Generate Bitmaps
       ?" and press Ok.
  6.   Click Ok on the Preferences dialog
  7.   Run your Kiosk through one complete cycle of data capture, choose Tools – Run as Client from
       the main menu.

Note – if you did not configure in a Shutdown Phrase in the preferences dialog – you will have to force
stop Visio Logger using the Task Manager – or right clicking on it in the Taskbar and choose Close. This
will not harm any data.

> **Note:** The Generate Bitmaps option is a one time setting. If you want to regenerate bitmaps,
> you have to respecify the setting because it is not remembered across multiple runs of Visio
> Logger.

After you have run through your Kiosk one time – use Windows Explorer and navigate to the Program
Data directory.

On Windows Vista/Windows 7 machines, this location is:

> C:\ProgramData\InnoVisioNate

On XP machines, it is:

> C:\Documents and Settings\All Users\Application Data\InnoVisioNate

In this directory, you will find a set of bitmaps have been created. All of these bitmaps are a portion of the main Kiosk background image, that is the *size* of the associated prompt or header image – taken from the *location* where Visio Logger places them during run time.

To illustrate – if you imported all of these images back into your Kiosk by following step 2 outlined above – they would all be essentially invisible. This is because they will merge back in the main kiosk background exactly where they were taken from and they just repeat those seconds of the main image on the monitor.

To associate the generated bitmap with the appropriate field, note that they are given names relevant to the field and page. For example, they are named as follows:

- The overall Welcome Header: Welcome Page Header.bmp
- the Welcome header for each page: Page # Header.bmp
- the prompt for each field: Page # <column name>.bmp
- The epilog Header: Epilog Page Header.bmp

All of these bitmaps now constitute "Templates" that you can embellish with your own graphics software to make them fit pleasingly within your background. For example, you can create a white oval or square within them with an airbrushed edge, and place instructional text within that shape.

Once you have edited a copy of these templates, and saved them in some location. Simply repeat step 2 in the above task list – and your Kiosk is setup and ready to go.