GoldMine Front Office - Automated Processes

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Introduction:

Automated Processes are aimed at automating routine tasks performed by GoldMine users. Tasks such as scheduling activities, printing letters, sending e-mail and adding data to a record can all be performed via an automated process.

To expand on the application's capacities, the Automated Processes module of GoldMine Front Office has been enhanced to include usability improvements to the interface.

The focus of this documentation will be to perform an in-depth examination of the features in AP module of GoldMine Front Office. The user interface will be studied, along with a few examples demonstrating some of the capacities of this module.

This documentation contains very detailed information relating to the use of Automated Processes. This includes discussions relating to events, triggers, actions, attaching, scanning and more. By the time the end of this document is reached, you should have a clear understanding of not only what the knobs and levers do, but also how to adjust them to automate your tasks.

In addition to comprehending what all the bells and whistles do, it is also helpful to be familiar with some basic programming logic. This will assist you in understanding how to stitch all the little pieces together to attain the desired results. Think of the Automated Processes feature as GoldMine Front Office's way of programming itself.

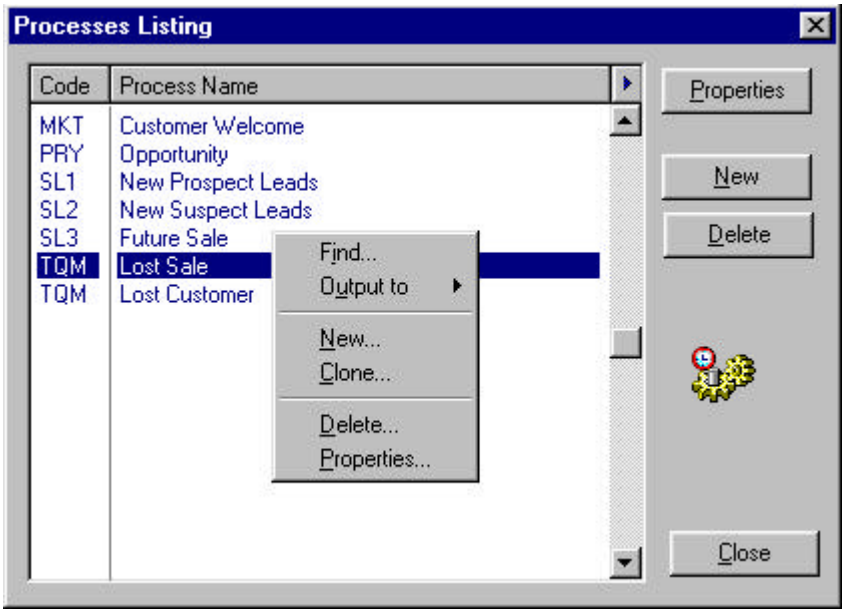
Automated Processes - Tracks:

An Automated Process, commonly referred to as an AP, is a predefined set of instructions that GoldMine evaluates to execute specific actions for the contacts in a database.

Automated Processes consists of two main components; tracks and events. Tracks and events contain various user-defined options that are discussed later in this documentation. All of the data pertaining to these tracks and events are contained within the TRACKS.DBF and TRACKS.DBT files.

A track is a collection of events or instructions. Each individual track can contain up to 1000 individual instructions. Each track contains a set of user invoked properties allowing you additional tools beyond the scope of what can be handled within the events.

Selecting "Maintain" from the main Automated Processes Setup window will cause the following screen to be displayed. Choosing the "New" button or option from the local menu will cause the "Process Properties" window to appear and create a new track. The "Process Properties" window and its different settings will be discussed later. If at a later time a user wishes to change one of those settings, selecting the "Properties" option or button will cause the "Process Properties" window to reappear.

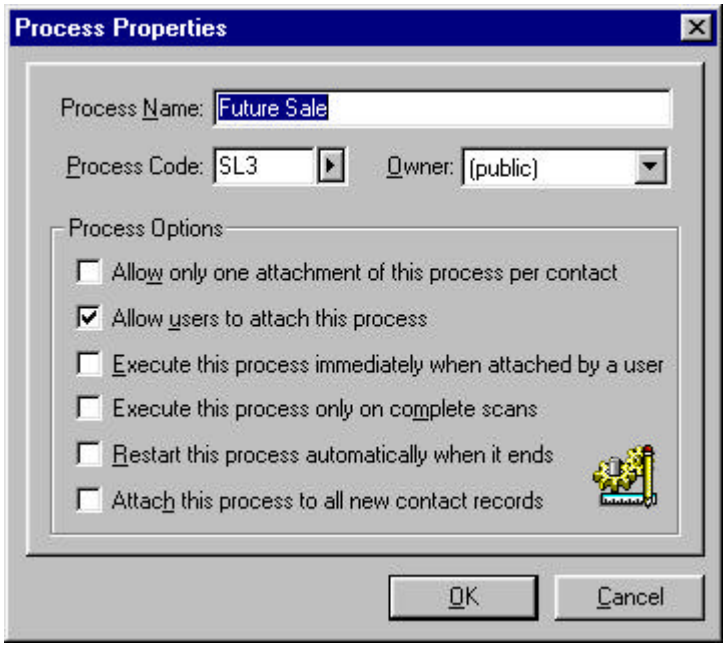


The "Delete…" and "Close" options are self-explanatory and do not require further explanation.

Unlike the other options from this window, the "Clone…, Find… and Output to" features can only be selected from the local menu. The "Clone" feature allows one to copy the currently selected track and its events. Note that when a new track is created, it is created without any events in it. Thus, if tracks that resemble each other are being created, it is possible that the workload or configuration time can be reduced by creating a master track and simply cloning the track, then modifying to fine tune it for specific needs. For information on the "Find…" and "Output to…" options, please refer to your GoldMine Front Office documentation.

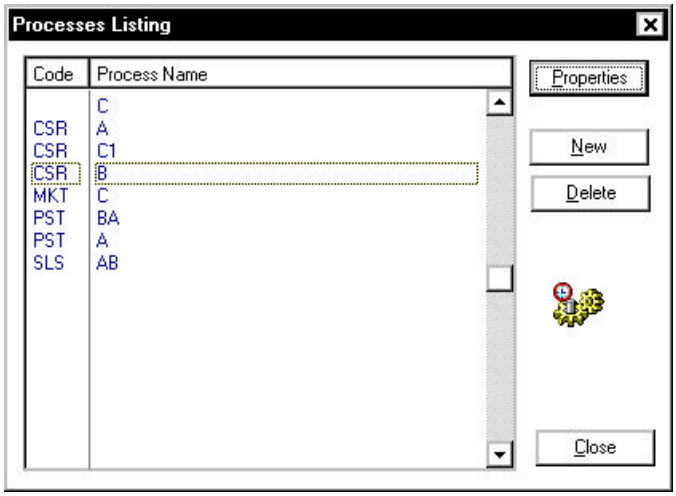
Process Properties:

The picture below depicts the "Process Properties" window. These parameters can be applied on a track-by-track basis, meaning that each individual track can be configured to have different options.



The "Process Name" field is a forty character long field that is used to specify a descriptive value for each individual track. The value entered into this field does not have any effect on the processing of the track itself.

In addition to a specifying a name for the track, users can also sort tracks by specifying a "Process Code." This value is limited to three characters. Please refer to the next picture for an example of a "Processes Listing" window that has been sorted using process codes. Notice that tracks sharing the same process code will first be grouped together based on their process code, and secondly, based on their natural record order.



Process Options:

The bottom portion of the "Process Properties" window displays the different options that can be applied to a track.

Allow Only One Attachment of This Process per Contact

To prevent users from attaching multiple instances of a particular track to the same contact, GoldMine provides the "Allow Only One Attachment of This Process per Contact" feature. If selected, users will be unable to attach multiple instances of the same track to any contact, regardless of which method they attempt to use to attach a track. The process of attaching tracks will be discussed later.

Example:

Assume that a company has setup a series of tracks for their letter campaign targeted at new customers within a database of prospects, existing new customers and old customers. Every time a record in the database has its status (Key5) changed to "New Customer", GoldMine automatically sends a letter to them thanking them for their business. It would be wise to make sure that GoldMine does not send this letter to the same contact multiple times as it would not be a good reflection of the company. GoldMine facilitates this function by means of the "allow only one attachment" feature. If the track that sends a letter has already been assigned to a contact, GoldMine will not allow *any* user to attach that same track again, thus effectively preventing the letter from being merged twice for the same contact.

Event Type	Trigger	Action
Sequential	DBASE Condition Upper(contact1->key5) = "NEW CUSTOMER "	Print Form

Allow Users to Attach this Process

This option allows users to attach the track by selecting "Contact | Assign to a Process…" If this option is not selected then the track will not be listed as an available process, and the track will only be available from the "Tools | Automated Processes | Setup Processes…" menu option.

Example:

As an example, you may have Automated Processes set up that you do not want users assigning to contacts, or you may be in the process of creating an AP, but the process is not yet complete. Attaching an incomplete process could produce unpredictable results, until the AP is complete and ready for use. To prevent a process from being attached, a user with access to the Process properties can prevent the process from being assigned to any contacts by GoldMine users.

Execute This Process Immediately When Attached by a User

Next on the options section is the "Execute This Process Immediately When Attached by a User" setting. When selected, this option causes the track to be immediately processed without any further user intervention.

One practical use of this option would be to automatically add members to a group or add details to a contact, or other actions that cannot be performed by a typical LOOKUP.INI file (Please follow this link for additional information on using the LOOKUP.INI ftp://ftp.goldminesw.com/pub/winfiles/lookup.txt).

Example:

As an example, the normal day to day routines of a call center will be automated. One of the requirements that management makes is that they be able to view a group of all the new contacts entered in the database for that day at the end of each business day. An AP can be easily setup to add members to a group containing the records for a particular day. However, relying on the individual users to attach and then process the track presents a risk. It is possible that a contact will not be made part of the group if a user fails to attach and process the track.

Selecting the "Attach Track to All New Contacts" option in conjunction with the "Execute this process immediately" feature will instruct GoldMine to perform the process of adding the new contacts to a group without any user interaction. (The "attach track to all new contacts" feature will be discussed in detail later in the documentation).

Event Type	Trigger	Action
Preemptive	DBASE Condition accdate(contact1->accountno) = date()	Add To Group

Execute Process Only On Complete Scans

Moving along in the list of options the "Execute Process Only On Complete Scans" feature follows. This option allows you to specify which tracks are processed depending on whether or not a complete scan of the database is performed when the tracks are executed. On a setup requiring the use of multiple tracks to perform various actions, this feature can become extremely helpful.

Example:

Assume that a telemarketing firm is using APs to schedule calls to groups of contacts throughout the day. At various intervals throughout a typical workday, each telemarketing representative will create a group of new contacts for their territory and then attach and process the call-scheduling track for their respective group. However, in addition to this track, there is a "B" track that is automatically being attached to all new contact records. This "B" track prints a report, sends an e-mail message and also adds a record to the details tab.

If the second track is processed on each of the individual representative's systems, chances are that they will not be very happy to learn they also have to process the printing and sending of e-mail track. It is also possible that the certain systems may not appropriately equipped to execute these tasks, thus causing errors. To alleviate this problem, a separate machine is setup to continuously scan the entire database for the presence of the second track.

Selecting the "Execute Process Only on Complete Scans" option instructs GoldMine to ignore the "B" track, but still process the scheduling AP, when the representatives execute tracks.

Restart This Process Automatically When It Ends

Moving on, the "Restart This Process Automatically when it ends" feature allows you to "loop" the track without the need to configure an event to re-attach the track. GoldMine will automatically reattach the track to the contact once the last event is triggered.

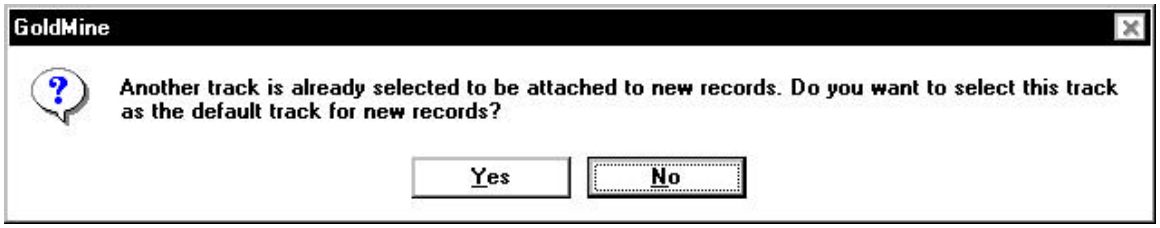
Example:

A track can be setup so that whenever a particular action is scheduled for a contact, GoldMine automatically performs another action, such as scheduling a follow-up call or other activity.

For example, a sales team wants to make sure that if a forecasted sale is scheduled for any contact, the appropriate sales person follows up three days from the day the sale was originally scheduled. Without the "Restart" feature, GoldMine would schedule the follow-up activity the first time it finds a forecast sale, but then that contact would not be evaluated again unless the track is reattached. Turning on the option causes GoldMine to not only schedule the follow-up activity, but also reattach the track, thus if another forecasted sale is linked to the contact, GoldMine will again automatically schedule a follow-up activity.

Attach this Process to All New Contact Records

One of the most popular options for tracks is the option to "Attach this Process to All New Contact Records." This feature instructs GoldMine to attach the associated track to all new contact records entered into the GoldMine system. This feature can be invoked for imported records through the "Profile Options" dialog in the import wizard. Note that you can only choose this option for one track on your system. The GoldMine system will confirm the changes should a different track have the option turned on, as displayed in the picture below.



Example:

This feature is very helpful in automating the follow-up process when new leads are gathered. An AP can be automatically assigned to all new leads as they are entered, without any user intervention. The assigned track can then be used to automatically schedule a follow up call for the sales representative that handles the territory the new lead is in. In addition, it can also be used to send out literature such as e-mail or Word merge forms.

Events, Triggers and Actions:

As was mentioned earlier in the documentation, an event is the primary component of a track.

Events are the individual instructions that collectively create a track. In turn, each event is composed of two lesser components, a trigger and an action. Events, triggers, and actions will now be discussed in greater detail.

As mentioned above, tracks are composed of events, of which two distinct types exist; preemptive and sequential. During processing, GoldMine will always process the preemptive events of a track first.

Preemptive Events:

Preemptive events will always be numbered in the range of 00 – 99, limiting the number of preemptive events that can be defined to 100.

A unique characteristic of preemptive events is that they function in a similar fashion to standard programming IF...THEN statements. What does this mean? It is significant because GoldMine will always evaluate ALL the preemptive events in a track, moving in sequence through the different events, until the first sequential event is reached. It will behave in this manner regardless of the result the trigger within the event returns.

Sequential Events:

Sequential events differ from preemptive events in two general areas. First, sequential events are always numbered in the 100 – 999 range, limiting the total number of sequential events that can be defined to 900. Secondly, unlike preemptive events, GoldMine does not automatically evaluate all the sequential events in a track at execution time. GoldMine will move from one sequential event to the following sequential event in the sequence only if the trigger of the preceding sequential event is true.

To further elaborate, assume that a track with multiple sequential events has been created. The sequential events within the track are numbered 100, 110, and 120. GoldMine will evaluate sequential event 100, but will not evaluate event 110 until the trigger for sequential event 100 has become true.

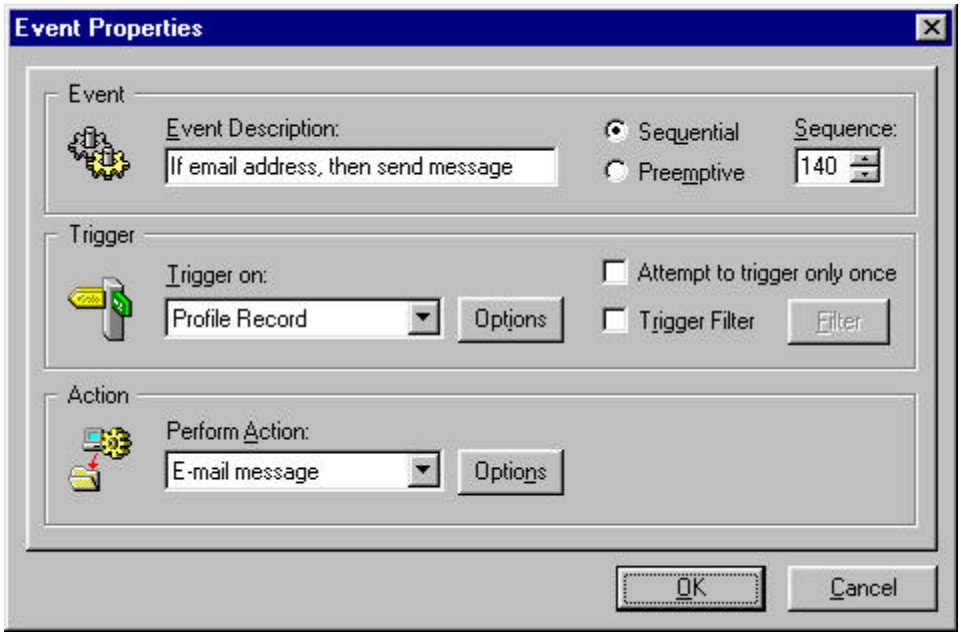
GoldMine will pause at any sequential event with a false trigger until the condition of that trigger is met. This process will repeat itself until all the sequential events are successfully processed.

Special Notes:

GoldMine Front Office will automatically remove the track from the contact record after the last event is triggered, regardless of whether the event is sequential or preemptive. It is not necessary to assign a "Remove Track" action to said event. If the last event is not triggered the track will remain attached to the contact until the trigger condition becomes true.

Event Properties:

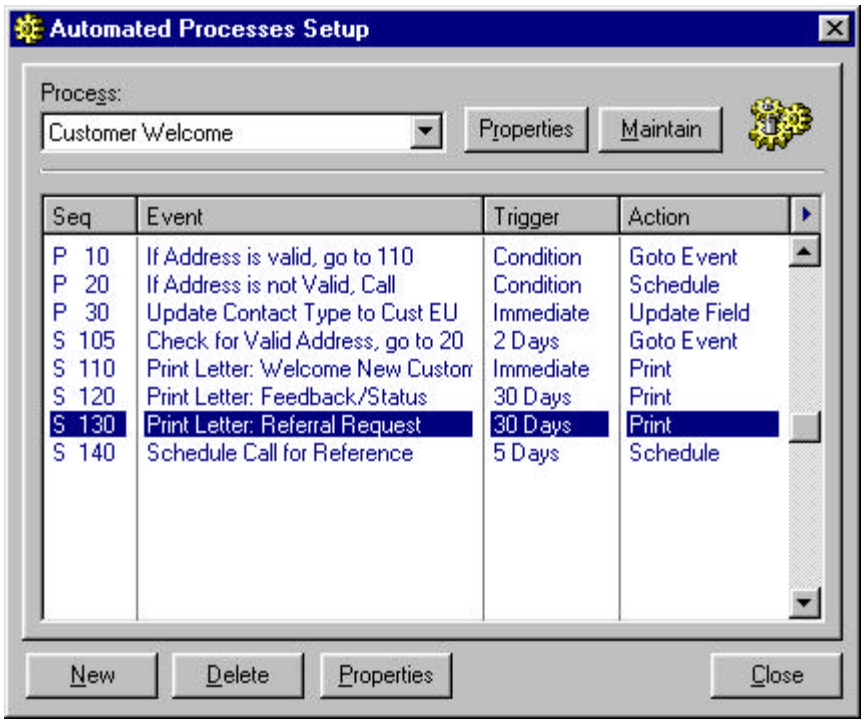
As was mentioned earlier, events are composed of two lesser elements; triggers and actions. At execution time, GoldMine will evaluate the trigger of an event to determine whether the action part of the event needs to be performed. Notice that the "Event Properties" window is divided into three distinct sections, Event, Trigger, and Action.



Event:

The "Event" section of the window is used to define three basic values.

First is the "Event Description" field that is used to specify a descriptor for the event. The event's functionality is NOT dependent on this value. However, it is good practice to provide a brief description of what the event does within this field in order to easily identify the event within the Automated Processes Setup window displayed in the next picture.



Notice that by looking at the "Event" column, we can easily determine that Preemptive Event 10 checks for a phone number/name and Sequential Event 100 schedules a call as its action. Thus, if we need to modify the event that checks for the phone number/name, we can easily identify it amongst the list of events and do not need to view the properties for each event in order to identify it.

The radio buttons to the right of the "Event Description" field allow users to define the event as a Preemptive or Sequential. Differences between the two types of events were discussed in the "Events, Triggers and Actions" section of this documentation.

Notice the "Sequence" field to the right of the radio buttons. This field is used to specify the event number. The range of numbers that can be used will depend on the type of event selected. Further information on this can also be found in the "Events, Triggers and Actions" section. By default, GoldMine will automatically number events, incrementing each new event by ten. Numbering for preemptive events begins at 10 and for sequential events at 100.

Triggers:

A trigger is a condition evaluated by GoldMine during the execution phase of an Automated Process. The Automated Process module of GoldMine Front Office is equipped with a variety of different triggers. In addition, the "Trigger Filter" and "Attempt to Trigger Only Once" options can be used in conjunction with certain triggers to further limit their focus. These parameters can all be defined from within the "Trigger" section.

The picture below demonstrates the trigger section of an event.

Elapsed Days:

The first trigger on the drop-down list of available triggers is the "Elapsed Days" trigger. Note that when this trigger is selected, a field labeled "Elapsed Days" is made available on the Trigger section of the event, as in the previous picture. This field is used to specify the number of days GoldMine should wait until this trigger is evaluated as being true.

A common question in response to the functionality of this trigger is, on which day does GoldMine start counting? GoldMine begins to count the number of days that have elapsed, beginning on the day in which the preceding event's trigger became true, or on the day the track was attached, if it is the first event in the sequence.

Assume that on January 1, 1998 a track is attached to a GoldMine database. The track contains an event with an "Elapsed Days" trigger with a value of 5 days and action to print a letter. Later on this same day, the entire database is scanned for tracks and the event in question is evaluated. GoldMine will not print the letter at this point since the required number of days have not elapsed. On January 6th, the trigger portion the event will become true, thus scanning the database on this or any date after will cause GoldMine to print the letter.

Example:

Elapsed days triggers are commonly used in Automated Processes aimed at handling mailing campaigns.

Typical business procedures at ACME Company require that all new leads be sent an introductory letter the same day they are entered into the database. The letter is used as a tool for introducing the new lead to ACME Company and its services. Ten days after a the letter is sent, the corresponding salesperson from ACME is to contact the new lead in order to get to know them and answer any questions they may have.

Keeping track of when the ten days have elapsed for every new lead in the database would require an extensive amount of work. As it was detailed in a previous example, the automated process can be configured to automatically attach itself to any new contact record manually entered into the database. The first event within this track can be setup to print the letter. A second event with an "Elapsed Days" trigger, with a value of "10" days and action of scheduling a call should be configured to remind the appropriate sales person that they need to contact the lead as a follow up to the letter which was sent to them.

Immediate:

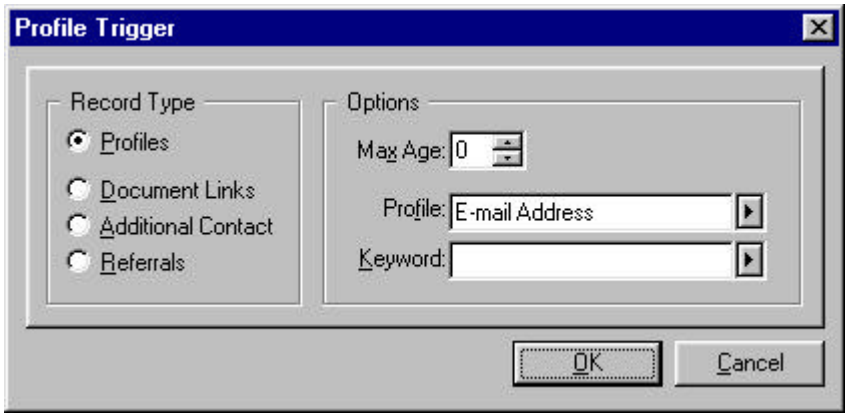
The immediate trigger is used to instruct GoldMine to perform the corresponding action immediately. This type of trigger will always be true, unless a trigger filter has been applied. Trigger filters will be examined later in the documentation.

Since this trigger is typically true, it can be used to define events that need to execute an action every time they are evaluated. Using the example described above, the immediate trigger can be used for the first event of that track in order to instruct GoldMine to print the letter immediately.

Detail (Profile) Record:

The next available trigger is the "Detail (Profile) Record" option. This trigger allows a track to examine a majority of the contsupp.dbf records associated with the contact record being processed. Selecting "Detail Record" as a trigger allows one to search the Contacts, Details, Referrals and Links tabs of the contact records.

Note that when this type of trigger is selected, the "Options" button becomes active. The next picture displays the window that appears when this button is selected.



The "Record Type" section allows the user to define the type of record that will be examined within the contsupp.dbf file. When searching Detail records, a "Detail" must be selected before a "Keyword" can be entered. Choosing a record type other than "Detail" will dim out the "Detail" field found in the "Options" section of this dialog box.

The "Options" section is used to specify additional parameters applicable to the record type selected. One of the more important parameters that can be defined within this section is the "Max Age" value.

The max age value refers to the age of the contsupp.dbf record being evaluated. GoldMine will subtract the number of days specified in this field from the current system date. GoldMine will then examine the date on which the contsupp record was entered into the database. If the date the record was entered is not older than the current system date minus the max age value, the record is considered to be valid.

One special point about this value should be noted. By default, GoldMine will use the value of zero. A zero value instructs GoldMine to consider all contsupp records as being valid for evaluation, regardless of the date in which they were entered.

A common question concerning this particular feature pertains to records that were not created on the exact date examined by the event. To further elaborate, assume that the current system date is set to March 15, 1998. The max age value on an event has been set to five. In our database, there are contsupp records which have been created on March 2, 11, 12 and March 14. How will the event evaluate these records?

Since the max age value is set to five, the date range GoldMine will evaluate stretches from March 10 to March 15. Any contsupp record created within this time period is considered valid. Thus, the only record that will be ignored by the process will be the one created on March 2, 1998.

The Profile field is used to specify a particular profile type. Again, this field is only available if the "Profiles" record type is selected. If left blank, all entries within the details tab of a record are eligible for evaluation.

The "Keyword" field is applicable to all the different record types. This field can be used to specify a particular contsupref value. Only those contsupp records containing that exact value have the capability of returning a true value for the trigger.

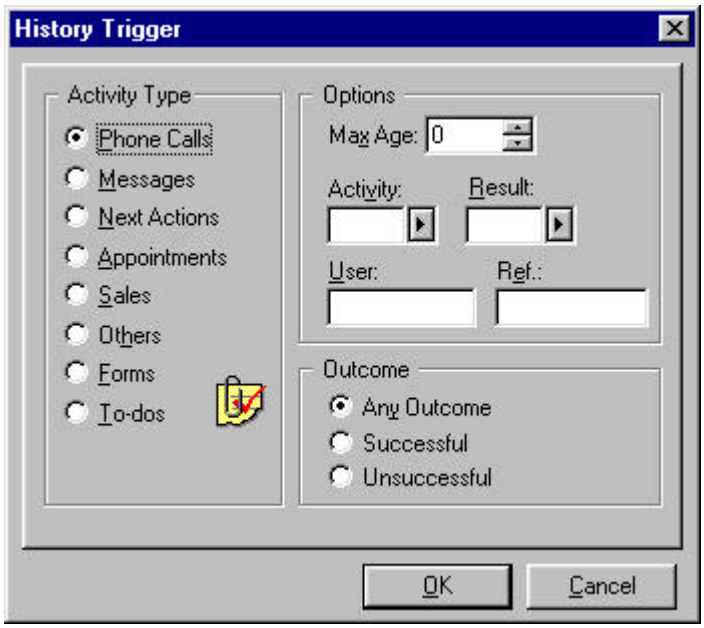
Example:

In today's business world, an e-mail address is becoming as common place as a phone number. One of the reasons for e-mail's widespread popularity is its low cost and speed. E-mail can be used as a great marketing tool and Automated Processes can help an organization take advantage of this media.
Using the profile record trigger, a track can be configured to examine a database and automatically send out an e-mail message to all the records in the database containing an E-Mail Address profile. Taking this idea

one step further, the web import feature of GoldMine can be used to attach a track to all new leads captured via a web page and automatically send an introductory type e-mail message to the new lead.

History Activity:

Moving on down the list, the History Activity trigger follows. This trigger causes a track to evaluate the contact's associated history records. As with the "Profile Record" trigger, clicking the "Options" button permits a user to define various parameters corresponding to the history records to be examined. The history trigger options window is displayed in the following picture.



This window is divided into three distinct sections; Activity Type, Options, and Outcome. The first of these sections allows one to define the type of history item that will be evaluated. Only history items of the type selected will be considered during the evaluation process.

The options section contains five fields that can be used to filter records. First is the "Max Age" field. This feature functions the same as it does for the "Profile Record" trigger. Please refer to the "Profile Record" trigger section of the documentation for a more detailed explanation of its use.

The "Activity" and "Result" fields are used to specify codes that must exist within the history record before it is considered for processing. To evaluate all activity records regardless of the Activity details, do not specify a value in any of the option fields.

Example:

In a network environment, the likelihood of multiple completed activities of a certain type for the same contact record is common place. Different departments within a company use a series of Activity and Result codes to distinguish which activities were completed or correspond to each unique department. For example, technical support uses "TSP", sales "SLS", marketing "MKT" and shipping "SHP".

Suppose that the marketing department of ACME Company wants to send a letter out to all those contacts that have been contacted by the sales department via phone. The only way that a call completed by the sales department can be differentiated from a call completed by the marketing department is by means of

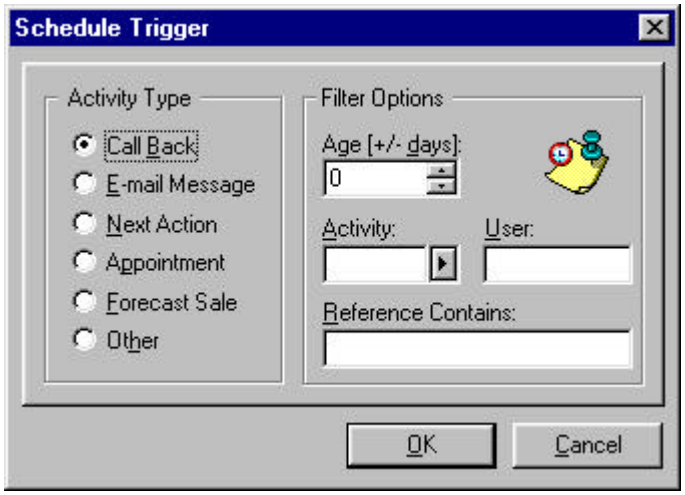
the Activity or Result code fields. Specifying "SLS" in the appropriate field would instruct GoldMine to only examine the completed call records corresponding to the sales department.

In addition, the "Ref" and "User" fields can be used to further narrow the focus of which history records will be examined via the automated process. When executed, GoldMine will only consider the history records that have matching values in the "User" and contain the value specified in the "Ref" field. The "User" field is especially helpful since it can be used to set focus on an individual user's completed activities.

One additional filtering mechanism is found in the "Outcome" section. Only one of the three possible options can be selected for the event. The automated process will only consider those history records with a matching outcome value. The "Any Outcome" option will instruct the event to consider successful and unsuccessful history records.

Scheduled Activity:

The "Scheduled Activity" trigger is used to examine the calendar file for the presence of specific conditions or records. Like the "History Activity" trigger, there are various options associated with this type of trigger. Below is a picture of the "Scheduled Activity" trigger options window.



The options available for this type of trigger are very similar to those that can be applied to a "History Activity" trigger. However, there are a few aspects in which they differ that should be noted.

The filter options section does not contain a "Result" field. This makes logical sense, since calendar records themselves do not contain a result code field. Secondly, the "Outcome" section has been omitted. There is no need for an "Outcome" section since the outcome value can only be defined for completed activities. Lastly, note that the "Age" field will accept positive or negative values. For all other triggers, this value has always represented the number of days that will be subtracted from the current system date to set the maximum age for valid records. Calendar records represent a unique problem in that it is possible to have activities scheduled for a date in the past, and at the same time have pending activities that are scheduled for a date in the future.
Specifying a positive value in this field will cause GoldMine to examine activities that were scheduled to occur within the last 3 days or less. For example, a setting of 3 (or +3) would instruct GoldMine to consider any calendar records that are 3 days overdue or less. Therefore, assuming today's date is August 14, 1999, the only calendar records that will be taken into account will be those scheduled for the dates stretching from August 11 to August 14.

A negative "Age" setting is used to trigger on activities that are scheduled to occur in the future. Assume that the value was set to -3 and the current system date is again August 14, 1999. The only calendar records that will be considered are those scheduled for a date falling on or between August 14 and August 17, in other words, activities scheduled to occur in 3 days or less.

dBASE Condition:

dBASE Condition triggers are simply filters. Selecting the "Options" button for this type of trigger causes a standard "Expression Builder" window to be displayed. Triggers of this type can only be true if the condition specified in the expression builder evaluates as true for the current contact. DBase expressions can be tested by creating filters, or in the dBase expression tester available to users with master rights by pressing "Control-Shift-D" from the main contact window.

Example:

A common and effective use of such a trigger can be seen in the following example. ACME Services Company, a nationwide enterprise, distributes letters to the various contacts in their database on a quarterly basis. The intent of this letter is to inform the recipients of new services being offered in the immediate area. Services offered to a lead in the Midwest region of the United States will most likely not be applicable or of interest to leads in a large metropolis such as Los Angeles or New York City.

It would not make sense for ACME Services to spend resources by offering services to an audience that is not in need of them. GoldMine's automated processes can assist marketing efforts greatly in this aspect. Using the dBASE condition and multiple merge forms, letters specific to a particular market can be distributed from a central location.

The track can be configured to send out Letter "A" to contacts in City "A" and Letter "B" to contacts in City "B" and so forth. The flexibility of dBASE expressions allows for various criteria within the same event. For example, one could define a condition to only send a particular letter to contacts in Los Angeles, with a zip code of 90066 and only if it is the first of the month.

Disabled:

Last on list of available triggers is the "Disabled" trigger. The function of this trigger is self-explanatory. It is GoldMine's equivalent of a REM or remark statement. Any event with this type of trigger will not perform an action.

One good example of its use applies to cloned tracks. Although cloning a track can save one the work of recreating a track, it is very likely that the cloned track contains events that are not necessary. Selecting the "Disabled" trigger will cause GoldMine to skip the event in question. It can also be helpful for troubleshooting purposes, disabling certain events can help pinpoint which event is causing the problem in the sequence.

Special Notes:

There are two final options related to the trigger section that are yet to be fully explained. These are the "Trigger Filter" and "Attempt to Trigger Only Once" options.

Trigger filters can be used to apply additional conditions to a trigger. The advantage of using a trigger filter is that it can be applied to any trigger, thus extending the trigger's ability to evaluate additional conditions.

For example, the Profile Record trigger can effectively examine the records contained within the contsupp.dbf file. However, if one wishes to only evaluate the Profile Record trigger for contacts in California, a trigger filter should be applied. A second solution would be to apply a filter or group for those contacts before the processing takes place.

What happens if the user forgets to apply the filter? This may be an infrequent occurrence, but still a problem. The result would be that contact records not requiring processing would be processed by the AP. In addition, there also exists the possibility that a machine has been assigned to function as an AP server and thus the user does not have any control over which contacts will be processed by the AP, since the processing is taking place elsewhere.

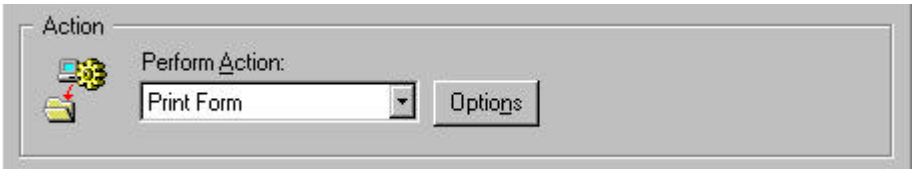
These are two problems that can be avoided by using a trigger filter within the event.

With regards to the "Attempt to Trigger Only Once" option, this feature is only applicable to sequential events with one of the following triggers: Profile Record, History Activity, Scheduled Activity, and dBASE condition.

The purpose of this option is to instruct GoldMine to only evaluate the corresponding event once. Assume that a track with three sequential events, number 100, 110 and 120, is attached and processed. Further assume that event 110 has been configured to only be evaluated once. At execution time, the trigger for this event is not true and thus processing of the track halts at this point. This means that event 120 will not be evaluated until the trigger for event 110 becomes true. Since event 110 can only be evaluated once, GoldMine will skip the event the next time this track is evaluated. Thus, eliminating this issue and evaluating event 120.

Actions:

The last section of the "Event Properties" window pertains to the actions that can be performed via an automated process. Pictured below is the "Action" section of the "Event Properties".



The "Perform Action" field is used to select the type of activity to be performed if and when the event is triggered. The "Options" button is used to define other related parameters for that action. These two functions will now be examined in greater detail.

Print Form:

The "Print Form" activity is first on the list of actions that can be performed. This action instructs GoldMine to merge a form if the event is triggered. The "Options" button allows output to be directed to the default Windows printer or to the faxing software configured on the system. Different printers cannot be selected for the different forms if print is the action. GoldMine will direct the output of the merge forms to the system's default printer.

A listing of available "Public" merge forms will be displayed when the "Options" button is selected. Note that currently only "Public" forms are available for use in the Automated Processes module.

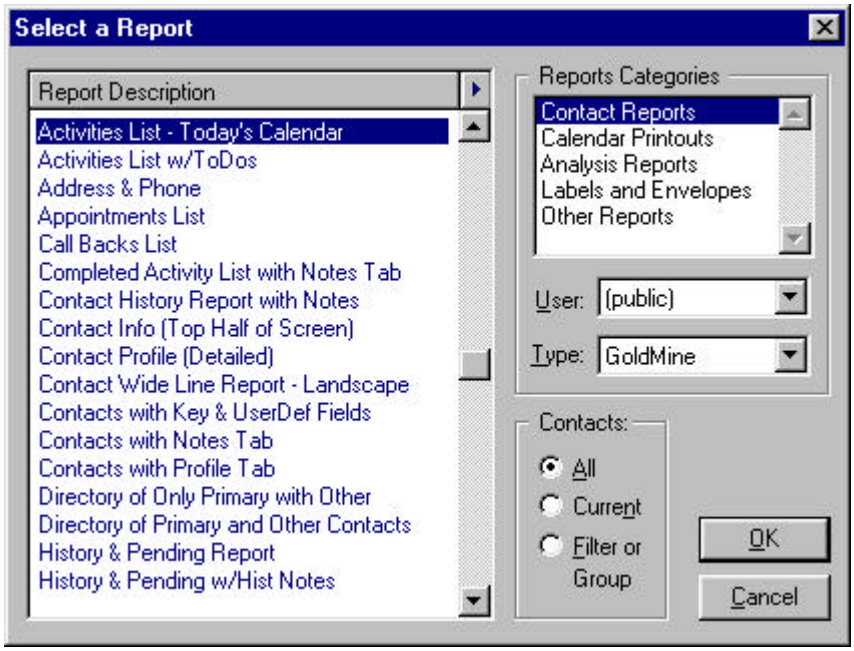
E-mail Message:

This action is used to send an Internet e-mail message by means of an Automated Process. Choosing the options button displays the "E-mail Options" window from which various options can be set. The e-mail message that will be sent by GoldMine must be predefined, meaning that it is not possible to create the message from within the Automated Processes module, you must set up an e-mail template beforehand.

All of the options found within this window function in the same manner as they do for manually sent Internet e-mail messages.

Print Report:

As with the E-mail Message action, the Print Report option is equally popular. This action instructs GoldMine to print an assigned report automatically. One of the more common uses is to print out mailing labels.



The above picture represents the window displayed when the "Options" button is selected for this type of action. Notice that it is the same window displayed when File | Print Reports is selected from the main menu. In addition to allowing the selection of a particular report, a contact range can also be defined.

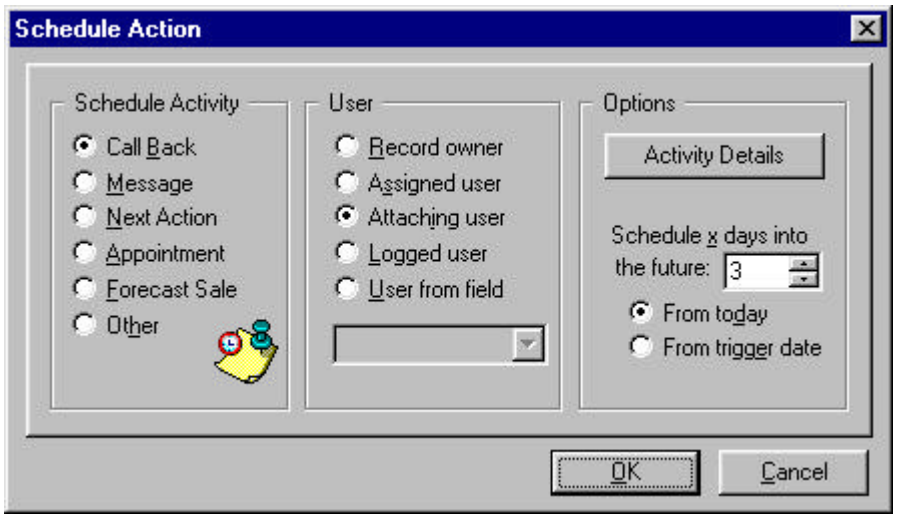
To save resources, you should refrain from choosing the "All" option from within the "Contacts" section. There is a very good reason for this. Keep in mind that when an automated process is executed and a condition is evaluated as being true, GoldMine will perform the associated action.

Assume that a track containing an event with the "Print Report" option has been attached to all records in a 10,000 record database. Selecting "All" will cause GoldMine to print the assigned report with all 10,000 records for every instance in which the trigger is true. If only three records contain a true trigger, a report reflecting 10,000 records will be printed three times. Choosing "Current" will cause the report to generate a report reflecting only the contact that contained a true trigger.

Lastly, the "Filter or Group" feature will cause a report to print, reflecting only the contact information that meets the criteria of the currently active filter or group. Note that this option does not permit a user to select a filter/group to be applied to the report. The desired filter/group must be active at the time processing takes place.

Schedule Activity:

This next action automatically schedules an activity. Choosing the "Options" button allows the definition of parameters such as the Username and type of activity. The next picture displays the options window for this type of action.



There are three sections to this window, Schedule Activity, User and Options. The first section is used to specify the type of activity that should be scheduled. The only option not available within this window is the ability to schedule a "To Do." Also, please be aware that the "Message" selection refers to a "Phone Message", not an Internet e-mail message. This is handled by the "E-mail Message" action.

Notice that the "User" section contains various different options. Choosing "Record Owner" instructs the AP to schedule the activity and assign it to the username that is the owner of the contact record currently being processed. For example, assume that the automated process is currently processing contact record "A" whose ownership is set to "MIKE." Should the trigger be true, the activity that is scheduled will be assigned to user "MIKE." For instances in which the record owner is set to "(public)", the activity will be scheduled on the calendar of the user who attached the track.

The "Assigned User" option works in conjunction with the "Activity Details" feature to be examined shortly. Choosing this option will direct the event to schedule the activity on the calendar of the username specified within the "Activity Details."

An automated process can also schedule an activity assigned to the user that originally attached the track to the contact. This is accomplished by selecting the "Attaching User" option.

The "Logged User" option is used to assign the scheduled activities to the username logged in when processing was initiated on that system. This does not imply that GoldMine will assign the activities to one of the users that logs on through one of the workstations. GoldMine will use the username that was used to log into GoldMine on the machine that is processing the tracks.

Lastly in this section is the "User From Field" option. When selected, the drop down menu below it will become active. The drop down menu is used to select a field from the contact1 or contact2 files that contains the GoldMine username one wishes to assign the activities to.

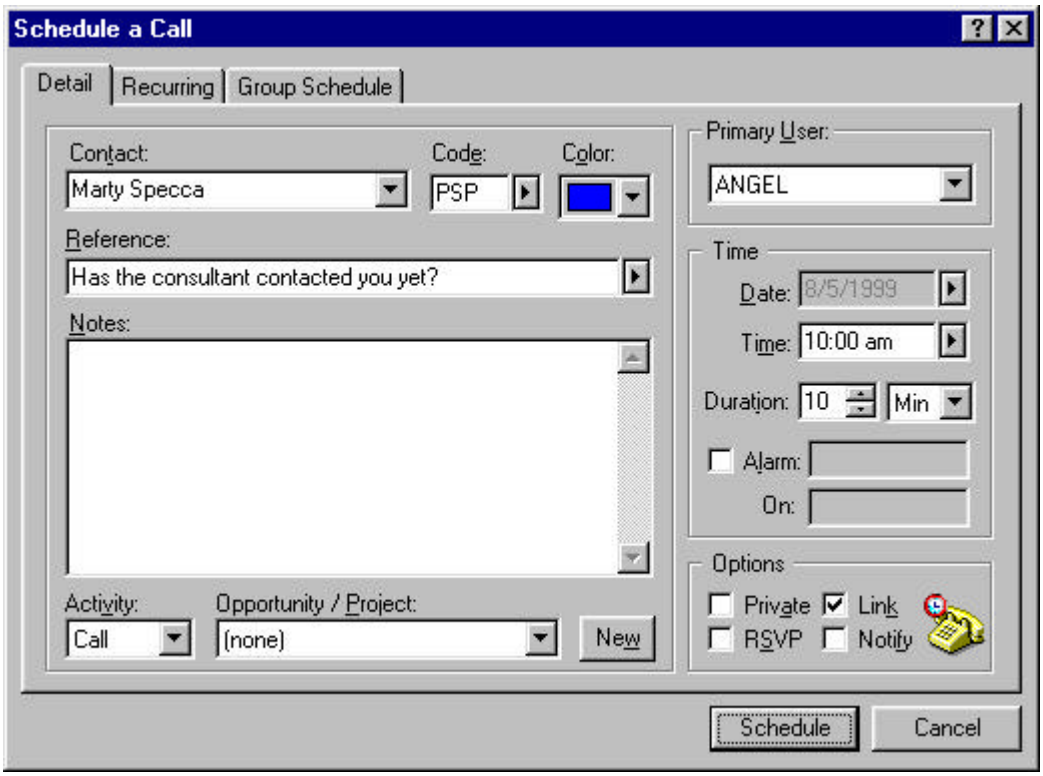
Example:

It is routine practice for a company to assign a particular salesperson to a contact record based on territorial criteria. For example, all contact records in the State of California are assigned to salesperson "JOE". The assigned salesperson is indicated within the "Salesperson (Key4)" field on the contact record.

At the same time, it is also very common practice to assign different sales people to the contact records on a regular basis. One example would be an instance where one salesperson takes over a territory of another.

Creating an event that embeds the "JOE" value as the username would require that an administrator constantly verify that indeed activities are only scheduled for the contacts that belong to "JOE." An easier method of assuring that the appropriate username is always used is to simply take the value of the Salesperson (Key4) field and use that value as the username. This is precisely what the "User from field" option allows one to do.

Moving on to the "Options" section, selecting the "Activity Details" button causes a schedule window to appear, similar to the one displayed by selecting Schedule | Call. A picture of this window follows.



All of the different settings that can be configured within this window are applicable when scheduling activities using a track. Please refer to the GoldMine User's Guide for additional information on this dialog box and its features.

The one item to note about this window is the "Primary User" value. As mentioned before, selecting "Assigned User" option from the "User" section instructs GoldMine to schedule the activities to the "Primary User" value.

Below the “Activity Details” button is a feature that can be used to define the date to schedule the activity. The first parameter is used to specify the number of days into the future to schedule the activity. The starting point is specified using the radio buttons below this field.
The “From Today” option will cause the AP to schedule the activity X number of days into the future from the date on which the track was attached to the contact. Assume that the event has been configured to schedule an activity three days into the future, with the “From Today” option selected. Assume that today’s date is May 10 and the AP is executed. Events that contain true triggers will schedule activities three days from the date that track was attached on. In this example, the activities would be scheduled for May 13, 1999.

However, the “From Trigger Date” option would schedule an activity three days into the future from the date the event is triggered. Using the previous example, assume that the “From Today” option has been replaced with the “From Trigger Date” selection. On May 10, the track is executed. Approximately twenty percent of the database returned a true value for the event’s condition and an activity was scheduled for May 13, 1999. The next business day, another portion of the database returns a true value for the condition. For this subset of the database, GoldMine will schedule an activity for May 14, 1999. Note that although the track was attached on May 10, the trigger did not become true until May 11. Reason being that the event has been instructed to schedule the activities three days into the future, beginning on the date on which the trigger became true.

Create History:

History can be created via an AP using the “Create History” action. One common use for this feature is to globally add a history item to multiple contact records in a contact file.

For example, it may be necessary to log in history the fact that a package was sent to a large group of contacts within the database. There are a couple of ways of handling this problem. The first obvious solution would be to manually add a history item to each contact. This will work, but it is very time consuming. It would take quite a long time to add the same history data to 1,000 contacts.

A second solution would be to record a macro that adds the history record. This process will decrease some of the time necessary to complete the task, but it is still a very tedious task to sit in front of the GoldMine system scrolling from one contact record to the next and initiating the macro.

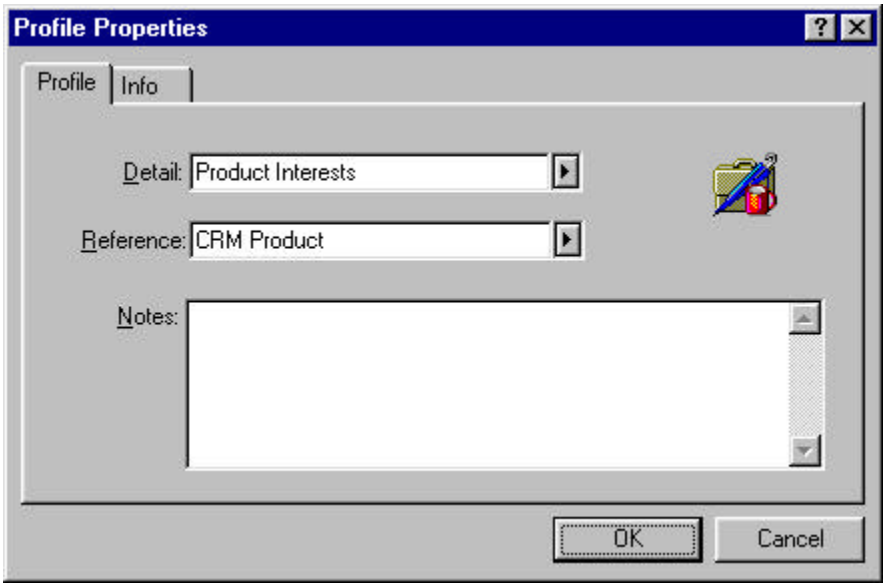
A more elegant approach would be to create a track that creates a history record as an event, then attach and execute it for those contacts. This process would most likely take less than ninety seconds to perform.

As one can see, within the options dialog of the previous picture, the specific history type that will be added is user defined. In addition, there is also a "User" section to specify a username that will be assigned to the history record that is created for each contact. The different options within this section function in the same manner as with the "Schedule Activity" trigger. Please refer to that section of the documentation for further details.

The last item to note with regards to this window is the "Activity Details" button. Selecting the button will generate a standard complete activity dialog box allowing the definition of codes, notes, dates, etc.

Create Detail:

The "Create Detail" (or Profile) action adds a specified Detail to the contact record. It is a form of performing a global replace on the Details tab. Selecting the options button will display the following window.



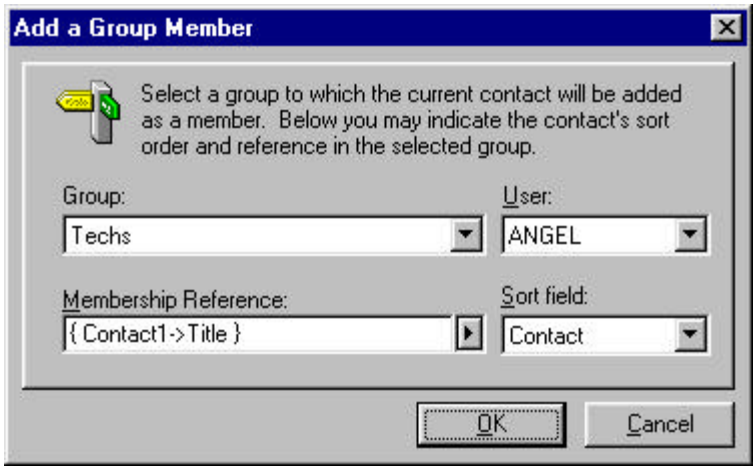
From this window, the specific profile can be defined. In addition, notice that notes, reference and info tab values can also be entered.

The following example illustrates a possible use for this feature. ACME Company sells computer hardware and tracks the specific items that are sold to a contact by entering a "Product" detail for the contact. The specific item sold, such as a hard drive, monitor, or mouse, is identified in the reference field. Instead of manually adding one detail at a time, a group or filter could be activated and the automated process could globally append the product detail to all the appropriate contacts.

Add to Group:

Another new action is the "Add to Group" feature. Contact records that meet the criteria of the trigger are automatically added as members of the desired contact group.

The next picture displays the "Add to Group" options window from which a group to add to can be selected. Notice that one can add to a group that belongs to any user of the GoldMine system. Before one can select the group to add to, it must be defined within the "Filters and Groups" window. If so desired, the new group can be left empty.



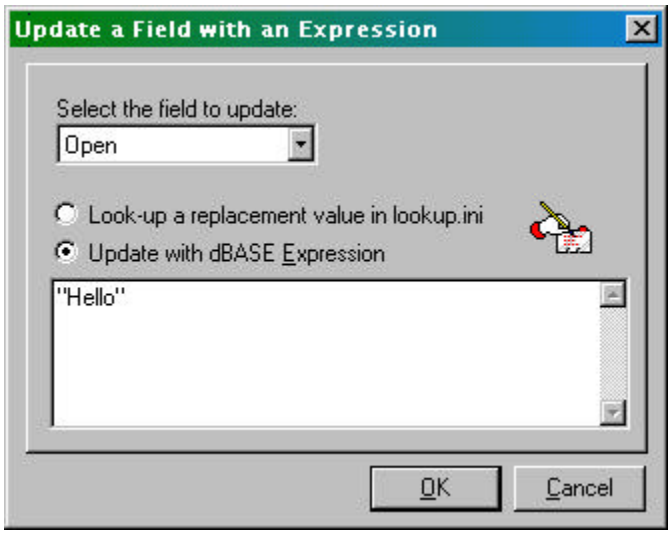
Other items that can be defined are the reference value and sort field. These features function in the same manner as within the standard contact groups setup. Please refer to the GoldMine User's Guide for additional information on these features.

A combination of the "Automatically this Process to All New Contact Records," the "Execute this Process Immediately when Attached by a User" properties and "Add to Group" action can be used to automatically add all the leads entered on a daily basis to a group in an effortless and automated manner. If one wishes to view all the new contacts any given day, simply activate the group.

Update Field:

One of the most commonly used features is the "Update Field" feature. This action has the capability of updating fields contained within the contact1 or contact2 database. Aside from the varying fields, the one additional definable option is the ability to select whether the update should be based on a dBASE

expression or the LOOKUP.INI file. Please see the picture below for an example of an "Update Field" options window, configured to update the "Open" (Key5) field with the dBASE expression "Hello."



In many ways, this action behaves similar to the Global Replace or LOOKUP.INI features. However, the "Update Field" action is more flexible than these two features. For example, a global replace or Lookup.INI cannot update the Key3 field based on the contents of the History folder.

An organization can use this to track the status of their contacts. For example, the AP can view the history folder for items reflecting a purchase within a certain time frame. If no items are found, the contact's status can be updated to "Inactive Customer."

Remove Track:

This action is self-explanatory and does not require the setting of additional options. It can be used to terminate and remove the track at any point during the processing phase, assuming its trigger is true.

Add a New Track:

This type of action can be used to attach other tracks to the contact for further processing. Choosing the "Options" button displays a window listing all the available tracks. New tracks cannot be defined within this window, they must exist on the system beforehand.

One use for this action is to divide marketing campaigns into weekly procedures. For example, it is possible to have a marketing campaign span over a period of several weeks or even months. Although it is possible to create a single track that handles all the tasks, troubleshooting it and understanding exactly what functions the track is performing becomes very difficult.

A good approach would be to divide the tasks into separate tracks. Perhaps assign one track per week. The initial track can be used to attach the second once it is finished processing or whenever a condition is met. The second track would then attach the following track and so forth, until all the necessary tracks are processed. Not only does this make it easier to understand, it also makes it easier to modify. Suppose that the filename on a letter sent out in week four has been changed. This change can be easily made since it is precisely known where week four starts and ends. In comparison, searching one track consisting of a large numbers of events for a single event may take a while.

Branch to Event:

Another feature added to the product is the "Branch to Event" action. The "Branch to Event" action causes a track to move from one event or instruction to another. This behavior is reminiscent of a programming GO…TO statement.

Notice that the options are very basic and only require the selection of the event to skip to. This window is pictured below.

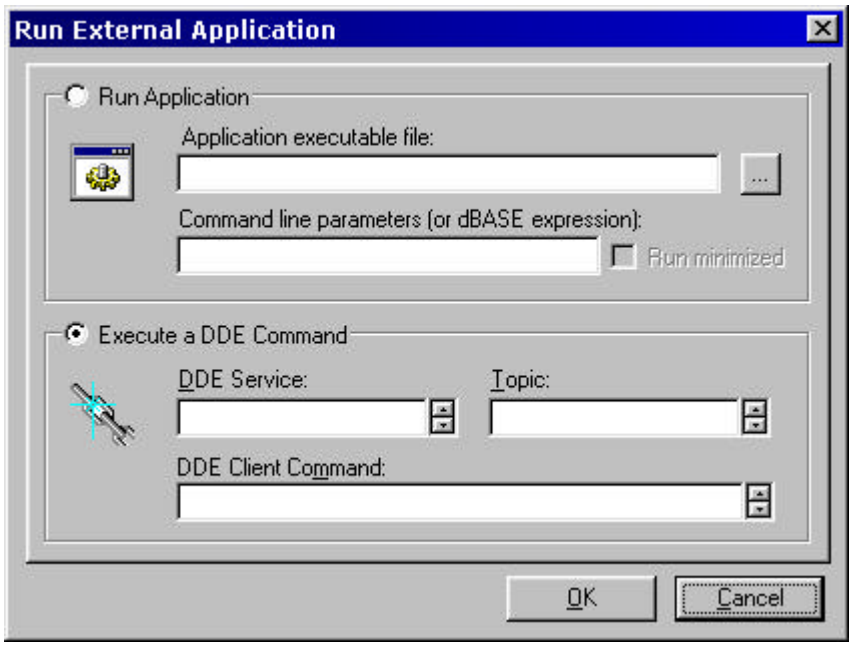
The drop down listing of events will only display events that correspond to the current track. A call to an event in another track can only be performed by means of the "Add a New Track" feature. Lastly, since the options window will only display events that have already been defined for the track, if one were to view the them on the first defined event for the track, the drop down listing would be blank.

Run Application:

Perhaps the single most flexible and powerful action that can be performed via an AP is to run an application. This feature opens up a lot of possibilities. It can be used to run custom applications geared at handling very specific needs of an organization.

For example, a custom application that extracts data from GoldMine and copies the data into an Access database used to track inventory can be automatically executed. Perhaps it is necessary to copy data from an SQL source and append it to a contact record or vice-versa. The possibilities are virtually limitless as to what can be performed.

The options window can be seen in the next picture.



The items to note on this window are the ability to specify whether one wishes to run an application or execute a DDE command.

Please refer to the third party application's documentation for information on DDE commands and other DDE options not pertaining to GoldMine. Documentation on the DDE capabilities of GoldMine can be found in the reference manual.

Automated Processes – Attaching & Executing

Up to now, the documentation has discussed the capabilities of Automated Processes. There has also been an examination pertaining to how some items function and differ from previous versions of GoldMine.

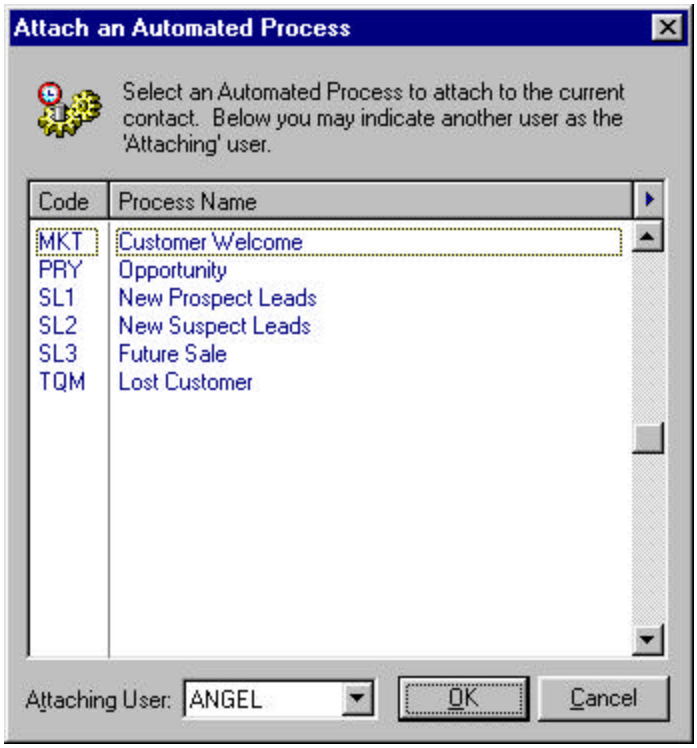
The first section of this documentation is critical in understanding Automated Processes. It is the foundation upon which one can continue to build. Without this knowledge, practical examples similar to those that have been examined become a bit daunting.

Moving on, our focus shall now be the steps that follow the creation of a track.

Attaching

Once a track has been completed to satisfaction, it needs to be attached to a contact record(s) before it can be useful. There are a variety of ways in which a track can be attached.

Selecting "Contact | Assign to a Process…" from the main menu generates an AP listing from which a track to attach can be selected. This listing is displayed in the next picture.



This procedure will only attach the process to the current contact record. Note the "Attaching User" field. The field's value can be a critical to an event and should not be dismissed as trivial. It is possible to define events that use this value to create history records or schedule activities using this name. Not selecting the appropriate name can cause undesired results.

A second method for attaching a process to a single contact is by means of the "Tracks" tab found in the second row of tabs. The local menu of this tab contains the option to attach a process that generates the same process listing window shown above.

An additional method of attaching a track to a single contact involves using the "Attach this Process to All New Contact Records" property of a track. Please refer to the "Processes Properties" section of the documentation for additional information on this feature.

Lastly, the other practical method that can be used to attach a track on a record-by-record basis is via a web import routine. The import instructions can be defined to instruct GoldMine to attach a particular track automatically when the contact is added to the database.

Attaching a track to multiple contacts, a group or other subset of the database involves a couple of additional steps.

In order to attach the track to multiple contacts, certain parameters must be defined within the "Automated Processes Execution" window accessible by selecting Tools | Automated Processes | Execute Processes… from the main menu. A picture of this window follows.

Of special importance is the "Do Not Scan" option under the "Scan Method" section. This option is unavailable, unless "Attach Track to ALL Contacts" is selected. Notice that below this check box is a drop down box containing the names of all the currently defined tracks. This drop down is only active if the accompanying check box is checked.

To attach a track to multiple contacts, check the "Attach Track to ALL Contacts" check box, choose the appropriate track from the drop down listing and select the "Do Not Scan" option. Clicking the "Process" button at this point will cause GoldMine to attach the selected track to all the contacts in the database. Activating a filter or group before accessing this window will instruct GoldMine to attach the track to only those contacts that are part of the active subset.

Once the track is attached, the final step in the cycle can be initiated.

Executing

Simply attaching a track to a contact does not imply that the track has been processed and evaluated. The next step one must follow is to scan the database for contacts that have tracks attached and process those tracks. The act of attaching a track to a contact can best be thought of as putting APs into a state of readiness. It would be like starting the engine on a car, but not putting the car in gear. If the car needs to move or perform an activity, other than idle, a gear must be engaged.

The scan feature is GoldMine's way of putting the tracks "in gear." Referencing the previous picture, notice that there are two sections within the "Automated Processes Execution" dialog box.

The scan section is used to specify the scan method that will take place on the system. "Scan once" instructs GoldMine to examine all the contact records in a database or subset thereof. The contacts will be scanned in the order of the active index before processing was initiated. As GoldMine examines the contacts, any attached tracks will be processed. If a contact contains multiple tracks, all the tracks for the contact will be evaluated before GoldMine moves on to the next contact record. When the last contact is evaluated, GoldMine will halt all AP execution on the system.

Scan continuously should only be used in scenarios where a dedicated AP server is required. An example of such a scenario was provided within the "Process Properties" section of this documentation. The difference between this option and the scan once selection is that scan continuously does not stop searching the database for attached tracks. At this point, scanning can only be halted by means of user intervention.

Suppose that it is only necessary to scan the current contact or contacts selected at random. This can be accomplished by selecting "Scan Current Contact." If this option is selected, GoldMine will only examine the tracks tab of the currently active contact record. Execution will halt once the evaluation of the current contact is finished.

The last option in this section is the "Do Not Scan" feature. Please refer to the "Attaching" section of this document for further information.

On the right hand side of the execution window is a section titled "Options." Within this area, limits on the number of contacts and/or events that will be processed can be defined.

The "Max Events" feature limits the number of events that are processed to the amount specified within the field. While in the process of executing tracks, GoldMine will tally the number of events that have returned a true trigger. Once this number matches the number defined within the "Options" section, GoldMine will halt all processing of APs on the system.

The "Max Contact" option functions in a similar fashion, other than the fact that it bases its limit on the number of actual contact records processed, not the number of events. Note that it is also possible to have these two options work in conjunction with each other.

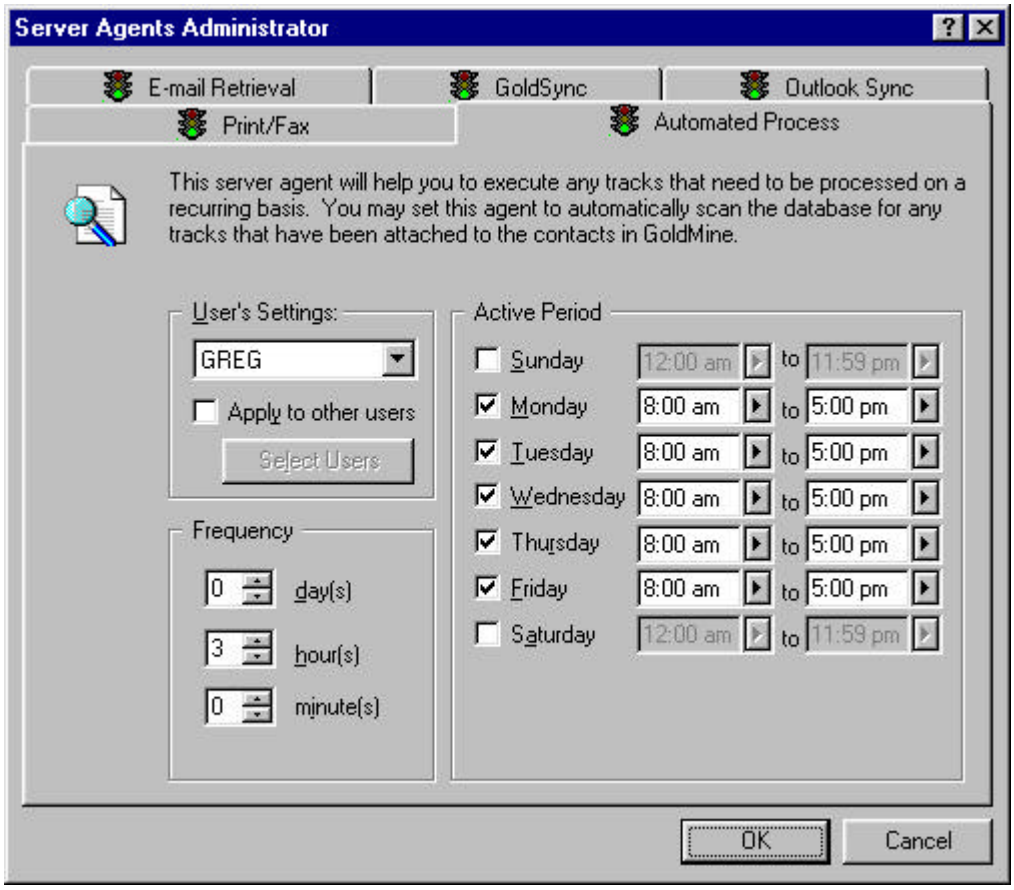
For example, a track containing two events is attached to 50 contacts. When executed, a "Max Events" value of 50 is defined. Assume that the trigger for both events is true. In this scenario, GoldMine will halt processing once the 25th contact record is processed. Deselecting the "Max Events" option and applying the value of 50 to the "Max Contact" option would result in GoldMine processing all 50 of the contacts that had the track attached.

The "Max Events" feature is also extremely helpful in scenarios such as the following. Assume that a track has been configured to merge a form. The track is then attached to a database of several thousand records. The obvious problem is that the printer will need refilling at a certain point. Limiting the events to 200 or so will create a pause in the processing that can be used to take care of these matters.

Consider this other example. What if instead of printing a letter, an activity is scheduled? Most people would not be too happy to see thousands upon thousands of scheduled activities suddenly appear on their calendar. Using the limits, a more manageable number of activities can be scheduled per session.

Lastly is the "Start Time" option. This feature is intended to allow users to specify a start time for the scan sessions, in a fashion similar to a timer or agent.

For automated processing, the new "GoldMine Server Agents" allows regular processing without user intervention. The "Server Agents Administrator" screen is shown below.



The Agents Administrator has three sections, User's Settings, Active Period and Frequency. The "User's Settings" drop down allows you to specify the user GoldMine will perform unattended processing for. If you would like to perform automated processing for other users, check the "Apply to other users" option and click on "Select User".

The "Frequency" section determines how often GoldMine will process APs, during the "Active Period". The "Active Period" is used in conjunction with the "Frequency" to determine when processing will actually occur. Select the days of the week and the time that processing can occur.

For example, suppose a company wants to scan for processes every three hours during the workday (8am and 5pm). In this scenario, they would set the frequency to 3 hours and the active period for 8am to 5pm Monday through Friday. GoldMine will scan APs every three hours between 8am and 5pm.

Summary:

The information contained within this document is intended to provide as much information as is available corresponding to the Automated Processes feature of GoldMine. It is an in depth examination of the all the different tools that are contained within this module. However, it should not be confused for a definitive guide on how to create every possible track.

It is hoped that by providing such detailed information, a clearer understanding of the components can be had. This in turn should simplify the creation process. Being able to recognize precisely what each piece of the puzzle does allows one to easily identify what pieces are necessary to construct any project. Much like a mechanic working on a car.

Lastly, keep in mind that experience is an invaluable resource that should not be overlooked. Spending time working with Automated Processes and playing with all the different tools it has to offer is equally, if not more, important as reading this document.