GEM – A complete solution to the email management problem

Advice on setting up and configuring

Contents

Why?

I think we all realized a long time ago that having individual employees making decisions on what email or electronic document to capture and how to capture and classify each one was not a sustainable, consistent, reliable or compliant email management solution. We at K1Corp coined a phase to describe this model as 'client-centric' meaning that the end-user had to do all the work.

We developed a new model which we called 'fully-automatic, rules-driven and server-centric'. In this new model, the end user doesn't have to do anything but search. All the analysis, selection and classification are done by background, asynchronous processes running on your server. All corporate emails and electronic documents are captured automatically in an entirely consistent and totally reliable manner.

We then developed two enterprise content products to implement this new model. The first was GEM for emails and the second was RecCapture for all other electronic documents and images stored on shared network drives.

This paper is all about using GEM to manage any organization's emails to meet any compliance or legislative standard and, most importantly, to provide instant but secure access to all emails as valuable corporate documents essential to the business process. That is, to facilitate better management of any business and better decision making by making emails instantly available as a corporate knowledge resource.

How?

RecFind 6 .NET Smart Client
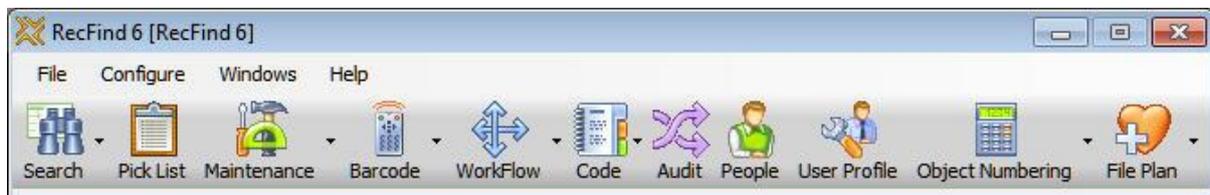
RecFind 6 Web (browser) Client

GEM is an add-on product to RecFind 6, our well-known content management system. RecFind 6 includes all the required functionality to manage content of any kind including emails. Most importantly, it includes a powerful search function and a powerful security system. This means you can have instant retrieval under a 'need-to-know' regime perfectly configured to the needs of your organization. Note that GEM can also integrate to any other ECMS or EDRMS. This is important if you already utilize an ECMS or EDRMS and don't wish to use RecFind 6 as an image and document repository.

When coupled with RecFind 6, GEM stores all captured emails in the secure RecFind 6 relational database along with all other content (e.g., electronic documents, images, Metadata, records of paper files, etc.).

GEM 'talks' directly to your email server and instantly captures copies of all emails (both internal and external) sent and received from the mailboxes you have tagged to be monitored. There is no opportunity for employees to delete or modify emails before GEM gets its copy.

GEM writes all captured emails to a queue and then analyses each using the business rules you have built. It uses these rules to decide which emails to capture, which to ignore and how to store and classify them in RecFind 6. It can also initiate workflow if appropriate.

The real secret to GEM working perfectly is the GEM rules engine. The ideal is to have only a small number of highly flexible rules that govern all the types of email your organization sends and receives. This is always the prime objective when setting up GEM Rules.

The following is an example of the rules we use to manage all the emails in our company:
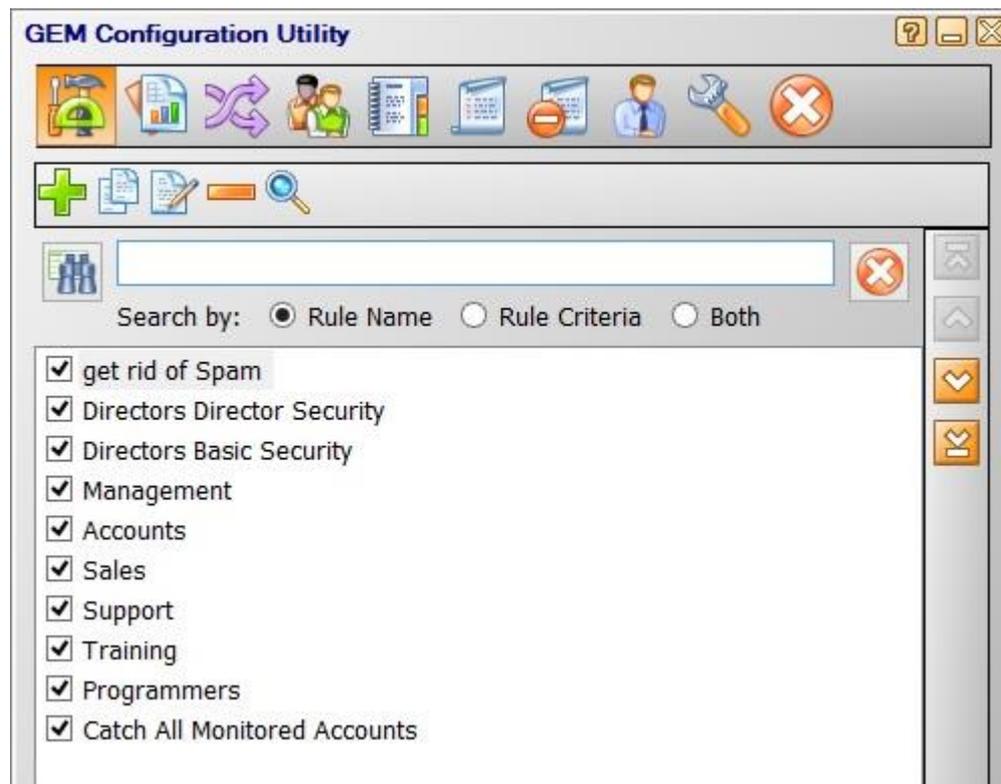
False Positives versus False Negatives – the rule of GEM Rules

Emails are different to other content and they require a slightly different mindset. This is why I have introduced the concept of false positives and false negatives.

1. A false positive is when we think an email is an important corporate document that needs to be captured and saved when in fact the email is not important and should not have been captured and saved.

2. A false negative is when we think an email is not important and therefore should not be captured and saved when in fact it is important and it should have been captured and saved, not ignored.

In email management we build our rules to allow for some false positives (no harm done and easily corrected) and not allow false negatives (a pain to discover and then retrieve from the bowels of the email server).

Everything I tell you from this point on is built on this premise – it is good to allow some false positives; it is bad to allow some false negatives. Fundamentally, it is always better to capture more than you need rather than less than you need.

Computer hardware is low cost (who cares if we store more emails than we need?) and it is incredibly easy in RecFind 6 to search for, group select and remove any unwanted emails (given that you have the appropriate security of course).

- Correcting false positives is easy; fixing false negatives is not.

- The impact of false positives is negligible; the impact of false negatives may be significant.

So, the basic rule of GEM Rules is to err on the side of caution. It is always better to have more emails than you need rather than less emails than you need.

Store and Classify emails so they are easy to retrieve

Remember what I said about needing a different mindset? We capture emails so we can reference them as and when required. This means anyone (not just your records management professional) being able to find them quickly and easily.

So, do we use a complex, multi-layered taxonomy to classify our emails and then force end-users to search via this classification scheme? Certainly not if you want staff to be able to find them in a quick, easy and natural way. Certainly not if you want your staff to use the system

I said earlier that emails are different to other 'unstructured' content and they are in many ways. The most obvious is that emails do have structure; they have a common set of properties that everyone is aware of and that everyone expects to be able to search on. What are these common searchable properties?

1. Sender

2. Recipient

3. CC

4. BCC

5. Subject

6. Text of the body of the email

7. Text of any attachments

Fortunately, RecFind 6 will automatically index all of these email fields and all content (both the full text of the body and the full text of any attachments) when an email is stored in its database so finding any email by the values of any property or combination of properties is easy.

The RecFind 6 search also allows you to search on any field or combination of fields so please ensure that your GEM administrator has given you access to these standard features.

Back to the different mindset; we used to call it thinking outside of the square.

When thinking about how to store and classify emails first think about what end-users may know about them before beginning a search. This is the choice:

1. Will they be able to consistently guess what four levels of your taxonomy you have allocated? Or;

2. Will they know who or which organization sent it? Will they know who it was sent to? Will they have an idea about the subject matter? Will they know contract numbers or case numbers or customer numbers or other unique identifiers that may be part of the subject or body or attachment?

I know for a fact after running GEM in my company for many years that the answer for us at least is most definitely number 2.

Should the emails be automatically attached/linked to your customer or client or employee or project or case file in RecFind 6?

Of course, they should because this means when we are 'browsing' a file in our EDRMS we can also easily browse all the emails that pertain to that file. That is, we open the file and then click on a button that says 'emails'. The emails are listed, and we can search and view them. What could be easier?

The KISS principle

Keep it Simple Stupid; the time-honoured acronym for good systems design.

- Make it easy to understand and easy to use and your staff will both love and use the system.

- Make it complicated, hard to understand and hard to use and your staff will hate and bypass the system.

What is your business focus?

We for example are client centric. Our business is all about selling to and servicing clients. For this reason, our emails (and all other content) is organized around the client record. This means that we have set up GEM as client centric. Everything we capture is linked to the client file because this is our business focus.

When I call up a client on the phone and look at its details in my EDRMS I can instantly see all information pertaining to that client including all emails. Everything in one place.

You need to ask yourself, what is your business focus?

Are you client-centric, are you employee-centric, are you case-file centric, are you project centric, etc, etc.

Getting this right is critical to the success of GEM because this is how your employees think and work; it is the 'natural' way for them to think about and organize information.

You can also set up as many different models as you need with GEM. You may need a different focus for different parts of your organization. Human Resources for example should be employee-centric, sales should be client-centric, purchasing should be supplier-centric, engineering project-centric, legal case or contract-sensitive, etc.

You can have as many models as you require by using the most appropriate RecFind 6 configuration and GEM rules; there are no limits. You do not have to force every end-user into the same paradigm. You can configure GEM and RecFind 6 to suit the precise needs of each class of user to allow them to see all information in the most 'natural' way for them.

The really, really important secret of GEM

If you print out an email and then store it in a cardboard file folder (one among many tens of thousands on shelves around your organization) but, in the wrong file folder, you will never find it again.

If you use GEM and RecFind 6 and somehow manage to attach it to the wrong client file or case file or project file in RecFind 6 (you made a mistake when configuring the rule) you can still find it instantly. All you need to do is search by one or more of its common properties using the RecFind 6 Text, Metadata or BOOLEAN search functions.

The search will find it instantly and it will also tell you which file it is attached to. You can then say "whoops" and then instantly move it (attach it) to the correct file. Try doing this with paper files.

So, the really, really important secret is that you simply cannot lose an email in RecFind 6.

How do GEM Rules work?

GEM Rules work by allowing you to duplicate the cognitive processes employed by a professional human classifier. We used to call this an 'expert system'.

The easiest and fastest way to construct the best GEM Rules is to ask your best classifier to explain how he/she analyses and makes determinations about the different classes of emails your organization sends and receives.

Because GEM allows you to analyse every property of an email and combine the analysis into a BOOLEAN statement (like a SQL Select statement) you can very quickly duplicate any human analysis. For example:

> (If the sender's domain is this AND (if the recipient is this staff member OR this staff member BUT NOT that staff member) AND (if the subject contains the these words, BUT NOT these words) AND (if the body of the email contains this phrase OR this phrase) OR (if the attachment contains this contract number) then capture this email, classify it in this way, attach it to this client file, give it this security code and initiate the following workflow.

You don't have to laboriously write rules like the above; you configure them by selecting fields or attributes and then selecting operators and values. GEM makes it as easy as possible to construct rules. It also builds a pseudo Select statement (which your IT person will love) in the frame below the rule you have just built so you can see it in a very logical and English-language way.

Edit Rule

Name: Directors Director Security

If a message meets this rule...
- ○ Capture it and continue processing more rules
- ● Capture it but do not process any more rules
- ○ Ignore it but continue processing rules
- ○ Ignore it and do not process any more rules

Rule type
- ● Normal
- ○ Classification

Query

```
To address contains Monitored Accounts - Directors [ANY]
OR From address contains Monitored Accounts - Directors
BUT NOT Any address contains Monitored Accounts - Training [ANY]
BUT NOT Any address contains Monitored Accounts - Support [ANY]
BUT NOT Any address contains Monitored Accounts - Programmers [AN'
BUT NOT Any address contains Monitored Accounts - Accounts [ANY]
```

To address contains Monitored Accounts - Directors [ANY] OR From address contains Monitored Accounts - Directors BUT NOT Any address contains Monitored Accounts - Training [ANY] BUT NOT Any address contains Monitored Accounts - Support [ANY] BUT NOT Any address contains Monitored Accounts - Programmers [ANY] BUT NOT Any address contains Monitored Accounts - Accounts [ANY]

Exceptions
- ● No exceptions
- ○ Except when message has met another rule
- ○ Except when message has been previously ignored

OK   Cancel

Note that the Boolean statement in Gray below the rule is automatically generated by GEM as you build your rule.

You can have any combination of clauses and sub-clauses and combine them in any BOOLEAN fashion.

The bottom line is that you can easily and quickly duplicate anything a human can do to analyse emails. The benefit is that GEM will then apply the rule in a one hundred-percent consistent manner, something no human can do and something multiple staff members have no hope of doing. GEM is one hundred-percent reliable (it never has a sick day or an off day) and it is one hundred-percent consistent; unlike your staff, it always does exactly what it is told to do.

## *GEM Grouping – minimize the number of rules to maintain*

You don't have to have one rule for every employee just like you don't have to have one rule for every contact at a client or supplier. In fact, you do not want one rule for every employee because this would give you too many rules to manage and maintain.

This is why GEM uses the grouping method.

For example, GEM automatically knows about all your users' information because it pulls in all user details from your email server. You then simply organize your users into groups and then write a rule for each group, not each employee. Each group becomes a 'Monitored Account' in GEM parlance.

So for example, if you have 150 employees but just 10 departments (e.g., sales, HR, marketing, engineering, etc) you would use the departments to organize your groups (one group or 'monitored account' for each department) and you would then need just 10 rules to manage all emails, not 150 rules.

You can manage each Monitored Account separately or you can group them together, see example below:
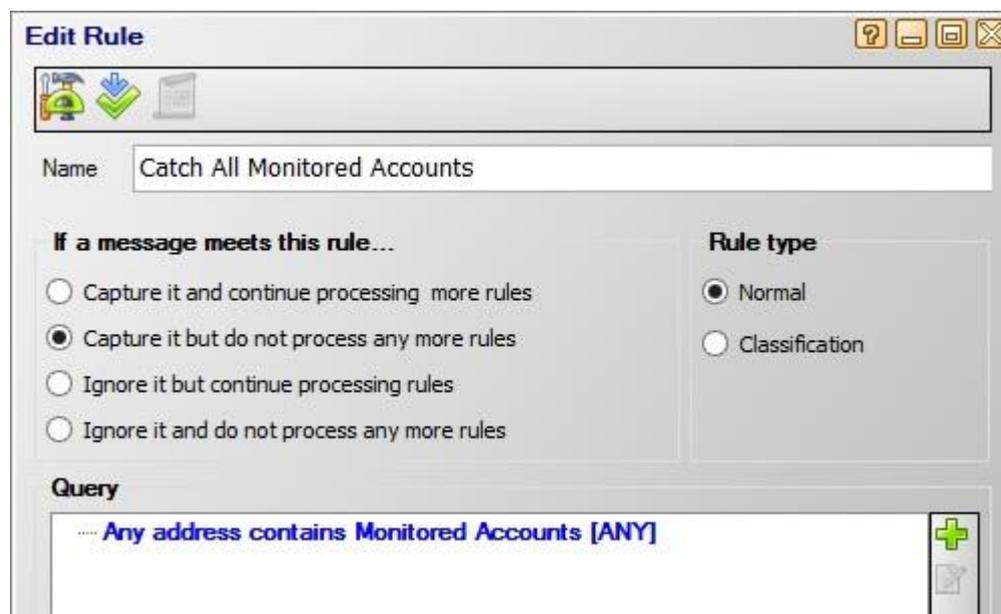
Summary

The task of building rules in GEM to manage all your emails automatically may initially sound daunting because it is a new and unfamiliar process, but it is quite easy.

All GEM does is what you normally do when you are reading an email and deciding how to classify it.

The difference is:

- Without GEM you must do it many times every day; and

- With GEM you 'teach' GEM once and then GEM does it many times every day instead of you.

Your choice

The choice is simple. Spend every working day for the rest of your life 'manually' classifying emails OR take the time to teach GEM what it is you do and then free up hours and hours a day from now on; have a coffee, smell the roses, go for a walk, talk to the attractive person in the next office.

Free up thousands of man hours

It is even better if you currently have every employee classifying emails every day manually (the client-centric model). How primitive and unnecessary and what a terrible, terrible waste of employee time. Use GEM in this case to free up hundreds or even thousands of hours every day; really! Imagine what your boss can do with those freed up hours? Better still; imagine how happy he/she is going to be next time he/she does your salary review? "Are you the incredible person that saved us millions of dollars a year?"

GEM can duplicate any human analysis

When you manually classify an email as a human being you first read all or some of the main properties of an email, for example, To Address, From Address, Subject, Body text, Authors name, etc, etc, in order to understand 'what it is about'. You look for certain values in each of these fields and then make decisions based on the presence or absence or a combination of these values. Basically, you utilise your not insignificant human intellect and apply your expert knowledge to make the most appropriate business decision.

Once you are sure you know what it is about, you then decide on how to classify/file/store/index the email.

It is important to understand that GEM can do exactly what you do, exactly! The big advantage of GEM is that it is faster (much, much faster), and it can do it time and time again without getting tired, bored or making mistakes. GEM doesn't miss emails either.

GEM also 'reads' every property of an email (including the full text of the email body and the full text of any attachments). GEM can look for the same values you look for and GEM can reach the same conclusions you reach. GEM can also classify/file/index the email the same way you do. This is why a rules-driven, fully automatic system is so much better than the manual, client-centric method.

You just must teach GEM what you know. You need to transfer your expert knowledge to GEM. You need to invest a little time to free up lots of time.

You must think of GEM as a totally obedient and very, very fast servant. Let GEM do the mundane work for you and free up your time for more important things.

How does GEM handle a new type of email?

What happens after you teach GEM everything you know about classifying emails and then a 'new' email arrives that you haven't seen before and that GEM doesn't have a rule for?

GEM isn't anywhere near as smart as you, but GEM isn't exactly dumb either. GEM says, "I haven't seen this type of email before and it is not going to be caught by any of my existing rules. I had better tell the boss about it and ask for some new guidelines." GEM worries about staying on the right side of the boss.

So, every night at midnight, GEM will send you an email (what else?) telling you about the emails that slipped through your rules net so you can once again look at them as a human being (human beings are always smarter than GEM, they just aren't as quick) and decide how to handle them. Once you have worked the new guys out you tell GEM how to either modify existing rules or add new rules and then GEM takes care of business again, day after day after day. After a while, the 'you and GEM' combination ensures that there aren't any more exceptions.

How do you maintain the GEM Rules?

How do you check up on GEM? How do you always know that GEM is working flat out and not slacking off?

GEM doesn't know how to slack off; GEM just does as it is told (the perfect employee). Every night at midnight (GEM doesn't sleep, doesn't take coffee breaks or lunch breaks or get sick or go outside for a cigarette) GEM says, "The boss wants to know how I am doing. It is time to send a complete break down of all the work I have done today." With that, GEM sends you an email with email statistics for every mailbox you are monitoring. How many emails received and sent, the number of attachments received and sent, the average size of attachments, etc.

GEM also tells you about any emails that have slipped though your Rules net so you can add a new rule or modify an existing rule (try to keep the number of rules to a minimum). This approach is called the Push paradigm, it means the system tells you about exceptions, you don't have to ask (if you had to ask it would be called the Pull paradigm). This could also be called management by exception, the best model.

Every morning (as you are enjoying your coffee and smelling the roses and chatting to that nice person in the next office) you simply browse through the GEM reports and see if the servant needs any help today or, if any employee has been doing anything unusual, (like, why is Frank sending and receiving 200GB of attachments a day?).

That is all there is to it. Teach GEM what you know and then find something else to do with your time. It really is that easy.

GEM Benefits

The following is not an exhaustive list of GEM benefits; it is just the main core benefits. Depending upon your unique situation and 'needs' there could be many more 'real' (that is, money saving and pain relieving) benefits to articulate.

The ability to find and view any email instantly

You simply cannot search across all emails sent and received by your organization without a product like GEM. Without GEM, you only have two choices:

1. Try to guess which employee was the sender or recipient and then search on his/her computer within the email client (e.g., Outlook); or

2. Pester the long-suffering email server manager to search within the email server software (i.e., when you can find him and when he has time).

At a minimum, being able to easily and quickly locate any email should release thousands of 'lost' productivity hours in even the smallest of organizations. In addition, being able to address and research any inquiry or complaint instantly and accurately should allow you to avoid upsetting customers and partners and even legal action. What price peace of mind?

The ability to monitor content and meet compliance and legislative requirements

This is always a touchy subject because of often confusing and conflicting legislation.

All over the world organizations are required to protect their employees from such things as racism, sexism, bullying and expletives and protect against industrial espionage, theft of IP and trade secrets.

The confusion and conflict come about because although we are required to protect employees (and our organization's IP) we are also not supposed to analyse 'personal' emails. The old-fashioned word for this is a conundrum. How do I protect Mary from sexist emails from Harry if I am not allowed to analyse Harry's so called 'private' or 'personal' emails?

GEM has all the functionality required; it is just a question of how to apply it and not break some local law.

The approach we take and always recommend is to have a formal email policy that is distributed to all employees and, to make sure we meet all local laws, we regularly 'remind' employees of the policy (you should also include it in your employment contracts).

The policy should tell employees that the corporate email system is for corporate emails only and that we are required by law to analyse all email to protect against such things as racism, sexism, bad language and bullying. You are required to tell the employees and it is good policy to regularly remind the employees.

To my mind, having GEM (not a human being) analyse all emails for racism, sexism, expletives etc., is not the issue. It is only an issue if you capture and save the 'personal' email in RecFind 6 or your EDRMS. Even then it is a mute point because the email has already been captured and saved on the corporate email server.

The only time you should capture a personal email is when it breaks one of your rules about content (and remember, you are required by law to monitor content and protect your employees). You can then use RecFind 6's workflow to email the responsible manager and link it to the offending email so the employee can be counselled.

The bottom line is that GEM has all the functionality required to monitor emails for offensive content, you need to find the best way to utilize it based on your local laws, policy and procedures.

Increased profitability through increased employee productivity

Employees are not required to analyse, capture, classify and store emails; GEM does it all automatically. All the employee needs to know is how to search for emails. Plus, searching for

emails with RecFind 6 is at least 100 times faster than searching for emails in your email server or attempting to search for emails on each employee's email client (e.g., Outlook).

Employees are free to just do their job.

Remember that employee direct costs are the largest single item in any organization's Profit and Loss. Any savings we can make here go directly to the bottom line.

Increased profitability by reducing the need to install and manage email management software at every workstation.

GEM runs as a background process on a server, there is nothing to install and maintain on the employee's desktop other than the RecFind 6 search and this can either be automatically 'pushed out' by Active Directory (the smart-client) or accessed by entering a URL in a browser (the web-client). You will save at least $2,000 a year per desktop over conventional 'client-centric' email management systems.

The ability to meet any compliance legislation without further investment.

Because GEM comes with a powerful configuration module and is rules-driven, the customer is easily able to build, test and implement any rule required now or in the future without asking the vendor to make expensive and time-consuming and disruptive changes to the application. You are empowered.

The ability to extend the solution to solve other business problems without the need for further investment or costly and disruptive modifications to the solution

For example, by using GEM's workflow interface to RecFind 6 to implement business logic to solve other problems such as tracking complaints or quotation requests from customers.

The ability to implement an enterprise-wide solution without the highly expensive and highly disruptive need to train (and retrain and retrain) every employee.

With GEM, the only training required is for the GEM Administrator plus a minimal amount of training for employees in how to use the RecFind 6 search functionality (hours, not days or weeks as would be the case with a client-centric solution).

The ability to roll GEM out in days or weeks, not months or years.

This is the real benefit of a server-centric solution like GEM. You can literally roll out an enterprise-wide email management solution in one or two weeks versus months or years for a conventional client-centric solution. The cost differential between GEM and conventional system is enormous.

Conclusion

In a nutshell, our job at K1Corp is to seek out the most common causes of business 'pain' and then provide a unique K1Corp solution. That is what we do. We find pain and then we provide a complete and 'painless' solution. In order to do this in the most efficient and cost-effective way possible we have formulated a unique K1Corp product design philosophy encompassing the three core principles of:

- Server-centric;

- Rules-driven; and

- Fully automatic solutions.

GEM embodies all these core principles in an easy to install, easy to manage, easy to maintain and extraordinarily cost-effective product.

Frank McKenna CEO