

INTRODUCING



***EXCALIBUR BULLETIN BOARD SYSTEM FOR
WINDOWS
VERSION 1.0***

This document was compiled, written, and edited in Microsoft Word Version 7.0 by Tim Robinson, Eric Weber, Russell King, and Ty Maple.

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GETTING STARTED

Excalibur is an easy system to set up... especially if you have set up a BBS before. You could probably do a tolerable job of setting up your BBS simply by pointing and clicking and reading the on-line help provided by Excalibur. However, you could do a more thorough, error-free job by going through this little step-by-step set of instructions.

The instructions given assume you have a completely empty BBS database. Excalibur's install comes with some preset database information. This is OK. If some of the presets fit your needs, use them. If not, delete or overwrite them.

THE HOLY GRAIL



The Holy Grail database must be operating before anything will run on the Excalibur host. Holy Grail is more than just a database, it also coordinates activities between two or more connections, distributes internet links, and oversees system settings.

You also have an important decision to make: do you want the BBS to start automatically with Windows? If the answer is yes (probably), then you need to drag the Holy Grail icon to your Windows **Startup Folder**. If not, then you must manually run Holy Grail before you run anything else.

When you start Holy Grail do not expect it to do anything. It is meant to run in the background and manage your system. Simply minimize it and move on to other things like Arthur..

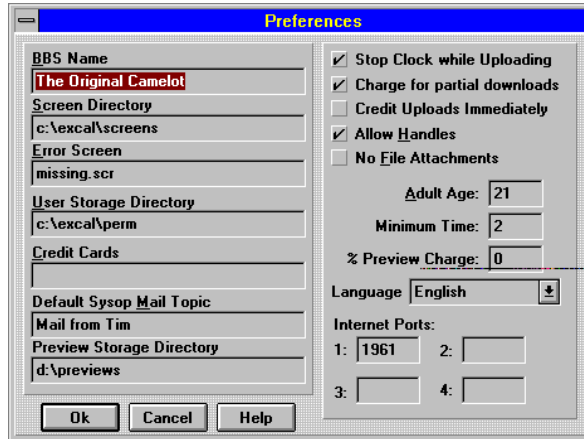
ARTHUR MAINTENANCE



To set things up for your BBS, you must also run Arthur to access the system settings. Arthur can run without Grail running, but this will enable Arthur Maintenance Mode. Arthur Maintenance Mode is not needed to setup the BBS.

SETTING UP GENERAL SETTINGS IN ARTHUR

The first thing you need to do is setup the basic settings for your BBS. You can do this by opening Arthur and selecting "**S**ystem**S**ettings**G**eneral..." to display the general settings.



BBS Name

Give your BBS a name. Uniqueness certainly helps. Some vendors of software use your BBS name and a code as a form of authorization of the software you buy from them, so make sure the name you choose is one you will really like, not chosen on a whim.

Screen Directory

You now need to pick a directory where your BBS's Merlin Screens will be saved. We recommend a directory named **SCR** as a sub-directory below the one where your Excalibur system files are placed. This means your likely location should read **C:\EXCAL\SCR**. The Install program creates such a directory, but if you choose a different one you will have to create it yourself.



Excalibur's presentation to the users is done by graphical screens. These screens are designed by the Merlin screen editing tool.

For more information about Merlin refer to the online help that comes with the host BBS system.

Error Screen

Mistakes happen and you will occasionally leave out a screen from your collection. Should a user attempt to use a missing screen, something needs to be displayed. The Error Screen is the screen displayed in that situation.

A sample screen is supplied called **missing.scr.** and may be used as your error screen.

User Storage Directory

Excalibur is flexible and can use Plugins to increase functionality. Plugins sometimes need their own file-space for storing information permanently. You need to provide a directory for this permanent storage. Enter the name of a directory to use for permanent storage. This directory will not be created for you and must exist before being used.

Plugins are .DLL files that are used when users are connected to your BBS and can do an unlimited number of things. Excalibur Communications Inc. supplies some sample plugins, sells others, and other developers have created a large collection of plugins to be used by Excalibur.

Credit Cards

If you can process credit cards, you will want to list the credit cards you can handle in the Credit Cardentry. If you can handle more than one Credit Card you can separate the names with a vertical bar (**SHIFT-|**). For example: **Visa|MC|Amex|Discover**

Default Sysop Mail Topic

Now for some personalization. As a sysop, you will often be busy sending people mail. It gets a little tiring trying to think of a reasonable topic for every message you send to a user. This is especially true when your messages would be shorter than your topic, like: "Frank, your access has been upgraded," or "The files you requested were obsolete and were deleted." To save time, fill in a default mail topic. Something like, **Note from the Sysop** will do.

Preview Storage Directory

This directory must also be created before you can use it. It's primary use is to store all preview images that you build on your BBS.

Stop Clock while Uploading

Users normally have a limited time allowed on-line. Do you want the access clock stopped while they upload files to your BBS? Usually, yes. It is a decent reward for contributing to your BBS. There are occasional abuses, like someone sending you their system file .just to take up time. Fortunately, these abuses are easy to spot and deal with.

Charge for Partial Downloads

As for downloads, users typically have a limited number of files they can download. Do you want to charge a file download against a user immediately? Or only after the user has received a file completely? Files are usually unusable if the user halts a download before the end, however, this may not be true for images. Charging for partial downloads is the more restrictive option, but it may be necessary.

Credit Uploads Immediately

Do you wish to credit uses for uploaded files immediately? If so, select this. This will only have meaning if you use file ratio to control download limits. (See the topic **Setting up User Limits** below for details on this.)

Allow Handles

Do you want your uses to have handles? Turning off handles can sometimes encourage more decent behavior from your users since they will know each other by name. On the other hand, you might want to give your users anonymity when they use your BBS.

<p>Handles are alias' used by users as a means of recognition. A Handle can be anything from "John Doe" to "Genisis".</p>
--

No File Attachments

Do you want to allow uses to have file attachments to their mail? Users appreciate this, but the downside is that you lose disk space to the attachments.

Adult Age

You might also want to choose the age at which a user is considered to be an adult. There is a flag called **~adult** that is set when the difference between today's date and the user's birthday is in excess of the number of years you set here.

Minimum Time

If a user connects and has run out of time on your BBS you obviously want to notify the user, but how long can that notification be? Set the number of minutes a user can be connected if the user is out of time. Two minutes can be considered reasonable.

Preview Charge

Do you want to charge the user for viewing previews? If so, how much? Reasonable amounts are 0%, 50% or 100%. The byte size of the preview is charged against the user's download limit. Enter the percentage in the PreviewCharge field.

Language

Finally, what language do you use as the default language for your BBS? Select the language from the Language list.

Internet Ports

The internet port settings default to 1961 and blanks. Whether or not you have a net connection, you should leave these alone. (See ***Setting up an Internet Host*** for details on changing this.)

SETTING UP SOME SIMPLE THINGS

Before going on to some non-trivial settings, you might want to take a moment and double-check the defaults of some settings under the menu option **System|Settings**. Since this is your first time to set up an Excalibur BBS, you will probably ignore these settings, but it is smart to ignore things intelligently.

Alternates

The settings found under **System|Settings|Alternates...** will be completely blank unless you have purchased a separate Plugin for processing mail or uploads. Any installation of alternative

mail/upload processing should contain its own installation instructions.

Quick Chat

The quick chat settings found under **System|Settings|Quick Chat.** are short-cuts for doing a lot of common typing when chatting with users. You might set the first one to **This is [your name]. Can I help you?** That way, when a user pags you, you can give a quick greeting simply by pressing Shift-F1. This is a strictly optional feature, but it can be handy at times.

Drive Remap

You only need the **"System|Settings|Drive Remap..."** feature if you have two or more computers networked together and Arthur is connected to Grailvia the network. (For details, consult **Setting up Drive Remapping**)

SETTING UP USER LIMITS

It is important that you have a scheme in mind for controlling how much time on-line that you give your users, and how many bytes of files they can download. There are two general ways of limiting users' time on your BBS, and three general ways of limiting their bytes of download.

Setting up userlimits can be accomplished in one of two ways. You can either edit a single user by going into the User database found under **Tools|Users|Security...** or you can edit an entire Template by going into the **Tools|Templates...** section.

Template Edit					
Template # 0		Default User			
Byte Limit per:		Time Limit per:		Security Flags	
Call		Call		New Flag download ↓ Add Delete OK Cancel Help	
Day		Day			
Week		Week	90		
Month		Month			
Forever		Forever			
File Ratio 6		Byte Ratio 6		Balance \$10.00	
Files Uploaded 1		Bytes Uploaded 100000		Days to Expire 60	

Time Limits

One method of limiting uses is to say "You have X number of minutes for your membership. When you use up that time, you must pay for a new membership." This limit is accomplished by setting a user's "Forever" time limit to the desired amount. This will probably be in the thousands of minutes for an acceptable BBS membership.

A more common membership scheme is to say to your uses "You have X number of minutes allowed per week." Or you can do this by month or by day. To set this, just put the number of minutes in the Day, Week, or Month settings for the user. You can limit a user's time on per call, but that doesn't make for a good general access BBS. You might give people 10 hours a week connect, but limit the per-Call time so that the user can't stay connected more than 60 minutes.

That way the user is forced to disconnect at least briefly to allow other users to connect to a very busy system.

In the event that you set two or more limits for time on, **the most restrictive limit applies** when the user connects. For example, if you allow 10 hours a week and 1 hour per call, and the user has used 9.5 hours of connect time in a week, then when the user connects, the limit will be 30 minutes, not the 1 hour per call.

After the appropriate time limit (Day, Week or Month), the user's time will be set back to the maximum. The "Forever" time will just creep down to zero, whereupon the user must meet your BBS's policy on re-adjusting the time.

File Limits

Like time limits, you can give a user a fixed number of bytes for a membership which a user can use until the bytes run out... then it's time for a new membership. Set this kind of limit by setting the "Forever" byte limit to the desired amount.

Excalibur uses flags for controlling system security. These are simply names that are stored in the database for each user. The presence of a flag indicates that the user has the flag. If it is missing, then the user lacks that security flag. There are also special flags that begin with ~ that are calculated flags. These flags are not stored in the user's database record, but calculated when the user connects. For example, ~adult to indicate that the user is an adult, or ~expired to indicate that the user's membership has expired, or ~hispeed to indicate a connect speed over 2400 baud.

See **Appendix A** for a complete list of flags.

You can also grant a user a fixed number of bytes per Day, Week or Month. Unlike time limits it is not really practical to set two limits for download bytes. It is permitted, yet will not likely be found useful.

After the appropriate time limit (Day, Week or Month), the users' bytes will be set back to the maximum. The Forever bytes will just creep down to zero, whereupon the user must meet your BBS's policy on re-adjusting the bytes.

The last method is to use file ratios. This is the ideal scheme for a "free" BBS where you expect your users to contribute before being able to download. It works like this: Suppose you set the byte ratio for the user to **6:1**. This means the user will be able to download 6 bytes for every 1 byte uploaded. Upload a 100K file, you can download 600K of other files. The File ratio works the same way. If you set it to **10:1**, then the user will be able to download 10 files for every one file uploaded. These two limits can be used together, or individually (although just having a file limit is not very useful).

The proper syntax for entering a ratio and their respective fields is as follows:

- ♦10 for a 10:1 ratio
- ♦20 for a 20:1 ratio

Simply enter the first digit in the ratio and it will always be calculated to 1.

Blank Limits

As a final note, be aware that a blank entry for a limit means "unlimited." If all the limits are blank for a user, then that user will have unlimited time and unlimited download. This is a nice feature for your trusted friends, but not for the general public.

Just because blank is unlimited, don't panic and feel you need to put something in every field. Remember that the most restrictive limit is the one that applies. Unlimited time for a Week or a Month would be capped by a 120 minute limit per Day, if 120 had been entered into the **Per Day** limit field.

SYSTEM SECURITY

It is such a cruel world. You will find that people will take advantage of your generosity on your BBS much too quickly. Toward taming file and message access, Excalibur has a complete security system. Hopefully, you have a time and file limit scheme

in your head. Now read this section and consider a scheme for protecting access to your BBS.

Since BBS design varies from computer to computer, there is no one right way to set up security. The best thing to do is understand exactly how Excalibur sets up security.

Overview

Excalibur's security for files and messages is set in a hierarchical fashion. There are three separate security levels:

1. System-wide
2. Conference-wide
3. Library Specific

File Security

Default Conference Access	
Files	Messages
Upload <input type="text"/>	Read <input type="text"/>
View <input type="text"/>	Write <input type="text" value="policy"/>
Download <input type="text" value="download"/>	Add Topic <input type="text" value="policy"/>
View New <input type="text" value="sysop"/>	Kill Own <input type="text" value="sysop"/>
Download New <input type="text" value="sysop"/>	Kill Others <input type="text" value="sysop"/>
Replace <input type="text" value="sysop"/>	
<input type="button" value="OK"/> <input type="button" value="Cancel"/> <input type="button" value="Help"/>	

Here is how it works: With no security set, any user can do anything on your BBS... write messages, download files, view new uploads, etc. This is clearly not desired. When a security flag is set on the System-Wide level, then, for all libraries in your BBS, only those users with that flag may have that particular access. For example, suppose you select **System|Settings|Security** and put the word **download** in the "Download" field. From now on, for a user to download from any library, the user must have **download** in his/her collection of flags.

The way ConferenceWide security works, is that a flag placed in a conference's security settings will **override** the System-wide

settings. For example, if you have a conference for paying user only, you could place the word **paid** in the Download setting for that conference. Now a user must have the **paid** flag in order to download from any of the libraries in the conference.

Finally, you can place a flag on a specific library in a conference. This flag will over-ride any flag settings for System-Wide or ConferenceWide security. For example, you could place a flag called **sysop** in the Download field for a specific library and only users with the flag **sysop** in their settings can download from that library.

Message Security

Message security is identical to library security except it has only two levels: System-Wide and ConferenceWide.

Specific Controls

There are 11 specific behaviors that the security flags control. These are:

Upload

When users have *Upload* access to a library, they may add files to that library, either by selecting the library and uploading to it, or, if possible, by opening the contents of the library and uploading to the open list.

View

When users have *View* access to a library, they may open the library and see the files available.

Download

Users who have *download* access may download files from the library. Download access implies **View** access even if the user doesn't specifically have **View** access.

View New

Users with *View New* access may see files that have the **New File** check-mark. *View New* implies *View* access.

Download New

Users with *Download New* access may download files that have the “New File” check-mark. *Download New* implies *View New*, *Download* and *View*.

Replace

Users with *Replace* access may upload to a directory and write over existing files. Use this with extreme caution. *Replace* access should only be given to the sysop, or to associate sysops at the conference or specific library security level. *Replace* access implies *Upload* access.

Note: For the file access security if a user has no access to a library, not even upload access, the library will not show up in the list of libraries when the user requests them. Consequently, you could have libraries in a single conference that no-one but those permitted will even know about.

Read

Users with *Read* access can read messages in a conference.

Write

Users with *Write* access can reply to messages in a conference, but not create new topics. *Write* access implies *Read* access.

Add Topic

Users with *Add Topic* access can create new message threads. *Add Topic* implies *Write* and *Read* access.

Kill Own

Users with *Kill Own* access can delete messages that have been marked specifically to those users or are from those users.

Kill Others

Users with the *Kill Others* access can delete any messages in the conference. Use this with caution. This option should only be set for those who are sysop or associate sysops.

Multiple Flags

Under some circumstances, you may want to test for more than one flag before granting a user one of the above permissions. You can combine two flags with the **~or** or **~and** operators. If you use the **~or** operator, then if the user has either of two flags (or both) then the user will have access. If you use **~and**, then the user must have both flags set.

This is best explained by example. Suppose you have three categories of users. Two of those are paying memberships. The less expensive membership gets the user a **level1** flag. The expensive membership gets the user a **level2** flag. Those unwilling to fork over any money don't get either flag. The level 2 users get special perks, but either level 1 or level 2 can download files from your BBS. So, for the Download security, you would enter the following:

~or(level1,level2)

Suppose you add a supreme membership later. Those users would get a **level3** flag. Now what? Not a problem, because you can combine checking for the **level3** flag with the above check just by putting both inside another **~or** operator. For example:

~or(~or(level1,level2),level3)

It looks weird, but it works. Suppose you have a class of user identified by having the flag **associate**. These users are, in a small way, like sysops. They maintain small domains on your BBS. Furthermore, let's say you have two separate portions on your BBS that are for members of those areas only. For one area, a user has to have a flag called **artist** to leave messages, in the other, the flag **programmer**. So, for the Download security for one library you would put **artist**, for the other, **programmer**

<p>NOTE: Flags are limited to eleven(11) lower case character only.</p>

CREATING A DEFAULT TEMPLATE

Now that you know the direction you want to take for the flavor of your BBS, you need to design how the system responds to a brand new user. How much time does that user get? Do downloads apply? Remember, a brand new user does not know you, your policies, or how your BBS is run... and you do not know the user either. You need to consider settings for a new user that will permit the user to investigate your BBS without running amok and insulting members in good standing, or stealing all your files.

Template Usage

You can use templates to save work in configuring memberships for your uses. Templates can be used when editing a user in the Template selection or in a Merlin screen by selecting the **Minimum Template** or **Absolute Template** action.

To create a template, select **Tools|Templates**. Then press **Insert** to create a new template (or select an existing entry and press **Enter**).

Since you have an idea of what you want for your BBS, fill in the appropriate limits for the user. In the example above, a new user has 90 minutes per week access, no security flags are set, and the user must maintain a 6:1 byte and file ratio for downloads. Also notice that the user's record of files and bytes is "seeded" with a file count of 1 and 100K of bytes. It is basically a faked upload of one 100K file. This gives the user an immediate download ability of 600K without contributing anything

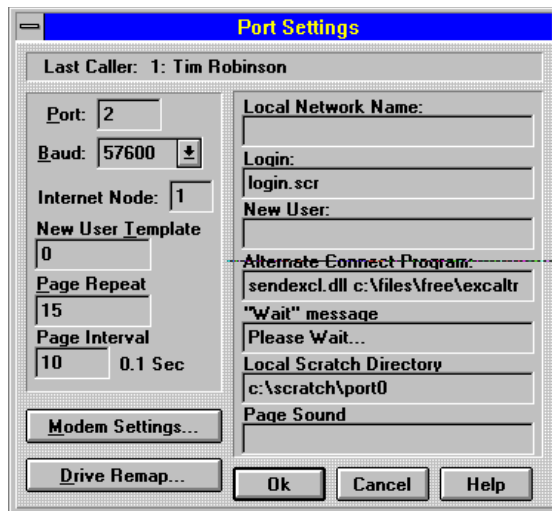
NOTE:
Never leave
'Bytes Uploaded'
blank. If no default
value is entered, place
a zero (0) in the
appropriate field.

(how generous). The new user even gets \$10.00 added to the account balance for credit against downloads which charge per download (even more generous). Finally, the moment the user connects, the user's membership is marked to expire in 60 days.

You can also create other templates to make your job as sysop easier when updating memberships, but they don't concern us for an initial setup. You need to move along to setting up the port that will use this default template.

SETTING UP PORTS

The concept of a "Port" as used by Excalibur does not necessarily mean "Serial Port" or "Communications Port." It did at one time, but with the addition of net connections, local connections and Internet connections it became acceptable to have a "Port" with only the serial port on the computer being dedicated to your mouse. But to allow users something to connect to, you need to create one or more ports in your database.



Select "**T**ools|**P**orts" or press **Ctrl-P**. You can create a new port by pressing **I**nsert, or you can edit an existing one by selecting the port and pressing **E**nter.

To make things even more confusing, you will see the word "**P**ort" with an edit field next to it. This actually refers to the Serial Port on your computer. Assuming you have a modem hooked to one of your serial ports, enter the serial port's number here. If your modem is on **COM2**, for example, enter 2 in the field. (Your mouse

is likely on **COM1**, but hopefully you know how your computer is wired together so you can correct this if needed.) You must also set the baud rate that you use to connect to your modem. This should be at least the baud rate of your modem, but preferably higher. However, if you don't have a high-speed UART for your serial port, this should be no higher than 19200 or you will get severe communication errors.

For the **New User Template**, enter the ID number of the template you created in the last step. For your own sanity, we recommend that your default template be template 0 and that you enter a 0 in the New User Template field for the port

Leave **Page Repeat** and **Page Interval** alone for now. You only need to change them if you do not like the way the computer beeps at you.

Local Network Name should be left blank unless you are running an internet connection and you have a multi-computer configuration. (See **Setting up an Internet Host** later after you have the basics set up.)

For the **"Login:"** field, enter **login.scr**. This is a sample supplied screen that will be the first screen a user sees after connecting. Although you can put a different name in here, you would be better off modifying the existing **login.scr** to suit your purposes. You should also enter **login.scr** into the **"New User:"** field. This will allow new users to see the same screen that all others see when they first connect.

What happens if someone connects to your BBS with a conventional terminal program? After a few seconds, the DLL named in the **"Alternate Connect Program"** will be loaded. We provide you with a DLL named **sendexcl.dll** which you can use to let this user download the Excalibur Client installer. What you need to provide is the full path and file name of the installer, **excaltrm.exe**. The normal path should be as follows:

sendexcl.dll c:\excal\support\excaltrm.exe

For the local scratch directory, use File Manager (or something like it) to create a temporary directory that the port will use. Enter that directory name (including drive) in the Scratch Directory field.

Every port must have its own scratch directory... especially on a multi-user system... or you will be inviting disaster.

The page sound is completely optional. If you have a WAV sound you want to hear when a usepages you, put in the file name you want to hear (the WAV file must be in your **C:\EXCAL** directory).

Finally, you need to set up your modem, but this should just be a matter of selecting **Modem Settings...** and then Selecting **"Modems..."** to get a modem list. Pick your modem out of the list and you should be all set.

CHECKING OUT YOUR SETUP

Your BBS is now operational. There is no content to it yet, but it is ready to accept connections. Now is the perfect time to check things out from a users point of view!



Run Camelot, the Excalibur host program and select **"System|Port."** and select port 0. (Note: for this discussion, we'll just refer to port 0. If you want to use a different ID, then use that number where you see 0.) If you have a modem attached, then you should see a note displayed about recycling, then the modem will be sent a reset command. You are ready to connect.

If you have a second modem and phone line, you could phone yourself. If not, you could have a friend call. But there is a better choice.

Local Login

A local login allows you to test your BBS without wasting a modem. In this mode you can see exactly what your user will see when they login into your BBS.

Run the Excalibur client on the same computer with Camelot. Create a dialing directory entry you will use to call yourself. Fill out the dialing directory just like you were going to call somewhere, but for the phone number, enter **!0**. Using that dialing entry, call your BBS. All communication between the two takes place in memory.

Go back to Arthur and select **"Tools|Users"** or press **Ctrl-U** and you will see your login name in the list of users. In fact, you will likely be the only user other than Sysop in the list since you are doing a first-time installation.

Camelot is not very practical if you have to manually select the port after it starts running, so you will need to modify the command line arguments to Camelot for it to run properly. Close Camelot if it is still running and Edit the icon's properties and check the command line. It should be something like **C:\EXCAL\CAMELOT.EXE**. At the end of the line, add a space followed by **-p0**. Select OK and run Camelot again. This time Camelot will start and immediately reset the modem on port 0 (If a modem exists on that port).

When setting up a Local Login it is important to understand what each function represents:

! - The prefix that indicates local login.

0 - The ID number for the local login port as displayed in **'ARTHUR|TOOLS|PORTS'**

Users login to the BBS through Camelot. For each user that logs on, one Camelot must be running!

What do you do if you run more than one connection? Just duplicate the icon, alter the properties for the new icons and substitute a different port ID for each copy, such as **-p3** or **-p7**. Just remember, each running copy of Camelot must use a different port, and the number after the **p** must be one of the port ID's found in the Ports list under **"Tools|Ports..."** in Arthur.

Finally, if you placed Holy Grail in your Startup folder, you should place Camelot there as well. When Windows starts up, your programs will all be loaded at once.

SETTING UP CONFERENCES

Time to flesh-out your BBS with conferences and file libraries. One bit of advice before getting started: Do not create too many

conferences at first. Get a feel for how your BBS runs before creating a flood of conferences.

Open the ConferenceList by selecting **ToolsConference** or by pressing **Ctrl-O**. Create a conference by pressing **Insert**, or select an existing conference and press **Enter**. Every conference has an associated message list (even if it is empty) and an associated library listing. A single conference can be used for a library, messages, or both.

As a starting point, create a conference titled **General**." Use this conference for general public discussion. Also, use this conference for holding your general files and uploads. That is to say, the libraries that you keep on your hard drive.

Let us suppose you also have a couple of - CD ROMs that you wish to swap each day. You should create one conference for each CD. It is unlikely that you will use these conferences for messages, just for the CD-ROM's, but you need the conferences anyway. You can load the files from your CD-ROMs right now, but you might wait until you have the basic setup complete. After that, see the on-line help for ***Building Libraries from a CD-ROM*** to load the files.

Using the Conferences Messages

There is little to do for the message portion of a conference other than take note of its ID number. You will use this number when creating screens with Merlin. In your screens, look for a button action called **Message Base**" and use the conference ID where it says **Conference**." For the **Title**, enter whatever you want displayed to the user when the conference is opened. For more information about Merlin, see Merlin Help.

As for the conference security hopefully you decided the direction you wanted to take for your BBS back when we discussed security. If it is necessary to put a security over-ride for a conference, now is the time. Edit the Conference and select **"Security"** to change the settings. Normally, changing message security for a specific conference is a special case, so you will probably leave this alone.

Using the Conferences Libraries

Like the message portion of the conference, you will want to take note of the conference's ID number. In Merlin, look for an action called **'File Library**" and enter the conference ID where it

says "**Conference**" and when the user selects this action from a screen, the collection of libraries found in the conference will be displayed to the user.

Also, like messages, you can over-ride the general security settings for all the libraries in the conference. Actually, you will not likely over-ride the security settings for the libraries at the conference level. More likely, you will alter security at the level of the individual libraries.

SETTING UP LIBRARIES

Adding Libraries

Let us suppose for the moment that you are an avid user of BBSs... which is probably true. That means you have a good sized collection of image files, sound files, archives files of games and system utilities. Those files are as good a place as any to start for purposes of setting up your libraries. Organize your collection. Make a directory on your hard drive that will hold your BBS files. Under that directory, make several other directories to hold different categories of files. For example, suppose you broke your collection into the following categories:

Games

Utilities

Images

Sound and Music

Miscellaneous

So you create matching directories on your drive named (respectively):

C:\EXCAL\FILES\GAMES

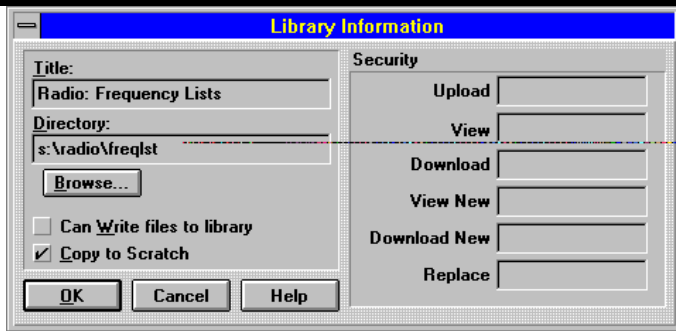
C:\EXCAL\FILES\UTIL

C:\EXCAL\FILES\IMAGES

C:\EXCAL\FILES\SOUND

C:\EXCAL\FILES\MISC

You should now spend a little time sorting your collection of files into the above directories. Now what do you do with them? Open the conference list and select the conference into which you plan on putting these libraries. Select the pull-down menu "**Conference Libraries**". Now you will now see an empty library list.



Press **Insert** to create a new Library. Enter a title for the library. Let us go with the games files first. Enter **Games** for the title. For the directory, enter **C:\EXCAL\FILES\GAMES** (or you can select the **"Browse..."** button and just point and click to select the directory). Do you want your users to upload new games to this directory? Most likely, yes, so check the **Can Write files to library** check box. This is not a CD-ROM the files are on, so do **not** select **"Copy to Scratch"** (Look at the online help file for more information about the **"Copy to Scratch"** Directory). If you have already set your General Conference Security settings, you can leave all the security entries blank.

Adding Files and Descriptions

Now you have a library set up. Next you need to put those files into the database so your users can see them. Select **"Library|Files..."** and you will get an empty list for your Games directory. Fill the list quickly by selecting **Files|Load Files** and after a moment, the list will have all your files from the games directory. Ah, but the descriptions are all blank! Unfortunately, there is a little bit of grunt work you have to do to finish this. Normally, the person uploading the file has the obligation to describe the file. However, *you* are the person doing the uploading of all those files, so *you* will have to describe them. Double click on each entry and add a description. Let's save you some trouble:

Consider: For the sake of size and speed, files on BBSs are normally archived. The original creator of the archive has probably already described the archive's contents. The common name of the description is **fileid.diz** or possibly the description is in a file called **readme.txt** or **read.me**. Finally, a clever Windows user like yourself probably already has a program that lets you extract and examine files in an archive file. Most desktop replacement

programs come with a utility to do this. So how do you put all this together to save you time in editing file descriptions?

Step 1: Run Windows File Manager and select "**File|Associate...**" and enter the extension **ZIP** and set that to associate with your archive viewer. Do the same with other archive types, such as **ARC** or **ARJ**.

Step 2: Exit File Manager and return to Arthur. Double click on an archive entry in your file list with your **RIGHT** mouse button (or select an entry and use **Files|View**"). Your archive view will run and show you the file contents. Open up the description of the archive with your viewer and copy the description to the clipboard.

Step 3: Close the viewer and then select the file from the list and press **Enter**. Place your cursor on the long file description and press **Shift-Insert** or **Ctrl-V** to paste the text you copied into the description.

Step 4: Repeat steps 2 and 3 as necessary to add the descriptions to the files. Some archives lack descriptions, so you are on your own with those.

One more thing you have to do to the files in the library. Select "**Files|Global Change|Clear New**" so that all these files are not marked as new files. Typically, you do not want your users to be able to download files until you have validated the files, so your security setup should reflect this. Consequently, these newly loaded files will not be available to anyone until you have cleared the "New File" settings.

After you have completed describing your files, do the same thing to the remaining libraries.

Whew! Sounds like a lot of work. It is. We have automated a lot for you, but describing files is something that takes considerable human intervention, and that human is you. You do not want to leave the file descriptions blank. Users do not want to download

files when they do not have a clue what those files are. Fortunately, as your BBS grows (and it will), your users will be providing the descriptions along with their uploads. The dirty work just occurs when you add a big collection of files yourself.

Images

A collection of images can be a little easier to deal with. After you have loaded a collection of files into a library and those are all image files, select **Files|Global Change|Build Thumbnails**. This will build the little thumbnail images and add the image dimensions to the file descriptions. Go fix some coffee while this happens. It can take a while if you have a lot of files. After this is finished, select **Files|Global Change|Previews...** and go have another cup of coffee. See? We *did* automate a lot of this (be sure that the **Preview Storage Directory** you specified under **Arthur|System|Settings|General...** actually exists physically on your hard-drive).

A **preview** is an image that uses can view while online.

Previews will only be seen in black and white unless the Sysop builds them.

EXTRA SETUP INFORMATION

There are a couple of other settings you should check out before calling your BBS complete. Check **System|Settings|Logging...** and decide the system events you wish to keep track of. Secondly, if you give your users an opportunity to page you, you might wish to set your paging hours in **System|Settings|Paging...**

Dr. Tim



Finally, you want the utility Dr. Tim running while your BBS is running, so add that to your startup folder. Why do you want this? Dr. Tim is crash protection in case of bugs. It eliminates the dreaded GPF dialog that shuts down your computer. Camelot and Grail are the most stable programs anywhere, so the likely crashes will come from Plugins. If you are getting crashes, check the Dr. Tim log generated by the crashes. It reports what crashed your host. If the culprit is one of your plugins, contact the vendor of your Plugin and send them the remainder of the gobbledy-gook in the log file. It should help the vendor pinpoint the problem.

Everything should be in place now. Your BBS should run. The only thing left is to put a face on your BBS. That is, run Merlin and be artistic, witty, clever to create a BBS environment which reflects you and the users you wish to attract. We will not describe Merlin in this "Getting Started" information. You should consult Merlin's online documentation for use, and load the provided sample screens to see examples of how it is all accomplished.

CONTACTING EXCALIBUR COMMUNICATIONS

Before calling, check the ***Common Questions*** to make sure you do not waste a phone call.

If you are setting up the BBS for the first time, and you are experiencing problems, make sure you have read this manual in it's entirety. If you are still having difficulty, make sure you have your serial number handy, and call us. You can contact us at the following:

Excalibur Communications, Inc.

2530 East 71st Street, Suite E

Tulsa, OK 74136

Technical Support 918-496-7881

Business Hours: 9:00am to 5:30pm CST

Fax: 918-491-0033

BBS: 918-496-8184

Internet E-Mail: excalibur@excalbbs.com

World Wide Web: <http://www.excalbbs.com>

COMMON QUESTIONS

Why do my previews only show up in Black and White?

Only pre-built previews show up in color. If Camelot has to build them while the user is online, they wind up in a smaller, black and white format which takes less compute time to build than a color preview would.

Why can't I see all the E-mail on my BBS?

Select "**Mail|User Mail...**" and blank the userID (not zero) and all user mail will show up.

How do I enable Caller ID?

This varies widely from modem to modem since this is a new feature of most modems. You will have to check your modem's manual for the control string to enable Caller ID for your modem. Add that string to the modem initialization string in the modem settings for the port. Then run Camelot and initialize the modem using the menu "**System|Init Modem**".

What does the Scratch Directory do?

It has two purposes: 1) When "Copy to Scratch" is selected for a file library, files are copied to this directory before sending to the user. 2) Plugin developers may use this for temporary disk space for their plugins. Normally, you should just set this directory and forget about it.

Why does "Preview.." in the file list only make one preview for me?

The preview menu selection you did was the single image preview. What you want is to select **Files|Global Change|Previews...**

When I put Grail and Camelot in the Startup folder, Camelot runs first. What do I do?

Windows should run things in the order in which you placed them in the folder. Sometimes this doesn't happen. The only sure

cure is to remove them both from Startup. Next, edit **windows.ini** and look for the section that starts with **[windows]** (it should be right at the beginning) and below that find the line that reads **run=**. After the **=**, add the explicit path and file names of Holy Grai and Camelot separated by semicolons. The line should look something like:

```
run=c:\excal\grail.exe;c:\excal\camelot.exe -  
p0;c:\excal\camelot.exe -p1
```

Possibly there is already something after the **=** on the line if you have some previously installed program that automatically starts when you run Windows. Just add a semicolon and add the programs as suggested above.

Why does my only connection report that too many uses are connected?

You entered an incorrect serial number when you installed Excalibur. You could re-install it, but there is a simpler technique. First, make sure everything relating to Excalibur is closed. Edit the file **grail.ini** in your Windows directory. On the line which reads:

```
Serial=xxxxxxxxxxxxxx
```

Change the number where the x's are to your correct serial number assigned to you by ECI.

NETWORK CONFIGURATION ISSUES

Overview

There are important considerations when running a multi-computer Excalibur system. Windows can only handle 8 ports (9 with some comm port drivers), so to go beyond 8 lines, more than one computer must be hooked together via a network. If you are not running networked computers, this will not apply to you.

Drive Remapping

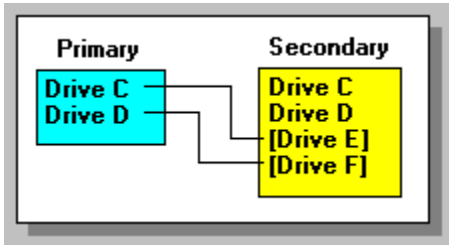
Drive remapping for Camelot is on a port-by-port basis since Camelot loads its settings from the central database. However, Arthur keeps its drive remapping in an .INI file on individual computers. When you start up Arthur for the first time on a second networked computer, the drive remapping may not be the way you like. Read **Setting up Drive Remapping** below for full details on drive remapping.

Network Strain

Be aware of how network traffic flows on your computer. Files can easily be shared on a network and your libraries safely distributed between the hard-drives of different computers. Normally, phone-line speeds are a tiny fraction of network card speeds so even many file downloads won't drain your system. However, shared CD-ROMs are a completely different issue. Because of the way CD-ROMs are accessed -- especially a collection in a jukebox -- downloads can crawl to a near halt when many users are downloading from CD. It becomes crucial that you set **"Copy to Scratch"** for all libraries that access a CD-ROM. Make sure that the scratch directories for your net connections refer to local drives.

SETTING UP DRIVE REMAPPING

Drive re-mapping is a simple scheme for allowing you to distribute your BBS between several different computers. This is probably best explained by example. Suppose you have two computers, both with a C and D drive. Your primary computer holds the vast bulk of your BBS files. The secondary computer holds scratch directories for running the BBS, the remainder of the disk space is taken up with non-BBS files (like your word-processor, spreadsheets, etc.).



If you set up your BBS completely on the primary computer, then run one of the Camelotnodes on the secondary computer, there will be confusion on the secondary computer over where to find the files. For example, if you have a library called "Windows Games" and its files are stored in **D:\FILES\WINGAME** on the primary computer and a user connected to the secondary computer tries to download a file called **WINBLAST.EXE** from that library, then Camelot on the secondary computer will try to get a file called **D:\FILES\WINGAME\WINBLAST.EXE**, but the secondary computer will not have any such file on its D drive.

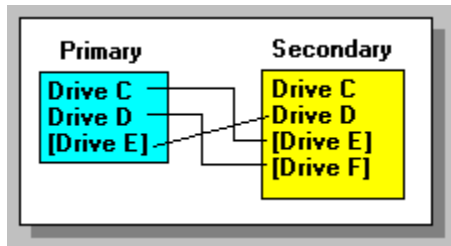
Enter the drive map. When you create ports on a networked system, you will have to make a drive map. This means that a port created for use on one computer will not work on another. You must tailor the drive maps to suit each computer. In this example, for ports on the primary computer, you should leave the mapping alone, in other words, map A=A, B=B, C=C and D=D, etc. For the second drive, you would map A=A, B=B, C=E, and D=F. Consequently, when a user wants the file **D:\FILES\WINGAME\WINBLAST.EXE**, it will become **E:\FILES\WINGAME\WINBLAST.EXE** and *that* file can then be found.

In Camelot, drive mapping applies only to three things: 1) paths to libraries, 2) Merlin screens, 3) permanent data for plugins.

The path to scratch directories is not affected since they are assumed to be local directories.

Arthur can be run on a secondary computer, but unlike the drive remap in a port setting, the drive map is not stored in the database. Instead, it is stored in ARTHUR.INI on each computer you run Arthur. You will have to set up the re-map on all the computers. Remapping only applies to files in libraries for Arthur.

Drive mapping can be applied to more than two computers. It can be applied to the primary computer to allow files to be distributed between computers. For example, if you modified the setup above to look like this:



Then drive mapping for the primary would again stay the same, but on the secondary, the drive map would be A=A, B=B, C=E, D=F, and E=D. The trick here is to remember to make the auxiliary computers view things from the primary computer's perspective.

NETWORKING EXCALIBUR

This section describes setting up Camelot Highway, Arthur and Grail for network use under Windows for Workgroups 3.11. Arthur, Highway and Camelot are fully NetDDE aware and using these programs under Windows for Workgroups is very easy.

This section refers to the **Server Computer** as the computer which runs Grail and contains all the database files and screens for running the Excalibur BBS. The **Client Computer** is any computer which wishes to communicate with Grail on the Server Computer. (Note: Be sure you don't try to run more nodes than that for which you are licensed)

Setting up Grail

DDE Servers under NetDDE normally need no modifications. However, you need to alert Windows to the presence of Grail on the network. This can be accomplished in one of the following two ways:

Net DDE Share Manager

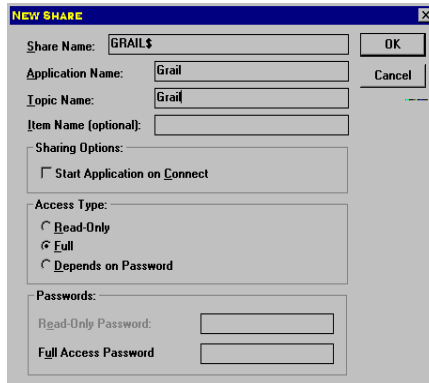
Use the Net DDE Share Utility (DDESHARE.EXE) and create a share named "GMAIL\$" (without the quotes). Set the share properties as follows: The **Application Name** is "GMAIL", the **Topic Name** is also "GMAIL" (case doesn't matter, but don't put in the quotes). The **Item Name** should be blank. Don't set **Start Application on Connect**. Under **Access Type** select **Full**. You shouldn't need password protection for Grail, so leave **Full Access Password** blank.

Manual Entry

If you lack the DDE Share Utility, it is easy enough to modify the SYSTEM.INI file (using Notepad or any editor). In the section marked [DDEShares] add the following line:

GMAIL\$=GMAIL,GMAIL,,15,,0,,0,0,0

And, yes, all the commas are important. You do not need to re-start Windows for this to take effect. NetDDE will look this up when you connect using it. Shown on the next page is an example of the DDE Share utility set up to share Grail



Installing Software on Client

To run Arthur on a Client Computer (the one *without* Grail), you first need to put the appropriate executable and DLLs on the Client computer. There is currently no automated method for installing *just* Arthur on a computer. You can do a full installation of the Excalibur BBS from your original disks and delete anything you don't need. Alternately, since you are allegedly connected by a network to the Server computer, you can copy the files you need in just a few moments.

Using file manager, copy the following files from the Server's WINDOWS\SYSTEM directory to the ClientComputer's WINDOWS\SYSTEM directory:

BWCC.DLL **OWL250.DLL**
BC450RTL.DLL
CTL3DV2.DLL

From the Server's Excalibur directory (where you told the installation program to install the files) copy the following files:

ARTHUR.EXE
CAMELOT.EXE
HIGHWAY.EXE
***.DLL** (that is, all the DLL files)
MODEMS.EXC

If disk space is not at a premium, you can just copy all the files from one Excalibur directory to the other. There are no negative consequences of doing so.

If it is your intention to run Merlin on the ClientComputer (there is currently no "GrailAwareness" in Merlin) you can feel free

to copy it to the Client Computer. Don't forget to copy and install the EX*.TTF files from the system directory as well.

Finally, you will need program icons (and possibly a program group) so you can run the programs. This is done using "File|New..." from Program Manager. (If you are unclear how to do this, consult your Windows documentation.)

Running Arthuron the Client

Arthur would generally have no need for command line arguments. However, before Arthur starts, it has to know that Grail is running, either on the local machine, or somewhere on the network. Edit the command line for the Arthuricon and enter the Server's Networkname on after ARTHUR.EXE with the "-n" switch. For example, if your server's network name is "myserver", the command line for Arthur would read:

C:\EXCAL\ARTHUR.EXE -nmyserver

Now you can run Arthuron the Client Computer by selecting the Arthur Icon. This same procedure is used for Highways as well.

Running Camelot on the Client

To run Camelot on the Client Computer, you must add the server networkname as you did with Arthur. Edit the command line for your Camelot icon. After the number which is the port Camelot is supposed to use, enter a "-n" (with no quotes) followed by the Server's network name. There may be no spaces after the "-n" nor in the network name. For example, the command line might read:

C:\EXCALIBR\CAMELOT.EXE -p2 -nmyserver

The port number may be omitted. In which case, you will have to select the port manually from within Camelot

Problems

We hope you don't encounter any problems outside of doing a correct setup as described above. If requesting information in Arthur (like selecting "Tools|Users") fails to produce data, you might do a NetDDE check. (If Arthur gets stuck with the "Getting Users..." box displayed, press Alt-F4 to make the box go away and then immediately exit Arthur.) Make sure that NetDDE is working by trying the Microsoft supplied programs **Clipbook** and **Chat**. If these are failing to send data or communicate, you need to check your network settings or Windows Setup. Providing information on

network installation, configuration or repair is beyond the scope of this document.

If the server responds adequately to requests for very small things like your portlist or system settings when in Arthur but gets *painfully* slow in requesting any volume of information like your user list or files, you may have a network problem that the designers of NetDDE foresaw, but the version supplied by Microsoft disables the fix (with good reason... there is a 5% system-wide performance penalty to be paid). To put the fix back in, create a file in your WINDOWS directory called NETDDE.INI and add the following two lines to the file:

```
DefaultTimeSlice=55
```

The 55 is in milliseconds and we suspect you can experiment with this figure to affect performance. Unfortunately, there is not a lot of information on what is supposed to be in this INI file. Fortunately, the only computer on which we have successfully created and fixed the problem was an early Pentium.
Setting Up Grail and Ports

Using Windows 95 and NetDDE

There are a few differences that come into play when using Windows 95 and NetDDE when compared to Windows 3.11. You must run netdde.exe from your startup group in Windows 95. Configuring the DDE shares is actually easier in Windows 95 than Windows 3.11. Just follow these directions:

1. Do a full backup of the drive containing your resource files. You are about to make manual changes to a critical portion of Windows 95. If you do something minor wrong, you could lose all your resources and you will have no-one to blame but yourself.
2. Run the Registry Editor. ("c:\windows\regedit.exe". This may or may not have an icon on your system.)

3. Select "Registry|ImportRegistry File..." and select the file "GRAIL.REG", which is included in the install of Excalibur, and click "Open."

4. Close the Registry Editor.

The only thing left to do is modify the command lines for Camelot and Arthur as described in the previous section.

SETTING UP AN INTERNET HOST

Important Disclaimer

Before you go too far, this set of instructions assumes you have a complete TCP/IP connection to the internet via Winsock and a permanent IP. Explaining how to set this up is not only a little beyond the scope of these instructions... it is **not** beyond these instructions. This is not by any means an internet tutorial. Excalibur Communications, Inc. is not in any position to help you set up any of the hundreds of ways an internet connection can be connected. We wish we could, but for now the best we can do is help you put your existing net connection to good use.

Getting Started

Actually, there is another potential stop-sign. You need to be licensed by ECI to use a net connection. If you do not have the internetworked version of Excalibur, you need to upgrade before using these instructions. But, assuming you have what you need, carry on.

The King's Information Highway



You will need to add The King's Information Highway to your startup along with your other programs. Affectionately known as Highway, it forms a path from your network connection right to an available Camelot. That is the first half of setting up a net connection.

You need to double-check one setting in Arthur. In your "**System|Settings|General...**" there are four fields labeled **'Internet Ports.'** At the very minimum, the first one should be **1961**. The rest should be blank. **1961** is the net port the Excalibur Client will use by default when connecting to you. Please don't feel an extraordinary urge to fill in and use other net ports. We provided four possible net ports as

It is important that you start each application in the following sequence:

- ♦ **Grail**
- ♦ **Connect to the 'NET**
- ♦ **Highway**
- ♦ **Camelot**

If you do not follow these guidelines it is unlikely that your users will be able to connect to your BBS through the 'NET.

serious overkill. Excalibur HQ BBS only uses two: one for support for our Sysops, the other for new users and the curious. We maintain two sets of roll-over phone numbers for exactly the same reason. Under normal circumstances, one net port should do the job for all the nodes you run on the 'NET.

The other half of your setup includes creating CamelotPorts designed to work with Highway. This is simple enough. In "Tools|Ports..." edit the settings for your **Internet port**". Enter 1 for internet node number one defined in your *General Settings*. (Naturally, if you *have* defined other net ports, you could enter 2, 3 or 4 in this field.) That is all it takes. When Camelot is set to use this particular port and your internet connection is live, then users can connect to that Camelot node via the internet.

Important Considerations

A single CamelotPort can be used for both phone-line access and net access. If a net connection uses the port then the modem associated with the port will be taken off-hook until the net use is gone. Do you normally want this situation? Probably not. The only reason may be that you have as many modems as you are licensed for, but still want to accept internet calls. If this is not an acceptable situation, you might consider an upgrade.

For Camelot Ports which are exclusively for the internet you should set the Serial Port number to 0.

You can have more than eight internet connections on one computer. The limit of 8 per computer is a Windows limit on how many serial ports may be opened. Since all net connections come through one line (this could be a serial port, it could also be an Ethernet connection which doesn't use a serial port at all), the serial port limit no longer applies.

Important Security Issues

It has come to our attention that there is a potential breach in security for systems connected to the internet. This breach is not caused by Excalibur, but is caused by a lack of education and documentation on the security schemes for computer systems wired to the internet. It is important that you take the appropriate measures to secure your system before you make it accessible to the internet.

You will need to secure the shares of all of the hard disk drives on your system with a password. For instructions on doing this, consult your Microsoft Windows documentation, or contact Microsoft. You will also need to secure all of the applications that connect to Grail Arthur, Camelot, and Highway. To do this, follow the instructions below.

In your grail.ini file, add the following line:

Password=xxxx

where xxxx is the password you want to use (this **IS** case sensitive). Then, on the command lines for all of the applications that connect to Grail add the -wxxxx. For example, your command line for Arthur will read C:\EXCAL\ARTHUR.EXE -wxxxx. If you are running on a local network you would add the password switch after the machine name switch.

How does it work?

When Highway detects a net user, it asks Grail for the first unused Camelot that is ready for a net connection. If there are no free Camelots, the user is given the equivalent of a busy signal. If so, then Camelot routes all its data to Highway as if it were a local connection. The data then goes to and from the net via Highway.

GLOSSARY

Arthur	Arthur is the maintenance utility for your Excalibur BBS. This is the program used to configure your ports, edit you userbase, edit messages, answer e-mail, configure libraries, and perform general maintenance to the BBS.
BBS	An acronym for <u>B</u> ulletin <u>B</u> oard <u>S</u> ystem.
Camelot	Camelot is the actual BBS host application. A user connects to Camelot to interface with the host BBS.
Dr. Tim	Dr. Tim logs errors and crashes that may occur within your Excalibur system. You can use these logs to determine what is causing the errors and crashes that appear on the BBS. A Sysop can also configure Dr. Tim so that it will respond to system errors in a particular way. Dr. Tim can either restart the application, reboot the server, or terminate the application causing the error.
Flag	Flags are words that are used within Excalibur's security system to limit a users access. A flag can be any word, no more than eleven (11) lower case characters.
Grail	The Holy Grail is the database engine that controls your BBS. Grail controls and compiles all the data on the BBS, coordinates activities between multiple connections, distributes internet links, and oversees system settings.
Highway	The King's Information Super Highway forms the path from your TCP/IP network connection to your Camelot nodes.
Local Login	A Local Login allows a Sysop to connect to their own BBS without tying up a phone line. A Local Login is used to test the BBS the same way a use would.
Merlin	Merlin is the application which designs and edits all

screens within Excalibur.

NetDDE by	NetDDE is the communication protocol that is used multiple Windows machines to communicate over a network.
Node	A node is an instance of the BBS host that is taking connections. Generally, the word "node" equates with "phone line" or "line". However, with the capability of using an internet connection to log into the BBS, one cannot use "node" and "line" synonymously.
Plugin	A plugin is an add-on application built for Excalibur BBS software. Most add-ons use the .DLL (Dynamic Link Library) extension.
Scratch	The Scratch directory is used by the Excalibur system to transfer files from a CD-ROM. When a user selects a file from a CD-ROM, the system copies the file to the Scratch directory, then sends it to the user. This allows the CD-ROM to be accessed again while the user downloads the file, rather than tying up the CD-ROM drive. All files in the Scratch directory will be overwritten as each new file is downloaded by the user. It is important to note that each port in "ARTHUR TOOLS PORTS..." has its own physical scratch directory.
Scribe	Scribe is the word processing application which allows you to produce bulletins for your BBS. Scribe creates files in the .EXT format.
Sysop	Slang for System Operator.
Template	A template allows you to set flags, byte, time, file and time limits to a user's account all at the same time.
User	A person that accesses your BBS.

APPENDIX A

Run-Time Flags

Run-time flags are flags for the user that don't exist in the UserFlag table, but rather, are created when the user connects or are generated during the user's connection session. Run-time flags begin with a tilde (~), for example, "~modemec" or "~area918" are run-time flags.

Here is a list of the current flags supported by Camelot

~modemec	modem has error correction
~local	connected using local mode
~validrev	calling program is current revision
~newuser	user is new
~expired	account has expired
~adult	user's age is over the preset adult age
~cidnone	no caller ID found
~cidpriv	caller ID was made private
~area###	caller ID is from ### area code
~baud300	connected at 300 baud
~baud1200	connected at 1200 baud
~baud2400	connected at 2400 baud
~baud9600	connected at 9600 baud
~baud19k	connected at 19200 baud
~baud38k	connected at 38400 baud
~lospeed	below 9600 baud caller
~notime	user is out of time

Comparison flags

Comparison flags let you test for specific values stored in the user's information. For example, you can check to see if a user is from a particular state, or if they have unlimited time on your BBS, etc. The general format of the comparison is as follows:

~eq(fieldname, value)	Equal
~gt(fieldname, value)	Greater Than
~lt(fieldname, value)	Less than
~ne(fieldname, value)	Not Equal
~ge(fieldname, value)	Greater of Equal
~le(fieldname, value)	Less or Equal

The fieldname can be any of the following:

Numeric Values

id	The User's ID
ulbytes	Number of Bytes the userhas uploaded
ulfiles	Number of Files the userhas uploaded
dlbytes	Bytes the userhas downloaded
dlfiles	Number of files ther userhas downloaded
totalcall	Total number of calls
daybyteleft	Number of bytes left in the day to download
weekbyteleft	Number of bytes left in the week to download
monthbyteleft	Number of bytes left in the month to download
permbyte	Number of bytes left permanently (blank=unlimited)
daytimeleft	Time in minutes remaining today
weektimeleft	Time in minutes remaining this week
monthtimeleft	Time in minutes remaining this month
permtime	Time in minutes remaining forever (blank=unlimited)
byteratio	Current download to upload byte ratio limit (blank=n/a)
fileratio	Current download to upload file ratio limit (blank=n/a)
callbyte	umber of bytes allowed percall (blank=unlimited)
daybyte	Number of bytes allowed per day (blank=unlimited)
weekbyte	Number of bytes allowed per week (blank=unlimited)
monthbyte	Number of bytes allowed per month (blank=unlimited)
calltime	Number of minutes per call (blank=unlimited)
daytime	Number of minutes per day (blank=unlimited)
weektime	Number of minutes per week (blank=unlimited)
monthtime	Number of minutes per month (blank=unlimited)
language	Language ID
othermail	The ID of another userwhose mail this user can read (blank=no-one else's mail)
~daysleft	Days left until expiration
~age	User's Age (in years)
~revnum	Revision number of the users software (See revision numbers below)
~byteleft	Number of bytes left for the user
~timeleft	Minutes left until time runs out

Money values:

balance	Current account balance (blank=unlimited)
revenue	Revenue generated in sales by this user

Date Values

birth	User's Birth Date
firstcall	Date of first call (blank=n/a)
lastcall	Date of last call (blank=n/a)
expiration	Expiration of the user's account (blank=no expiration)

Text Values

first	User's First Name
middle	User's Middle Name
last	User's Last Name
handle	User's Handle
password	User's Password
title	Personal Title (Mr., Ms., etc.)
position	Company position
company	Company user works for
address1	User's address
address2	Second line of address
city	City
state	User's State
country	Country
postal	Postal Code
phonehome	Home Phone
phonework	Work Phone number
phonefax	Fax number
phonebbs	BBS number
firstverify	Phone number the user first called from
lastverify	Phone number the user last called from
localnet	Local Network ID for this user
netid	other Net ID of user (Informational only)

The value portion of the expression varies depending on what type of data it is you are checking. All numeric values must be compared to a simple integer. The following are all valid comparisons for numbers:

~gt(totalcall,50)
~eq(id,1001)

Text values, on the other hand, must be enclosed in quotes. Comparisons are case independent. For example:

`~eq(first,"Fred")`

This will be true if the user's first name is "Fred", "fred" or "FRED".

Date and Money values can be compared to either number values or strings. For dates, a numeric value is the number of minutes since Midnight January, 1 year 1. If you compare a date to a string, the string must match the local format for short dates that you set in Windows' control panel. For money values, a numeric value is the amount of the smallest monetary unit specified in Windows' Control Panel. In US Dollars, this would be the number of pennies. If you compare to a string, the text of the string should be formatted the way you specified currency formatting in Control Panel (you may leave off the currency symbol, however). For example, the following date and money comparisons are all legal:

`~lt(birth, 3234323)`
`~gt(lastcall,"3/15/94")`
`~lt(balance, 1000)`
`~gt(revenue,"99.95")`

Finally, the value in all expressions can be the word "blank". For text, blank is the same as an empty pair of quotes (""). For numeric, date, and money values, this is a special case value which is not zero. Blank has different meaning depending on the field in question. (See table above for meanings).

Flag Grouping

For convenience, it is possible to group collections of flag. Flag groupings are done with one of the following:

<code>~and(flag1, flag2)</code>	Both flags must exist
<code>~or(flag1, flag2)</code>	Either or both flags must exist
<code>~not(flag)</code>	The flag can't exist

You might set a condition in a screen to require that a user have a flag you created called "member" and have a high speed modem to access part of your BBS with:

`~and(member,~hispeed)`

Of if you wish grant access to an area of your BBS only if the use is over 18 or you have, from experience with the younger user, granted him/her a "mature" flag, you can do that with the following:

`~or(~adulstage,mature)`

You can nest conditions. The following requires that all four flags be set.

`~and(~and(flag1, flag2), ~and(flag3,flag4))`

You can also use comparison flags. The following will check to see if the user has given you a work or home phone:

`~or(~ne(phonehome,""),~ne(phonework,""))`

Note: It is best not to wrap the entire condition in the `~not()` flag. You can accomplish that by setting the appropriate button in the condition check in Merlin.

APPENDIX B

Sendexcl.dll

When a user logs into your BBS without the Excalibur Terminal, the Alternate Connect Program sendexcl.dll sends the Excalibur Terminal to the user (for more information on the implementation of sendexcl.dll, see the references to it in the previous sections of this document). Sendexcl.dll displays a set of text files on the user's system that give directions on how to download and install the Excalibur Terminal. These files are called PORTAL.IN, PORTAL.HOW, and PORTAL.OUT, and are located in your EXCAL directory. You can alter these text files using a text editor if you wish, adding your own BBS name, or your voice number for users to call if they are having problems downloading the terminal. PORTAL.IN, PORTAL.HOW, and PORTAL.OUT appear as follows:

PORTAL.IN

This BBS uses the Excalibur Terminal which runs in Microsoft Windows and allows you to take advantage of the Graphical User Interface. You can:

- Use your mouse to navigate
- Play inter-active games
- Preview color images
- Expressive e-mail with color and fonts

Excalibur has Multi-tasking capability! Do all these
AT THE SAME TIME:

- Download
- Upload
- Read/Write mail
- Play games

You need to download the terminal program first. It is a self-extracting, self-installing Windows program. It is free and freely distributable.

Press the Enter key to continue :

PORTALHOW

You can download the terminal by selecting a key from the menu below. We highly recommend using Z-modem , especially if you have a fast modem. Use of X-modem with high-speed modems is often slower than using a 2400 baud modem.

Press a key to select:

X : X-modem download

Y : Y-modem download

Z : Z-modem download

Esc : Cancel the download and hang up.

Press a key to select:

PORTALOUT

Thank you very much for downloading the software. To start the installation of your new Excalibur Software, do one of the following:

From File manager, go to your download directory (where your download was placed) and double-click on EXCALTRM.EXE.

From your Windows Program manager, select the menu item "File|Run..." and use the "Browse" button to select EXCALTRM.EXE from your download directory.

APPENDIX C

Plugins

Excalibur BBS has many features and capabilities. However, like anything else, it has certain limitations. The limitations can be surmounted by using plugins. Plugins are add-ons to Excalibur. Most plugins are created by Third Party Developers, but we provide a few with our installation that you can use. We provide a listing of Third Party Developers and their products on the Excalibur HQ BBS.

Plugins are added to the BBS through Merlin. To add a plugin in Merlin, add a button or hotspot to a screen. To that button add the action "Plugin". You will see a field in which you will enter the name of the plugin (just the filename, not the full path), and a "command" field. The use of the "command" field depends on the functionality and design of the plugin. Plugins must be .DLL files, and must reside in the same directory as CAMELOT.EXE on your hard drive.



The following is a list of plugins that are included with the installation of the Excalibur software:

PASSWORD.DLL - This .DLL will allow uses to change their passwords. There are no commands for this .DLL.

EDITUSER.DLL - This .DLL will allow your uses to update their user information on your BBS. There are no commands for this .DLL.

FINDUSER.DLL - Now your uses can look up other users. (See note below on "alternates.") There are no commands for this .DLL.

CHAT_CAM.DLL - This plugin is the multi-userchat application that is designed for Excalibur. There are no commands for this .DLL.

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