Imperium - Hosting an Imperium Game

"Normal" summary of hosting a game:

1) Decide where to put your data files
2) Create the universe with ImpCre. See the ImpCre manual for info on how to use it. For the first game try a 10x10 universe.
   NOTE: If you are creating a world in the same directory as a previous world, you MUST delete the old news and propaganda files yourself. The best way to do this is to type: "rm news.* prop.*" If you fail to do this you may get news articles that are nonsensical, or that cause great confusion.
3) Run the Imperium server. See the ImpServ docs for available startup options and instructions on how to use it.
4) Run the client program "ConImp" and try the game out. You may want to create a shell "wrapper" that turns on desired options (different port, no "log" command, etc) and replace the public "ConImp" link with your shell wrapper.
5) Shut down the server when done playing. Use the "ImpShut" program to do this. You MUST do this step before turning the machine off or rebooting. Failure to do so may result in the game files becoming corrupted! You can also send the server a "kill -2" signal (or just about any other signal as well) from a shell to shut the game down, but this is not recommended as it may bring the game down with players still logged in. Note that on most system doing a proper system "shutdown" will cause ImpServ to exit cleanly, but will not assure that everyone is out of the game...
6) Manage your log files. Imperium normally writes to a log file each time the server is started or shut down, and when each player logs in and out, along with any "critical" errors that occur. By default this file is called "imp.log" and will be in the directory where you start the server. If you wish you can delete this log file before you start the server, or you can keep it to run through a utility that displays graphs of game usage etc. (You have to supply this utility).

When you are ready to play the game again, just go back to step 3. You can also leave the server running all the time. The server uses no CPU time when someone isn't playing (unless you are running ImpCtrl via cron, which wouldn't work if the server was down anyway).

How much file space you will need

Normally you will place the files all in one directory, but it is possible to put them in several directories, and across multiple file systems if you wish. The files used by the game (and their sizes) are:

imperium.files - contains the paths to the other files/directories used by Imperium. Normally not present, which causes ImpServ to look in the current directory for everything.

imp.world - (.8k) various stats defining the world, the options the deity has set, various factors, etc. In short, all the "global" settings that are the same for all players.

imp.player - (100k) contains all the "player" structures for the game. These structures contains all the "player specific" settings.

imp.sector - (variable) an array of all the "galactic" sectors of the world. Each "sector" is about 130 bytes, so a 10x10 world will have a 13k sector file. Once created, this file will never change size.

imp.planet - (variable) contains all the planets and stars in the game. Each entry is about 148 bytes, and a 16x16 world will have about 1100 or so entries (depending on the density chosen by ImpCre), thus needing about 495k for the planets. Once created, this file rarely changes size.

imp.ship - (varies) - contains all of the ships in the world. Each ship
is about 416 bytes long. A game that lasts for a while may
have over a thousand ships (400k+) while smaller games will
probably have less than 500.

imp.bigitems - (varies) contains all the "big" items in the world, such
as engines, weapons, etc. Each entry is about 24 bytes.

imp.fleet - contains all the fleets in the world. Each fleet is about
400 bytes long. Most players probably use less than 6
during a game, but once created and assigned, the fleet
exists and takes up space for the rest of the game.

imp.loan - contains all the loans in the world. Each loan is about
17 bytes long.

imp.offer - contains all the offers (lots) in the world. Each offer
is about 20 bytes, but most players to not put things up
for sale on all of their planets, so this file normally is
fairly small.

imp.power - (varies) contains the current power report for the game.
Requires about 85 bytes per player in use.

telegrams.XXX - telegram files for each player. The size is determined by
the number of undeleted telegrams the player has. Once the
player reads and deletes the telegrams the file is erased
and becomes 0 length.

news.XXX - contains news item for the given "day". News items are
generated automatically by the game. Each item is about
8 bytes long. Old news files can be deleted to save space,
if you wish.

prop.XXX - propaganda files created by the "propaganda" command.
Each item here may be up to 1.5k, and a new file is created
for each "day". You may delete propaganda files to save
space.

You can also create 6 files in the directory where you start the server and they will be used, if present:

imp.conMess - printed when a player first connects, before asking for
the players name. Normally used as a "banner".

imp.logMess - printed once a player logs in, but before they get to the
"Command" prompt.

imp.hangMess - printed when a player logs out.

imp.bulletin - printed between the banner of the newspaper and any
headlines.

imp.access - printed if someone tries to log in, but is unsuccessful.
It is used to tell people how to join the game.

imp.newplay - printed when a "new player" logs in, one time only. Use
this to give "welcome new player" type messages.

Using the "imperium.files" file.

If you do not have space on one file system for the programs, data files, online help and docs, etc. you may want
to use the "imperium.files" file to tell the server to look for the files in another location.

The default paths for finding help and doc files are "../Help/" and "../Doc/", meaning that they are expected to be
in a directory next to the data directory on the directory tree, for example:

```
      root
   /   |   \
doc  help  data
```

All help files must end in ".hlp" and all doc files must end in ".doc". This is because Imperium adds the

extensions to the names that the user requests, preventing them from looking at other files in the same directory.

To put the files in different directories you need to create a file called "imperium.files" in the directory you will be starting the server in. The file should contains one path per line, in the following order:

full path to log file (include name of log file!)
full path to world file (include name of file!)
full path to player file (include name of file!)
full path to sector file (include name of file!)
full path to planet file (include name of file!)
full path to ship file (include name of file!)
full path to big item file (include name of file!)
full path to fleet file (include name of file!)
full path to loan file (include name of file!)
full path to offer file (include name of file!)
path to help files, ending in "/"
path to doc files, ending in "/"

Telegram, news, and propaganda files will always be found (and looked for) in the same directory you start ImpCre or the ImpServ (where the "imperium.files" file lives). Here is a sample "imperium.files" file:

```
/usr/games/lib/imperium/game1/imp.log
/usr/games/lib/imperium/game1/imp.world
/usr/games/lib/imperium/game1/imp.player
/usr/games/lib/imperium/game1/imp.sector
/usr/games/lib/imperium/game1/imp.planet
/usr/games/lib/imperium/game1/imp.ship
/usr/games/lib/imperium/game1/imp.bigitems
/usr/games/lib/imperium/game1/imp.fleet
/usr/games/lib/imperium/game1/imp.loan
/usr/games/lib/imperium/game1/imp.offer
/usr/games/lib/imperium/Help/
/usr/games/lib/imperium/Doc/
```

The clients do not need to know where the files are located, since they only access them through the server.

If you wish to run multiple games at the same time (say a small fast game for new players as well as a bigger game for more experienced players) you may use the "port" command to specify any port name you wish for the server and clients. You will need to give the same port name to the server and any clients you wish to start up for that game. To use this simply put "port=<portname>" on the command line of ImpServ and any client you wish to use to access this server. You MUST have separate data files for each game, but you may share the doc and help files among all games.