Interactive Multi-User Computer Games

Dr Richard Bartle,
MUSE Ltd.,
34, Grantham Road,
Great Horkesley, Colchester, Essex.
CO6 4TU, UK.

email: Richard%tharr.UUCP@ukc.ac.uk

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Abstract:

This is a short research report covering the field of interactive, multi-user computer games. Its main component is a comprehensive overview of what presently constitute the most important products in this category. The report ends in a discussion of ways by which existing services may be improved to the benefit of both the user and the vendor.

Author’s note: this document grew from a longer report commissioned by British Telecom plc. It is commercially oriented, so was delayed for six months after delivery prior to being made publicly available. Certain commercially sensitive details have still had to be struck out, in particular a comprehensive contact list of leading people in the field. Furthermore, some of the information (particularly that concerning game access) has been superseded since it was written. I hope that what remains is nevertheless of some use.

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1. Introduction.

1.1 The Field of Study.

"Interactive, multi-user computer games": despite containing three adjectives, the phrase is wide-ranging in its coverage. The first task in reviewing the area must therefore be to formulate a set of criteria that can be used to determine whether a system should, or should not, be the object of study.

The term 'games' refers to those pastimes which are undertaken primarily for the purpose of entertaining the user (or, in this context, player). Although games can be designed for business or educational use, rather than solely for leisure-time activity, nevertheless to qualify they must somehow be "fun". They also need a set of rules, and, if competitive, some means of gauging how close the player is to "winning" (ie. meeting a predefined overall objective). Additionally, most require some skill on the part of the players. In cases where modelling the real world is a significant aspect of a game, it may be referred to as a 'simulation' (although not all simulations are games).

'Computer games' are games which are played against, moderated by, or played using, a computer. In rare cases, they can be played between computers.

'Multi-player computer' games are computer-run games that several individuals can play simultaneously.

'Interactive, multi-player computer games' are those computer-run games where the individual players can issue commands which affect the way the game treats other players.

This specific-seeming definition nevertheless admits such activities as two friends playing a pinball down at the local pub. It's a game, there's a computer inside it controlling everything, it'll entertain up to four players taking turns, and one player's score affects the extent to which the other players will take risks (and, hence, is a means of interaction). Nevertheless, a pinball is not what is generally regarded as an interactive, multi-player computer game; indeed, if it were, then the range of other games that also fit the definition would reduce any overall analysis to a level of vague generalities.

1.2 Narrowing the Field of Study.

It is necessary to discard from consideration those games which lie outside the spirit of the definition. 'Computer games' in this context are those games which run solely on general-purpose computers. This excludes machines hard-wired to play one game (chess, space invaders, pinball), but still includes certain categories of games machine (Sega, Nintendo, modern video games).

If a game is to be 'multi-player', there are three alternatives: several people playing on the same machine in the same room; several people playing over a LAN; several people playing over a public network. In practice, only the latter is worth considering: games in the first category tend to be commercial flops unless the multi-player facility is merely a gimmicky extension to an essentially single-player game; games in the second category rarely sell, because most LANs are company-owned and are unavailable for leisure activities (although within the next few years they may be introduced into amusement arcades).

Thus, 'multi-player computer games' can be reduced to those which individuals contact over some public network, eg. that of the telephone. However, this further constrains the architecture of such games, in that unless

users all have similar, tamper-proof machines, the bulk of processing must be centralised within a single computer (or a cluster). Otherwise, system security would be compromised. Although some processing can be done locally (graphics, sound effects, parsing etc.), nothing multi-user can be trusted to a user's home machine. Even in situations where all players are known to have identical hardware and software (as is the case with games consoles), unless one machine is in overall control there is a dangerous susceptibility to the sudden system failure of a component machine. Distributed games are not, for the moment at least, viable.

A special case is that of two-player games. With players who can trust one another not to cheat, modem-to-modem games can be played in distributed fashion. If finding a player is difficult, contact agencies can pair people up (CompuServe in the USA, for example, has a "Challenge Forum" for people wishing to find opponents for tandem games such as Falcon, Flight Simulator 3, Modem Wars, 'Vette and Omega). In this instance, the host machine is merely acting as a bulletin board or matchmaker. However, there do exist two-player games where major processing is done on the contact machine itself.

This leaves us with a set of games where the players have computers which they use as front-ends to access a (usually larger) computer, upon which the games themselves run. There are some games of the FIST variety where the user can dial telephone numbers to issue commands, but no such games have anything that is not subsumed by some aspect of play-by-modem games; not even the emerging voice-activated telephone games are much of an advance.

Finally, what is meant by the term 'interactive' when applied to multi-player computer games? Actually, the word is ambiguous: it can mean "allowing players to act upon one another", but also merely "on-line" (in a computer sense). Both these meanings are, to some extent, already implied. Although being multi-player indicates that there is some degree of awareness of other individuals playing at the same time (if you can't tell by playing that it's multi-player, it may as well not be), 'interactive' emphasises the requirement that players be able to do things with and to each other. This is exemplified by the ability to communicate freely. Limited forms of communication using standard protocols are possible in certain games (eg. bridge), but in general the players have to be able to send messages to one another in free-form natural language if they are to communicate effectively.

Inter-player communication not the end of it, however, because an ordinary chatline program can perform such a function; a chatline, though, is not a game. There may be conventions observed by participants, but there are no formal rules of play, and there is no way to "win" - or even advance in status - on a chatline. To be an interactive, multi-player game, communication between players is necessary, but not sufficient; players need to be able to do things to one another that, within the framework of the game, will have a tangible effect.

1.3 Acceptance Criteria.

To summarise, then, for the purposes of the remainder of this report, an interactive, multi-player computer game (IMPCG) is something which satisfies the following criteria:

- **It is played by people primarily for fun.**
- **It has a set of rules, and an overall game-dependent objective.**
- **You need a general-purpose computer to play it.**
- **It runs primarily on a central computer, connected to the players' computers over a public network.**
- **More than one person can play it simultaneously.**
- **Players can communicate with one another in real time, using a natural language (eg. English).**
- **Players can issue commands independently which may affect the status of other players within the game.**

1.4 Categories of IMPCGs.

Existing interactive, multi-player computer games satisfying the above criteria are, in the main, programs sharing a common heritage known variously as MUGs (Multi-User Games), MUDs (Multi-User Dungeons, Multi-User Dimensions) and MUAs (Multi-User Adventures). Although the terms are often used interchangeably, there are technical distinctions:

MUG - Used mainly by journalists and people who don't know any better. A UK-only term. Vague - soccer is a "multi-user game" - but employed in the present context the term refers to any on-line computer game, whether interactive or not. Scrabble by modem is a MUG (and, on Minitel, a very popular one).

MUD - Ambiguous in that it can refer not only to a class of interactive, multi-player computer games, but also to a particular game (the first one of this genre). In the UK, normally the specific form is used, but elsewhere 'MUDs' is generic.

MUA - Perhaps the most accurate description. Multi-user adventures are, simply, adventure games for more than one player. Adventure is a term already used to refer to a popular form of single-player computer game, such as those produced by Infocom, Level 9 and Magnetic Scrolls. The very first adventure game (now called Colossal Cave) was originally entitled Adventure. MUA is used by purists, but rarely appears in non-technical magazine articles due to its being hard to incorporate into witty headlines.

However, for the remainder of this report the acronym MUA will be used to refer to this kind of IMPCG. This is because MUG is too general (and unused outside the UK), and MUD is ambiguous.

MUAs are not the only IMPCGs, just the dominant form. There are other games which satisfy our adopted criteria, but they are one-off individuals, not classes of games. Examples are Island of Kesmai, You guessed it! and Sniper on CompuServe. All are characterised by communication and interaction, and they do not play the same as MUAs. They can, however, each be seen as a specialised form of MUA, and could, for example, readily be programmed in the better MUA definition languages.

This report will therefore concentrate on MUAs as best exemplifying IMPCGs, while making reference to other games that also qualify when appropriate.

1.5 Brief History (Industry).

Present day MUAs are all descendents of a single game known as MUD (Multi-User Dungeon; to avoid confusion with the generic term, the game will be referred to as MUD1 for the remainder of this report). Although there were early attempts to turn single-player adventures such as Colossal Cave and Zork into multi-player adventures, and there may have been attempts to write MUAs from scratch, these came to nothing or petered out. MUD1 was the first proper, workable multi-user adventure game.

MUD1 was written by Roy Trubshaw and Richard Bartle at Essex University on a DECsystem-10 mainframe. Trubshaw began in Autumn 1979, and Bartle took over in Summer 1980. Initially, the game was playable only by students at the university and guests using (what was then) EPSS. After a year or so, however, external players began to direct-dial from home using modems, and the game's popularity grew.

Many of MUD1's players found it difficult to get a slot in the game, since the number of dial-up ports on the university machine was limited, and because the game was only available late at night when there was spare processing capacity. Some of these players wrote their own MUAs, based on MUD1 and using similar commands. Among these were AMP, Gods and Shades.

After a flurry of articles in computer hobby magazines around 1984, MUD1's fame spread even wider. Bartle and Trubshaw formed MUSE Ltd to rewrite the game as MUD2, and run it on VAXes owned by a division of BT then known as NIS (Network Information Services). Due to an internal dispute between NIS and Prestel, Prestel declined to take MUD2 as "their" MUA, and chose the lookalike game Shades instead. MUD1 was, for two years, available on the CompuNet network in the UK, but it was removed when CompuNet discarded their DECsystem-10s. A version of MUD1 still runs on CompuServe in the USA, and, despite its venerable age, continues to be one of their most profitable leisure products.

After a time, people who had played games based on MUD1 wrote their own MUAs, and the process snowballed. Nowadays, there are some twenty or more MUAs in the UK of varying degrees of sophistication, six of which (MUD2, Shades, Gods/The Zone, Federation II, AberMUG and Bloodstone) are run on a commercial basis. The UK leads the world in this technology, despite the constraints of high communications charges (even using PSS, it costs over 5 times more per hour to call MUD2 than the game itself charges for playing).

This, then, is the state of the "industry" in the UK. However, there are two almost disjoint streams to the development of MUAs, the other one being based in academia.

1.6 Brief History (Academia).

With the publicity of the mid-1980's and the advent of JANet (Joint Academic Network - free inter-university networking), students at other universities continued to play MUD1 at Essex (along with other games written using the same shell, MIST being the main one). These students also wrote their own MUD1-like games. The first, AberMUD, was programmed at Aberystwyth, and made available to other sites over JANet and InterNet. This in turned spawned other MUAs based on it (TinyMUD, LPMUD), which were distributed freely to (mainly Unix) sites around the network. There are now some fifty sites running versions of these games, and the sources are available free to anyone who wants them. There is a thriving NewsNet section dedicated to these games (which are called "MUDs" by everyone), and new sites are coming on stream all the time. They're mainly in the USA, but can be found in many other countries as well. Only one game is run commercially, an incarnation of AberMUD called AberMUG, which was mentioned earlier; a version of TinyMUD has appeared alongside Gods, but as a test and without any publicity.

It can thus be seen that at present there are two almost completely disjoint MUA camps. Few people in one group are aware of people in the other. At present, the best games are the top-notch UK professional MUAs, but with the huge number of US academics presently engaged in MUA activity, it is only a matter of time before players over there start writing their own versions and marketing them commercially. Unless the UK can maintain the lead that history has given it, these American MUAs will doubtless come to dominate the scene over the coming years.

2. Game Architecture.

2.1 Technical Aspects.

To gain the most from reviews of MUAs, some understanding is required of how such games work. In essence, they can be regarded as high-level operating systems. Players log in to a host computer interactively over an appropriate network. The host computer usually has a fast processor and lots of disc space, because MUAs are computationally expensive. Players type commands on their own home micro, which are passed through the network to the host computer. This takes commands from all players, executes these commands (usually asynchronously - ie. in turn - but sometimes synchronously under timesharing), and sends information back based on how the commands were interpreted in the game context. This information is then displayed on the players' computers. Thus, it can be seen that players' own computers act as 'front-end' processors for the host, handling all i/o. Although most front-ends are dumb, in that they send raw commands and print raw output, some are intelligent enough that they can draw pictures when instructed, word-wrap, produce sound effects, and so on.

The game running on the host computer will be either 'Interpreted' or 'compiled'. Interpreted games are written in a MUA-specific definition language of the programmer's own design, and are flexible, easy to modify, robust and slow. Compiled games are hard-coded in a standard implementation language such as C, and are inflexible, hard to make changes to, fragile and fast. The better games are interpreted and use fast hardware.

The way games behave is determined by a definition file, commonly called a 'database'. For interpreted games, it is rarely a database in the conventional sense of the word, being more akin to a program. It becomes a database when converted into internal data structures and loaded into memory. Even compiled games rarely use a true database for definition purposes.

Interpreted games can behave radically different given contrasting databases as input. Compiled games will generally use the database only for text. Interpreted games are managed by an interpreter program, which can take as input the database of any game written in the appropriate definition language. Thus, having written an interpreter for one target machine, any MUA written for it will automatically run on all other machines for which interpreters exist. This is not the case for compiled games, which must be written virtually from scratch for each game.

In executing players' commands, the process is one of database management. Players issue commands in a stylised form of (usually) English. This is parsed into a tuple normally of the form verb/object/instrument. The game uses these tuples to look up instructions in an internalised database query language, and those instructions are then executed to interrogate or modify the database. Success/failure messages are passed back to the player who issued the command, and to other players entitled to receive them.

2.2 Operational Aspects.

From the players' point of view, the underlying mechanisms are of little or no interest. To them, MUAs are environments where things happen. Players have 'personae', which exist in a world elsewhere. The computer is their interface to this otherworld, carrying out their orders and reporting back to them what has happened. MUAs are sprawling landscapes, richly described, and you can try anything (within reason) that you like.

Taking a less poetic view, MUAs are made up of 'objects', which have properties. Some of the objects represent rooms, others represent players, and others represent ordinary/non-special objects. Rooms are linked together in a network by means of 'exit' properties, and each has a 'contents' property (ie.

a list of objects the room contains - it can be the empty list). If a player object is in one room, then executing for that player a movement command (eg. "north") involves taking the following steps:

1) Find the room which has, in its contents property list, the object that represents the player who issued the command.
2) On the inter-room network (the 'travel table'), follow the north exit property for this room to find another room.
3) Remove from the contents property list of the first room the object representing the player who issued the command.
4) Add that object to the contents property list of the second room.
5) Check through all other objects in the contents property list of the first room: for any that represent a player, send the message "<name> has left." to that player's front-end, where <name> is a string property associated with the persona of the player who issued the command.
6) Check through all other objects in the contents property list of the second room: for any that represent a player, send the message "<name> has arrived." to that player's front-end.
7) Send to the front-end of the player who issued the command the description property of the second room.

From this example, it can be seen that MUAs are really little more than a framework of discrete objects which players can manipulate by commands, with an additional facility for persona-directed message-sending. In a well-designed game, the ways in which objects can be manipulated bear a close resemblance to the real world, so that when a player uses a command like "drop" the result can be predicted relatively easily. Poorer games may not allow objects to be handled in ways that one might expect they should be, eg. it might be impossible to place one object inside another. Some MUAs are underconstrained in this respect, eg. you can place a large object inside a smaller one.

In addition to objects representing players and rooms, there is a third category of special object in many games, 'mobiles'. These objects represent "intelligent" inhabitants of the MUA's environment, but rather than being controlled by players, instead they act under the instructions of the game itself. At worst, this means they act mindlessly, moving around on a fixed course and attacking things at random. At best, they can communicate, pick up and drop objects, and have at their disposal the full set of commands available to "real" players.

To become games, rather than clever but boring world modelling systems, players have to be given a goal. The commonest way to implement this is by associating with players a score property that can be incremented if the player performs the right series of actions. Normally, this involves seeking out objects designated as treasure, and depositing them in some given location. However, in most games such points can also be gained for solving puzzles, or for winning fights against mobiles or other players. When players have accumulated enough points, they go up a level of experience, and gain more powers. Reaching the final level is the overall goal, and at that stage powers are granted which are so considerable that the player can use them to change the very character of the game, hopefully to its benefit. This top level is usually 'wiz' (short for 'wizard/witch'), but recently the word 'god' has become increasingly popular in newer games whose authors want to emphasise the rewards of reaching the top. There is sometimes an 'arch-wiz' level, which is invitation-only and used for game-management purposes.

Fighting is part and parcel of most MUAs, although some deliberately omit the concept, either for programming reasons, moral reasons, or both. In fights, a player or mobile attempts to cause damage to another player or mobile. If more damage is given than the victim can receive in total, then the fight finishes and the victim "dies". What happens to their persona then depends on the game: it is either eliminated, or it is allowed to return (but

usually at a lower points total). The loser's fate may also depend on who started the fight. Fights proceed either automatically, with blows occurring until one player flees or is killed, or on a blow-by-blow basis. The former is fairer in fights against players with fast comms links or against mobiles, but the latter is more realistic.

The concept of the 'reset' is central to many MUAs. With several people in the game, puzzles will rapidly be solved and objects swiftly removed from play. After a time, there is nothing left to do. At this point, the game resets, ie. it starts afresh, with only players' personae remaining as they were previously. Doors that were opened are closed, dead mobiles are resurrected, and objects are arranged in their original places. In some games, players can continue to play earlier sessions until they quit, and in others everyone is ejected. With 'rolling resets', objects are replaced individually without disrupting the flow of the game. Although this is less harsh on the players, it can make planning your future actions difficult, and the game is usually lacking in complex puzzles as these can be hard to invert. Games that don't have any sort of reset either exist around the concept of performing quests of some kind, are primarily for building your own worlds, or are incredibly boring to play.

A recent trend has emerged for MUAs which do not place much emphasis on puzzle-solving, but instead focus on world-design issues. Players are allowed to add rooms and objects (rarely commands) indiscriminately. Other players then explore these areas. Little goes on here that could be called "gaming", and the whole exercise can be seen as a means of providing common subject matter for people to talk about in what is really just a thinly-veiled chatline. Nevertheless, there are conventional MUAs where object-creation by wizzes is encouraged as a means of providing new and original puzzles for non-wizzes (mortals) to solve. As this is a post-MUD1 concept, however, most of the older games and their descendents are not specified highly enough to be able to implement it.

Since they are all descended from MUD1, MUAs have a common core of commands, the following of which are the bare minimum necessary: movement commands, 'get', 'drop', 'quit', 'say', 'inventory', 'score' and 'help'. Most also have 'kill', although some do not (by design).

2.3 Managerial Aspects.

Running a MUA is not simply a case of mounting a game on a computer and inviting all-comers to play. MUAs arouse such emotions in their players that they will often resort to lying, cheating and vitriolic abuse to achieve whatever goals they have set themselves. Many games have suffered from poor management; what seems good in the short term can have serious long-term consequences concerning the game's playability and its attractiveness to players.

As well as the rules which are encapsulated by what the game will allow players to do, MUAs also have a set of (usually unwritten) rules that define the boundaries of reasonable behaviour. Although some MUAs may allow swearing, for example, others will not. Many MUAs disallow a practice known as 'looby-looing', where one persona takes all the risks to gain points for another persona (normally owned by the same player). MUAs with fighting will generally take a grim view of players who 'pslam' (ie. hang up the phone) during combat. When people reach wiz level, they have powers to harass and victimise mortals beyond all endurance, and should keep themselves in check. What happens if they don't, though? Should they be punished? If so, how?

Answering these questions is the essence of game management. Good managers with years of experience behind them are rare in MUAs - most new MUA managers have little or no idea of this aspect of the game when they start up. Once they have gained the required expertise, it's often too late to do anything about it, especially in a pay MUA where customers would lose the

results of years of effort were the persona file to be reinitialised (the last resort!).

Although under-management is the most common fault in MUAs, over-management (when it happens) is worse. The consequences of accusing innocent players of doing things they haven't will drive away more players than will allowing a guilty player to play unchallenged.

It is beyond the brief of this report to go into details of how a MUA should properly be managed; it is sufficient to point out that games can be wrecked by the antics of the people in overall control (however well-meaning they are). To give some flavour of what can and does go wrong, though, here is a list of common mistakes:

- Granting too much power to inexperienced people. Players who are given the ability to interfere with other players without fear of repercussions will do so unless they have learned already the full consequences of such actions.

  Usual cause: too few points required to reach wiz.

- Giving too much power to stupid people. As above, except that the player is too dim to realise they're doing wrong. Sad, because some dim people plod on for years striving to make wiz.

  Usual cause: no way for non-stupid people to eliminate the stupid people, eg. death by fighting.

- Reinstating people who "lose" points through no fault of the game's. What happens is that people take advantage, claiming for "lost" points they never had in the first place. Points should only be given back if they were lost through a game fault, and then only if a small number of players were affected.

  Usual cause: belief that no-one would lie to you.

- Failing to remove persistent offenders. If you allow disruptive elements to continue playing, they'll just push the limits of acceptable behaviour back even further the next time. Getting rid of one bad guy and ten hangers-on will net more good guys in the long run.

  Usual cause: giving "one last chance" too often.

- Favouring some players over others, and letting them off when they make a mistake because you know they didn't mean it, or they're friendly, or they were drunk, or they have twenty messages of support from friends. The majority of players may remain silent, but they won't forget the inconsistency when you hammer someone else for committing basically the same offence.

  Usual cause: believing the flattery of others.

2.4 Scenarios.

MUAs implement an imaginary world. There are no constraints on this at all, except those imposed by the operations allowed on the database and the objects the database can represent.

MUD1 was set in a fantasy environment, ie. a vaguely medieval world where magic works and dragons are real. Most of the first generation of lookalike games stayed in the genre, partly because the authors liked that kind of game (or they wouldn't have played MUD1), and partly because MUD1 could be used as a source of ideas for commands, spells, monsters and so forth.

As MUD1 was interpreted, it was possible to use the same shell to interpret alternative databases, and experiments were done into other domains. These included ITV's Fraggle Rock, Essex University's computing department, various aborted science fiction worlds, and more assorted fantasy environments.

Nowadays, although fantasy still predominates, MUAs are set in the whole range of scenarios popular among face-to-face role-playing games players (cyberpunk, 1920's Lovecraftian horror, Arthurian Britain) plus others beside. Some of the DIY-style MUAs have all of them together in a colourful tapestry (or hotch-potch, depending on your degree of cynicism) of intermingled milieux.

The setting of a MUA is one of the most important things about it. In choosing between two competing MUAs, players will select the one with the atmosphere they like the best, be it a gloomy, dark future, mystique-laden high fantasy, or dreamy spirit-world. Although the other players contribute greatly to this, the primary source of atmosphere is the game itself. For text-based MUAs (which almost all are), the impact of well-written room and objects descriptions on new players cannot be understated. However, writing these descriptions is no easy thing - an average sized game can easily have a novel's worth of material embedded in the way it describes locations.

2.5 Clients.

Although they are not strictly part of a game, clients can greatly enhance its attractiveness to players. Authors of these programs command respect from the MUA-playing community commensurate with that of MUA authors.

Clients are programs that are run on the front-end of a MUA, and their purpose is to make playing the game easier. They are basically comms programs, and although they preponderate in the academic MUA world, nevertheless there are clients for commercial games. Usually, a client is written specific to one MUD, but some function adequately with others.

As well as basic i/o and network management, clients let you do things like:

- gag a player (not print any lines containing that player's persona name)
- highlight a player (print that player's persona name in reverse video or a stronger colour)
- log all i/o to a file for later perusal
- define macros, so a few keystrokes can expand into a longer command string
- load files and transmit them as if they had been typed directly
- perform screen functions, directing text of different origin to different windows
- log in to a MUA automatically (sometimes also concurrently)
- set trigger commands to be executed automatically when a given event occurs
- use command buffering to pull back previous command lines, edit them them, and transmit them to the MUA
- repeat commands any number of times
- fork a shell process to gain access to the operating system

Clients can also be used to do sound effects and graphics, but are always MUA-specific in such cases.

2.6 Bots.

Bots ("robots") are programs which play MUAs using the same interface as players. Like clients, they are not part of the MUA per se, but their programmers are considered important individuals in the MUA field. Apart from some experimental versions in the commercial sector, all present-day bots run

on academic MUA sites. On the face of it, bots are indistinguishable from players, although from their reaction to events and communication they can invariably be recognised for what they are. Bots predominate on MUAs which are not sophisticated enough to have intelligent mobiles, however in the future there may be some mobiles that evolve into bots so they can be run on another CPU.

Bots are not as popular now as they were at first, because after the novelty wore off they lacked any real lustre, and people became bored with them. Also, they tend to crash the (surprisingly fragile) academic MUAs upon which they run, and can generate lots of background "noise" that irritates players. When several bots were run at once on individual MUAs, that also angered human players.

Bots are usually able to perform the following types of action:

- **mapping**
- **reaction to keywords**
- **the registering and forgetting of players over time**
- **liking and disliking players**
- **obeying commands from authorised players (including repeat-until commands)**
- **the ability to log data to disc**
- **the ability to give help to players**
- **movement**
- **the creation and use their own macros**
- **communication with players (usually not too well, but sometimes using an expert system interface)**

2.7 Indicators.

To compare MUAs against one another scientifically, some means of assessing their strengths and weaknesses in important areas must be established. It is beyond the scope of this report to suggest a formal approach to this; however, the main parameters by which a MUA is commonly judged should be expressed, so as to help place the reviews of individual MUAs in a wider context.

When considering a MUA, then, experienced players and reviewers look at the following indicators:

'Breadth'

The breadth of a MUA is the extent to which it is able to deal with things the players want to do. If a game has trees and an axe, then it is reasonable to assume that players will attempt to fell the trees. Likewise, if it has water then players will try to swim, and if it has a spade they will try to dig. They will also try to write, sing, throw, sleep, and perform similar "reasonable" actions. The more commands a game is able to cope with, the greater its breadth. Giving a stock "I don't understand that" or "You can't do that" response shows a lack of robustness. Games with the greatest breadth cover eventualities most players would never consider, such as trying to open a door with a skeleton, trying to read a "guardian" mobile as if it were a newspaper, or hitting a sack and expecting to fall asleep.

'Depth'

Depth expresses a sense of the level of detail to which a MUA descends; it is sometimes called 'sophistication'. It is a dependent upon the physics of the world which the MUA manages. Games with good depth generally treat objects in a way which approximates the real world. Games with bad depth will omit certain concepts, or misimplement them. Dropping a glass object on a hard surface "should" break it (unless there's a game-related reason why not, eg. it's magic); dropping it on a soft surface "shouldn't" break it. Placing a

small box inside a sack "should" be allowed; placing it inside a sack which the box itself contains "shouldn't" be allowed.

'Selective depth' is where the system can handle a concept when applied to one kind of object, but not to another. For example, rooms may be able to contain objects, but boxes might not; players may be able to carry objects but mobiles might not; a box may be able to contain another box, but not if that second box contains another object; players may be able to enter a vehicle, but not drop things into it from outside. Selective depth problems are usually caused by omissions in the initial design of a MUA or by having parts of the database designed by different people.

All MUAs are based on discrete objects, and are consequently pressed when obliged to represent continuous quantities such as fluids. Most MUAs can handle containers, but almost all MUAs are unable to model what happens when a jug containing 5 litres of water is poured into a bowl with a 3 litre capacity. Likewise, it is beyond the definition languages of most MUAs even to express concepts like temperature or density, let alone provide a working ontology.

Another representational problem concerns compositionality. If 1,300 matchsticks have been made into a model of the Eiffel Tower, and 700 are removed, does that leave a 600-matchstick model? What if 1,299 were removed? What if only 1 was? What if the matchsticks were made into something else? Even the best MUAs have tremendous difficulty in this area, and it is therefore either avoided completely or simplified by use of a "make" command that only works with certain other objects as ingredients.

Since the idea of rooms is central to MUAs, there is often a problem with things that happen across room boundaries. Line-of-sight is hard to implement, as are determining the direction from which distant noises come, representing smoke or weather that covers a wide area, and inclusion of "small" rooms that can only hold a certain volume, eg. inside a grandfather clock. Some MUAs are (co-ordinate) point-based rather than room-based, which makes directional calculations easier, but they have related problems in dealing with objects larger than the granularity of the points.

MUAs with great depth can suffer if too much detail is given to the players. Players do not like being asked over which joint of which finger of which hand they wish a ring to be placed. They don't like being informed of how many petals there are on the flower they have just picked, nor do they want a 400-line description of the painting they are looking at. If a MUA deals with details, it should only bring them to the attention of players when it is important to do so (either for breadth or puzzle-solving reasons). Detail for its own sake is tedious.

'Size'

The size of a MUA is easy to gauge in terms of raw data: it is the number of rooms (or locations) that the MUA contains. This can be deceptive: a MUA consisting of a 100 by 100 grid can claim to have 10,000 rooms, however if it did then it would need a a large number of players to populate it - even 50 players wouldn't meet each other often enough to promote the interaction that makes MUAs such fun to play. In reality, point-based MUAs actually have an interaction radius that makes "nearby" players able to see and hear one another. On a 100 by 100 grid, an interaction radius of 5 would bring the effective number of rooms down from 10,000 to around 400.

Some of the world-construction MUAs do actually have thousands of rooms in the conventional sense. Even though they have large numbers of people playing simultaneously, they are nevertheless sparse. Unless players can easily find out where other players are located, and can easily get to those locations, these games may as well be single-user.

There are other factors determining the feel of how big a game is, such

as the mean distance of rooms from the start, and how many people play at once. These are flexible, though, and for a commercial MUA any figure from about 200 rooms to 1,000 will probably be OK. New games that boast thousands of rooms are not, on the whole, to be taken seriously.

'Parser'

The format of commands acceptable to a MUA is important, as it is the only means by which players can describe what they wish to do in the game. The part of the MUA which converts input into a form that the game can execute is the parser. The absolute minimum requirement is that <verb>, <verb> <object> and <verb> <object> <preposition> <instrument> are catered for.

Good parsers allow adverbs, and will fold these and prepositions into the verb to produce a new verb: the sentence "go west quickly" might, for example, convert into the tuple run/west; "put the apple in the box" might convert into insert/apple/box. Similarly, good parsers allow adjectives to apply to nouns, as in "get the gnarled stick".

In commercial MUAs, where speed is of the essence, a good parser will make life easier for players by accepting abbreviations ("k z w ls" - "kill the zombie with the longsword"), and by allowing players to define their own abbreviations (synonyms) and macros. Easy ways to repeat commands are also common (eg. "w.." to mean "go west twice"), as are pronouns (eg. "tickle him" instead of "tickle Aloysius").

These syntactic features can easily be incorporated into a client, rather than be part of the parser. However, clients can not help at the semantic level. Some commands imply things by their use which are not stated explicitly. The simplest example is the implied string ("say this is interesting" instead of "say 'this is interesting'"), but there are also implied objects ("open door" meaning "open the door using whatever key I'm holding that fits") and implied bindings ("drop weapon" meaning "drop the weapon I'm holding, not the one on the floor").

'Binding' is the process whereby a parser ties a noun to a set of specific objects, and it functions best when there is a classification hierarchy defining a partial order over all objects. For example, if a spoon is of type gold, and gold is of type metal, and metal is of type solid, then any of "drop spoon", "drop gold", "drop metal" or "drop solid" will drop the spoon, along with other objects of the class named. Most older MUAs do not have a classification hierarchy, but, with the advent of object-oriented programming, many newer ones do.

'Players'

A powerful reason for playing a MUA is the quality and quantity of the other players. Indeed, for some MUAs that's the only reason to play them - the games are otherwise void of redeeming features.

The first metric to use when assessing players is their number. There's a minimum population for every MUA, below which the game is not sustainable and will die. This varies for each MUA, but if you play for extended periods and see few other players, the chances are that it needs an influx of newcomers to survive. Games that aren't intrinsically much fun to play need a larger user base than those that are, if they're to remain viable. Any game on a large network is likely to be popular if it has no challengers.

After number, the type of player is worth considering. MUAs which are played mainly by teenagers are more likely to be violent and acrimonious than those played mainly by adults in their thirties. Although it is true that certain scenarios will attract a given type of player and others will not, and that therefore the type of players are really only a reflection of the design of the game itself, this does not always follow: an expensive game will tend to

be played only by people with sufficient disposable income, and would thereby effectively disqualify students from it. The gender of players is also a good indicator of how a game will be played: if there are more of one gender than another, eg. 10% female to 90% male, then gender tends to matter little; with a more even distribution, eg. 45% female to 65% male, games can rapidly become little more than dating agencies if improperly managed. In almost all cases, there are more males than females who play a MUA (that's in real life: the gender of the persona a player is controlling does not have to be the same as that of the player).

A further signal that a game might be less entertaining than it should be is the wiz/mortal ratio. If there are more players with game-altering powers at their disposal than there are without, playing as a mortal can be hell, with constant interference from above. It also devalues the overall goal if there are so many wizzes that it seems "anyone" can become one. Top-heavy games are hard to deal with, because once players have reached wiz level it is often impossible to remove them without causing even worse problems.

Finally, if you really want to know what a MUA is like, the players are the best way to find out. Just ask them. After a few minutes of conversation, you'll have learned more about the MUA than hours of playing would ever tell you.

'Role-playing'

Many MUAs make a big thing out of being role-playing games. Strictly speaking, such a game is one where players choose a personality other than their own, and try to behave in character all the time. Theoretically, then the more freedom players have to define their personae, the better suited a game is for role-play. However, in practice the term is often used to refer to games where there are strictures on what a player may or may not do - enforced role-play. Thus, games with character classes, alignments, skill levels and so on are usually understood to be role-playing in nature. In MUAs where there is freedom to act however one chooses, "I was only role-playing" is more often heard as an excuse to justify antisocial behaviour that the player regrets, eg. viciously attacking someone else.

The role-playing issue can be looked on as a distinction between 'hidden depth' and 'open depth'. A game with open depth (lots of fussy, detailed information made available to the players) looks more impressive on the face of it than one with hidden depth (players have to find out things for themselves). Although the former are exciting to newcomers, the latter are more rewarding in the long term.

'Wiz Powers'

Wiz powers are those command which (normally only privileged) players are able to use on other players, and against which there is no defence. Such powers are important for two reasons: the desirability of earning the right to wield them is an important early driving force for mortals; they allow wizzes to mould the game to their own personality, enriching it and helping it to evolve.

There is less consistency in the naming of wiz commands than there is for normal commands. This is because people who write their own MUAs have not always reached wiz level in another MUA, and are thus unaware of existing conventions.

Having wide-ranging wiz powers is usually a good thing, although having too few can be a blessing in disguise for games with an over-large wiz/mortal ratio. Most MUAs strive to provide a comprehensive range of powers for their wizzes, although many of the most potent wiz-only command often require facilities which the implementation is unable to deliver. Among these are:

- 'snooping'
  Being able to copy someone else's textual i/o to your own machine, while continuing to play yourself. Multiple snoops are where several people can be watched simultaneously.

- 'attaching'
  Being able to control another player or mobile using normal commands, receiving incoming text from their point of view as if you were playing them yourself. A lesser ability is 'dubbing', where your speech appears to issue from the dubbed object, but otherwise your commands refer to your own persona.

- multiple levels of invisibility
  Not all games offer a means for players to disappear from the view of others, but some do. Of those, few permit selective invisibility, where one category of player (eg. mortals) cannot see you, yet another (eg. wizzes) can.

- object creation
  The ability to manufacture arbitrary objects, rooms, mobiles, whatever, and place them in the game. These additions may or may not be permanent. Some games allow anyone to perform such feats, notably in the academic sector.

- command definition
  Like object definition, but commands can be added. Very dangerous, in practice, because commands are, in effect, programs, and can thus crash, hang, hog the cpu, and perform arbitrary alterations to the game's data structures. Be wary of playing any new game offering this facility until you obtain cast-iron assurances that it's safe.

- 'proofing'
  The ability to display arbitrary messages on players' screens which they cannot distinguish from those the game itself would send. Sometimes called 'illusion'. Primitive proofs are commonly available, but multi-line proofs are uncommon, as are proofs which are sent selectively to either individual players, players in one location, or players satisfying some audio-visual requirement (eg. players who are in the dark should not receive messages telling them that a butterfly is fluttering by).

- 'FODding'
  The ability to delete a persona from the game, completely. Sometimes known as 'blotting' or 'toading'. "FOD" stands for "finger of death".

- 'teleporting'
  The ability to move to an arbitrary location. Can be extended to allow the movement of any object from one locale to another, although this can cause problems without the proper checks (objects that are allowed to contain themselves can readily cause crashes).

- 'pre/post-fixing'
  Being able to change the way in which players are described. Some games allow players to do this themselves, which can have depressing results...

- 'tinkering'
  Having the capacity to change anything in the game whatsoever, akin to poking a Basic program. Very dangerous, and if it's offered to more than a handful of trusted people it will speedily render a game unplayable.

As a postscript, the presence of some wiz commands can greatly influence the way a game is played and managed. In particular, if nowhere is safe from the snoop command (or any form of logging), this greatly discourages people from indulging in imaginative sexually-oriented talk, and thus makes such MUAs more acceptable to the parents of younger players and to moral guardians.

'Age'

The length of time a MUA has been around can reveal a great deal about it. First, it obviously works, and is likely to be relatively free of bugs. It is therefore stable. However, unless it is frequently updated with new features and puzzles, it also runs the risk of being stale. Furthermore, if it has a comparatively fixed-size user base then it can saturate the market, ie. everyone who is going to try it has now done so. Old games also tend to be unable to cope with the latest advances in MUA technology, and become fossilised.

New games, on the other hand, are likely to be unstable yet fresh, and can revitalise a user base that another MUA has saturated. New MUAs will often contain experimental features unavailable in most other games, but if they're the authors' first attempt at a MUA then they can still be fossilised, albeit in a more contemporary setting. Only MUAs that are complete rewrites of an earlier version are usually able to keep up with future developments, since by then the design team has acquired a degree of awareness of the generality needed to maintain and improve upon their MUA.

The ideal situation is where an old yet second-generation MUA is given access to either an untapped user base or one which existing MUAs have saturated.

'Gameplay'

A defining characteristic for a MUA is its gameplay. What's the overall goal, and how do you reach it? Is there a hierarchy of player levels? Do personae gain powers as they advance? Is there fighting - and what happens to losers? Do the environment and command set promote socialising, combat, puzzle-solving or puzzle-designing?

Implicit in the way a game interprets players' commands is a set of "rules" that decree what the game will allow, and what activities are favoured. These should support the game scenario, and not get in the way. For example, a game with fifteen different character classes and complex procedures for training to acquire weapon and spell skills may go well with a "city-state" scenario where there exists a complex society and a legislature; however, it would get in the way of a "wandering knights battling dragons" scenario. Players should really be able to do what they want, and if the game prevents them then there should be a sound reason for it. New games announcing that players can be elves, dwarfs, trolls, bunny rabbits and so on have to be able to justify why these different types are present. Artificial constraints ("if you want to be a magic-user you can't be a troll") may give a veneer of attention to detail, but rarely does it ever make much difference.

One often-overlooked aspect of a MUA is its treatment of newcomers. It is not good for a novice to join a game, have no idea how to talk to people (and be unable to find out), and to wander around for half an hour and not see anything that could be picked up. Ideally, there should be some mechanism to ensure that even when a game is near to being played out of points-giving objects and puzzles, novices should still be able to find something. There should be on-line help, and it's desirable to have the game provide unsolicited hints if it is advanced enough to recognise when a player is having trouble. For commercial games, a guest account should be provided, and game walk-throughs (or, if undertaken interactively, 'tours') ought to be available. Rules and regulations should be kept to a minimum - a daunting 100-page booklet describing how to play the game may be intended to impress with its depth, but it’s more likely to scare off new players in the long run.

Gameplay is immensely important, but only to people who play primarily for gaming reasons. Compare MUAs with board games: "real" boardgamers look at the rules, decide on strategies, try them out, and play to win; "occasional" boardgamers don’t care much for game realism if that means lots of rules to learn, and they only indulge in games on social occasions, not really caring whether they win or lose. MUAs can be geared to be suitable for either serious or trivial users; the best MUAs can cater for both.

’Atmosphere’

Finally, in judging a MUA there is the crucially important but frustratingly intangible quality of atmosphere. The scenario, the room and object descriptions, the events that occur, the things the players say, all add up to a background feeling that dictates the mood of the game.

It is difficult to determine whether a game truly has atmosphere without playing it for some time, however there are some things to watch out for which are certainly not conducive to it.

A good sign that a game will lack atmosphere is shoddy descriptions. Misspellings, poor punctuation, incorrect grammar, tortuous phrases that dismally fail to promote the feeling of brooding terror that its thesaurus-wielding author hoped they would - all these interrupt the flow of narrative and bring the player momentarily into the real world instead of that of the game. Other signals are improper articles ("a ox", "a water"), bad gender possessives ("Susan taps you with his bat") and numbered objects ("There is a rat22 here").

Subject matter plays a part. A wrecked pirate ship with a vacuum cleaner in the hold may be supposed to be funny, but it will jar on players’ sensibilities. If players have the ability to add things to the game without their creations first being checked out for consistency by someone with editorial control, there is a very good chance that any overall sense of atmosphere or mystique will be completely non-existent.

Different games have different atmospheres at different times, and the same MUA may cycle between murderous hack-and-slay and jovial sweetness-and-light every six months. Something to beware of, though, is the MUA which radiates joy and kindness all the time: this is usually imposed on players in dictatorial fashion from above, in "you will be nice!" style. Since no-one can possibly get on with everyone else forever, a seething mass of hatred builds up, and when it bubbles over there are terrible recriminations.

Games can have their atmosphere disturbed by external factors, such as an uncertain future or a price rise, and almost every MUA has its prophets of doom who will tell anyone willing to listen that the game has gone downhill since the "fun" days of yesteryear, and it’s only a matter of time before it keels over. Reviewers who are talking to players should be ready to hear this kind of morose rambling, and only give it credit if it is substantiated in talks with others.

3. Reviewing Strategy.

3.1 Review Format.

The meat of this report is a series of reviews of MUAs currently active in the UK. Each review commences with a header giving facts concerning the game under consideration - its name, its authors, its commercial status, and how to access it.

Following the header are historical notes, presenting background information on the game, and a brief description of its setting. After that comes the main body of the review, where the game is discussed in some detail.

Although the reviews have been written as objectively as is reasonably possible, naturally some subjectivity will inevitably creep in. To counteract this eventuality, brief quotes from reviews in magazines and from players will also be given (if available). All the quotes are unsolicited.

In order that some impression may be given of the overall importance of the game in the IMPCG industry, the review header also includes a grading which is purely subjective. Games will be rated as being in either the first, second, or third rank; first rank is most important. This grading is based on an assessment of the impact which the game has had on the MUA-playing community. It therefore does not follow that the "best" games are necessarily of a higher rank than lesser ones.

After the reviews of UK games, there follow reviews of MUAs from the rest of the world. The same approach is taken for these as for UK games. A handful are commercial, and these appear first; the rest are on academic machines, and for these no pricing structure is given (they are all free). Their importance is relative to other games in the same category.

3.2 Accuracy.

Although every attempt has been made to be accurate in the reviews, they are not guaranteed correct. This is because information supplied by the game designers is often out-of-date, over-optimistic, or contains outright lies. Likewise, many semi-professional reviewers in magazines have little or no idea what they should be (or, indeed, are) looking for, and will give anything good or bland reviews so as to elicit future advertising revenue from the flattered game author.

Since some of the information stated in the reviews in this report come from such sources, it is possible that they contain errors. Where possible, however, facts have been verified independently. Opinions expressed in the review, however, while primarily the review author’s, are grounded in either personal experience or statements made by a number of players or reviewers.

Some of the later quotes that are given in this report are solicited, but as the result of general questions (eg. "How do you think MUAs should be made more widely available") rather than specific ones ("What do you think about Shades’ lack of containers?). Most quotes, however, are from public access sources that anyone can read, such as bulletin boards, NewsNet, magazine articles and publicity material. They therefore appear here without the permission - or indeed the knowledge - of their originator, who may regard them as too out of context to reflect their intended meaning.

3.3 Locations.

Included in each review is an indication of how the game can be accessed. Some games run on the same system as others, and their location is indicated by specifying the name of the appropriate system. Most games operate at 1200/75 baud, 8 bits, 1 stop bit, no parity, but a good many can handle other baud rates too.

For some of the academic MUAs there are many copies of the games sprinkled across the networks. All these have their own local name to distinguish them from other systems running the same software. The reviews of these games concern the general software, however local versions are listed along with the address at which they can be reached. As a guide to the countries in which these lie, consult the last section of the address:

```
        .au     Australia
        .ca     Canada
        .dk     Denmark
        .fi     Finland
        .nl     Netherlands
        .se     Sweden
        .uk     United Kingdom
```

Anything else is assumed to be America (the .edu selector means "educational establishment").

Systems supporting more than one MUA are:

```
Name:           CompuNet
Phone:          Pre-game registration required, call (081) 997 2591 voice
MUAs:           Federation II, Realm
Comment:
```

Long-running but troubled network, originally backed by Commodore and carrying MUD1. After staff buy-outs, its future now seems more secure. Still caters primarily for users with Commodore hardware. Users pay to play.

```
Name:           CompuServe
Phone:          Pre-game registration required, call (0800) 289378
MUAs:           British Legends, Island of Kesmai, Sniper, Megawars 1,
                Megawars 3, You Guessed It!
Comment:
```

Largest user base of any commercial network in the world (around 1,000,000 users). Very expensive by UK standards. Recently began a UK publicity drive.

```
Name:           Essex University
Phone:          PSS A2206411411
MUAs:           MIST, Rock.
Comment:
```

Site of the original MUD1 game and many other MUAs using MUD1's interpreter (Valley, Crud, Blud, Uni). About to lose all its MUAs because the hardware upon which they run will shortly be scrapped.

```
Name:           InterNet
Phone:          Not available
MUAs:           TinyMUD, AberMUD, LPMUD, UberMUD, TinyMUCK, TinyMOO, many more.
Comment:
```

An international network of (mainly Unix) computers primarily used by research institutions (Universities and large companies) for electronic mail. It carries daily updates of public messages on a wide range of topics, rec.games.mud being the one of main interest to MUA players. Free to users.

```
Name:           IO World of Adventure (IOWA)
Phone:          (0883) 744044 and 744164.
MUAs:           MirrorWorld, Parody, Quest, Empyrion, Chaos World of Wizards.
Comment:
```

Made an attempt this year to run commercially, but its players deserted it and it had to back down. Free at present, and a popular place to meet and chat. A local call from London.

```
Name:           JANet
Phone:          Not available
```

MUAs: AberMUD, TinyMUD, MIST.
Comment:
The main UK network for research institutions. Linked to InterNet. Free to users.

Name: Lap of the Gods
Phone: (081) 994 9199
MUAs: Gods, The Zone, Future Life, TinyMUD.
Comment:
Long-standing system, has its own particular clientele. Users pay to play.

Name: Prestel
Phone: Consult BT for your local number
MUAs: Shades, Trash.
Comment:
Large user base, and prices to match. A local phone call from almost anywhere in the UK. Shades and Trash can be played for free on a development machine at (0342) 810905, but be prepared for sudden surprises, eg. text in french.

Name: Synergy
Phone: (081) 968 0333
MUAs: Avalon, The Spy.
Comment:
New system, having started this year. Small user base at present. Users pay to play.

3.4 Genealogy.

This diagram shows the family tree of MUAs (where parenthood is known). Children are listed alphabetically rather than in order of appearance, because time of birth is difficult to establish for most of the games.

```
MUD1
|
+-------AMP
|
+-------Federation II
|
+-------Gods
|       |
|       +-------Future Life
|
+-------MirrorWorld
|       |
|       +-------Empyrion
|       |
|       +-------Mosaic
|       |       |
|       |       +-------Avalon
|       |
|       +-------Parody
|       |       |
|       |       +-------Prodigy
|       |
|       +-------Quest
|
+-------MIST
|       |
|       +-------AberMUD
|               |
|               +-------LPMUD
|               |       |
```

```
|               |       +-------DUM II
|               |
|               +-------TinyMUD
|               |       +-------Cthulhu
|               |       |
|               |       +-------Midgaard
|               |       |
|               |       +-------SMUG
|               |       |
|               |       +-------TinyMUCK
|               |       |       |
|               |       |       +-------TinyMOO
|               |       |
|               |       +-------TinyMUSH
|               |       |
|               |       +-------UberMUD
|               |
|               +-------YAMA
+-------MUD2
|
+-------Rock
|
+-------Shades
|       |
|       +-------Bloodstone
|       |
|       +-------Sector 7
|       |
|       +-------Trash
|       |
|       +-------Zone
|               |
|               +-------Void
|
+-------VaxMUD
|
+-------Wanderland
```

4. Reviews - UK.

4.1 Federation II.

Name:	Federation II
Importance:	1
Author(s):	Alan Lenton ("Bella")
Location:	CompuNet
Pricing Structure:	L1.50/hour plus L12 flat quarterly fee

Brief Description:
SF, interplanetary trading/exploration game.

Historical Notes:
The Multi-User Galaxy Game project was begun in 1985 by CompuNet as a SF alternative to MUD1, which then ran on the system. When the other programmer left CompuNet, Lenton rewrote the game from scratch as Federation II. It was officially launched on CompuNet in 1989; reported also to run on MicroLink, and on any other commercial system willing to take it.

Review:
Federation II (known as Fed to its players) is a departure from the conventional form of MUA. Rather than being based around the accumulation of context-independent points, it is instead concerned with money (game-money - 'Imperial Groats' - rather than real money), which, unusually, can be given away to other players. The game-play is dominated by economics rather than by fighting skills or puzzle-solving abilities (there are no puzzles in Federation II).

Federation II's setting, the solar system of the future, is wide in scope but lacking in descriptive atmosphere. Referred to as 'dataspace' by its author, it consists of the Earth plus six other planets/moons. Despite this, the actual number of rooms it contains is not large, and movement in space is with standard compass points rather than being directionally based on pitch/yaw/roll. Most surprisingly (except from a programmer's point of view), the planets are stationary.

There are 17 player levels, although most experienced players stop at level 9. As well as pure monetary qualifications, other conditions need to be satisfied in order to reach the next level. These are intended to ensure that players don't try to run before they can walk, and include such things as having undertaken a certain number of trading contracts, and owning a warehouse ('whorehouse' in game parlance) on every planet.

There are no wizzes in Federation II. Game management problems are dealt with by the six richest players in the game, which ordinarily would lead to even worse management problems; however, the real power is wielded by the game's author, Alan Lenton, who used to be a MUD1 arch-wizard and is one of the most experienced MUA managers around. Consequently, Federation II runs smoothly.

The game is insensitive in some respects - it promotes the consumption of alcohol by having its social focus at a bar named "Chez Diesel" on Mars, and quaffing drinks will increase players' stamina; this might offend some people. On the whole, though, there is little of the overt use of non-violent contact commands ("kiss", "hug" etc.) seen on some other games. This is partly because of Lenton's managerial skills, and partly because Federation II attracts a higher proportion of female players than any other UK MUA.

Federation II lacks both depth and breadth - it has only 96 distinct commands. The overall aim of the game (reaching level 17) is virtually unattainable, so it is treated mainly as a social forum rather than as a "real" game. There is little interaction required by the game mechanics, and fights are infrequent (but see later concerning insularity). The 33 objects in the game are exclusively for giving to one of the 51 mobiles in exchange for points, or consuming so as to increase one's stamina. They are not used for solving puzzles.

Beginners choose their name and gender, then distribute 140 units between strength, stamina, dexterity and intelligence attributes. Intelligence as an attribute is unusual in MUAs - most games assume the intelligence of the persona equates with that of the player commanding it. In Federation II intelligence determines the power of the ship-board computer a persona can use.

Players proceed by buying spaceships (usually with a loan), equipping them (hull size, armour, shielding, drives, weapons, tractor beams, computers, power plants), then purchasing commodities (24 are technical/industrial, 16 are agricultural, 10 are leisure) from one planet and moving them to another where they're needed (there are periodic announcements of contracts that are to be undertaken). Players competing for the same contract race to get there first. Completing contracts gives players money, which they use to improve their ships, start their own companies, build factories and buy warehouses.

Federation II has two novelties not present in other MUAs. One is a bounty system, where players can place reward money on their enemies in order to induce someone to attack them; the other is an insurance system, whereby players pay a certain premium and in the event of their untimely death they are resurrected at their previous level. These two features tend to work against each other, and the insurance facility in particular means that players rarely lose their status once it is gained.

Players have the ability to describe themselves ("buy clothes"); ordinarily, this would be perilous to any coherence of descriptive power in the game, but since Federation II is deficient in that area anyway it doesn't really make much difference. Atmosphere, as perceived by the players (not as found on planets' surfaces), is engendered entirely by those players. Regrettably, the highest-level players form a clique that is very choosy about who can join, and they can make life very unpleasant for any upstarts they dislike. This makes the game very insular, a charge repeated many times by ex-players and professional reviewers.

When combat does take place it is non-automatic, and there are many weapon-control commands. Experienced players will invariably win, except against hordes of novices (in which case they will later kill them individually, having themselves been resurrected on an insurance policy). Players are only allowed one persona per account ID, but can have several account IDs.

Federation II does not have resets, and there is no automatic save to disc of players' scores. Thus, if the game crashes then points gained after a player's last explicit "save" command are lost.

Federation II is written entirely in C, is compiled directly (rather than working from a definition language), and it therefore runs very quickly but could never be used to implement any other scenario. Why is it of the first rank? It takes a courageous new approach to the standard MUD1 style of fantasy-based, combat-oriented, puzzle-solving world - it can run alongside such a MUA without poaching any players; it is portable, and available on several networks; it has a publicity director (Clement Chambers) and will thus continue to be in the news; it is continually being updated and improved (Lenton works on it full time); its author is one of the most experienced in the field.

Summary:

Federation II is a game with a pedigree, but of modest size, poor breadth, shallow depth and little atmosphere. Nevertheless, its players are

enthusiastic, its support team dedicated, and its future rosy.

Quotes:

> **"Federation II is a wonderful blend of space-trading game and adventure."**
> **Popular Computing Weekly [magazine]**

> **"It sets you free from reality."**
> **Trancer [player]**

> **"Reality is boring."**
> **Topcat [player]**

> **"We all want an alter-ego, and Fed releases it."**
> **Penelope [player]**

> **"I found the other players very helpful and quite willing to give vital information to help me on my way."**
> **Popular Computing [magazine]**

> **"It boasts quite the best manual of any game I've seen."**
> **Popular Computing Weekly [magazine]**

> **"Britain's most advanced multi-user game"**
> **CompuNet [promotional material]**

> **"I feel proud an honoured to offer people this game. It's like partying without risk to the body. I'm giving them value for money, so they come back for more."**
> **Clement Chambers [marketing manager]**

4.2 Gods.

Name:	**Gods**
Importance:	**1**
Author(s):	**Ben Laurie ("Tiger Tiger")**
Location:	**Lap of the Gods**
Pricing Structure:	**L0.575/hour or L11.50/month flat fee**

Brief Description:
Advanced MUD1 clone, fantasy world.

Historical Notes:
Although the present system went live in October 1988, Gods began in 1985 as a non-commercial MUA; its author was inspired by MUD1 to write his own game, and was among the first people to do so. Gods was Shades' only rival to be the Prestel Micronet MUA.

Review:
The dominant concept in Gods, which permeates every facet of it, is that of object creation. Instead of becoming a wiz when one gains the appropriate experience points, one becomes a 'god'. Gods have the ability to alter the game at will, but doing so costs them points. When mortals cash in treasure for points, they take it to the temple of their favoured god. This will add to that god's points, as well as to their own. Thus, popular and respected gods will be able to make more changes to the game, and ones that are unpopular will lose the ability.

The idea is attractive, but fundamentally flawed. Gods can use their powers to do anything they like, without any interference from the equivalent of arch-wizzes. Unfortunately, what they like to do is prevent people they

dislike from becoming gods. Although theoretically a seller's market ("which god shall I give these points to?"), it's actually a buyer's market ("give those to me"). There are two reasons for this: treasure is worth more if the receiving god is present when it is offered at that god's temple; gods who see mortals giving treasure to non-present gods have sufficient powers that they can readily persuade such mortals that it would be in their best interests to deposit their treasure elsewhere. Thus, unless there are several gods playing for most of the time, the treasure dedicated to each god will tend to be proportional to the period the god spends in the game. If a god needs more points to create something, it's just a question of sitting around in the game for long enough to get them.

This dominance of the idea that gods can create things is a shame, because otherwise Gods is a very well thought-out game, wide in its extent and with imposing depth to its world. Despite being first-generation, it has nevertheless stood the test of time, and its definition language is one of the clearest and most functional around. It is based on the notion of 'objects', which are items that have 'properties'. Properties are either 'mundane' (they return a simple value) or 'esoteric' (they run some code to return a value). Commands are implemented as properties of objects, thus making Gods one of the earliest object-oriented programming languages and pre-dating much of the work presently going on in the TinyMUD field.

Gods operate by changing objects' properties, but this is not yet fully implemented, nor is it likely to be in the near future. They can alter mundane properties easily, but esoteric properties are out of bounds. This is because they require programming skills, and there is no guarantee that they will be safe. Problems of unwanted interactions between independently-created objects are expected, and a facility to test/debug objects is necessary. It is interesting to note that these are issues which have always concerned Gods experts, but their importance is only now being recognised in the TinyMUD world.

Nevertheless, it is a pity that the central vision of Gods is still some way away even after all these years, and that what the game presently boasts as its major player-winning feature is actually no better than what is available as just one riff in MUD2. Gods' over-emphasis on object creation distracts attention from the many really quite splendid other features that it has. Its parser is good, it has a built-in class hierarchy of objects (although "get all" doesn't work), and there's a neat counting feature for similar object (eg. "You pick up thirty-one assorted rabbits."). The game is atmospheric - its large (2,000 rooms), North African seaport setting is rooted in historical fact (although elements from different periods are disconcertingly juxtaposed; this may be deliberate). Puzzles can vary with time depending on whether it is night or day, and commands that you use frequently can develop different affectations. Gods has the reputation of being a difficult, challenging game.

One of Gods' recent innovations is its treatment of fights. Some players like fighting, some don't, so Gods has two classes: fighters and non-fighters. Non-fighters cannot be attacked, receive no points for killing, but don't die if killed. Fighters can be attacked, do receive points for killing, and lose them for dying. Whether this will work in the long run is something which remains to be seen, though - the non-fighters would appear to be able to annoy and dispose of the fighters without taking any personal risk, and it may be that unimaginative non-fighters may find themselves at high levels without really having much knowledge of the game at all.

As well as a points value, treasure also has a monetary (alms) value. There is a commercial system in Gods which can be played as a game without reference to the deities. Money can be used to buy certain objects, for gambling in a slot machine (slot machines are not uncommon in money-oriented MUAs), and for buying drinks at a bar to regain stamina. As with Federation II, this "alcohol is good for you" attitude could offend some people, and Gods may attract another form of objection by its explicit use of "black magic" as a

form of spell use which can be practised. That said, critics of this sort are likely to complain about the very name of the game anyway, irrespective of other considerations.

Gods tries to maintain an aura of mystique by keeping information from players until they gain experience. Thus, a newcomer (of 'scum' level) is only told how many points are required to reach levels 1 to 4, and has no idea how many levels there are altogether. Similarly, only those spells which can be used are listed. This works as an incentive to go up levels, but can be rather worrying when you first start to play. Another way in which Gods strives to provide atmosphere is by folding objects into room descriptions. This looks good, but newcomers find that they can't always tell what is gettable and what isn't.

Rather than limiting the number of objects a player can carry, or letting players carry as much as they like, Gods has a halfway solution which is perhaps more realistic. The more objects carried, the greater is the chance of dropping one. Thus, with your arms full of treasure you can only travel a short distance before something falls to the ground. Travelling light, you can play for hours and not drop a thing.

Gods runs on an 80386 processor under Xenix. The Lap of the Gods system to which it is connected consists of specialist multiplexer hardware and associated software, collectively known as The Butler. This has recently been upgraded so as to provide on-line help facilities, but the information it displays is rather hurriedly put together. This is reminiscent of the whole system - every feature imaginable can be expressed in one way or another, but somehow it's never used quite as fruitfully as it could be.

Day-to-day running of the Gods system is now by one of the game's gods, Heptaparaparshinokh. It appears to have no major managerial problems, perhaps due to the fact that it is, in part, an experiment on the way deities behave without higher deities above them. There is a guest facility for beginners, with a built-in tour available.

Gods has a client written for it, Hear-Gods, which consists of normal terminal software for the Atari ST with the addition of sampled sound-effects.

A version of Gods runs in Germany.

Summary:

A lone pioneer of object-creating MUAs, Gods is well written and abounds in detail. It is old, yet still fresh, and has worn well. However, its overall premiss, though seductive in theory, is unproven in practice. Had it been written as a conventional MUA instead of a slightly eccentric one, it might have had much wider appeal and taken its place at the forefront of MUA development. As it is, Gods' story is one of missed opportunity, and its considerable potential is still to be realised.

Quotes:

> "Certainly a game I would recommend to anyone."
> ACE [magazine]

> "You will find a coliseum and a set of dry docks close by each other, but this doesn't seem unusual in the game."
> Comms Plus! [magazine]

> "The system of scoring is complicated."
> ACE [magazine]

> "With the current generation of modems, I personally feel that objects should be readily apparent to players."
> Comms Plus! [magazine]

"Really, we can't explain what the games are like - you'll have to try them"
Lap of the Gods [promotional material]

4.3 MirrorWorld.

Name:	MirrorWorld
Importance:	1
Author(s):	Pip Cordrey ("Pippin"), Nat Billington ("Natso"), Lorenzo Wood ("Penfold"), Patrick Bossert ("Zoot"), Tim Rogers ("Grobble"), Piers de Lavison ("Inziladun")
Location:	IOWA
Pricing Structure:	free

Brief Description:
Standard MUD1 clone, Tolkienesque.

Historical Notes:
Pip Cordrey used to run a BBS called 'Labbs', which had a section devoted to MUD1 in its early days. Six people from St. Paul's School worked on that section, and Cordrey organised them into a team to develop a MUA that would run on a home computer. The system was named MirrorWorld because it had rolling resets (as in the film "Westworld"). It went live in 1986. The St. Paul's group are now all MirrorWorld arch-wizzes.

Review:
MirrorWorld (MW to its players) is a venerable yet thriving MUA. Its stated aim is for players "to score points by killing monsters and other players, finding and selling treasure, and doing clever things". Its conventional setting is well described, and it has a strong, magical atmosphere.

The game is easy to enter, and provides guest facilities. The new user is well catered for with on-line help, but the authors seem preoccupied by the expense of telephone calls to the game, and the newcomer is somewhat bombarded with dire warnings of how costly it is to play.

Another of the things with which MirrorWorld is obsessed out of all proportion to its importance is the concept of rolling resets (or 'autosets', as they are called in the game). MirrorWorld was among the first MUAs to incorporate rolling resets, and the authors consider it their invention. The main reason for having rolling resets is to give a seamless scenario which doesn't have its atmosphere ruined by intrusive resets; however, MirrorWorld's alternative is to have a little man in a white coat appear to reset puzzles, which, although a cute idea, doesn't fit in well with the fantasy milieu. The downside of rolling resets is that they're difficult to implement for hard puzzles, and this betrays a hint as to the deeper nature of the game (or rather the lack of it).

From the outset, MirrorWorld was intended to run on a home microcomputer (rather than the mainframe that hosted MUD1), and it partially succeeded: the main computer is a BBC Master 128, but it has a 4mb RAMdisc and custom-built multiplexer added on. This modest CPU perhaps explains the overriding feeling that pervades all of MirrorWorld - its (spasmodically elegant) simplicity.

Everything about MirrorWorld is simple. The parser is so basic that it merely looks at words in the order they come, not even 'parsing' at all in the computational linguistic sense. It has only a dozen or so spells, and they are

defined poorly or not at all - "blind", in particular, can only be implemented in an astonishingly inadequate way (teleportation to a special room).

There's a fragment of originality in the way that spells are time-based, so that lower-level players have a longer delay between casting a spell and its taking effect than do higher-level players. Unfortunately, people coming in using fast comms links have a similar advantage... The "nullify" spell is unique to MirrorWorld and its sisters, as it interrupts an opponent's spell if it fires during that spell's delay period. Otherwise, though, MirrorWorld's spells are depressingly ordinary.

The problem that MirrorWorld faces is its implementation. Along with most of the other IOWA games, it is written in a database definition language called 'Slate'. That Slate is sufficiently powerful to be used to define several disparate databases is to its credit, however it is a comparatively feeble language, rooted in old ideas and methods, and resistant to change. For example, when an "act" command was needed, Slate wasn't really up to the job, and the resultant hack makes MirrorWorld the most impoverished major MUA in this area.

Slate is a lot like a bad Basic. Variables cannot be declared arbitrarily - only predefined system ones are usable. Its subroutines have no parameterisation, and there is a confusion between commands, actions, and actions tied to objects (in an object-oriented fashion that would be more convincing if objects were arranged in an inheritance hierarchy). All this makes use of Slate difficult, but not impossible. However, no amount of fancy programming can get round the fact that too much is built into the Slate interpreter, and not enough is in the hands of the database designer. Modern features cannot be added to MirrorWorld without making alterations to the Slate language, and thus to the compiler itself.

These criticisms of Slate aside, it must be said that the language does work very well for simple MUAs, and that there are people willing to pay L3,000 to buy a complete Slate system so as to program their own MUAs in it.

Accepting that MirrorWorld is not really much of an intellectual's MUA, it nonetheless has some nice, novel touches. There is an arena for fights, where people go for mass combat and only one survivor is allowed to leave. There is a gambling module, which is another concept the MirrorWorld team implemented first, and which thus receives more publicity than it really merits. Also, the persona file stores more details about a player's status than is common, so eg. if your persona is crippled and you quit, it'll still be crippled when you return.

On the managerial side, MirrorWorld functions well. There are written and unwritten rules that the players must not transgress, which keeps everyone peaceful but can occasionally stifle originality (today's best wizzes are often yesterday's most misbehaving mortals; guidelines are a better solution than cast-iron rules). MirrorWorld is overseen by Pip Cordrey, who has arch-wiz status on Shades and is thus well qualified for the task. MirrorWorld is regularly updated.

There are 12 levels for normal players, with an unusually large number of points required to make wiz. Indeed, despite its age the game has under 20 wizzes in total. Wizzes can die in the game, which is something that is impossible in other games (and difficult to justify in this one). Some of the feminine forms of levels below wiz appear a little condescending, eg. male = peasant, female = washer-woman; male = potent, female = bewitched.

Although relaxing and pleasant enough to play, MirrorWorld is not a true heavyweight of MUAs. However, it has made an immense contribution to the genre, has an experienced programming and design team behind it, and has pioneered the concept of genuine choice between different MUAs on a single system dedicated to such games. After a rough period in early 1990, when its

authors thought that it was better than it was and prematurely charged people to play game (which lead to their rapid abandonment of the system), MirrorWorld has bounced back and is again an entertaining place to spend an evening. Thanks to the tireless efforts of Pip Cordrey in publicising IOWA (and MUAs in general), it is likely to remain so for some considerable time.

Summary:

MirrorWorld is very shallow, has little breadth, and it possesses a thoroughly awful parser; and yet, it isn't frustrating to play. Of average size, its gameplay is good - especially for MUA novices - and its players friendly. The atmosphere is well maintained, but, although it tries hard, MirrorWorld is more a picturebook MUA than a meaty novel.

Quotes:

> **"MirrorWorld has that feel to it that just keeps you playing on and on."**
> **ACE [magazine]**

> **"The feeling you get is that you have visited this place sometime before."**
> **Confidential [magazine]**

> **"Used treasure is repositioned by an old man who wanders round the game dropping things, which is a little less painful than being thrown off every 45 - 60 minutes!"**
> **ACE [magazine]**

> **"[Resets] do nothing except drag you out of your fantasy world and plop you right back in the real one."**
> **Pip Cordrey [owner]**

> **"Make sure that your phone bills contain no surprises."**
> **Pip Cordrey [owner]**

> **"Though some players are not quite as friendly as on some games, it really is good."**
> **ACE [magazine]**

> **"On-line entertainment for the nineties"**
> **IOWA [promotional material]**

"If you have offended against one of the rules, the thing that the wizard or arch-wizard wants to hear is that you recognise that you have broken the rules and will not do it again."
Pip Cordrey [owner]

"[Cordrey] has something that only a handful of other men have: his own world."
Confidential [magazine]

4.4 MUD2.

Name:	MUD2
Importance:	1
Author(s):	Richard Bartle, Roy Trubshaw
Location:	(081) 203 3033 PSS 23421920100441
Pricing Structure:	L0.50/hour to L1/hour, depending on amount bought up front

Brief Description:
Advanced MUD1 rewrite, fantasy world.

Historical Notes:
By 1985, MUD1 was becoming fossilised, so a completely new version was written from scratch. Although MUD2 contains nearly all of MUD1 as a subset, it is considerably larger. Originally intended to run on Micronet, this was thwarted by BT politics, and MUD2 now runs on one of BT’s Vax clusters connected to Telecom Gold’s network. BT and MUSE have both been trying to escape from their mutual contract ever since. Warning: the principal author of MUD2 is the author of this report; expect unrestrained enthusiasm.

Review:
The cutting edge of MUA technology. MUD2 is the most advanced MUA in the world, with a big lead over its challengers (Gods and Avalon are probably the next-best in programming terms). Although roughly the same age as Shades, MUD2 is a second-generation MUA and was designed for portability and endurability. Thus, there are versions of its interpreter in C and Pascal, and it runs on a VAX under VMS, an Archimedes under Unix, and on both an Atari ST and a VME-based piece of specialist hardware under OS9. The same database will load on all these configurations.

In every aspect of MUA technology (except its parser, which, although admirably capable of choosing implied objects, does not handle pronouns, adjectives or adverbs), MUD2 excels. Its breadth and depth are unparalleled, its atmosphere compelling, and its management sound.

In terms of detail, MUD2 (or simply MUD to most players) is the only MUA that deals routinely with fluids (miscible or otherwise), heat, all audio-visual effects, smells and consistency. If you drop an object from a height through several vertically-placed rooms into running water, it will consider impact damage, water damage, and will place the object either where it landed or further downstream depending on whether it floats or not - players in intervening rooms will see it pass. This form of world modelling adds a sense of realism to MUD2 which most other games cannot even represent in their definition languages, let alone emulate in practice.

The number of commands, spells and interactions MUD2 supports is also unrivalled. Many of its nuances are found only occasionally by the more enterprising players, and it has a dedicated band of enthusiasts whose main preoccupation is simply exploring the range of command possibilities the game

might trap (eg. "play poker" for a poker object meant for stoking a fire, or "stick pin in doll" using a rolling pin rather than a needlework pin).

MUD2's mobiles are the most sophisticated of any MUA. It has a large number of them (over 160), and they are of many different types (some fly, some swim, some regenerate, some can cast spells). They are also multi-functional: for example, there is a sword that can be used for combat as expected, but it also continually makes comments about its wielder, its own prowess, other weapons, fights, and the weather. It will inform its owners when magic has been cast against them, and cure them of ailments (especially if they deafen themselves to avoid its endless chatter!).

Even mundane mobiles are very advanced. They incorporate expert systems that enable them to fight (often better than the players): MUD2's thief knows not only how to steal objects, but how to score points for them (it carries them to a 'swamp' room and drops them there). Most mobiles know which weapons to use, to drop useless objects when attacked, to attempt to steal useful objects from opponents in a fight, when to flee, and when to offer a withdrawal (MUD2, uniquely, has a mechanism that allows combatants to agree to stop fighting without either losing points). Mobiles are also capable of planning to achieve goals, eg. if they can't go west because there's a locked door in the way, they should unlock it with the right key and then proceed (Bartle's PhD concerned Artificial Intelligence planning techniques).

There are 11 levels in MUD2, which fall into two streams (magical/non-magical) and two forms ('protected' and 'non-protected' personae). Only magic-users who are not protected personae can reach wiz. The distinction between fighters and magic-users is unusual, and although it does add something to the game, MUD2 could survive quite adequately without it, treating everyone as if they were magic-users. To switch from fighter to magic-user, there's a special object (a "touchstone") that must be touched, with a high chance of causing death at lower levels. Some players don't like the idea, others look on it as a watershed that thrusts their play into a different gear.

Protected personae are mainly people exploring who don't want to be molested by other players. Conversion back to the normal stream is allowed at any time, at a cost of two-thirds of the persona's score. This ensures that people with no aspirations of reaching wiz can play in relative safety, but that anyone seeking the top rank must run risks.

Another safeguard that ensures unsuitable people don't "sneak" to wiz is a system of 'tasks'. These are eight quests, any seven of which a persona must solve if it is to become a wiz. Some require co-operation with other players, some test knowledge of the game, some test fighting, and some are important puzzles; most are a combination. When players makes wiz in MUD2, it can therefore be guaranteed that they have had a broad education in the game.

Wiz powers in MUD2 are considerable. As well as object, mobile and room creation (by fleshing out "blanks"), wizzes can attach to mobiles and personae (and thus play as several beings at once), there is a full complement of proof commands, and multiple snoops are possible. There are four levels of invisibility, so wizzes and arch-wizzes can choose to whom they are visible. Wizzes have the ability to alter the manner in which players are described, and the messages given when arriving, departing or using magic. As these powers are creative in aspect, they are not granted to mortals (because otherwise the game's atmosphere could be spoiled).

Among MUD2s other features are: a command that draws birds-eye view maps; a safe start location where people can enter the game for a chat and to see who's playing without risking assault; many-on-many fights; a wide range of spells with their effects properly handled (so if you're blinded and walk into a room where dripping water can be heard, you'll be given that part of the room description but not the rest); and delayed-effect actions.

To new players, MUD2 can seem imposing. This is usually because its sophistication, though concealed from newcomers in part, is nonetheless imposingly evident; however, the game's reputation also has an effect. To ease the way, a pair of excellent handbooks are provided that answer many of the questions that enter newcomers' minds (but which reviewers don't always bother to read...). The game itself has special novice-level treasure that other players are discouraged (by its negative value) from picking up, and which is therefore often in play even when a reset is due. Room descriptions are friendly in areas frequented by novices, and get increasingly forbidding the further away one travels; MUD2's prose is generally regarded as the finest of any MUA's. There is a tour facility, that enables prospective players to be shown round various areas of the game with a running commentary (and which takes account for what's currently in the rooms being visited).

Fighting in MUD2 is of the automatic variety, with spells, potions and (breakable) weapons available for use. Death results in persona deletion, irrespective of who started the fight; although this is regarded as unfair by many inexperienced players, those who have played for longer accept that it is the best approach to adopt - in terms of game management, it's essential. MUD2 is managed by its principal author, the most experienced of all MUA managers. At present, MUD2 is top heavy with arch-wizzes, though; this is because several were appointed in preparation for an impending move to Prestel which was (as usual) cancelled by BT.

There is a full classification system in MUD2, which readily accepts commands such as "get food" (to pick up anything that might be edible). Unlike many of the first generation games, it allows multiple objects of the same type, however since its parser is weak on adjectives that leads to objects with names like "key21". This can be rather unatmospheric.

Because of the game's high puzzle-density and large number of objects, it resets every 105 minutes; this is despite its average size (around 800 rooms).

MUD2 is programmed in a special MUA programming language called MUDDLE. This is the key to its success, since it gives complete control to the MUA designer without hardwiring essential functions into its interpreter. Object-oriented in concept, but reading like a hierarchical version of Prolog, MUDDLE's versatility should ensure that MUD2 maintains its lead position in the MUA world for some time yet.

Summary:

MUD2 is well designed, has superb depth, is wide-ranging in its scope, and is easily modifiable. Its age belies its advanced features, particularly its mobiles and the facilities provided for its wizzes. Its atmosphere is carefully maintained by powerful room descriptions, and its gameplay is well thought-out. Only its parser is less than satisfactory. Clearly, MUD2 stands head and shoulders above all other MUAs. However, it has enjoyed only modest success compared to, say, Shades. This is almost entirely due to its being tied to BT by an agreement that was rendered inappropriate within a year because of reorganisations within that company.

Quotes:

> **"An adventure on a grand scale."**
> **ACE [magazine]**

> **"MUD was, and still is, the multi-user game that others are measured by."**
> **PC Plus [magazine]**

> **"MUD is the first of a new generation of interactive games."**
> **Daily Mail**

"If you want a civilised entry into a game, try MUD, the Multi-User Dungeon."
MUSE [promotional material]

"The game is very user-friendly."
Computer and Video Games [magazine]

"Where MUD scores is in the atmosphere of the world you have to explore. It's not as communal as Shades, but ... it can become an obsessive exercise in politics, co-operation and the exercise of power."
ACE [magazine]

"The atmosphere can be slightly daunting for a first-time player, but as a rule other MUDders are tolerant of newcomers and even helpful if you meet trouble."
PC Plus [magazine]

"[In atmosphere] MUD is definitely better than Shades."
Acorn User [magazine]

"I prefer to play [MUAs] in "verbose", even if I don't bother to read it all. It's handy for picking up the feel of the place. I rarely read the whole description unless it's my first visit to the room and I'm not in a hurry to get anywhere. I quite like the "unverbose" mode that MUD has, no other game seems to have that one."
Wabit [player]

"One of the best things about MUD is the style of the text. The locative descriptions are long, well-written, and vividly evocative."
PC Plus [magazine]

"Part of MUD's strength is the quality of the descriptions of each location, which are excellent."
Acorn User [magazine]

"Deaths lurk around every corner."
Computer and Video Games [magazine]

"Due to various political shenanigans at BT, MUD2 never got to Prestel."
GM [magazine]

"Shades versus MUD: how about blank objects, levels of invisibility, far greater realism, atmosphere, better room descriptions, greater flexibility with everything..."
Faramir [player]

"Just because we think MUD is a better game doesn't mean that all of the existing Shades players will drop Shades and come a running to MUD."
Wabit [player]

"Novices and guests don't like MUD. They can't find any treasure. Shades is more exciting for a beginner."
Acorn User [magazine]

"I honestly think that MUD's main problem is a lack of players, due to a lack of advertising and a general lack of anyone in charge being that bothered by the lack of players."
Wabit [player]

"MUD has too many internal problems. The game itself is far superior to anything else on the market, and with a little forward thinking could still be the number one game. Although advertising would have helped, I don't see that as being the culprit ... the problems were actually caused by an internal political power struggle, and as there wasn't anybody strong enough to put people in their place, the struggle gained momentum."
Wabit [player]

"It's an adventure, sure, but it's far more."
Computer and Video Games [magazine]

"Some activities are, it must be said, a little unusual, but are in keeping with the alternative comedy theme that pervades the game."
Atari ST User [magazine]

"MUD is expected to be one of the most popular innovations in home computing."
The Times

"Despite its outward appearance as just another computerised fantasy, MUD is a great deal more than that, and what it promises is even more intriguing."
Computing [magazine]

"MUD's success has been little short of phenomenal."
Atari ST User [magazine]

"MUD has a devoted following (one regular player lives in Japan) among whom some must certainly be counted micro-junkies. One unemployed participant built up a L1,000 phone bill and got zapped by British Telecom."
Mail on Sunday [magazine]

"If you buy your credits in bulk, it can be satisfyingly cheap to play."
ACE [magazine]

"One player in Wales clocked up a telephone bill of L3,000 before she was cut off."
The [Economist]

"MUD has been described as the greatest adventure in the world."
Computer and Video Games [magazine]

"MUD leaves other adventures for dead."
Personal Computer World [magazine]

"You haven't lived until you've died in MUD"
MUSE [slogan]

4.5 Shades.

Name:	**Shades**
Importance:	**1**
Author(s):	**Neil Newell ("Hazeii")**
Location:	**Prestel (Micronet)**
Pricing Structure:	**L4.80/hour 8am - 6pm**
	L1.20/hour 6pm - 8am
	L19.80/hour on (0898) 100890

Brief Description:

Standard MUD1 clone.

Historical Notes:

Newell was a MUD1 player. Shades was written over Christmas 1985 when MUD1 was unavailable, partly as a spoof. It was launched nine months later on Micronet, in preference to MUD2 and Gods because of internal BT wranglings. It has been highly successful on that service. Nowadays, it is billed as "the most popular on-line multi-user adventure game in Europe", which, in terms of player numbers, is absolutely correct.

Review:

Shades is very lucky. MUD2 was going to go on Micronet, but due to rivalries between departments of BT (Prestel and what was then NIS), the deal fell through. Micronet's much-vaunted Viewdata scrolling software was, for example, originally programmed to MUSE's specifications for MUD2. Shades was chosen as a substitute (ahead of Gods for technical reasons), and has remained the premier MUA on Micronet ever since, challenged only by the jokey Trash (which comes from the same stable). Most MUA authors - Newell included - consider this form of protectionism absolutely disgraceful. Compared against almost any other MUA, Shades looks decidedly inferior.

Because it is the only MUA accessible at local call telephone rates from anywhere in the country, Shades has enjoyed tremendous success. It has introduced many people to MUAs who might otherwise have been unaware of such games, and for this reason alone it ranks very highly. It has been well marketed, and has good technical support, but it is five years old now and really shows its age. Because of the hard-coded way it is programmed, it is fossilised in 1985. Its infrequent updatings (minor changes every six months, of late) means it continues to shed old players while only attracting a trickle of new ones: its user base has been saturated.

Technically speaking, Shades is actually pre-MUD1 in sophistication. It has insufficient depth to handle even basic concepts like containers. Its mobiles follow a set track, rather than moving with some randomness, and they cannot contain/hold objects either; this means that at times the game works counter-intuitively. For example, there is a "thief" mobile which steals things, however he can't carry his booty so it just automatically appears in his lair. If you see him steal an object, and you kill him before he leaves the room, your treasure is still in his lair.

The game itself is not really all that bad, given its age. There are over a thousand locations now (which is probably too many, since each game can only handle eight players at once), and its database is the usual castles and buried treasure fare. The aim is to collect treasure and drop it in one location (the Mad King's room) for points. There are 14 levels, some of which aren't immediately obvious as being gender equivalent (eg. male = gallant, female = dauntless; male = soothsayer, female = spellbinder). This doesn't appear to bother the players (who call themselves 'Shadists').

Persona attributes are strength, stamina, power and fight skill, which is an unusual combination. All players start with identical statistics, but they can change (stamina goes up to 230: again, uncommon). Only the latter three attributes are used in combat, which plays a central role in the game. Blows in fights are handled automatically, with power being the damage you do, and chance to hit depending on the combatants' respective levels. Fight skill defines the number of blows that occur per round of combat; it can rise and fall depending on the outcome of the fight.

Shades has a problem with fights, after complaints from players lead to a misguided (from a managerial perspective) alteration to the way fights work. If you start a fight and are killed, you lose all your points; if you were attacked and are killed, you only lose half your points. If the winner started the fight, the reward is 6.25% of the loser's score; if the winner was the player attacked, the figure is 25%. This, in a game where fighting is a key

element, is something of a surprise. It discourages inter-player fighting, which in turn means that anyone can reach wiz merely by playing for hours on end, whether they are 'suitable' in some sense or not. Once they have reached a high level, they are unlikely to be attacked at all - other high-level players will not attack because the rewards don't match the risks, and low-level players won't because they'd lose the fight (incredibly, Shades doesn't allow fights involving more than two players). There is a "berserk" command which could balance this, as it allows low-level players to flee without losing points (whereupon another can attack), however it is used infrequently because it doesn't work all the time.

As if this isn't bad enough, Shades has another means of ensuring that anyone can be a wiz if they really want to be: 'pacifists'. These are similar to MUD2's protected personae, but have no maximum level and a quicker advancement rate - only half that of non-pacifists. A pacifist can be attacked, but loses no points for fleeing. Pacifists can't start fights. Switching modes between pacifist and fighter zeroes your score.

Shades has many problems as a result of earlier managerial decisions. Although the situation is better now, there are still mistakes (eg. offering 10,000 points for the best map of the game). Despite having a MirrorWorld arch-wiz (Pippin) and a MUD2 arch-wiz (Lordant) on its books, Shades has always been a place where, if you complain loudly enough and with enough people supporting you, you'll get your way in the end. There are horror stories of people deliberately working up secret personae, gathering a coterie of impressionable admirers around them, then doing all they can to wreck the game as a wiz and having their minions leap to their defence every time there's a warning that they're out of line (receiving 50 letters telling you you're wrong is often enough to make even the most hardened arch-wiz think twice). By the time these trouble-makers have been ejected, they've worked up another persona and can start their disruption again. In addition, they probably didn't pay any money for what they did, having simply torn up their Micronet bill and waited to be cut off (you can get around 5 or 6 months' play for free this way).

One of the problems is that the game lacks logging facilities, so gathering evidence is always difficult. Another is that wizzes have feeble powers compared to other MUAs, and can't always keep mortals under control. However, since most mortals seem convinced that wizzes don't play fair, perhaps it's just as well there isn't anything really dangerous they can do.

Shades still has some oddities despite its age: there are mispunctuations ("moats bank" instead of "moat's bank", occasional American spellings ("center"), and room descriptions giving wrong directions. This latter point is extremely irritating, because Shades has no "exits" command (unlike virtually every other MUA) and thus you have to rely on reading the long descriptions of rooms to find out which directions you can move.

Atmosphere is player-driven. The players can be friendly at times, although stroppy at others. The room descriptions are not particularly evocative, and are constantly spoiled by out-of-place objects and events. Using rooms as a form of providing help is a neat idea, but it feels odd compared to the rest of the rooms (especially as there is a standard on-line help feature built-in anyway). Not really obviously (and perhaps politically unwise), the means chosen to give players back lost stamina is to touch a "little girl" mobile.

The spells in Shades are the usual batch, but there is no "blind" and no "deaf" (some room descriptions contain sound references that would still appear audible to a deaf persona). The only original spell is "jaunt", which enables the user to teleport to the location occupied by another player. Most MUAs do not have such a spell, as it can be a most unfair way of stealing treasure that someone else has worked on, and there are problems of consistency that can occur when someone suddenly appears in a room (eg. it's a "falling off a cliff" or a "you can only get here if you're carrying a cross" room).

Another point worth mentioning is that the more usual spell, "summon" (move someone to your room, rather than vice versa), is available to novices in Shades, whereas it is restricted to high-level players only in most MUAs. Finally, the incantation "where treasure" will tell you the location of every item of treasure in the game, thus (unfortunately) making novices aware of every major room and object right from the start.

Shades uses the normal fixed-time reset method, albeit using a shorter period than most MUAs (45 minutes - under half that of MUD2) since it gets played out quicker. The more people there are playing, the more treasure is worth (to compensate for its subsequent scarcity), but there is no time-based scaling.

There are two widespread clients for Shades. Named Ripper and Shadist, their principal function is as an aid to fighting in the game, however they can perform simple i/o tasks too.

It is widely acknowledged that Shades is a good game for people new to MUAs. It is easy to get into, there is lots of treasure lying around for novices to find, and there are no difficult problems to solve. The scenario is not threatening, and the players can be jolly, supportive and entertaining. For people who want a game rather than a place to socialise, Shades has its shortcomings, but it is by no means as awful as is often made out. It's a nice, easy, friendly, non-taxing MUA. It might not be the best programmed, the most challenging or the most innovative MUA, but its claims to be the most successful of the first generation MUAs are not made without some considerable justification.

Summary:

Shades is a very shallow MUA, its breadth is well below average, and its parser is notably weak. It is old, and looks it. It is of slightly above average size, but almost totally reliant on its players for what little atmosphere it can be said to possess. The gameplay requires no imagination on the part of its players, its wizzes are over-numerous, and by the standards of other MUAs they're virtually impotent. Management is much improved of late, but there are still legacies of the past that won't go away. Shades is popular because it's the only MUA with local-call access nationwide. It's a good game in that it's a MUA, but alongside other MUAs it looks very weak. It was in the right place at the right time, has been exploited marvellously, but is now, sadly, well past its sell-by date.

Quotes:

> **"Shades, already Europe's leading multi-user game, heralds the introduction of a new generation of interactive entertainment."**
> **Micronet [promotional material]**

> **"There is nothing else like Shades."**
> **Micronet [promotional material]**

> **"Shades is still fun to play."**
> **Comms Plus! [magazine]**

> **"Shades seems to be the most popular MUG around at the moment if you're judging by sheer weight of numbers, though it has something of an advantage in being part of Micronet/Prestel."**
> **ACE [magazine]**

> **"Pity that there's no real alternative available for people to show their disquiet. If something like Avalon was available at the same call rates, I doubt you'd see most Shades players for dust..."**
> **Nigel Hardy [Sector 7 author]**

"Shades is better at coping with this [resets] than MUD, since there are eight games of Shades running on each Prestel computer."
Acorn User [magazine]

"She stood close to me, put her arms around my neck and whispered, "It's not the treasure I want, silly boy. Take a look around." I did. I couldn't believe my eyes! We were in the Bridal Suite! There was a bed, the door was locked, and I was being cuddled again."
Comms Plus! [magazine]

"I found that type-ahead didn't work properly."
Comms Plus! [magazine]

"The location descriptions are atmospheric, and also vital to moving about the game as there is no "exits" command."
Comms Plus! [magazine]

"Shades has an emotional immediacy - MUD seems a somewhat austere environment in which grand concepts are brought to grand conclusions."
PC Plus [magazine]

"Shades has a more light-hearted approach. It is a teddy bear adventure. MUD manages to be rather serious until you meet some practical joker: then the fun starts!"
Acorn User [magazine]

"Shades is a good place to start for the new player. It's friendly, and fairly easy to get going."
ACE [magazine]

"First time users find it less daunting than MUD, while serious adventurers may find it less enthralling."
PC Plus [magazine]

"If you are new to multi-user adventures, go for Shades. ... Once you have mastered Shades, the dizzy heights of MUD wizardhood still beckon."
Acorn User [magazine]

"Shades is very basic, having no real depth or imagination. What little thought has gone into it has been wasted - who really wants to play football in a fantasy game? The players themselves are usually big whingers. They hate enthusiastic killers just as much as they hate people who talk too much. However, where Shades wins over MUD is how the game is actually managed. Ego seekers seem to be pushed to one side, and everyone seems to know exactly where they stand within the framework."
Wabit [player]

"Shades (and Trash) is left way behind in the technical fields compared to (say) Avalon or Gods (I'll explain that: Avalon and Gods have much better parsers, much better commands, and much better things for immortals to do once they've made it). They [Shades and Trash] were written when even single-user adventures were in their infancy, and have stood the test of time remarkably well. But now they look just a trifle run down and archaic."
Graeme [player]

"Shades has a more amateurish feel to it [than MUD2]."
Acorn User [magazine]

"The game itself is rubbish. It has no life or realism in it. Role-playing is one thing, but that just wasn't believable. As for

the players, yes, they have got lots more [than MUD2]. The only problem I found was that they didn't want to talk or interact more than what they had to. Eventually I was kicked off by a wizard for annoying too many people by chatting to them."
Wabit [player]

"Having all the players start out equal is a design principle. Although it doesn't mean it can be achieved in practice, the mere fact that the goal is unattainable doesn't mean we shouldn't attempt to reduce the distance to it."
Neil Newell [author]

"My viewpoint is not that fighting is the lifeblood of the game - it is an essential element, but just one facet of the whole picture."
Neil Newell [author]

"The ultimate adventure multi-user game"
Micronet [slogan]

4.6 AberMUG.

Name:	AberMUG
Importance:	2
Author(s):	Alan Cox ("Anarchy"), Jim Finnis, Leon Thrane, Richard Acott, Ian Smith.
Location:	(081) 863 6646
Pricing Structure:	L6.50/month flat fee or L65/year flat fee

Brief Description:
Standard MUD1 clone.

Historical Notes:
Originally entitled AberMUD, a version was moved by Smith to Connect (the IBM PC User Group conferencing system) in 1989. The name change was for legal reasons, to avoid allegations that it was passing itself off as MUD.

Review, Summary and Quotes:
See AberMUD in the section on international MUAs.
AberMUG runs on a Compaq Deskpro 386/16 under SCO Xenix system V/386 2.3.1.

4.7 Avalon.

Name:	Avalon
Importance:	2
Author(s):	Yehuda Simmons ("Genesis"), Daniel James ("Aldaron"), Jon Baber ("Cornelius"), Peter Evans ("Zaphod")
Location:	Synergy
Pricing Structure:	L0.25/hour or L10/month flat fee or L25/quarter flat fee or L80/year flat fee or L200 flat fee

Brief Description:
Arthurian/Odyssean, multi-skill, trading game.

Historical Notes:
Written by students in 1989. Originally on IOWA, but went independent in 1990.

Review:
Avalon is a new MUA that has already attracted great attention in the industry due to its departure from the traditional MUD1 mould. It is primarily a role-playing system, where the game determines the skills available to personae, rather than the players acquiring skills (eg. combat) themselves.

Indeed, skills are a very important feature of Avalon. The gameplay works something like this: when players start, they are given a history of training in eight listed skills. All told, there are over 30 such skills, covering a wide range from perception to music, defence to riding. Personae may have up to 17 skills each, although why 17 rather than some other figure isn't made clear. Skills can be improved by use, and by learning them from other players. By acquisition and use of skills, players may do things which earn them money or gain them experience.

Experience is obtained by visiting new places, wandering around exploring, and even by simply chatting. This contrasts with the usual MUA scheme where points are obtained for finding treasure or performing specific tasks. In Avalon, treasure may be sold for money - gold pieces - and used to buy things. Almost anything can be bought, including houses, shops, taverns, animals, weapons, food and drink. Personae may use certain skills to create objects, eg. potions, which can be sold to other players for use on their adventures.

It is easy to go up experience levels in Avalon, at least initially, but it has many more levels than usual in MUAs so rising to a new level doesn't mean much - it can happen just by talking to someone for long enough. There is a MUD2-like task system to rise from the third-highest level ("ultimate") to the second-highest ("demi-god") and highest ("god/goddess"). Avalon employs the Gods system for its wizzes, with some modification in that gods/goddesses cannot lose their powers once they have been obtained. Nevertheless, it is still rather galling for many players to have to prostrate themselves in front of other players if they are to advance in Avalon. The gods also earned an early reputation for being heavy-handed and for ignoring new players.

The system of deities (of which their are currently eight) is interwoven with that of skills. There are nine guilds, each of which is devoted to a particular style of play, with primary and secondary associated skills, a persona as head, and (usually) a deity as patron. Deities favour different aspects of play, and players are encouraged to choose one as patron that they may advance in their chosen skills more quickly, via the appropriate guild.

There is some lack of forethought here in that to reach god level, a persona must identify with and follow the tenets of some other god, and thus when they become deified there will be two gods with roughly the same outlook, so one of them must change so as not to be supernumerary. To change requires alteration to Avalon itself, because at the moment it is built around a balanced system of greek-like "god of the ..." constructs. After several years, when perhaps twenty or thirty gods have accumulated, this will lead to an inevitable fragmentation into a collection of over-specialised deities without any having a wide enough brief to be attractive to players.

Game management is woven into the game, with a judicial system in place allowing personae to deal with offenders. Whether this will function remains to be seen - as with Federation II, most complaints will be about out-of-game actions (carrier loss, program bugs) that will spoil the atmosphere if discussed in a game context. Certainly, there have been problems: one of the authors is rumoured to have got into an argument with a player and deleted the entire persona file in a fit of temper.

Avalon is atmospheric, but the room descriptions show inexperience on the part of their authors. The purple prose falls over itself to use every word in the synonym library, and makes the mistake of telling players how they react to the scene. This form of unnecessary embellishment extends into the rest of the game, and can be very tiresome; for example, if you clap your hands it's reported as being done "merrily" even if you did it in anger, or to call for silence. The dialogue for learning new skills, although interesting at first, is samey, hard-wired, and looks too automated. The text also needs some minor polishing, eg. "a unworthy", "the principle currency".

Overall, the scenario feels patchy, with creatures from Tolkien (dwarves, orcs) alongside cities from ancient Greece. There are a large number of locations (1,600) compared to the small number of players it allows at once (5 external lines). Some of this size may be explained by the fact that Avalon incorporates some ideas from Mosaic, and thus has a collection of locations arranged in grid fashion. This may also explain why you need a steed to travel the distance between towns.

The magic (or magik) system is complex. Spells must be memorised, and some require the chanting of appropriate words before they can be cast (using a "chant" command - merely saying them won't work). A very bad move is that when players are killed they don't start from scratch; instead, their spirit roams the land shedding experience until another player reincarnates it. This fosters co-operation and friendship, which is its intent, but it also means personae are effectively unkillable, and that in the long run players are pretty much guaranteed to make it to god if they have enough friends. Having the game itself prevent unsuitable or troublemaking candidates from reaching the top is one of the tenets of good game management.

Avalon has several innovatory features, such as a page-based "read" command and a page/line-based "write", random-access style, and object creation (within a tightly-controlled framework) by mortal personae. When you leave the game, objects can be kept for when you restart (eg. that weapon you commissioned from a smith), and you restart in the room from which you quit. This means some objects can be kept unavailable for long periods if their owner isn't playing. There are no resets. Shouts in Avalon get level-dependent (but not gender-dependent) descriptions, which discourages newcomers from using this method to communicate. Combat is non-automatic, which makes life hard for people without macros or fast modems.

Avalon runs on an Archimedes, connected to modems via a multiplexer programmed by Blane Bramble (Comms Plus! magazine's UK MUA reviewer). The system crashes quite often, and has a reputation for never being up for very long. The game itself uses a language called Hourglass, specially designed for writing MUAs. It is highly flexible, although the authors' claims that "unlike other multi-user game languages it allows the user complete freedom in the nature of the system created" betrays a certain naivety; it may be true of Slate, but it certainly does not apply to MUDDLE or some of the American object-oriented definition languages now emerging.

To the beginner, Avalon is intimidating. This is no fault of the players, more a consequence of the sheer amount of information presented. It is almost as if reading a manual is necessary before play can begin. Instructions on how to use simple commands, such as communication, are buried deep in the help system. There are no automatic tours; newcomers have to rely on a deity to show them around, which, of course, will thenceforth colour their outlook in that god's favour.

Avalon actively promotes role-playing. It feels less of a MUA, more of a single-player role-playing game such as the later ones in the Ultima series. The other players are constrained by their skills, their patronage and the requirement that they role-play, to such an extent that they can appear little more than the mobiles which feature in SUAs. It is a worthy experiment, nonetheless, and if Island of Kesmai can flourish under such limitations, so can Avalon.

Summary:

Avalon is very deep and very broad, but not in the usual "physical" sense applied to MUAs; instead, it is social aspects of play that it models. There is a great amount of detail, but always the nagging thought that in the main it's unnecessary, mere depth for depth's sake. The game would probably function just as well were much of the system removed; the players would certainly feel less like they were wearing straitjackets. In their keenness to try anything and everything, the authors have expanded Avalon into a great sprawl of ideas, some good, some bad, many unworkable, but all interesting. In two or three years' time, it will probably be in the first rank of MUAs.

Quotes:

> "Players may choose to worship the gods in the land, although quite what good this will do depends on who you choose to worship."
> Comms Plus! [magazine]

> "The main thing that is different is the idea of skills, and being able to learn different skills to different levels of competence. This allows for every player to be different and an unknown quantity."
> Wabit [player]

> "Implementation [of skills and object creation] is not quite how I would like it to be, but it's a good start and a definite step in the right direction."
> Wabit [player]

> "Most of the 'usual' role-playing skills will be implemented (hiding, stealing, archery), as well as some more unusual ones (juggling, tightrope walking)."
> Comms Plus! [magazine]

> "I really object to being told how I view the location. Besides, it's stupid to have a description that states you "pause to survey your surroundings" if you are legging it through the location, or one where an old woman appears and disappears every time you do a look... These little things really bug me!"
> Wabit [player]

> "A multi-user game's atmosphere is to a large extent formed by its players, and Avalon wishes to encourage a tolerant and constructive environment."
> Hourglass Communications [promotional material]

> "In five hours, no-one hardly said a word to me, despite the fact that I tried on many occasions to chat."
> Jhary [player]

> "Avalon is not simply a multi-user game, it is a way of life, a living world unlike anything that has existed before."
> Hourglass Communications [promotional material]

4.8 Bloodstone.

Name:	Bloodstone
Importance:	2
Author(s):	Robert Muir, Andrew Pusey
Location:	none
Pricing Structure:	none

Brief Description:
Advanced MUD1 clone, fantasy setting.

Historical Notes:
Muir was originally a Shades player. With finance from Tony Cox, he and Pusey designed a transputer-based MUA specialising in world modelling. Named Bloodstone, it burst on the scene in 1989 in a flurry of advance publicity, but wasn't launched for almost a year. It finally went on-line on MicroLink, but disappeared after a few months with hardware, software and contractual problems. The cost was L7/month flat fee (the equipment it ran on cost over L20,000).

Review:
Bloodstone was the victim of its own arrogance. Its specifications were so exciting that, had they been implemented in full, the authors would have qualified for a Nobel Prize. It was to be vast, fast-moving, incredibly detailed, and the MUA to end all MUAs. In the end, it was brought down by implementation problems and the cold reality that profit from MUAs in the call-charge dominated UK market is not great.

The driving motivation in Bloodstone, which worked in part, was compositionality. Objects were made up of other objects, and these of others, and so on until the author got bored. For example, human beings were made up of 260 parts, including eyes, finger joints and so on, but excluding individual hairs on the head. A rose bush was made up of roots and branches, with thorns and flowers on the branches, the flowers being made up of a stamen and petals. Although always present, such details were not always given, however: "some flowers" or "many petals" would be described. In this respect, the game was able to ensure that players weren't completely swamped with information.

Despite this level of detail, Bloodstone was intended to be set in a continent with 12 separate countries, in which were towns and cities and 37 different races of creatures. All these would work independently, with players being able to have jobs during the day and be family men at night. Female personae could become pregnant and give birth nine months later to a child.

Mobiles were to have artificial intelligence (AI). Because of the way bodies were made up of parts, it was possible to get eg. a broken arm in a fight. A mobile might be able to figure out it needed a splint, and proceed to make one. Getting this alone to work as a general principle would be worth a PhD in AI...

There were initially 20 spells, including "polymorph" - change into a different kind of creature. This, as a side effect, would allow communication with other creatures of that kind (which seems unrealistic).

Everything was interlinked. If bricks were removed from a wall, it might collapse, bringing the rest of the building down. Small-scale actions could have large-scale effects. There are, however, well known problems in the AI field of object representation concerning this kind of activity. Either the programmer has to list explicitly all effects of players' actions (which is difficult and tedious) or the game's interpreter can figure it all out on-the-fly as it happens. This latter approach, where there are a set of physical laws that are applied to everything that has moved after a command has been executed, is workable but vulnerable; there can be long delays as effects are propagated throughout the universe being modelled, and some effects may take considerable time to dampen down and disappear. Pulling a petal off a flower may seem innocuous, but if it makes you weigh just enough that the snow bridge upon which you're standing collapses, and this in turn starts an avalanche, there can be wide-scale devastation that is almost impossible to sort out.

Bloodstone had a 25,000 word dictionary; this was quite a feat, but the

authors never made apparent which words were actually functional and which were merely ignored. It is quite difficult to think of even 1,000 words that could feasibly be of use in a MUA. Again, Bloodstone appeared to be going for overkill in an effort to impress potential customers.

Originally, the game was intended to run on transputers, but apparently these slowed it down. It finally ran on a custom-built 80386 machine running at over 6 mips (but rather flakily).

Although there were plans for graphics-based clients on the Atari ST and the Amiga, Bloodstone's normal display was rather poor. It didn't word-wrap, and the text (built up from object descriptions) contained such blunders as "a blood" and "it feels has a firm, warm texture".

Bloodstone was envisaged as a game of life, yet there lay its central problem: it had no gameplay to speak of. It was a simulation to incredible depth, but there wasn't really much that players could do, it was too open-ended. Even given the extravagant claims its publicists made, it probably could have been forgiven all but that.

Bloodstone was a grand concept, but doomed to failure. Its reliance on compositionality ensured that it would be stuck in a morass of intricate inter-relations between its components unless it sacrificed some of its depth (and thus some of its claim to originality). Some application of AI techniques may have alleviated the problem (eg. lazy evaluation - expand a rose object from a template only when it is actually in use), but the best approach would probably have been to represent objects at a higher level of abstraction. In the end, depth is useless unless there's a reason for it. Bloodstone's depth didn't pass this "so what?" test.

Bloodstone has been included in this review because although it is currently down, it is not out, and it may return in the near future. Hopefully, this time it will make less boastful claims, and advertise only what it does do rather than what it could do given a team of thirty programmers and a Cray 2 for four years. It's a very nice idea, but the programmers set their sights too high initially.

Summary:

Bloodstone is characterised by its almost unbelievable depth, which dominates every aspect of it completely. It is known, however, by the conceit of its advertising, the unlikeliness of its features ever being implemented, and the contempt in which it held other MUAs.

Quotes:

> **"I see that Bloodstone has gone down the pan. And just as MicroLink were about to 'start serious promotion'. Pity they didn't do that when it started, or they may have been able to get more than 4 users on and brought in enough dosh to keep the thing alive."**
> **Nigel Hardy [Sector 7 author]**

> **"The game is revolutionary in that it is massive and has huge expansion potential."**
> **Popular Computing Weekly [magazine]**

> **"If you pull a wing off a fly, that creature will be missing a wing forever and will probably die."**
> **Popular Computing Weekly [magazine]**

> **"Mobiles are equipped with artificial intelligence and will probably strap a broken arm into a sling."**
> **Popular Computing Weekly [magazine]**

> **"It looks set to take the lead in the multi-player game market."**

Popular Computing Weekly [magazine]

"Reports from UK-wide testers were proving enthusiastic."
Comms Plus! [magazine]

"It combines all the necessary detail and commands to be able to walk all over the opposition and should be sufficient to convert players of Shades and MUD."
Popular Computing Weekly [magazine]

"One of the early gripes [with MicroLink] has been about the late arrival of its multi-user games."
Comms Plus! [magazine]

"It puts everything else into the shade."
Derek Meakin [MicroLink chairman]

"We feel we have a powerful enough parser for anyone."
Robert Muir [author]

4.9 Empyrion.

Name: Empyrion
Importance: 2
Author(s): ?
Location: IOWA
Pricing Structure: free

Brief Description:
SF, multi-skill trading game.

Historical Notes:
Appeared on IOWA in 1990. Currently withdrawn from service.

Review:
Empyrion is another of the well-received new MUAs, a cross between Avalon and Federation II. Its scenario is an underwater city of the future, divided into districts called Hages. Each Hage is run by an administrator, a position which may be occupied by a player. Administrators have a budget which they can spend as they please. Players can leave the city (a crime under city law) and explore the surface, which is in the grips of a sinister alien force. From there, they can trade.

Trading gets players money, which they can spend on objects. Houses can be commissioned, and are built over a period of time, so it’s possible to go and watch the construction engineers at their task. Like all IOWA games, Empyrion has no sudden resets.

There is no conventional scoring system in Empyrion. Rather, it is skills-based: players progress by acquiring and practising survival skills such as gun combat, medicine, bribery and street-wiseliness. What they progress to is not apparent; there are a collection of energy beings called "eternals" with gamesmaster status, but how exactly one becomes an eternal - if indeed it is even possible - is not clear.

Eternals are capable of shape-changing, and are worshipped as gods in the city. They are able to create and alter rooms, objects, system messages and puzzles on-line; little is built into the interpreter. In this sense, the game is player-extensible, but only by selected players.

The city has a legal system run by the hage administrators and a group called "the sandmen" (as in the movie Logan’s Run). For breakers of city law they can impose fines, brainwash out skills, or order executions. This is part

of playing Empyrion, and is not to be confused with game management - that's handled externally.

As with Avalon, and increasingly in new MUAs, some objects can be reserved for individual players and left in a safe place so that the next time that player plays, the object is available. Despite its SF setting, Empyrion does have a magic system, "the force" (as in the film Star Wars). Players expend psi points using it and have to spend time "recharging" afterwards. Because of its large scale, vehicles are commonplace in Empyrion to enable players to move between places that distant from one another.

Empyrion runs on two machines, one for the game itself and one for mobiles. The mobiles are therefore more akin to bots. They are written in Prolog, and are supposedly able to learn.

Summary:
Empyrion is an interesting game combining many features shared by other newish MUAs, but not indulging in them to excess. However, it is rarely available at the moment.

Quotes:

"It certainly sounds good."
Comms Plus! [magazine]

"In Empyrion, practically everything is editable on-line by the gamesmasters."
Confidential [magazine]

"Empyrion is a fascinating new game that should have Sci-Fi buffs sitting on the edge of their chairs."
Confidential [magazine]

4.10 MIST.

Name:	**MIST**
Importance:	**2**
Author(s):	**David Barham, Paul Goodjohn, John Medhurst, Dave Morris, Shaun Plumb, Paul Friday, Michael Lawrie ("Lorry"), Bret Giddings, Richard Thombs, Adam Bird ("Orc"), Simon Smith ("Boo")**
Location:	**Essex University**
Pricing Structure:	**free**

Brief Description:
Standard MUD1 clone.

Historical Notes:
Written using the Trubshaw and Bartle MUD1 interpreter, went live Christmas 1987. Runs on Essex University's DECsystem-10 mainframe, but not for much longer as the computer is shortly to be scrapped.

Review:
MIST is one of the several databases written by students for the MUD1 interpreter in its MUDDL language (NB: MUDDL is MUD1's definition language; MUD2 uses a greatly different language, MUDDLE). MIST introduced many JANet users to MUAs, and was worked on by a large number of students.

Unlike MUD1's original database, MIST uses the berserker option. This makes for a fight-oriented game. Management is easy, however - whichever

student is in charge any particular year usually assumes draconian powers, and it's not unprecedented to delete the entire persona file (which would not be an option in a commercial game).

MIST is dated by its MUD1 interpreter and the weakness of the MUDDL language. However, the age of the hardware upon which it runs is its final executioner - Essex's DECsystem-10 will be switched off and melted down for scrap sometime within the next few weeks.

Summary:
A large mish-mash of rooms by different authors bound together in an heroic fantasy setting. A completely traditional, fun MUA.

Quotes:

"MIST doesn't have any rules as such, it's a pretty anarchistic place as games of this type go."
Michael Lawrie [author]

"Rules for general behaviour are laid down by the wizards and you would be well advised to follow them."
Michael Lawrie [author]

4.11 Mosaic.

Name:	Mosaic
Importance:	2
Author(s):	Pip Cordrey ("Pippin")
Location:	none
Pricing Structure:	none

Brief Description:
A MUA design methodology.

Historical Notes:
Originally known as Vector, Mosaic was first suggested several years ago, but only in 1989 did it come to the fore after a talk by Cordrey at the Adventure 89 convention. Some of its concepts are used in Avalon.

Review:
Mosaic is not a MUA itself; rather, it is an influential approach to designing MUAs.

MUAs represent rooms as a network of nodes connected bidirectionally. The central theme of Mosaic is that a better approach would be to use a point-based co-ordinate system instead. What normal MUAs regard as a "room" in Mosaic would be nothing more than a collection of points that share a common name.

The primary advantages of a Mosaic system over normal MUAs are: room descriptions can be generated automatically; interaction over distance is possible; it is more realistic.

That viable room descriptions can be generated on-the-fly is not in doubt. Work at Essex University established that "bookkeeping" information (number of exits, large nearby buildings, views from windows) can be folded into a piece of atmospheric text to produce readable complete descriptions. However, this work was in a normal MUA environment, not in a point-based one. A prototype of Mosaic ran into problems in that too much information was provided to the players, with many objects visible some considerable distance away. The solution it adopted was twofold: to provide a command whereby players could restrict how far into the distance their "look" command proceeded; to

prioritise objects so that things like advancing dragons would be included in a description and distant mud huts excluded. There was no command to set priorities for each user, however, nor was there one to select the cut-off point of priority totals above which no further information was given.

In Mosaic, the world is divided into 1m cubes. Each cube has a surface type, eg. grassy plain, which determines how it is described. Objects can be seen at any distance, but can be occluded: line-of-sight calculations and adjustments for atmospheric conditions are done automatically. Descriptions are player-relative, so players can not see what is immediately behind them (there are objections to this aspect of "realism" - just because a player is generally facing west, that shouldn't mean they can't keep glancing around and picking up high-priority objects approaching from the east).

A big play is made of Mosaic's ability to reduce the amount of text necessary for a MUA, however in some ways it increases it. Objects (which are not made up of 1m cubes) need different descriptions depending on how far away they are and the direction from which they're viewed; what looks like a house from a distance may look like a pole from the side and look like a billboard close up. Objects can also have different descriptions depending on the time of day, whether they're inside or outside, and the lighting. So although Mosaic requires less text for describing rooms, it needs more for objects. Interestingly, there is no provision for describing objects on-the-fly based on whatever properties they have.

Physical features in the game, eg. hills, can either be constructed from unit blocks or calculated at run-time from (fractal?) planar functions. Distant objects can be modelled by placing appropriate surfaces at the edge of the game world, eg. the sun, clouds, and mountains.

Movement can be fine-tuned, so that a normal "north" command may move a player 5m north, or 4m through marshland; a "run north" may be 10m and 8m respectively, whereas "north very slowly" could be 1m in both cases. There is great scope for combat in this system, since combatants can move around as they fight, terrain advantage can be taken into account, and weapon length can play a part - someone standing behind a bar holding a polearm would be unassailable from even the most magic of swords. There would be no need to flee - players would simply move away and hope their injuries weren't so great that they could be caught again.

Cordrey's articles on the subject include some suggestions for player properties. Although some of these are perhaps conceivably of use (height, weight, build, weapon skills), others are rather eccentric (body temperature, blood pressure, blood sugar level, endocrinic activity) and would simply get in the way of playing the game. There are also suggestions for more accurate physical modelling, such as handling gravity automatically, however at best this would be a case of moving objects down until their z co-ordinate matched that of a surface; questions of objects being overbalanced or knocked over by having a new mass land on them are unlikely to be addressed because these are currently research issues in AI robotics.

Mosaic, like MirrorWorld, is a one-concept system - everything revolves around this 1m cube idea. In reality, though, it's less flexible than the system employed by normal MUAs, since their nodes can be strung together in arbitrary ways including a co-ordinate system, whereas Mosaic is held rigidly to uniformally-sized blocks. Perhaps a better approach would be to overlay the rooms in a normal MUA with a co-ordinate grid, thus gaining the best of both worlds (Avalon, which has a Mosaic segment, may do this; a single-user version of MUD1 released around 1987 certainly did).

Implementation of these ideas can need a good deal of computer power. Line-of-sight calculations are required every time an object is moved, so its new position may be reported to all players, and this can be very cpu-intensive. The first implementation recalculated the entire database every

time an object was moved, to check for consistency, but this approach had to be abandoned because it proved far too slow.

All in all, Mosaic is a neat idea but it’s too restrictive and too slow for MUA programmers’ liking. However, in one respect it would be fantastically successful - graphics. The co-ordinate system it envisages is precisely what is required in a graphical MUA, and many of the problems that arise from textual descriptions (eg. information overload) would disappear if the information was represented visually. However, Cordrey is vehemently anti-graphics, so no work has yet been done in this area.

Summary:
Mosaic is an idea with potential, and its employment in MUAs in parallel with the traditional approach would be beneficial. However, until the idea is taken up by MUA programmers other than the IOWA team, this is unlikely to happen.

Quotes:

> "You never know, we may change the face of tomorrow’s adventuring."
> Pip Cordrey [author]

> "Not only should this form of system make games more realistic, but it also means that games (especially combat) should become more tactical."
> Comms Plus! [magazine]

> "The real advantage is that it is no longer necessary to sit scratching ones head dreaming up room descriptions, the system will do it for you. What is more, these descriptions will be accurate."
> Pip Cordrey [author]

> "Mosaic really is a progression from the early free style, free space tabletop game."
> Pip Cordrey [author]

> "In current MUGs, if two players both decide to get the same object, the one who enters the command first gets it. With Mosaic, the system can determine the distance to the object (and possibly how quickly the player can cover the distance), and delay the action accordingly.
> Comms Plus! [magazine]

4.12 Prodigy.

Name:	Prodigy
Importance:	2
Author(s):	Blane Bramble ("Geolin")
Location:	IOWA
Pricing Structure:	free

Brief Description:
Standard MUD1 clone, Ancient Britain setting.

Historical Notes:
Originally entitled Parody, but very recently rewritten from scratch and renamed Prodigy (coinciding with the loss of Parody through hardware failure).

Review:
Parody was a run-of-the-mill MUA set in "Wesarg", a mythical part of pre-Christian Britain. Written in Slate, it was subject to all the limitations

of that language, and Blane Bramble, its author, decided to rewrite it as Prodigy using a language of his own design. Although this will eventually make the game much better, most of it doesn't yet work. Worse, the original Parody game had to be taken away because of hardware problems, so at present there is no MUA available containing the complete Parody universe.

In Prodigy, players choose a character class for their persona, one of warrior, rogue, priest or mage (standard AD&D classes). There is no difference at the top level for each class, which equates with wiz; players need 3,072,000 points to reach wiz, though - the highest yet seen in a MUA and probably attributable to the "pinball scoreboard effect" of scaling all point values by a large number so as to give the impression that players are doing better than they actually are.

Experience points are gained by solving puzzles, or by finding objects and selling them to a trader (ie. back to the game). Experience points can, unusually for MUAs, be spent, either in the anachronistic casino (playing a card game based on baccarat) or on spells. Later, experience points may also be exchanged for goods in shops, eg. food. The ability to swap experience for spells, though, gives a more interesting trade-off: players who do it will not go up levels as quickly (because they spend some of their experience points), however they may survive longer in the long term.

The magic system is not fully implemented, but the spells Prodigy has at the moment are mainly combat-oriented, with no "blind" or "deafen" spells (a hang-over from the original Slate implementation). However, it does have its own unique spell, "charm", which stops its victim (usually the person who cast it) from being attacked by mobiles for six seconds.

When finished, Prodigy will have 160 extra locations, more puzzles, and more objects; Bramble has delegated editorial control to one of the players. The database definition language it employs is under wraps, but although it is better than Slate it clearly has its problems: everything is stored in memory, which can quickly run out, and which has to be backed up to disc every so often, causing long pauses while it happens. Furthermore, its implementation is not all it should be - adding any data to memory slows the game down due to its having more information to search. As is normal with a new implementation, Prodigy is shaky at the moment and prone to bugs and crashes. Its spelling and punctuation are in need of being proof-read.

Fights are novel in that players can use two weapons at once, but they are ultimately fruitless activities because the worse that can happen if you lose is a loss of 25% of your points. This makes attacking powerful players unattractive - if you plan an ambush and beat them, they're still pretty well as powerful and can thrash you on their own terms as often as they like at a later date. That said, fights are complicated by weapons having different properties: attack, defence, parry, speed and damage. They also have an aura (ie. alignment), which if different to the player's own will cause a degradation in performance. It is therefore essential in Prodigy to choose the weapon that best fits your needs - more realistic than most MUAs.

Prodigy has parser capable of accepting adjectives on the object (eg. "get tabby cat"), and it has a pronoun ("me"). It will auto-abbreviate names, which are unique in the first three letters (Avalon does a similar thing to four letters), so "Geolin" can be shortened to "Geo" in all cases. This would, however, appear to limit quite drastically the number of readable persona names Prodigy can accept.

Uncommonly among non-academic MUAs, Prodigy has its own in-built mail/notes system as part of its command set. Almost invariably in other MUAs, this function is carried out by an external program, being an activity not conducive to maintaining atmosphere. Nevertheless, it does appear handy, and may find its way into other MUAs after a while.

Summary:

Prodigy is an average MUA, pleasant enough but nothing special. It will increase in popularity as it is fleshed out, particularly because its author is the MUA correspondent for Comms Plus! magazine.

Quotes:

> "Parody is a fascinating game to play."
> Pip Cordrey [owner]

> "The quickest way to get to Mage is to ignore spells completely, IF you can survive without them!"
> Pip Cordrey [owner]

> "The story line is a strong one, and the senior players are attentive and available."
> Pip Cordrey [owner]

> "'Oh good,' I hear you say. 'Maybe we'll see some serious additions to the game with someone else writing.' But no - having seen one of her puzzles it seems the game will continue in a similar vein to its currently confused setting."
> Blane Bramble [author]

> "Memory is fairly limited on the current machine, and if the memory limit is reached the game will probably flame-out (crash and burn)."
> Blane Bramble [author]

> "If you are keen on fantasy and AD&D then you should investigate this game."
> Pip Cordrey [owner]

4.13 Quest.

Name:	Quest
Importance:	2
Author(s):	Phil Harling ("Amstar"), Marcus Tyler-Moore ("Totty"), Ady Parker ("Apollo"), Ian Cumbers ("Legal"), Pip Cordrey ("Pippin")
Location:	IOWA
Pricing Structure:	free

Brief Description:

Historical Notes:

Originally entitled Quest 1, written in 1986 by Harling, then in his early teens. Rewritten in 1987 for an Amstrad 6128, and again for an SBS PC clone. In this latest incarnation, it was ported to IOWA.

Review:

Quest is a game permanently in a state of never-progressing development. It has around 300 rooms with more promised, and has had since 1988. Their descriptions are brief (often only one line), and there are numerous incorrect spellings. Object descriptions are of a length that other MUAs would use as their name, and they are folded together (eg. "You can see a soggy snowball and a magic mushroom"). This all combines to make the game rather unatmospheric.

The gameplay is clearly an attempt to rationalise the idea of rolling

resets. Instead of a man in a white coat, Quest is run by a computer-generated wizard called Taliesin. He creates and recreates the world, recycling treasure by placing it back in play. Points are scored by dropping objects down a bottomless pit, or, for higher-level players, giving them to Taliesin's apprentice. This mobile is supposed to be a comic figure, and will either pass the treasure on to Taliesin for reprocessing, drop it, or give it back to the player.

Quest claims to be the first MUA with gambling, since it has a system where players can bet points on the results of gladiatorial combat in an amphitheatre (although they can't themselves participate). When players do fight, whoever is defeated will lose half their points if they were attacked, or all their points if they started it.

As with most MUAs, players can die silly deaths in Quest, eg. by falling from a great height. The standard practice in this event is to quit the player from the game and to fine them a small percentage of their points (possibly 0%). Quest makes them lose the number of points since they last did an explicit "save" command, since it has no automatic saving of score. This can irritate players, who object to having to type "save" every so often while they are exploring.

Players in Quest can pick up objects, mobiles and each other. This latter feature is generally regarded as inadvisable in MUAs except when undertaken by wizzes, since it effectively renders a player captive and immobile. Nevertheless, in Quest it is thought to be a pretty nifty trick.

It is possible to send messages from Quest to players in MirrorWorld. However, given the overall shoddiness of Quest, prospective players will probably be in MirrorWorld anyway...

Summary:

A shallow, narrow MUA that seems virtually abandoned by its programming team. Were it given more attention it could be one of the better Slate games, but as it is it's fossilised in a state of neglect.

Quotes:

> **"There are some nice touches to the game."**
> **ACE [magazine]**

> **"Along similar lines to MirrorWorld, the game has managed to introduce ideas of its own, and so has avoided the problem of being thought a MirrorWorld clone."**
> **Comms Plus! [magazine]**

> **"It certainly is a step onward from the original game he [Harling] wrote, including some very imaginative features."**
> **Pip Cordrey [owner]**

> **"The thing that is most unique is that it has a strong storyline that makes the whole universe plausible."**
> **Confidential [magazine]**

4.14 Realm.

Name:	**Realm**
Importance:	**2**
Author(s):	**Martin Hardcastle**
Location:	**CompuNet**
Pricing Structure:	**L1.50/hour**

Brief Description:

MUD1 clone, Tolkienesque.

Historical Notes:

Launched with a fanfare in late 1989, but little publicity since then. Its 17-year-old author took two years to write it.

Review:

Realm is set in a fantasy world like that of Middle Earth, where a once prosperous population has been devastated by natural disaster and overrun by evil creatures. Players are humans, elves, dwarves etc., whose task is to amass points in the usual treasure-finding/puzzle-solving/monster-killing fashion until they reach the wiz level ("Immortal").

The game has a reputation for good, atmospheric descriptions, a usable MUD2-style hierarchy of object classes, and a superbly detailed combat system. Unfortunately, there is no guest account and you need to be a subscriber to CompuNet to play it.

Realm runs on a 1mb Atari ST.

Summary:

A good, traditional MUA, but without the backing it properly deserves and somewhat overpriced.

Quotes:

"For my money, one of the best multi-user games."
Comms Plus! [magazine]

"Realm is just the sort of game I'd hoped to see on CompuNet one day. A true, traditional MUG in the style of MUD and Shades."
Alan Wright [player]

"I liked it because it is very fair to slow, stupid beginners like myself."
Alan Wright [player]

"A world where magic works and heroes are as common as the monsters they slay."
Martin Hardcastle [author]

4.15 Trash.

Name:	Trash
Importance:	2
Author(s):	Matthew Ward ("Ambushbug")
Location:	Prestel
Pricing Structure:	L4.80/hour 8am - 6pm
	L1.20/hour 6pm - 8am
	L19.80/hour on (0898) 100890

Brief Description:

Non-standard MUD1 clone, "humorous" setting.

Historical Notes:

With Shades' success, Neil Newell set up a company (Third Millenium Systems) to design and market MUAs. The first product to appear was Trash, written in 1989 using Newell's MUGICK language. Despite being on Prestel/Micronet, it has not been a hit.

Review:

Trash was deliberately written to be funny. MUAs are meant to be

entertaining, so Trash goes all out to amuse with "wacky" descriptions and "weird" premisses. Unfortunately, it tries too hard, and most of it really isn't all that amusing.

The objective is to collect trash (as opposed to treasure) and dump it in an atomic furnace. For this, the players receive credits which can be spent on restoring stamina, buying things, or on psionic powers. Psionic powers are intended to be an encouragement to role-players, so ones playing evil personae might concentrate on increasing their telekinesis or pyrokinesis psionics, whereas good personae might focus on a power like faith healing.

Although this may appear to be a standard MUA with just the names changed (psionics=magic, trash=treasure, atomic furnace=swamp), there is actually a fairly interesting structure lying beneath it. Players go up levels not by accumulating credits, but by increasing their "promotional prospects". By solving puzzles in the game, a player's promotional prospects are raised a few percentage points. When the total reaches 100%, the player goes up an experience level - there are 12 in all, the top being 'Lord/Lady'. Although credits can be used to increase your chances of survival, they aren't intrinsic to rising levels.

Because of this puzzle-centred outlook, and the fact that higher-level players get no reward for solving easy puzzles, Trash should attract the more serious players who like ordinary SUAs, rather than just pure MUA addicts. However, its self-conscious humour tends to drive such people away. Nevertheless, Trash does have a larger number of puzzles than is common in MUAs, and ensures that players need to have solved virtually all of them before they reach the top level.

The game does have some background information to justify why players are performing their trash-seeking tasks, concerning endotropic levels of small dimensions within the multiverse. These "small dimensions" are actually pocket MUAs in the overall Trash scenario, and have a theme running through them. Some are generic, eg. "Heavy Citadel of Metal" and "the Pyramid of Tutan", but others poke fun at specific targets: "Shades of a land" spoofs Shades; "Cabbages and Caves" does AD&D; "Off-Centre Earth" is Lord of the Rings and "Starship Wantarise" is Star Trek.

So why hasn't Trash been as successful as expected? Part of the reason is its gameplay - not everyone is an adventure fan, and if there's no alternative to problem-solving then they won't play. However, the main reason is its setting - the forced atmosphere of crazy (ie. unfunny) humour grates after a few minutes, and the strange logic of the game is too much of a departure from reality for many players to consider fair. It may seem a good joke for players to get a spaceship from a spaceship tree, but it's not really the first thing you'd look for if you wanted to undertake interstellar travel.

Trash runs an an IBM AT.

Summary:

A good, puzzle-oriented MUA with an interesting alternative to convention experience points, totally ruined by an inappropriate scenario.

Quotes:

> **"With a name like that, no-one can prosecute it under the Trades Descriptions Act."**
> **[Traditional]**

> **"The whole game is puzzle oriented, and takes one step closer to being an adventure game for multiple players. Here, the distinction between a MUG and a MUA becomes more pronounced."**
> **Ace [magazine]**

"The puzzles range from easy to incredibly annoyingly difficult."
Confidential [magazine]

"Trash is one of the strangest multi-user games around, combining fire-breathing cabbages and inflatable hovercars with Matthew 'Ambushbug' War's own inimitable style and humour."
Third Millenium Systems [promotional material]

"Where else could you grow your own spaceship, meet fire-breathing cabbages, teach machinery to hum in tune, cause pink blancmange to rain from the sky, clamber through a giant statue and drive around in an inflatable hovercar - while clearing up rubbish!?"
Third Millenium Systems [promotional material]

"Couple the puzzles with large doses of humour and you get a game that's both satisfying and highly enjoyable."
ACE [magazine]

"Anything and everything may happen in the game, and though there is always a certain logic in the background it may not be easy to find."
Confidential [magazine]

"Trash has been MUGICK's first big challenge, and I'm very pleased with the results. Matt has really made MUGICK do some very strange things indeed!"
Neil Newell MUGICK [author]

4.16 Void.

Name: Void
Importance: 2
Author(s): Clive Lindus ("Dirk")
Location: (0903) 700737
Pricing Structure: free

Brief Description:
Non-standard MUD1 clone, multi-setting.

Historical Notes:
Lindus was a player of Zone, who became disillusioned with it and decided to write his own alternative. Void was premiered two years later at the Adventure 89 convention, and was launched in 1990.

Review:
Void, like Trash, is a multi-setting game. Its linking scenario is that reality rifts are being caused by the construction of an intergalactic throughway, and that players can fall through these rifts into parallel worlds. At present, Void consists of 450 rooms split into 9 environments (with another due shortly) including a fairground, a school, an ice palace, Dodge City in the wild west, and Narnia. This idea of connecting popular milieux together in one consistent system has gained currency in face-to-face role-playing, and will probably become one of the next fads in MUAs, too.

Everything in Void is there as an aid to role-playing. It is not really a game, since there is no real goal; instead, it is a framework to promote imaginative interaction between players. There is, for example, no combat, and thus the speed at which players progress through its twelve levels is dependent directly on the amount of time they invest in accumulating points. Alignment is explicit, either good or evil, and is not monitored by the game (Avalon, on the other hand, determines alignment by what players do, not by what they say they'll do).

The emphasis on role-play is a pity in one way, because Void actually has quite a good game system underlying it. Players' stamina decreases with time, and is replenished by food and drink. Magical power, on the other hand, increases over time and is reduced by the use of spells. Spells for each player are kept in that player's personal spellbook, and even at the highest level (arch angel or demon lady/lord, depending on alignment) not all spells are available. Thus, other players are unknowns - a rather attractive and realistic idea. One-off spells can be obtained by reading appropriate scrolls.

Points are of two types, magical and social. The former correspond with points in other MUAs, the latter are just things that players get a few of each week to give to their friends - there is no gameplay reason for having them. Magical points are obtained in Gods-like fashion by offering them to the ruler (ie. creator - usually an ex-Zone player) of the world you're in at the time, at some appropriate location.

Void has more depth than you'd expect - it can handle smells, for example - but it is selective in that interaction between players is handled in a far more detailed fashion than the rest of the game. It has, for example, a modern switch facility, so that a string containing, say, "/Fred" will expand to "Fred" for everyone except Fred, in which case it expands to "you". This can be used to good effect in emotion commands, eg. "Growl at /Fred".

The reason for this degree of attention to inter-persona messaging is because it is Void's raison d'etre - the whole point of playing is to role-play in imaginative ways with other players. Some of it is sexual, but on the whole it is good-natured and fun, rather than the sometimes sordid behaviour which goes on in Zone. A side effect is that some desirable commands usually left out of MUAs are present in Void for effect - "dress" and "undress" are there, which means "wear" is also present and is distinct from "get". Cash is part of the game, and can be spent on various services, such as the "ogram" (sending a message to another player by means of a transient messenger, eg. a kissogram). Perhaps surprisingly, perhaps not, Void has a larger proportion of female players than most MUAs.

There is some humour written explicitly into the game, which can be intrusive. Players can create their own prefixes, although there's no problem with that because virtually anything they choose can be fitted into the scenario, and even misspellings only add to the general feeling of fun.

Player names can be abbreviated to minimum uniqueness, although there are problems when this conflicts with command names, and when other players enter whose entire name is someone else's minimum. Void's players form a small, tight-knit yet gregarious community, however, and if people do mess it around they can usually be persuaded in friendly fashion to be a little more thoughtful. Whether that would be possible with a larger user base seems unlikely, though.

There is a bulletin-board in Void that can be accessed from within the game. Normally, this would be too dangerous for players to use - while they're in the BB, their persona could be being attacked. However, since Void has no fights, it's safe to have one there.

Void has an unfriendly rivalry with Avalon, which it sees as poaching its players - the game was deserted for a time when Avalon came out, and is only now recovering due to Avalon's fragility. Some of Avalon's programmers and gods are regarded as particularly arrogant by Void stalwarts.

Void is hard-coded in Pascal, with text and object/room definitions written externally in a simple database definition language. It has just four external lines, and runs on two IBM ATs.

Summary:

Void is really little more than a virtual reality to encourage

role-playing, often of the flirtatious type but by no means restricted to that. With some concessions to gameplay and a few puzzles, it could really get to be quite good, however its author, Clive Lindus, seems happy with what he has - a light piece of variety with a warm nose.

Quotes:

> **"The availability of different realms is an interesting alternative to offering several different games."**
> **Comms Plus! [magazine]**

> **"There are quite a few touches of humour in the game."**
> **Comms Plus! [magazine]**

> **"I like it! Wonderfully inventive and atmospheric."**
> **Lizandith [player]**

> **"The main idea of the game is enjoyment, and how you achieve this (as long as it doesn't stop someone else enjoying themselves) is up to you."**
> **Void [promotional material]**

> **"I try to take a back seat and let players get on with role-playing. The best way is for me to play as well. I think all this "I'm the coder" rubbish puts people off."**
> **Clive Lindus [author]**

> **"This game is truly run for the players: no charge to play, and relying on players' ideas to improve it. Before you worry about Avalon, spare a thought for Void - I think it deserves its fair quota of players as well."**
> **Clive Lindus [author]**

4.17 Zone.

Name:	**Zone**
Importance:	**2**
Author(s):	**Chris Butterworth ("Gandalf")**
Location:	**Lap of the Gods**
Pricing Structure:	**L0.575/hour or L11.50/month flat fee**

Brief Description:

Non-standard MUD1 clone, debauchery setting.

Historical Notes:

Butterworth was playing Shades when another player suggested that someone should write an adult MUA. Zone was finished in 1987, and went live independently (with only two external lines). In 1988, it moved to the Lap of the Gods system.

Review:

Zone is short for Erogenous Zone. It is a MUA deliberately written to be "adult" and controversial, and succeeds admirably in both areas: over-reaction by BT to the threats of self-styled "moral guardians" could eventually lead not only to the removal of Zone from the telephone network, but also of every other MUA. Zone could then use its notoriety to flourish abroad, but most other MUAs would simply die. That Zone will best succeed in the long run by annoying the anti-pornographic lobby and getting banned perhaps explains its stalwart refusal to make all but the most token gestures towards ensuring that people aren't offended.

In Zone's case, at least originally, it was intended to be

controversial only in that it was thought-provoking; more cynical approaches to generate publicity by explicit lewdness had been suggested, however - most notoriously CompuNet's now-abandoned After Midnight project. Zone has given way to pressure to a minor extent in that it now asks players to state their age, and won't let them play if they say they're under 18; however, it has no way of verifying that people are telling the truth, and there have been suggestions that the question could really be intended as more of a gimmick to entice new players than as a demonstration of Lap of the Gods' responsibility.

The game itself (and it is a game) is set in an old mansion, its grounds, and a temple (dedicated to Sappho, a Greek poetess whose behaviour gave rise to the word "lesbian"). Compared to other MUAs, Zone has a small database and few items of treasure. Points can be scored by taking objects to the temple altar and offering them to Sappho, but the main way for players to increase their score is to do just that - score with the other players.

Zone has a command "make love to ... ". Players have to get into the right mood first by use of "cuddle" and "kiss" type commands, and the process can be speeded up by consuming alcohol. Points are awarded depending on location, participants, deflowering virgins, and who issued the "make love" command. If a persona is being made love to and doesn't want to be (ie. is being raped), there is a "stop" command - but it costs points to use.

Lovemaking uses up stamina, which can be recovered by consuming food and drink. Alcohol intake can have advantageous effects, but too much will cause disorientation, and, beyond that, death. MUD2 has a more complete treatment of alcoholic beverages (and, since it deals with liquids properly, allows drinks to be diluted), but there is no advantage gained by drinking in that game. In Zone, it's practically mandatory.

There are twelve levels, the top being master/mistress. There are arch-wizzes for game management purposes, although since mortals can do pretty well everything except swear in Zone their position isn't very taxing. A nice touch is that the game leaves its own messages of congratulations on the Zone bulletin-board when someone reaches master or mistress. Although there is no combat in Zone, players can lose points by seducing or being seduced by a player of a much lower level. From a gameplay viewpoint, then, lovemaking is Zone's equivalent of combat.

Although Zone is a MUA in the traditional sense, these aspects of it have been neglected in favour of its role-playing side. New objects are added occasionally, but as props rather than as tools or treasure. For example, kittens are a recent addition to Zone, but there's no way to score points from them. Other objects have shared a similar fate. This is a shame, because, like Void, Zone has some nice touches. Its parser is capable of distinguishing between "drink cocktail" (meaning all objects present of class cocktail) and "drink a cocktail" (meaning just one cocktail). Furthermore, it doesn't execute all the bindings at once: there's a time delay. Thus, if you "drop all" and then move after two objects have been dropped, the remainder of the "drop all" will be abandoned.

Although shallow in areas of gameplay, Zone provides many facility which can promote role-playing by the players. As well as "dance with ... ", "dress", "undress" and "hold hands with ... " commands, Zone has the latest switch feature in its strings (as in Void, but with possessives handled too). Magic is also like Void's, with spells costing magical power, and magical power replenishing with time. It has two first-level spells, "where" and "summon"; "summon" doesn't work on mobiles as they follow set paths when they move, and would therefore become lost if derailed.

Atmosphere is therefore all there is in Zone. The players, and the way they choose to interact, are the only reason for playing it - as a game, it's very thin. However, that makes it very vulnerable: 1990 has seen many of Zone's customers departing for Void. They can't be lured back, because this kind of

sexual role-playing is virtually database-independent, and Void has a major advantage over Zone in that it's free. The only way that Zone can survive in the long term is by having more publicity than Void (eg. switching to the Playboy bulletin-board), or by dropping its charges.

Zone is written in SuperBasic and runs on a Thor (a Sinclair QL clone with 3" discs).

Summary:

There is definitely a market for games like Zone, and a well-written MUA along those lines could attract a large number of players. However, the large networks won't touch it because of the moral backlash of so doing, which could be expected from almost every pressure group in the country - religious, social, political, academic, whatever. Whether this is fair on Zone is not for this review to determine, however it would certainly be a gross error to tar all MUAs with the same brush.

Quotes:

> **"In Zone, the idea is to make love, not war."**
> **Lap of the Gods [promotional material]**

> **"It is friendly in the Zone - make no mistake about it. The nature of the game dictates that all players interact to a great degree after all!"**
> **Ace [magazine]**

> **"I talked to a teenage girl who said that she had never been pressurised into participating in anything in Zone."**
> **Comms Plus! [magazine]**

> **"Fi [a female Federation II player] wasn't very impressed with Zone's being oriented around sex, rather than its being a side-line as it is in some other games. We wondered if perhaps young people came away from Zone with inappropriate ideas about relationships?"**
> **Comms Plus! [magazine]**

> **"In the first 6 hours of being on-line, the game had a player logged in for 5.75 hours. ... Over the next month, the players proved that even a game with 65 rooms and a trivial amount of treasure could be popular."**
> **Chris Butterworth [author]**

> **"Since some people are a little touchy about the subject of making love, you must be 18 or over to play this (and not touchy)."**
> **Lap of the Gods [promotional material]**

> **"(Almost) in the words of one famous MUG - 'You haven't lived until you've screwed in Zone'!"**
> **Jhary [player]**

> **"[It is an offence to send] by means of a public telecommunications system a message, or other matter, that is grossly offensive or of an indecent, obscene or menacing character."**
> **[Section 43.1(a), Telecom Act 1984]**

> **"British Telecom is concerned about the use to which a network is put but it is not the guardian of the nation's morals."**
> **BT spokesman [quoted in Popular Computing Weekly magazine]**

> **"The whole process is a product of the state of arousal of the players, how drunk they are, and the state of their undress."**
> **Ace [magazine]**

"We are certainly going to go down this [on-line pornography] route when we have cleared some of the other things off the lines. At the moment, the government is just washing its hands of this sort of thing."
Terry Lewis [MP for Worsley]

"The game is ADULTS ONLY, as it involves large amounts of drinking and sex - which can make for quite funny games. A bit weird to get used to..."
Comms Plus! [magazine]

"It is NOT a dating agency, and anyone using it as such faces ... legal action."
Lap of the Gods [promotional material]

"On-line porn is freely available to youngsters."
Headline in Popular Computing Weekly [magazine]

4.18 Chaos World of Wizards.

Name: Chaos World of Wizards
Importance: 3
Author(s): Pip Cordrey ("Pippin"),
Nat Billington ("Natso"),
Lorenzo Wood ("Penfold"),
Phil Harling ("Amstar"),
? ("Esoniq"),
? ("Birax")
Location: IOWA
Pricing Structure: free

Brief Description:
Standard MUD1 clone with facilities for all players to create rooms and objects.

Historical Notes:
Went live on IOWA in mid-1990.

Review:
Chaos World of Wizards (or Chaos for short) is what Pip Cordrey terms a MUPEG - a 'multi-user player-extensible game'. By that, he means it is a normal MUA except that the players have the ability to create their own rooms and objects. Although this is the main type of MUA available on the academic networks, few games in the UK industry work that way. As usual for games on IOWA, a claim is made that the idea originated there, and that those games which do provide facilities for players to add rooms are taking on board IOWA's suggestions. In actuality, the notion is not new: the second version of MUD1 had it back in 1979.

Chaos is in its early stages at the moment, and is therefore fragile and incomplete; however, even when it is finished it is likely to be very shallow and not especially broad. A manual for its design language is promised, but at present the only information available is the rather limited help coded into the MUA itself. This shows that rooms and objects have two buffers, for long and short descriptions. One buffer is selected, and text is appended to it a line at a time. A "clear" command will empty a buffer, but there are no other editing commands. When both buffers are full, the player can either "makerm" or "makeobj". Judging by the small number of commands listed, it seems that the on-line definition language works by currying object types into the commands, eg. "killrm" works on rooms but not objects. This implies that the system makes a fundamental distinction between rooms and objects, and thus is both inflexible and limited in the long run.

Given that this is the central feature of Chaos, it is surprisingly weak. The only property of an object that can be set is its value, and therefore the only use objects can have at present is as treasure. There are no instructions on how to link rooms together, but there is a "rmexit" command mentioned which may do it. All these features, and many more, are present in MUD2; the two ways that Chaos differs are that objects are created permanently, and that anyone can create them, even novices.

Because the game is in its infancy, much of the hype surrounding it is of the "eventually, you'll be able to..." kind. Some of these claims are reasonable, but others show a deep misunderstanding of how people play MUAs. Chaos is envisaged as combining the object-creation part of a MUA with the actual playing of the game. Thus, players can fight one another conventionally, but will have to create any weapons themselves. They can create spells to use against one another, and design counter-spells for defence. Unfortunately, all this is idealistic nonsense: either the spells or weapons will all be of maximum devastation, or there will be a limited number of predefined types which players can combine in strictly determined ways. The suggestion that players will willingly create low-damage weapons so that they can role-play with them better is ludicrous - some players may do that, but it only takes one not to and the whole game is compromised.

Cordrey sees the game as evolving, unlike TinyMUD, by introducing a form of meta-combat where players can destroy or take control of one another's creations. This seems a suitably grand thing to do, but it reduces the MUA to a simple strategy game in a godlike setting. It also makes the game very difficult for newcomers who wish to build their own rooms yet are powerless against the might of long-standing players. People will also find it difficult to play the game like a normal MUA if such large-scale events are happening all the time, especially if they can't take part in them at that level.

There is no requirement that Chaos rooms are all from the same milieu, so SF worlds can coexist with fantasy ones. This is attractive, but not when objects from those worlds cross over - a SF weapon against a roman shortsword would be no contest, for example. Some of the other suggestions, eg. that players should create room complexes and then play in them normally, are also naive - the urge to cheat is too strong. Besides, if people wanted to do that then they'd be better served by a SUA-design program, of which many are on the market.

Finally, Chaos is promised a means by which players will be able to create mobiles, program them, and give them their own personalities. Like spell-creation, this involves writing program code, and that involves either highly advanced exception-handling or completely infallible programmers. Unfortunately, neither solution is likely to be available.

Chaos World of Wizards runs on a Sun workstation.

Summary:

Allowing complete novices to create rooms is a dubious enough activity at the best of times. The way Chaos hopes to merge such activities with those of normal MUA-playing dooms it to failure. Its ideas are attractive, but fly in the face of reality. Some good will come out of it, for example talented writers will probably emerge; however, without violent changes to its basic premisses, Chaos will burn itself out after a couple of years of intensive use.

Quotes:

> "As well as a peaceful distraction from the mayhem of playing a 'real' MUG, Chaos should be an interesting long-term project as the game unfolds in the way the players themselves wish."
> Comms Plus! [magazine]

"One of the problems with MUPEGs is that they become disjointed and dog-eared if not adequately controlled. Some of the games now have a committee which authorises players to link their particular development area with the body of the game."
Pip Cordrey [owner]

"If this [acquiring other players' creations] is well implemented it could make Chaos extremely interesting as alliances shift and diplomacy replaces treasure-hunting."
Comms Plus! [magazine]

"Since I first introduced the idea and later wrote about it in Confidential, a number of traditional MUGs have adopted some of the ideas and are introducing MUPEG-like features."
Pip Cordrey [owner]

4.19 Rock.

Name: Rock
Importance: 2
Author(s): Phil Fox
Location: Essex University
Pricing Structure: free

Brief Description:
Standard MUD1 clone in a Fraggle Rock setting.

Historical Notes:
The first game written for the MUD1 interpreter by someone who didn't work on MUD1 itself, around 1983.

Review:
Rock is 100 rooms of fantasy set in the Fraggle Rock milieu. It includes most things present in the TV series, along with some rather inventive weaponry that stretched MUDDL to its limits (eg. an electric drill you make yourself out of various components found lying around).

Rock was lost for several years, but was discovered on some ancient back-up tapes and reconstructed.

For further details on MUDDL, see the review of MIST.

Summary:
Small, quirky and surprisingly violent game in a fun (but unlicensed) setting.

Quotes:

"Rock is based on ITV's Fraggle Rock, and is generally regarded to be impossibly deadly!"
Micro Adventurer [magazine]

"Even at Essex University, different types of MUD have sprung into existence, with Rock being the first 'unofficial' MUD."
An Introduction to MUD [book]

4.20 Sector 7.

Name: Sector 7
Importance: 3
Author(s): Nigel Hardy ("Quinch")

Location: (081) 952 5128
Pricing Structure: free

Brief Description:
Standard MUD1 clone, cyberpunk setting.

Historical Notes:
Demonstrated at Adventure 89 as Dark City, it was originally an experiment in MUA-writing. It presently runs on the author's bulletin-board, but as a SUA as the system has only one external line.

Review:
Sector 7 was written in the three weeks prior to the Adventure 89 convention. Its atmospheric cyberpunk setting gained it many admirers, despite the fact that at the time it had no fighting, no mobiles, no way to progress, and few puzzles.

The main purpose of writing the game was to learn how it could be done. Hardy had no wiz experience in any games, and used Shades as a model. Nevertheless, Sector 7 has some features beyond Shades' capabilities, including on-line editing of objects and rooms.

Sector 7 is written in GFA Basic and runs on a 1mb Atari ST with a 40mb hard disc, multiplexed by an IBM PC.

Summary:
A shallow, narrow, simple game that convincingly demonstrates both how easy a basic model MUA is to write, and the enormous potential of a cyberpunk setting.

Quotes:

> "It was originally written as an exercise for myself, to see if I could do it; the feedback at Adventure 89 where I demoed it was enough to keep me working on getting it going."
> Nigel Hardy [author]

> "It can be used as a simple introduction to MUGs which won't cost much."
> Nigel hardy [author]

4.21 Other MUAs.

The MUAs presented in this subsection exist, but little is known about them - a flier, a message on a bulletin-board, a magazine article. They are included here in case they reappear in the near future. None were available for playtesting at the time of this report's writing.

Only those parts of the review header which can be filled in are given. All are of the third rank in importance.

Name: AMP

Brief Description:
Standard MUD1 clone.

Historical Notes:
One of the first (if not the first) MUAs written by a MUD1 player. Last seen at Adventure 89, but probably still running happily somewhere.

Review:
AMP's present location is unknown, and there is no publicity material

concerning it.

AMP pioneered the use of shape as a property of objects to determine whether they fit inside containers.

Summary:
Friendly (if dated) MUA with good depth.

Name: Daemon Adventure

Brief Description:
Standard MUD1 clone, multi-setting.

Historical Notes:
Only known appearance - Adventure 89.

Review:
The flier for Daemon Adventure describes it as one of a series of MUAs, based on 10 different play areas combined together to form a games world with over 2,000 locations. These include Arthurian, Egyptian, Western and Futuristic areas. Thus, it is similar to Trash and Void in combining several milieux into one. That said, it concentrates heavily on magic, quests, and (presumably setting-independent) combat.

Great play is made of the fact that the game has many mobiles, and that these are programmed to perform tasks. Some are friendly, others are not, and they may even fight one another. None of this is new to second-generation MUAs, so it hints at Daemon Adventure's having been written by a player of Shades, MirrorWorld or similar.

There are no resets in the game, and the persona file keeps location and inventory details; although standard practice in SUAs, this rarely works in a MUA, as it removes objects from play and thus renders some puzzles unsolvable. How areas are reclaimed once played out is not explained.

Daemon Adventure boasts a fast response time and "the latest in multi-user software techniques", allowing it to support 50 players at once.

Summary:
Many of Daemon Adventure's claimed features are probably vapourware. However, if they are fully implemented the game may prove successful. Some aspects of the game will need to be thought through more deeply, however - overall, there is a decided aura of "group of enthusiastic amateurs" about the project.

Quotes:

"The multi-user, multi-world, multi-game environment."
QuestRole [promotional material]

Name: Future Life
Author(s): Dave Mager ("Slime")
Location: Lap of the Gods
Pricing Structure: L0.575/hour or L11.50/month flat fee

Brief Description:
SF setting.

Historical Notes:
Appeared late 1990.

Review:

There has been no publicity surrounding Future Life. It appears to be in alpha-test at the moment, and is therefore unplayable by outsiders.

Quotes:

> "Future Life is a game written by Slime, which nobody (least of all Slime) knows much about yet."
> Lap of the Gods [promotional material]

Name: Imperium
Location: Red Star BBS
Pricing Structure: free

Brief Description:

SF MUA.

Review:

Imperium is advertised on several bulletin-boards, but its host system has not been up for several weeks, and no information about it is available other than the fact it exists.

Name: Mage
Author(s): D. Harris ("Brangdon")

Brief Description:

Standard MUD1 clone.

Historical Notes:

Only known appearance - Adventure 88.

Review:

Mage is a MUA with a strong plotline - protecting a remote city from monsters in the absence of its missing, magic-wielding feudal lord (the "mage"). It consciously draws on ideas from face-to-face fantasy role-playing games, and so includes skills, money and magical artefacts.

The eventual goal of players is to find out what happened to the missing mage. This is uncharacteristic of MUAs - it would seem that once one person has learned the secret, the game should be effectively over for everyone. Even if it involves elevation to a higher plane (ie. a wiz level), keeping the secret will inevitably prove impossible.

Mage is written in C and runs on an unmodified AT clone.

Summary:

Mage appears to be a single-user role-playing game at heart. Nevertheless, it is interestingly different enough to be worth a look if it ever does make a public appearance.

Quotes:

> "The very best may undertake the greatest challenge - to discover exactly what has happened to the missing mage."
> Mage [promotional material]

Name: MUG
Location: Red Star BBS
Pricing Structure: free

Review:

MUG runs alongside Imperium. See the review of Imperium for more

details.

Name: Spacers
Author(s): Pip Cordrey ("Pippin")

Brief Description:
MUD1 clone, SF setting.

Historical Notes:
First mooted in 1989, but yet to be implemented.

Review:
Spacers a forthcoming game on the IOWA system. It started off as an attempt to rationalise the idea of rolling resets, and grew (but not very far) from there. Its setting is a space station which has fallen into disrepair and become inhabited by Mad Max vagrants and hostile aliens. Players are rewarded for mending the broken hardware, or replacing it with parts from a store-room; after a while, whatever has been repaired breaks down again, thus giving the rolling reset. Points are also obtained for eliminating aliens.

Summary:
An interesting alternative to normal treasure-collecting games: instead of moving objects from all over the place to a central location, it involves moving objects from a central location to all over the place. A neat conceptualisation of rolling resets, but it doesn't appear to address the main problem of such systems - they aren't adept at handling complex puzzles. If it's not written in Slate, it should be worth a look.

Quotes:

> **"Although still in its infancy, the game will add another dimension to the growing world of Pip Cordrey."**
> **Confidential [magazine]**

> **"Since the station is in a constant state of breakdown, it is no surprise when the same equipment repeatedly malfunctions, and the story holds together very well."**
> **Pip Cordrey [author]**

Name: Strata
Author(s): Nic Alderton

Brief Description:
Standard MUD1 clone, SF setting.

Historical Notes:
Only known appearance - Adventure 89.

Review:
Strata is another MUA built on promises. Its main thrust is size: it is envisaged as having 8,000 locations with full descriptions, including sounds and smells. To this end, Alderton has been soliciting for location authors, and has managed to secure some fairly big names in the MUA world (although none of them have experience in writing their own MUAs). 8,000 rooms is sufficiently large to make mapping virtually impossible, and the descriptions will vary through completely different styles; the game is likely to seem as if it is a SUA rather than a MUA.

Mobiles are intended to have AI capabilities, but Alderton is rather offhand about this, and appears to labour under the misapprehension that a command along the lines of "ask <mobile> about <object>" is enough to ensure success in that area.

Full sensory abilities are hoped-for in Strata, including scent, taste and audibility for all objects. Along with many of the other features announced in the Adventure 89 flier, these are only impressive to players of first-generation MUAs - MUD2, for example, has them already, and has had for some time.

An interesting suggestion is the inclusion of pseudo-mobiles - messages appearing on the screen appearing to indicate the presence of mobiles passing through, but actually just there to give an impression of a bustling, crowded environment.

Strata has a distinction between money and score (similar to that of Empyrion - indeed, it is possible that Strata actually is Empyrion under an earlier name). Money is used to buy things, but only by obtaining enlightenment points can progress to the top level (entitled 'Etheral') be made.

Resets in Strata are of the rolling variety: Alderton sought advice from the authors of MirrorWorld, Zone and Gods before embarking on his project. The game has humour explicit in its descriptions, which makes them fun the first time you read them but aggravating after the umpteenth. However, with a projected 8,000 rooms it is unlikely that rooms will be visited all that often anyway...

Strata runs on an Atari ST with a 32 megabyte hard disc.

Summary:

If it delivers all the features it promises, Strata will be a good, modern MUA. Concentrating on having a huge number of rooms, however, is a bad move. Hopefully, the author will realise that before he launches 8 novels' worth of locations on an unsuspecting world.

Quotes:

> **"I hope, when all is working, to have roughly 8,000 locations with full descriptions including smell and listen. I have noticed people try to comfort me when I tell them this, but I'm not insane (!). It is technically possible..."**
> **Nic Alderton [author]**

Name: **Wanderland**
Author(s): **Ted Greene ("Wanda")**

Brief Description:

Standard, MUD1 clone.

Historical Notes:

One of the first MUD1 lookalikes, Wanderland is a long-standing MUA which either moved or disappeared sometime last year.

Review:

Wanderland is a traditional MUA with around 1,500 hundred locations in its fantasy setting. Treasure is easy to find, and is scored for by placing it in the Reclaimed Land. Strangely, 524,288 points are required to make wiz.

The game runs on a DEC computer, most probably a PDP 11.

Summary:

A game with a pleasant atmosphere, much-loved by its players.

Quotes:

> **"It's a pity there aren't a few more players around, although MUGs do tend to go through periods of popularity. Even so, perhaps I'll**

make Wanderland the site of my third witch."
ACE [magazine]

Name: Warlord
Author(s): Neil Newell ("Hazeii")

Brief Description:
Combat-oriented MUA.

Historical Notes:
Only known appearance - Adventure 89.

Review:
Warlord is a MUA where the only means of advancing levels is fighting. There is a monetary system overlaid on top, so that players can buy weapons, armour and related services.

A problem with Shades (Warlord comes from the Shades stable) is that players with fast modems have an advantage over ones playing at slower baud rates. This is something of a preoccupation with the author, and hence Warlord is designed to reduce any such advantage to a minimum. How this is done exactly isn't clear from the flier, however.

The top level of the game is 'warlord'.

Summary:
The main thrill killer players get in a MUA is in attacking players who don't want to fight. Since fighting is, by definition, part and parcel of Warlord, it probably won't have staying power except among arcade-game lovers.

Quotes:

"The fighting tends to be fast and furious."
Third Millenium Systems [promotional material]

"Preparation, skill and anticipation are all vitally important if a player is to attempt to achieve the role of The Warlord."
Third Millenium Systems [promotional material]

5. Reviews - Rest of the World.

5.1 British Legends.

Name:	British Legends
Importance:	3
Author(s):	Roy Trubshaw, Richard Bartle
Location:	CompuServe
Pricing Structure:	$12.50/hour plus $9.40/hour for UK players

Brief Description:
Archetypal MUA.

Historical Notes:
The original MUD1 MUA, with modifications for the American market. Launched on CompuServe in mid-1987, but the core of it dates back to early 1980. The name-change was because CompuServe thought "MUD" sounded unattractive.

Review:
British Legends (or simply BL) is the American name for MUD1, the very first MUA and the one from which nearly all others are descended. Despite its age, BL still compares well against many other MUAs, especially those available in the USA. Almost every feature present in MUAs, from wizzes to mobiles and most of the vocabulary, comes from this game (although, technically speaking, BL is MUD version 3B, a late modification of version 3A; it is 3A, or Essex MUD, which is properly considered as the root of other MUAs).

Although it is now dated, BL is still fun to play, continues to attract new players, and is well managed. Its atmosphere is good, and its players generally responsible (40% are female - the highest published ratio of any MUA).

The MUDDL interpreter that underlies BL is hardwired for a fantasy style world, and is limited in the complexity of commands it allows to be defined. Objects, rooms, mobiles and players are all stored using different internal formats, which makes the writing of generic routines difficult. Room descriptions take no account of whether the player is able to detect the sensations listed, so it's possible to "hear" sounds when you're deafened and not hear them when you're blinded. However, the system is still capable of being expanded in certain directions - the "act" command, for example, was taken from MUD2.

Despite its simplicity, BL's parser is remarkably robust and user-friendly - better than MUD2's, in fact. The game's depth is average, although its breadth still beats that of most MUAs (on account of its age - over the years, just about everything has been tried in it).

Perhaps the worst thing about BL is the fact that there is a 7-second delay between the processing of commands. This condition was imposed by CompuServe - BL works asynchronously, and is thus normally one of the fastest MUAs, even though the DECsystem 10/20 hardware upon which it runs is hopelessly out of date now. In the UK, a 7-second delay in a commercial game would be intolerable - 4 seconds is about the limit - yet since CompuServe impose similar constraints on all their multi-player games, the USA market is presently conditioned to accept such artificial limitations.

Due to its age and the size of the CompuServe user base, BL is the single most-played MUA in the world.

Summary:
Evergreen MUA which started off the whole industry. It looks its age

when compared to the newer commercial MUAs, but is still surprisingly sophisticated in places. A classic.

Quotes:

> **"The initial attitude of the Americans was to be politely skeptical that any games software from the UK could be worthy of their attention. But once they saw the program running on their system they could hardly believe their eyes. So far as I know, this is the first British program ever to be taken by CompuServe."**
> **Simon Dally [MUSE managing director]**

> **"British Legends is better suited to the occasional user [than is Gemstone], with its simpler entrance requirements and a universe small enough to enable most players to get around adequately by memory."**
> **PC Magazine**

> **"The kinder, gentler [than Gemstone] British Legends makes a quick command summary available, along with some rather general hints."**
> **PC Magazine**

> **"Solving a puzzle for the first time is the most exciting part of the game."**
> **Ron Fitzherbert [player]**

> **"Adding a multi-user environment to the basic adventure game adds a whole new dimension."**
> **The Guardian**

> **"The first time I found myself in the swamp, a character called Monkey came up to talk and scared me so much that I immediately quit the game. I didn't know it was another person. I thought it was a monster about to destroy me!"**
> **John Starr [player]**

> **"Todd Carter is 22, a computer addict from Miami who was left blind by a gunshot wound in high school. On CompuServe, he called himself Blinddog when he played an adventure game called "British Legends". He was so hooked on the game that he dropped about $8,000 in on-line charges playing it."**
> **The Miami Herald**

> **"Not only are the wizards and witches helpful to novices, but many mortals also can show a kind word or gesture. Make friends!"**
> **CompuServe [promotional material]**

> **"British Legends is the most-played multi-user adventure game in the world."**
> **The Observer**

5.2 Gemstone III.

Name:	**Gemstone III**
Importance:	**2**
Author(s):	**? (Simutronics Corp.)**
Location:	**GEnie**
Pricing Structure:	**$35/hour 8am - 6pm** **$5/hour 6pm - 8am** **(no UK access point)**

Brief Description:

Multi-user adventure game, fantasy setting.

Historical Notes:
One of the few MUAs developed independently of MUD1.

Review:
Like MUD1, Gemstone III was inspired by SUAs. However, despite this separation from the mainstream of MUA development, Gemstone III is nevertheless uncannily similar in many areas, particularly in its basic "search for treasure, get points, go up levels and become a wizard" attitude; levels and wizdom were never a part of early SUAs.

Gemstone III is primarily a role-playing game, which makes it popular among Americans. To this end, it requires that people beginning the game flesh out their persona by choosing between various personality characteristics, races, occupations, and many other details right down to eye colour. Few of these have any real bearing on gameplay, but they do make new players think they're getting value for money.

The game has a 25,000 word manual, which must be downloaded and read because there is no on-line help while playing. This, and the barrage of persona-defining questions at the beginning, combine to make Gemstone III very daunting for all new players except those in whom a thick rulebook induces excitement.

There are many rooms in Gemstone III, including streets and shops. As with the rest of the game, it seems that size is regarded as the most important facet, and that detail must be provided whatever the cost and no matter how irrelevant it is. It's the classic role-playing problem: whether to provide a loose framework in which players can develop personae their own way, or a tight one where players' options are limited by strictures imposed by the game dependent on the role they have chosen. MUD1's descendents tend to favour the freedom of the former; Gemstone III comes down heavily in favour of the latter, and in this respect is more akin to Island of Kesmai.

Summary:
An interesting MUA, but one which requires a certain doggedness on the part of its players to stay the course. Not a game for dabblers, socialisers or fun-seekers.

Quotes:

> "Gemstone is the one for people who want to escape reality and really get into playing a role in an incredibly complex world."
> PC Magazine

> "The sheer number of options involved in getting started can be so intimidating that a simplified setup process is also provided."
> PC Magazine

> "In my roamings through Gemstone, I never saw the same place twice. Drawing a map is definitely necessary to navigate effectively."
> PC Magazine

5.3 Other Commercial MUAs.

As in the last subsection of the section on UK MUAs, the MUAs presented here are known to exist; however so little information is available concerning them that no detailed reviews or summaries are given.

Name: Kyrandia
Location: Galacticomm Bulletin Boards

Brief Description:
A basic multi-user adventure game.
Notes:
Bundled with the Galacticomm Bulletin Board system. These are expandable MSDOS machines intended for commercial, multi-user conferencing and the like.

Quotes:

> **"A version of Kyrandia is reachable via US Minitel at "ALLA". I’ve yet to meet anybody in it, so usage seems light. And at $0.20/minute, exploring the world is very expensive."**
> **John Nagle [player]**

Name: Quest for Magic
Location: Galacticomm Bulletin Boards

Brief Description:
A basic multi-user adventure game.
Notes:
See Kyrandia.

Quotes:

> **"A multi-user, interactive text adventure game."**
> **Galacticomm [promotional material]**

Name: Scepter
Author(s): Alan Klietz
Location: none

Brief Description:
A multi-user adventure game, fantasy setting.
Notes:
A game called Milieu was written in the early 1980’s under Multi-Pascal for a CDC Cyber used by high-school students in Minnesota for educational purposes. Klietz ported it to an IBM XT in 1983, and renamed it Scepter of Goth. Klietz later wrote a MUA called Screenplay, which incorporated building, using an interpreted command language reputedly more powerful than those available on the InterNet today.

Scepter was influenced by AD&D-style role-playing, and incorporated many of the ideas concerning character classes and skills presently gaining popularity in commercial UK MUAs like Avalon. Combat was blow-by-blow, and multiple identical objects were numbered (the same approach taken by MUD2).

Scepter was sold to a company called InterPlay in Virginia, which licensed out the software but was liquidated after its executives were charged with tax evasion. The game was sold off to creditors, and is no longer available.

Although many players loved the game, Scepter earned a reputation for enforcing artificial friendliness among its players, with ruthless consequences for "troublemakers". Thus, all sparks of originality were snuffed out, but the game worked well for people who didn’t "misbehave".

Quotes:

> **"Scepter had the best atmosphere of any multi-user game I’ve player."**
> **Bill Wisner [player]**

"In Scepter, you just offer an item for sale several times to get an idea of the price, then sell it when you hit the maximum again. Nobody I knew in Scepter ever bartered. They just took the first offer. They had better things to do with their time."
Andrew Thomas [player]

5.4 AberMUD.

Name:	AberMUD
Importance:	1
Author(s):	Alan Cox ("Anarchy"), Jim Finnis, Leon Thrane, Richard Acott, Rich Salz, Brian Preble ("Rassilon")
Location:	InterNet
ArkMUD	engr.uark.edu
ButlerMUD	butler.tds.kth.se
HackeMUD	bass.vsect.chalmers.se
IlliniMUD	speedy.cs.uiuc.edu
TempleMUD	monet.ocis.temple.edu
The Underground	mole,ai.mit.edu

Brief Description:
Standard MUD1 clone.

Historical Notes:
Cox was a player of MUD1 who wrote AberMUD while a student at the University of Wales, Aberystwyth. The code was made generally available, and was enhanced and added to by several people, most notably Salz; Preble is the present AberMUG co-ordinator. A commercial version of the game has been running on Connect since 1989.

Review:
AberMUD was written in 1987 in B for a Honeywell L66 mainframe under GCOS3/TSS. Its first scenario was not a serious effort; its second scenario is the one in present use.

In 1988, AberMUD was ported to Unix and converted to C. Version 3.7.14 was distributed on JANet and InterNet, and regular updates by the original authors continued until version 3.9.8. The present version is 3.12.5, but version 3.9.8 spawned a rogue 4.9.8 clone which, among other things, has combat messages ripped out of MUD1. This is the version which became most popular on InterNet. Despite its poor design and implementation (eg. communication via shared files), AberMUD became the first widely-available MUA on InterNet, and most of the games presently being written by academics are descended from it.

The game itself is not particularly special, being a poor MUD1 lookalike in the Shades mould. There are 10 levels, scaled slightly lower than is common, and with fights scoring relatively higher than treasure. Treasure is converted into points by dropping it in a sacrificial pit in a church, ie. as MUD1's swamp.

There is no "sleep" command to restore stamina after a fight; instead, stamina is recovered automatically over time. This is something MUD1 did not have; although MUD2 does, AberMUD's rate of stamina replenishment is much quicker.

AberMUD lacks polish, despite its commercial standing and its erstwhile popularity (now waning, as it's regarded as a CPU hogger). There are missing full stops, spurious full stops, inconsistencies in uses of commas, and the room descriptions are convoluted and ambiguous. Objects and rooms are placed together without reference to description clashes, eg. snow on the ground, rain in the air and a rainbow in the sky, all at the same time.

Abbreviations in AberMUD are not catered for very well - the common "l" ("look") and "x" ("exits") commands are missing, for example. The game is also deficient in other commands - no "act" or equivalent, and apparently only cardinal directions plus "up" and "down". The game needs to be reset occasionally, but doesn't do so automatically: an explicit "reset" command is necessary.

Although fights play a big part in AberMUD, they are not well implemented, initially being of "the ghoul hits you" variety. This may explain why many of the game's descendents eschew fighting altogether.

Summary:

A simple MUA that makes other InterNet MUA-writers think they have less to do to become world class than is actually the case.

Quotes:

"The main reason for writing it was because the system manager said it wasn't possible on the Honeywell."
Alan Cox [author]

"It now seems to have found a home at St. Olaf University, where a few dedicated hackers are keeping it alive despite its general grunginess."
Bill Wisner [player]

"The combat text has been greatly improved. ... InterNet versions now offer more MUD-like multi-line messages."
Comms Plus! [magazine]

"I do have one fairly major quibble, and that is the lack of information and help text within the game."
Comms Plus! [magazine]

"AberMUD has a sort of similar concept to LPMUD (kill the monsters and such until you become a wizard), but that's about the end of the surface similarity. LPMUD is designed to be easily extended from within the game. Once you become a wizard, you work on developing new sections of the game, and a list is kept of which wizards' sections are most popular. AberMUD can only be modified by changing the source data files and recompiling, and even then is far from easy (I know, I've done it...)."
Jim Seidman [player]

Most of these MUDs have been eliminated in the US because of the network traffic they cause."
Philip Cutone III [player]

"The best version on the InterNet was in Sweden, and people in the US would play it but put up with the link problems which would regularly disconnect them."
Comms Plus! [magazine]

"A problem with AberMUD, and to some extent LPMUD, is that people with slower links are severely penalised. Especially on some AberMUDs where the wizards require everyone to go back to the church before resetting, people with slow links have no chance."
Jim Seidman [player]

"AberMUG is a fairly 'standard' game in its setting and in its general feel, so existing MUGgers should feel at home - although I did find the absence of several abbreviations to be annoying."
Comms Plus! [magazine]

"I wasn't too amused at the way people seem to have lost the original AberMUD license, broken it in several places, and even included copyright material from other games systems (MUD1) in it."
Alan Cox [author]

"AberMUG is a multi-user adventure game in the traditional mould."
Connect [promotional material]

5.5 LPMUD.

Name:	**LPMUD**
Importance:	**1**
Author(s):	**Lars Pensjo**
Location:	**InterNet**
BATMAN	**batman.hut.fi**
Boiling MUD	**frey.nu.oz.au**
ClubMUD	**milton.u.washington.edu**
Crossroads	**civeng.ua.oz.au**
Darker Realms	**worf.tamu.edu**
Dartmouth LP	**melchior.dartmouth.edu**
DEATHMUD	**gauss.nmsu.edu**
DeepTrouble MUD	**krikand.iesd.auc.dk**
End of the Line	**ucrmath.ucr.edu**
GENESIS	**milou.cd.chalmers.se**
GhostMUD	**beowulf.acc.stolaf.edu**
NannyMUD	**nanny.lysator.liu.se**
NLD MUD	**chaos.utexas.edu**
Phoenix	**galjas.cs.vu.nl**
Sanctuary	**j.ms.uky.edu**
Small Systems	**calvin.nmsu.edu**
Sun MUD	**einstein.mpccl.ksu.edu**
Thieve's World	**uokmax.ecn.uoknor.edu**
Third World	**hardy.u.washington.edu**
UCSB-GEOG LPMUD	**sherlock.geog.ucsb.edu**
U Maine LPMUD	**mud.umcs.maine.edu**
Vision	**watnxt2.ucr.edu**
WARHAMMER MUD	**watnxt3.ucr.edu**
World of Mizar	**mizar.dosc.uu.se**

Brief Description:
Standard MUD1 clone with object creation.

Historical Notes:
Pensjo obtained the source for AberMUD, didn't like it, so wrote his own MUA instead at Gothenburg in Sweden. It was distributed to other Unix sites across InterNet. Late 1989, some American players modified the code themselves (despite regular updates and technical support by Pensjo), and the two LPMUDs diverged. Several attempts to reconcile the European and American sources is now under way, such as one being programmed by Duncan Howard (a former MUD1 arch-wiz).

Review:
LPMUD (named after its author) is one of the more popular MUAs on InterNet, certainly in terms of the number of sites that run it. Although immediately descended from AberMUD, copies of MUD1 were sent to Sweden in the early 80's, prompting some activity in the MUA area by the locals; there was a project possibly already under way at Linkoping to develop a MUA called Asgaard, which eventually petered out but left a body of programmers with experience in MUAs. It seems likely that the lessons and ideas that emerged from this effort may have had an indirect influence on Pensjo.

LPMUD plays as a good MUD1 clone until wiz level is reached. At that

point, it allows players to create their own permanent rooms, objects, mobiles and (even) commands. The game's interpreter will accept input in a C-like, object-oriented language called LPC, and will save all creations across resets (unlike MUD2). It was the first InterNet MUA with this facility built in (although there is a good measure of cross-fertilisation with TinyMUD), and is thus often credited with inventing the idea; actually, most good first-attempt interpreters can handle it (second-attempt interpreters generally take their input preprocessed by a database compiler, for speed).

Because each LPMUD has rooms created by its players, the different sites on InterNet will all be different; a common core of rooms is linked to a network of new ones. However, room complexes are often copied between different LPMUDs, so the difference is not as great as it might be.

Resets in LPMUD are rolling. Initially, one object was reset every 3 seconds, but this meant that the more objects that were added, the longer the period between resets. Now, objects are only reset in a room when a player enters that room - a form of lazy evaluation. This works well, but it has the disadvantage of only working for very simple puzzles that involve objects' changing locations, rather than their changing other properties.

In LPMUDs, it's only a question of time before a player makes wiz. The only penalty for death is being subjected to a time-consuming sequence where the deceased is taken to a room and meets Death incarnate. Higher-level players even get a scar from this that they can show to their friends. Recently a quest system (similar to MUD2 tasks) has been added to make sure players know something about the game before reaching wiz, but performing such quests is not particularly dangerous to personae.

LPMUD has experimental bots programmed in LPC and running internal to the game. These are therefore more properly referred to as mobiles, but this term has not found favour in InterNet MUAs since most of them don't cater for such sophisticated objects. LPMUD has a client, LPTalk.

Versions of the European LPMUD are distributed regularly, and improving the system is an ongoing project programmed by Pensjo. There are some features which need changes to the LPMUD interpreter before they'll work, for example players' properties are hard-coded and transient ones cannot be saved to disc. However, with its excellent support and dedicated players, LPMUD will doubtless be around for some considerable time yet. Despite this, most LPMUDs are based in Europe - American systems managers seem less ready to tolerate CPU-intensive MUAs than their European counterparts, and prefer light users like TinyMUD and its descendents.

Summary:

An average MUA with object creation added on top. Not as prone to criticism as the freer creation-based games (if, indeed, games they are) like TinyMUD, but still causing the usual problems of atmosphere, editorial control and overall ownership that would dog a commercial version of the software.

Quotes:

> **"Only wizards can create new objects and rooms. By limiting creation like this, the feeling of chaos that one is prone to encounter on Tiny-type games is reduced."**
> **Comms Plus! [magazine]**

> **"LPMUD: Lots of programming available. Mainly an adventure setup where you are trying to advance in level by solving puzzles and killing wandering monsters. This gives users a 'carrot' to chase (becoming a wizard) and could keep them in the game easier."**
> **Glenn Crocker [player]**

> **"One of the advantages that I see with LPMUD is that objects are**

continually being reset. There is one object reset every 3 seconds or so, so that an object will come back every 15 minutes or so. Therefore, a lot of people have the chance to explore and see things."
Jim Seidman [player]

"Some rooms have been taken from AberMUD, but the game is user-extendable."
Comms Plus! [magazine]

"The bad news about LPMUD is that the programming language is very C-like, and that comes back to the problem of whether your players know C... They might not be willing to learn a language just for the game. Of course, the same applies to TinyMUCK."
Jim Seidman [player]

"This [extensibility] introduced a considerable level of depth into the choices open to wizards, and brought some new problems too."
Bill Wisner [player]

"On LP there is massive amounts of building, because after making wizard the whole point of the game is to have most people visit your area. So, wizards build their areas to attract people, and if a wizard has crappy building, nobody visits. Therefore, the wizard is forced to make his building that much better."
Patrick Wetmore [player]

"Strangely enough, the LPMUDs are closer to what the original TinyMUDs were: people wandering around, exploring. Eventually, people start building their own domains for people to explore. Granted, only wizards can build, but in a way that's good, since it really stops the casual builder who builds two or three items then wanders off never to build again."
Martin Terman [player]

"Semi-recently, quests were added as a feature of LPMUD. A certain number (or all) of the quests must be solved before advancing to wizardry. Most quests involve puzzle-solving and exploring (and most have some hack and slash involved too). Suddenly, LPMUD did not guarantee wizardry just by serving your tour of duty as a player - thinking was involved."
Darin Johnson [player]

"The rate of new wizards on Genesis [the first LPMUD] is ten per week, and Genesis is already crowded (186 of level 20 and above...)."
Bertil Jonell [player]

"LPs are something worth checking. Think: 3,000+ rooms, 30+ players, running 24 hours - and not arousing the [system owners'] administration. These provide some challenge to the player - not to mention wizards and gods, it's just a pity their efforts mainly are used in building new rooms, not to make interesting events for players."
Esa Kankaanpaa [player]

5.6 TinyMUD.

Name:	**TinyMUD**
Importance:	**1**
Author(s):	**Jim Aspnes**
Location:	**InterNet**
DragonMUD	**naucse.cse.nau.edu**

Eden	unicorn.wwu.edu
FantaMUD	sage.cc.purdue.edu
Islandia II	apex.yorku.ca
MuseumMUD	fuzine.mt.cs.cmu.edu
TinyMUD Classic	planck.physics.purdue.edu
TinyWorld	banyan.ssc.gov

Brief Description:

Object creation and inter-player communication.

Historical Notes:

TinyMUD was prompted by a 1989 discussion on InterNet, and drew on LPMUD to abstract an idealised notion of what made MUAs important. It rapidly spread across InterNet, due mainly to its small size and low CPU requirements. Aspnes' own TinyMUD was closed down when he grew tired of it.

Review:

The MUD in TinyMUD stands for "Multi-User Dimension." There is some debate as to whether the system is a game. It was certainly written as a game, with the idea that players collect 'pennies' which they then spend on building new rooms. Pennies were either left lying around, or obtained by dropping objects in a pit. Combat is possible, just, but it's generally discouraged for fear of frightening off players. Everything else is very, very basic - even gender pronoun substitution wasn't handled in the original.

This adventuring aspect of TinyMUD rapidly disappeared. Objects were created with huge values, and soon players could get as many pennies as they wanted. This meant they spent all their time either building rooms or socialising with other players. The key point about TinyMUD is that anyone can build rooms. All they need to connect their creations to the rest of the room network is the co-operation of an existing player who doesn't mind linking a free exit with one in the new complex. Whether this is topographically correct is immaterial, as is the quality or quantity of rooms so joined together.

TinyMUD's creative capacities are strictly limited to only basic objects, rooms and exits. Complex actions cannot be defined, only room-related puzzles (eg. hidden doors, missing keys, mazes). Programmers found this frustrating, which is why the TinyMUD sources were rapidly torn apart and put back together with more powerful facilities at builders' disposal, eg. in TinyMUCK and TinyMUSH.

There are wizzes in TinyMUDs, of a sort. Really, they're little better than sysops, although they do have some authority over building and can remove or modify rooms. Game management is very difficult, however, since anyone, friend or foe, has full powers to add new rooms whether they have the slightest idea of what they're doing or not. This ensures that the only atmosphere a game possesses is that due to its players, and that any pretensions of consistency or depth swiftly disappear. Sadly, most people are not good room-describers (in the same way that most people aren't good novellists), and thus, although the quantity of rooms in a TinyMUD can be fantastically large, the quality is generally very low.

TinyMUD has several clients written for it - most of which work with all its descendents - and half a dozen or so bots. Some of these bots are tightly coupled to the program, able to dispense pennies etc., and thus are prone to causing crashes.

Ardent TinyMUD players see their game as the pinnacle of achievement for MUAs. At the bottom end of the evolutionary scale are CB chatline programs; next come systems with rooms, allowing local conversations and some degree of privacy; higher up, basic commands like "who" and "look" are present; higher still are games, with objects, more sophisticated commands, and rooms linked together so that they can be perceived as a complete structure; most sophisticated of all are the systems that allow the user to create rooms,

objects, and complete scenarios "limited only by the imagination of the builder".

This evolutionary view of things completely misses the point: in order for room-creation to be worth anything, there has to be a user: commodities are valueless if they cannot be sold. TinyMUDs have no-one using the products of creation, and are therefore little more than chatlines with rooms as conversation pieces. They're no more games than would be an illustrated on-line discussion of amateur artists' latest masterpieces. TinyMUDs are indeed limited only by the imagination of the builder - with heavy emphasis on the word "limited".

TinyMUDs have a short lifespan, and operate like slash-and-burn agriculture: once a site has been farmed by a TinyMUD, thousands of players have been either hooked on TinyMUDs or put off all MUAs forever. The addicts will choose another site elsewhere, the rest are effectively lost.

As an example, consider two related TinyMUDs, Islandia and BloodMUD. They had the same seed, but grew in opposite directions. The fact that they are both regarded as "classic" TinyMUDs gives testimony to the ephemerality of such MUAs on InterNet.

Islandia began as recently as January 1990. By its close in November 1990, it was regarded as a "tradition" among TinyMUD users. It had as its core a 1000-object (ie. rooms, exits and portable objects) database called TinyBASE. This was put on general release to make the task of starting up a TinyMUD from scratch easier.

Islandia started at Berkeley, but was moved to different sites as it increased in size. It was constantly added to, and grew to be huge. In the month of October, it had 1,503 players (from a total of 3,271) and 14,900 rooms - a phenomenal size for a MUA. However, of those 14,900 rooms, only 7,503 were used that month...

Islandia was a friendly place, with friendly people, and famed for its many beautifully designed rooms. Its maintainers scoured the database removing useless or incomplete creations, trying to keep it to a manageable size and reasonably consistent. However, they finally decided to take the system down simply because, despite their efforts, it had grown too large; besides, they were wearying of trying to trim the database in the face of its relentless growth towards full capacity.

The maintainers also felt that the game was too old. People were using the system as a means to annoy others, which was taken as a sign of decay. Since TinyMUDs offer no facilities for game management, this fate eventually befalls all such programs, except in the case where being nasty is the whole point of playing.

Such was indeed the case with BloodMUD. The TinyBASE database was taken as a starting point, and developed along themes of blood, violence and sleaze. Rooms were deliberately corrupted by other players, with special attention giving to vandalising TinyBASE. BloodMUD was a reaction to the "nice" atmosphere that pervaded Islandia - and was a lot more fun to play. It finally disappeared when the database was accidentally deleted, but by then it had sunk into depravity.

By giving game-writing powers to anyone and everyone, it was hoped that TinyMUD would be a means of promoting individual expression and group interaction. It was a brave attempt, but it didn't work. Instead, TinyMUD has probably done more harm than good, at least in the short term, with many American academics growing up holding narrow views of what constitutes a MUA. On a commercial network, a game like TinyMUD would rapidly burn up as soon as it acquired a modest user base.

Summary:

TinyMUD is not so much a MUA as a forum for conversation where participants have pinned short pieces of prose on the wall for the benefit of anyone with the inclination to read them. If this kind of MUA gets a strong hold in the USA, it could set the industry back several years.

Quotes:

"TinyMUD isn't a MUD in the classical sense of the term; it isn't a game. In TinyMUD, all people can really do is create things and interact with others. It has built up a considerable following, and today is perhaps the most popular MUD on the InterNet."
Bill Wisner [player]

"TinyMUD was written as a game. Jim Aspnes did not go 'Gee, I think I will create a social environment that will replace reality and have dozens of kids fail out of school because they are so addicted by this game.'"
Edwin Huang [player]

"The *primary* value of TinyMUD is as an experiment in computer-mediated social interaction."
Michael Mauldin [Julia author]

"TinyMUD: mainly social. Little programming available in objects, false exits and fail messages being the main programmability. It's simple, but could get boring."
Glenn Crocker [player]

"Combat, adventuring, levels etc. are not part of this game. It is possible that you could add these features to the game, seeing as the whole TinyM* series is notably more flexible (and consequently less well defined as a gaming system) than any other I've seen."
Duncan Howard [MUD1 arch-wiz]

"One thing which draws people to TinyMUD is the dynamic room/object creation, but AberMUD would *never* allow *everyone* to create things. There is also a problem that AberMUD is a *much* more complex program than I think TinyMUD will ever get to. Dynamic room creation in an object-oriented type game is very hard to implement because the game requires many more flags and such than TinyMUD."
Michael Barthelemy [player]

"With many people allowed to build freely, you get problems with non-finished parts of the world and parts that are totally different in character from the rest of the game. Walking from a fantasy castle to an SF setting or finding a large joystick in the centre of the castle may be fun the first couple of times, but it kills the atmosphere."
Jorgen Holmberg [player]

"I have personally received pages from people who're sorry that Islandia has to go and would like us to keep it going."
Conrad Wong [Islandia maintainer]

"BloodMUD was a fun place, near anarchy, as close as one could get. People did horrible things and generally broke MUD taboos whenever possible. It was not a MUD for socialisation or exquisite building, it was a MUD for being nasty and killing. ... In short, it was an excellent place."
Martin Terman [player]

"I put the kill command in when I was still assuming ... it would

be difficult to detect disconnects. It was called 'kill' as a joke - and I assumed that putting a 100p charge on it would keep people from using it very often."
Jim Aspnes [author]

"Eventually they [TinyMUDs] are going to get too big for their servers, no matter how large they already are. ... Smaller MUDs are at the low part of the exponential growth curve, and have a great deal more life ahead."
Conrad Wong [Islandia maintainer]

"If you have a big MUD with 10,000 rooms and things enough to keep you happy 'til doomsday, the players won't look for them. After the initial fun wears off, they stop playing and start chatting, never to play again."
Jorgen Holmberg [player]

"Nobody pays attention to building on Tiny*s, except for newbies occasionally, but they're lowly peons and soon grow out of it anyway. So nobody builds there."
Patrick Wetmore [player]

"I came across a room with an intriguing name. When I looked, I saw "dir1 dir2 dir3 dir4 dir5". After typing "dir1" I was then presented with another list of about 35 names (trying the other directions, I was presented with similar sized lists of different names). I picked one name and typed it in, and was suddenly taken into someone's domain. The size of each domain was limited only by the owner's imagination and the number of pennies they had available. When it dawned on me that each room behind the numbered portals were actually links to created kingdoms and the like, the sheer enormity of the game took my breath away."
Comms Plus! [magazine]

5.7 TinyMUCK.

Name:		**TinyMUCK**
Importance:		**2**
Author(s):		**Stephen White,**
		"Lachesis"
Location:		**InterNet**
	Brigadoon	**dante.cs.uiuc.edu**
	CAMUCK	**flounder.berkeley.edu**
	FurryMUCK	**hobbes.catt.ncsu.edu**
	MbongoMUCK	**mbongo.ucsd.edu**
	MedMUCK	**thesis2.hsch.utexas.edu**
	Pegasus	**l_cae05.icaen.uiowa.edu**
	QuartzPARADISE	**quartz.rutgers.edu**
	TinyHORNS	**bashful.cc.utexas.edu**

Brief Description:
TinyMUD with better building.

Historical Notes:
Version 1.0 was written by White, however he has left the project and there is now a programming team developing the system, headed by "Lachesis".

Review:
TinyMUCK is a version of TinyMUD that has been drastically modified to make building more powerful and controllable. Players need to have the "mucker" bit set by a wizard, which enables them to "muck about" with the game. Thus, visitors and casual players are denied the ability to wreak havoc (although if they really want to, there's little to stop them once granted the mucker bit).

TinyMUCK is very popular, and people starting up their own MUA these days usually choose it in preference to TinyMUD.

The big difference between TinyMUCK and TinyMUD is programmability. TinyMUD provides users with very basic creation facilities, but TinyMUCK has its own interpreted programming language, TinyMUF ("Multi-User Forth"). This is flexible and powerful, but has a reputation of being difficult to use.

TinyMUF (or just MUF) is basically the same as Forth, with a few new library routines. It has three types of constant: integer, string and database reference (an index into the database that is unique to every game object). The language is stack-based, with library routines that operate on the stack (eg. + pops off two elements, and pushes back their sum). Variables are static, and there are functions to set and fetch them; variables' names (addresses) need to be dereferenced to obtain the values they hold. MUF has a limited "if-then" construct, but no "if-then-else". The game-specific library routines do things like print a string on someone's screen. There is some protection offered to players' creations in that "important" properties of objects cannot be modified except by their creator.

To make programming easier, there is an on-line, line-oriented editor built in. Source code is stored, which means tried-and-tested creations can be moved easily to other TinyMUCKs. MUF programs tend to be longer than in most MUAs - a simple slot machine (gambling pennies) is, for example, around 150 lines long. TinyMUCK can read TinyMUD databases, but not vice-versa.

TinyMUCK comes with plenty of documentation, and compared to other building-oriented MUAs on InterNet looks rather attractive. It works, and it can perform many powerful tricks. Its problem is that the people doing the building have little experience of a thorough, well-written MUA. The best example of this comes from TinyMUCK's own advertisement on InterNet: under the headline "Can *your* MUD do this?" was a short transcript of a TinyMUCK session where the player created a "camera" object, took a "photograph" of another object with it, and then "projected" back the image. This is genuinely impressive, except the photograph was of a red rose "with the fragrance of spring". This lack of attention to detail ensures that unless there is strict quality-control from above, any MUA which allows arbitrary, unchecked additions to its database is going to suffer severe problems maintaining overall depth.

Summary:

TinyMUCK is a decided improvement on TinyMUD, but it's really just one short step on the long road back to LPMUD-like MUAs. The sooner programmers of TinyMUD derivatives realise this, the better.

Quotes:

> **"Why wait for 'more powerful' MUDs when you can have all this?"**
> **TinyMUCK 2.0 [promotional material]**

> **"TinyMUCK 2.0 is better documented than any other MUD in public distribution."**
> **TinyMUCK 2.0 [promotional material]**

5.8 TinyMUSH.

Name:	**TinyMUSH**
Importance:	**2**
Author(s):	**Larry Foard**
Location:	**InterNet**
Sanctuary	**valkyrie.ecn.uoknor.edu**
TinyCWRU	**solarium.scl.cwru.edu**
TinyMUSH	**sigh.berkeley.edu**
TinyTIM	**grape.ecs.clarkson.edu**

ToonMUSH uokmax.ecn.uoknor.edu
TwinPeaks corona.ecn.uoknor.edu

Brief Description:
TinyMUD with modifications.

Historical Notes:
Another approach by the Berkeley group to making TinyMUD usable.

Review:

TinyMUSH is an enhancement to TinyMUD that is easier for beginners to use than is TinyMUCK, but which irritates trained programmers. It differs from TinyMUD primarily in that it provides daemons that can be programmed to fire when an event occurs. This is similar to an AI technique, production systems, however in TinyMUSH the production rules are called V-functions. They are short pieces of code that provide a means of storing, changing and displaying information. Some fields are expected for all objects, such as what happens when it is dropped, killed, or listened to.

Recognising that in enormous databases players rarely bump into each other by accident, and that normal travel between rooms can involve a string of thirty or more directions, TinyMUSH has more liberal teleportation rules than TinyMUD, enabling players to materialise in other players' creations without permission.

TinyMUSH does have one kind of object that may be of general applicability in MUAs - the puppet. This is an item that can relay information to players. Example uses in a fantasy setting would be a crystal ball or a magic-user's familiar. Although some of the advanced UK MUAs have similar objects, most do not.

TinyMUSH is a nice idea, and the notion that one small change can cause great changes to occur elsewhere in the database is attractive. However, programming this kind of system and controlling the interactions between daemons is a nightmare even if there's only one programmer: with lots of people programming objects, it will soon be virtually impossible for anyone to predict the effects of actions or figure out the cause of some change. The problem goes away if the changes that daemons can make are limited, but then so does all the power.

A version of TinyMUSH runs on a public-access bulletin board in Toronto.

Summary:
A worthy attempt, but, inevitably, destined for obscurity.

Quotes:

"When a user does X to Y, the MUSH can be programmed to fire off all kinds of small 'programs'. I use quotes, because these aren't so much programs as one-line attachments to object Y. Qualities maybe."
Duncan Howard [MUD1 arch-wiz]

5.9 TinyMOO.

Name: TinyMOO
Importance: 3
Author(s): Stephen White
Location: Internet belch.berkeley.edu

Brief Description:
TinyMUD with better building.

Historical Notes:

MOO stands for "MUD, Object-Oriented". TinyMOO is an enhancement to TinyMUD, written in 1990. White also wrote the original TinyMUCK.

Review:

The main difference between TinyMOO and TinyMUD is that it transfers the power to create objects away from the system administrators and towards the players who are builders.

Objects are implemented in a simple, C-like language, and can easily be specialised (so that even non-programmers can create). This is achieved by a class hierarchy and an inheritance (ie. object-oriented) approach.

TinyMOO is not yet distributed publicly.

Summary:

Another attempt to make TinyMUD safer, TinyMOO is basically a means of allowing people to share a programming experience, chat a little, and do nothing else.

Quotes:

> "The current version is stable, however I'm in this bad habit of tinkering and tinkering with it without releasing it."
>
> Stephen White [author]

5.10 UberMUD.

Name:	UberMUD
Importance:	3
Author(s):	Marcus Ranum ("Jerry_Cornelius")
Location:	none

Brief Description:

An experiment in MUA building language design.

Historical Notes:

Began as a project to improve on TinyMUD. It was written from scratch, and generated a lot of interest - Ranum was willing to give every idea a hearing. A mailing list was established to organise messages between interested parties, and when UberMUD was completed the mailing list enlarged its brief and stayed on. So far, most of the discussions on it still concern UberMUD, however. The Uber part of its name comes from the German, as in Ubermensch.

Review:

UberMUD was conceived as an alternative to TinyMUD, with much improved building facilities. It incorporated many ideas, some of which were clearly ridiculous but others of which showed sufficient promise to be included in many post-UberMUD InterNet MUAs. In particular, its system of protecting objects from misuse by others (using a form of permission inheritance) looks like making an impact.

The UberMUD language - U - was low-level, a cross between Forth and C (Forth semantics, C syntax). There were no predefined data structures, as everything was implemented directly in U, nothing hard-wired. Objects were atomic entities to which properties could be attached; that meant that things like inheritance had to be implemented in U (MUD2's MUDDLE language, which has the same overall aims as U, has inheritance built in automatically: this helps with function matching). U's only predetermined factor was the order in which programming-language objects were searched to find code to execute: verb first, noun second, player third.

Despite all the ideas that were included in UberMUD, some simple things were left out (gender pronoun substitution being the most glaring omission). It had the capacity to implement them, but no-one put them in. The mistake made was to believe that by having a flexible implementation language that allows pretty much anything to be phrased in it, everything necessary actually would be phrased in it. Definition languages have to be either specific (ie. with much assumed, but able to guide a new programmer in database design) or general (ie. assuming nothing except that the programmer knows what is to be programmed).

Nowadays, UberMUD is maintained as the focus for discussions on MUAs in general, but it has signally failed thus far to widen the topic of discussion beyond UberMUD itself.

Summary:
UberMUD is available as a teaching tool for people wishing to write their own MUAs, but proved too cumbersome itself to use in practice.

Quotes:

> "The author seems to have mostly lost interest now that the code is finished. Today, the code is used more as an example of what can be done with MUDs than an actual production system."
> Bill Wisner [player]

> "UberMUD has implemented the biggest advance of all. It requires you to write the code on your local machine and upload it to the game, thereby automatically saving a copy that can be uploaded onto a second machine just as easily."
> Lauren Burka [player]

> "The Ubermud mailing list is now, more generally, called mudwiz. It has expanded its mandate to include wizards from all MUDs, not just Uber."
> Clay Luther [mudwiz postmaster]

> "I'm pretty much tired of working on it, and don't plan on doing much more with it than I have (I wanted to prove it could be done, mostly)."
> Marcus Ranum [author]

5.11 Other InterNet MUAs.

The MUAs here are either one-off systems not on proper public release, or vapourware. Suspected spoof MUAs (eg. CoreMUD) have been omitted.

Name: Cthulhu
Author(s): Bill Burdick, Mitch Adler, Roy Riggs

Historical Notes:
The first version was written in Spring 1988 in C by Riggs. It was essentially just a souped-up TinyMUD. In autumn 1988, the game was rewritten in a version of object-oriented Lisp. Spring 1989 saw the first version of Mob, the game's database definition language; this was based on Objective C, and was scrapped. The second version of Mob came out Autumn 1989, based on Smalltalk and written in Lisp. The game itself was written in Mob shortly afterwards; the Mob interpreter was rewritten again in Spring 1990, using C. The game was scheduled for release Summer 1990.

Review:

If Cthulhu, or whatever it is eventually called, delivers all it promises it will roughly on a level with a slightly above average UK MUA. Nevertheless, this is good going to say that the programming team has no access to these games for ideas (except the rather obsolete AberMUD), and has developed its system from scratch.

Cthulhu supposedly has intelligent mobiles, weapons, armour, clothing, spells and glowing objects. There is some depth insofar as containers are concerned, since they can have a rigid (box) or floppy (bag) shape, however there is nothing similar to MUD2's transparency, for example, and the containers have no lids. There is a powerful form of "attach" available, although granting this to ordinary players is perhaps rather foolhardy on the designers' part.

There is an on-line system for room building, with players having control only over their own creations. This appears primarily to be because such functions are de rigeur on InterNet MUAs these days.

The wish-list of things on the drawing board includes many standard-issue features from the better UK MUAs. Using "look" to see in another room, and printing text messages modulo a player's ability to sense what they contain is nothing new in the MUA industry. Nevertheless, if such seemingly "advanced" features gained a foothold on InterNet MUAs, it may hasten the day when the vacuous TinyMUD-like MUAs are abandoned and more traditional games replace them.

Summary:

Sounds good, but as yet unseen.

Quotes:

> **"We can't sell anything written on a Purdue machine. We haven't been giving out any sources either. Basically, we are too dissatisfied with the old stuff to release it to the public eye, and none of the new stuff is finished yet."**
> **Roy Riggs [author]**

Name: **DUM II**
Author(s):
Location: **InterNet**
AdaDUM II **legolas.cs.umu.se**

Brief Description:

LPMUD-like MUA with no on-line building.

Notes:

DUM II is something of a reaction to the unrestricted, unchecked building possible in TinyMUD and, to a lesser extent, LPMUD. All wizzes have privileges to build, however they may only submit their designs to the game's maintainers ("gods"). These people write any necessary code, make modifications for consistency, and consult with the designer if they feel their suggestions need significant change or are inappropriate. New areas are then thoroughly playtested before being opened.

This form of editorial control is, perhaps, the best way to ensure that room-building progresses naturally, and linearly over time. Its main disadvantage is that the gods may not have the time required to deal with every submission speedily or fairly, and they need to be skilled programmers. Some players may also be tempted to take advantage of them.

Quotes:

"This [gods editing suggestions], and the fact that zones are not opened until play-tested, makes the general quality of zones and puzzles high."
Jorgen Holmberg [player]

Name: MIDgaard
Author(s): Andrew Plotkin

Brief Description:
A shell of a MUA, meant for complex building.

Historical Notes:
Finished in Spring 1990, due to go up in the Summer but so far nowhere to be seen. Designed to be run as a commercial system.

Review:
MIDgaard is a basically empty game, like TinyMUD, with the intention that players add to it themselves. It is object-oriented with an extensible classification system, and its power lies in the ability of players to program objects.

The game has nothing substantial built in - no spells, combat, persona details or the like. This sort of thing is up to the game builders to implement. The game is reported to have a tight security system that ensures the zones people build are distinct from one another and cannot be spoiled by other builders. This implies that objects created by one builder cannot be used in someone else's zone, although any game running under those conditions would be infuriating to play.

MIDgaard's authors are obviously pleased with their game, since they hope to run it commercially (charging around $20/month flat fee - this is comparable to commercial UK MUAs). Object creation, as it uses limited hardware resources (disc space etc.), will be surcharged.

However, MIDgaard's rationale is fundamentally flawed. The authors think that because they have a game which compares well with TinyMUD, it will attract players in the real world. However, as has been noted elsewhere, room building is not really an interesting or fruitful thing for people to do - TinyMUD's success is entirely down to the fact that it allows people to communicate over a distance while being less of a CPU hog than systems that do it a whole lot better. If MIDgaard's programmers think they can sell a simple chatline under the guise of its being a game, they are in for a tragic surprise.

Summary:
Over-rated, and also behind the times.

Quotes:

"Since the maintainers of MIDgaard will be employed by MIDgaard, we will have great motivation to keep things running smoothly, and make interesting stuff."
Andrew Plotkin [author]

Name: PennMUD
Author(s): Charles Hannum ("MycroftXXX"),
Michael Barthelemy ("Edheler"),
David Singh ("Cyric"),
Al Catalfamo ("Satan"),
and 10 others

Brief Description:

On-line AD&D.

Historical Notes:

PennMUD took the InterNet world by storm in Spring 1990, when its incredible design was announced. After a flurry of scepticism, which PennMUD's promoters answered in disparaging tones that alienated them from the rest of the InterNet MUA community, they took umbrage and clamped up. Nothing has been heard of them since, except that the authors are no longer at the university (Pennsylvania).

Review:

Take the AD&D handbooks, enumerate all the ideas without considering their implementation, and you'll end up with a fair approximation to PennMUD (also called NeXTMUD on occasion). Detail was everything (but, for the most part, unnecessary).

There were to be 7 basic character classes, 6 different races, 9 basic statistics, an unspecified number of languages, spells with verbal and physical components, a game divided into "days" of 4 hours real-time duration, encumbrance affecting speed of movement, a currency with exchange rates for different coin types, a barter system, wet/dry and temperature factors for rooms, rolling resets, objects saved when you quit (with periodic persona file searches to return "special" objects that stayed out of play too long), vehicles, and several towns. Object creation was to be available, by extending the level system beyond god (ie. wiz). And this list just scratches the surface.

Not all proposals were completely unimplementable or totally undesirable, but most were. One neat idea that may work in existing MUAs is limiting the number of objects that can be seen in a dark room depending on the intensity of the persona's light source.

PennMUD combined all the worst things from MUAs with the worst things from games like Island of Kesmai. Fortunately, its specification team was so ambitious that it will be many years before anything as complex as PennMUD becomes publicly available. By then, traditional MUAs will hopefully have a strong enough toehold that when large, multinational games companies enter the field they will not ignore the hidden-depth, freestyle MUAs in favour of the explicit-bells-and-whistles role-playing monsters.

Summary:

Archetypal vapourware. All impossible design, and no substance whatsoever. The worst is, even if it had been written it wouldn't have been much fun to play due to the fearsome constraints it would have imposed in the name of role-playing.

Quotes:

"We are still working on the god/demigod commands and do not have a list made up as of yet. If you can think of any commands that you would like to see implemented at these levels, please note me on them with a full description of the command."
Michael Barthelemy [project designer]

"To keep the game moving, you might consider dilating time for rest and movement commands. The amount of realism that is lost is not nearly as important as the amount of boredom that is alleviated."
Andrew Thomas [would-be player]

Name: SMUG
Author(s): Jim Aspnes

Notes:

SMUG (Small Multi-User Game) was written by Aspnes as a would-be successor to his own TinyMUD. The primary goal was to include a programming language that ran at a high speed, but which was safely accessible to all players. The language includes an inheritance hierarchy, but has fewer tools in general than either TinyMUCK or LPMUD.

The project ground to a halt in mid-1990, so Aspnes recently made the sources available as ideas material for other MUA writers.

Quotes:

> "A secondary goal was to show that you didn't have to have 15,000 lines of code to do this."
> Jim Aspnes author

Name: VAXMUD

Brief Description:
Standard MUD1 clone.

Historical Notes:
Written in 1987 by students at Strathclyde University, and distributed in binary form only. It is still being added to.

Notes:
VAXMUD is written in Fortran, and runs only on VAX VMS systems. The scenario it comes with is hard to customise, and the fact that source code is unavailable makes it doubly unpopular.

The game saves objects carried when a player quits, a practice which in general can lead to games being tied up for some considerable time.

Name: YAMA
Author(s): Alan Cox ("Anarchy")

Brief Description:
A program for writing MUAs.

Historical Notes:
Alan Cox's latest project, based on his experience in writing AberMUD.

Notes:
YAMA is intended to be used for writing MUAs, and in that sense it is more properly described as a database definition language plus interpreter than a game itself. It was written to be fast, efficient and powerful. It is also reputedly difficult to learn. It is player-extensible, however its programmability in this respect is not as good as, say, LPMUD.

YAMA is presently in beta-test.

Quotes:

> "It has been aptly described as an assembly language for MUDs."
> Bill Wisner [playtester]

> "It is a game in the spirit of the original MUD; TinyMUD players need not apply."
> Bill Wisner [playtester]

6. Reviews - Non-MUAs.

Name: Air Warrior
Location: GEnie
Pricing Structure: $35/hour 8am - 6pm
$5/hour 6pm - 8am
(no UK access point)

Brief Description:
Multi-player flight simulator.

Historical Notes:
Written by the Kesmai Corporation, who also wrote Island of Kesmai and Megawars III.

Review:
Flight simulators are usually best-sellers for single-user computer games. Air Warrior is a normal flight simulator with a comms package built in, a client program of the most sophisticated kind yet developed. Why the Kesmai Corporation haven't done something similar for their other multi-player games is a complete mystery.

All the work is done by the user's home machine. Information is passed from the host computer, and is assimilated into the user's machine's database; the display is updated accordingly. Commands are processed and passed back up the line to the host. The user's computer is therefore acting as a front-end for the game; furthermore, it is smart in that it generates its display itself - sending complete screen images down the telephone line in real-time is not yet possible, given the narrow bandwidth of present-day telephone networks. Indeed, even if it were possible it might not be desirable - Air Warrior has an off-line practice mode built in, which would be impossible to use in a system that obtained all its graphics from a host machine.

The terminal software necessary to play Air Warrior is available for the Macintosh, Amiga, Atari ST and IBM PC. Fancy instrument displays can be downloaded from an on-line database, or designed by the user.

Summary:
State-of-the-art IMPCG. The game itself isn't particularly brilliant, but the graphics are stunning and there's nothing else quite like it - yet.

Quotes:

> "Where conventional multi-user games like MUD or Micronet's Shades can only portray their game-world using text messages, Air Warrior gives you all the animated 3D graphics and sound you'd expect from any single-player flight sim."
> ACE [magazine]

> "The first thing you need to realise about aerial combat is that the main objective is to survive. Shooting down enemies is just icing on the cake."
> Cap'n Trips [player]

> "One thing's for sure: US gamers are taking to the game in their droves, joining GEnie and possibly even buying modems just so they can play it. Let's hope it - or something similar - reaches Britain soon!"
> ACE [magazine]

Name: Astroid
Location: Minitel

Brief Description:
Multi-player on-line arcade game.

Review:
Astroid (formerly Astro) marks Third Millenium Systems' entry into the non-MUA interactive computer game market (they also produce Shades and Trash). Unlike all other commercial games of this type except Air Warrior, it was written specifically to be used with client software. Players thus get quality graphics and sound effects if they have the appropriate disc and an IBM PC or an Atari ST.

The player's screen is a pilot's eye view of the cockpit and the universe. This looks like a flight simulator, but isn't - all action takes place within two-dimensional planes.

The game itself is a standard arcade-style shoot-em-up with exploration and mineral mining thrown in. There is ship-to-ship communication that allows players to talk to one another, but Astroid's fast pace leaves little time for such pleasantries.

Summary:
A definite step in the right direction, but it'll be a long time before such games are widely available in the UK.

Quotes:

> "Astroid is the most sophisticated game of its kind today, and in its underlying architecture we see a glimpse of the potential offered by developing network and terminal technologies for interactive entertainment."
> Mike Brown [Third Millenium Systems]

Name: BattleTech
Location: Chicago BattleTech Centre

Brief Description:
Very high-technology arcade game.

Historical Notes:
Based on the BattleTech inter-robot role-playing game.

Review:
BattleTech is unlike all the other games described in this report. Rather than being played over the telephone lines, players interact over an ethernet LAN. Each sits at a console in a cockpit, and they battle in real-time over a simulated 10 miles by 10 miles landscape in assorted weather conditions. Although the system is not quite complete, and is LAN-based, the point is that all it does could be implemented equally well over a sufficiently wide-band telephone network.

The BattleTech console has six audio speakers, one of which is for inter-player communication. There is a microphone, a numeric keypad for punching in missile co-ordinates and a joystick for aimed laser fire. Movement is via a hand-held throttle and two foot pedals. Visually, there is one primary screen, several secondary screens, and numerous illuminated instruments.

Players work in teams, up to four a side. There's only one BattleTech centre at the moment, but others are planned.

Summary:
IMPCGs will only have come of age when products like BattleTech are available to home users over the telephone network.

Quotes:

> **"It drives like a tank."**
> **Ross Babcock [technical director]**

> **"This is the game of futuristic mechanised combat we all know and love - but this time it's for real!"**
> **GMI [magazine]**

6.1 Fantasy Sports.

Name: Football/Hockey/Baseball
Location: CompuServe, USA Today Sports Center

Brief Description:
Simulations of sports leagues.

Review:
There are several Fantasy Sports available on US networks, but as they are all basically the same idea their reviews have been combined.

Fantasy Sports' players take control of a sports team and guide it through a season of matches against other players. Team members can be transferred and new members drafted, paid for using game money. Team selection is made before each match, and the games are played to coincide with matches in the real world.

Participating in Fantasy Sports takes little time - a few minutes a day. The overall goal is to win the league title, and there is usually a real-life prize associated with it - a stay at a baseball training camp, for example.

Fantasy Sports are usually uncomplicated, and they are not properly interactive. They do, however, generate a lot of discussion among players, and were the games displayed graphically they would attract an even wider audience.

Summary:
Multi-user, but not really interactive. When interactive versions do come out in the USA, someone there will make themselves an awful lot of money.

Quotes:

> **"The most exciting part was when I won the BERRA National League Championship in 1987. Unfortunately, I wasn't able to defend my title in 1988; I came in fourth. Other than that, it's exciting when one of your pitchers throws a two-hit shutout, or when your catcher hits two home runs and six RBIs in one game, and you know that your team has been helped in the overall standings as a result."**
> **Bill Gallagher [player]**

> **"When Boomer Esiason limps off the field with a sprained ankle or Greg Swindell develops arm trouble, the Fantasy Sports owner has to find a way to bolster his team and continue to compete. Replacing Esiason or Swindell may mean gambling on an unproven rookie, signing a free-agent or putting together a trade for a seasoned veteran."**
> **CompuServe [magazine]**

6.2 Island of Kesmai.

Name: Island of Kesmai
Location: CompuServe
Pricing Structure: $12.50/hour plus
$9.40/hour for UK players

Brief Description:
First-generation graphics game.

Review:
Island of Kesmai (or IOK) is Compuserve's best-selling game - its popularity exceeds that of British Legends, which came on-line later.

IOK is primarily a role-playing game. Beginners have to select from various character classes and races (each of which have their advantages and disadvantages), and they are assigned 6 property values (strength, intelligence, dexterity, wisdom, stamina and constitution). The parallels with AD&D are clear.

IOK is in many ways like a conventional MUA. Players move by typing in directions, and there are commands to pick up, drop, examine and throw objects. There is little breadth, true, and hardly any depth, but it does have complexity enough to merit a 160+ page manual. Subtle differences between character classes, and a range of effects dependent on players' statistics, do give an impression of realism.

The main point about IOK, however, is its display. Rather than textual room descriptions, IOK gives a bird's eye view of the area local to the player. The game is grid-based, and players see a 6 by 6 matrix drawn using pairs of ASCII characters. This may be incomplete, since areas not in line-of-sight are not drawn.

The display is crude. Common features have their own symbols (eg. walls are [], fire is **), but mobiles (critters) and players are simply listed as letters, with a key to decode them printed alongside the map; this is necessary because players can occupy the same square, and thus couldn't be drawn graphically. There is some informational content in mobiles' names, eg. !Nocha is of neutral alignment, +Nocha would be evil (and likely to attack).

There are client programs available which make playing IOK easier, and which tart up the display. However, at present there is no software on general release that produces quality graphics (an Amiga terminal driver has been made available just this month, but so far only 6 people have downloaded it). This is something which must surely come soon - if IOK were given Dungeon Master graphics, for example, it would be almost irresistible. The game is structured specifically for automatically-generated graphical displays, and it's amazing that nothing beyond crude ASCII is used.

The atmosphere in IOK is enforced friendliness. Attacking other players, while possible, produces howls of outrage and the attacker will become a pariah. Communication over distance is not possible, so even if there are 50 people playing you can only talk to those in the same "room" as you.

Players in IOK progress by finding money, and using it to buy equipment or training. There is no overall goal - the players just try to keep alive. However, since some people have been playing for years, they can build up incredibly powerful personae, and it is unlikely that they will ever die. Even if they do, they will be resurrected automatically unless killed by a flesh-eating mobile. In order to keep these long-term players from getting bored, the game is continually added to, with new sections of increasingly dangerous monsters and bigger rewards. This does have the effect of keeping high-level players interested, but it makes the game even more daunting for newcomers. Because of this, IOK has two games - basic and advanced.

The game does have resets, but they are over a long period of time - 60 days or so. Individual objects and puzzles can be reset on their own - necessary, as players take them with them when they quit.

In many ways, IOK is like Rogue or Hack. It has a similar display, similar commands, slightly more depth (mobiles that speak gibberish, mobiles that can only be damaged by weapons made of a certain material), and is multi-player. Nevertheless, even Hack is compulsive, and as IOK is multi-player that makes it doubly so.

IOK appeals to people who like complex (yet often arbitrary) interactions between objects, lots of detailed rules, and no descriptive text. Were a large games company to muscle in on the play-by-modem scene, this is the kind of game they'd probably go for. In the long term, it's a bad move because IOK makes many mistakes - it can't go on expanding indefinitely, for example. However, with a good client it could be very impressive for a few years, and that would certainly be enough to make a large amount of money.

Summary:
Basically, Island of Kesmai is an average, role-playing style MUA, with a crude graphical interface and not a great deal else. However, it is tuned to perfection, and when a proper client is written it should be very impressive.

Quotes:

"In 2.5 years of playing, I've never been on-line when there weren't at least 3 other players, and there are usually 10-60 players."
Dragon [magazine]

"When you become involved in Island of Kesmai, you find yourself thinking of it not so much as a game but as a place."
Randy Eichman [player]

"Expect your first dragon-slaying outing to take a few hours. Your adventure could end in glory or in a dragon's stomach, but chances are you'll have a great time either way."
CompuServe [magazine]

"Kesmai's creators have fashioned a revolutionary experience."
Dragon [magazine]

Name:	MegaWars III
Location:	CompuServe
Pricing Structure:	$12.50/hour plus $9.40/hour for UK players

Brief Description:
Multi-player space warfare game

Historical Notes:
Written by the Island of Kesmai team, MegaWars III is a greatly enhanced version of MegaWars I.

Review:
MegaWars III is, at heart, a multi-player version of the old Star Trek game that was popular on mainframe computers in the late 1970s. More detail have been added, with an economic system, troop landings, planets, gas giants (for fuel), and an overall goal - to become emperor of the galaxy.

Resets are several weeks apart. Players colonise planets, raise revenue, build more ships, and spread throughout the galaxy. Unlike Prestel's

StarNet, the game runs in real time and orders are not "batched"; even experienced players must spend several hours a day playing if they are to stand any chance of becoming emperor. For this reason, players usually join teams, so that other team members can protect their growing empire while they're away.

The screen display is a simple ASCII bird's eye view. It's only really essential for ship-to-ship combat, so can be turned off at other times. Its size is adjustable, up to 32 by 32 squares. Again, there is no client software for users, so any ideas of sprite-driven missiles racing across the screen and exploding in vibrant colour must be dismissed: all you get on MegaWars III is an exclamation mark if you're lucky.

CompuServe also have a very basic cut-down space combat game called SpaceWAR. Unlike MegaWars III, however, it does not feature inter-player communication, just high-speed combat.

Summary:

MegaWars III is basically a simple core, with lots of added detail that significantly changes the gameplay. As with most cursor-addressing games, its appeal would be greatly improved if it had specialist client software that dealt with proper graphics, instead of relying on ANSI escape codes.

Name: NetHack
Location: InterNet

Brief Description:

Multi-player Hack.

Historical Notes:

Hack is a development of Rogue, a single-player game where the player wanders around a computer-generated dungeon slaying monsters and casting spells. NetHack is the multi-player version of Hack.

Review:

NetHack is one of a series of games developed from Rogue, and shares many of the latter's features. Players are given an overhead view of their dungeon level, and move around using arrow keys. Players are supposed to co-operate in their attempts to find the lower reaches of the dungeon. There is no direct communication between players within the game - it works best when played by two people on adjacent terminals.

Work is beginning on the USA academic MUA circuit aimed at combining NetHack with standard MUAs, eg. LPMUD. This should produce something along the lines of Island of Kesmai, but with more traditional MUA features rather than IOK's detailed role-playing orientation.

There are already two NetHack lookalikes with a MUA flavour. Myth was written by Per Abrahamsen in Denmark using C++, and incorporates many classes useful for such games; it is, however, rather primitive. Strathclyde University has VAXMUF (Multi-User Fight), with 100 levels, 100 spells and using ASCII graphics. Neither of these is as widespread as NetHack.

Other InterNet games based on Rogue are Larn, Moria and Omega, and multi-player versions of these may be forthcoming in the near future. Galacticomm bulletin boards already carry an ANSI-graphics game called Androids!.

Summary:

Although there probably are people willing to pay to play NetHack, the real developments will come when the game is merged with existing MUA technology and is given a proper server.

Quotes:

> "I tried linking up a TinyMUD to Hack. One was in ANSI C and the other was in C. Although it did some really impressive stuff, it failed as a 'good attempt' to get them to link up - but I believe it is possible to do it."
> Ashgon [player]

6.3 Sniper!

Name: Sniper!
Author(s): Steve Estvanik ("Yngvi")
Location: CompuServe
$12.50/hour plus
$9.40/hour for UK players

Brief Description:
Man-to-man World War II combat game.

Historical Notes:
Based on the TSR boardgame.

Review:
In Sniper!, players control not individuals, but a squad of individuals, each with their own strengths and weaknesses. This is a growing trend in single-user role-playing games. The player takes on the position of the squad's commanding officer.

The game uses IOK-like cursor addressing to draw a 10 by 60 map on the players' screens, however the game is difficult to play without having first downloaded a copy of the full-sized map, of which the screen display is only a part.

The game has a levels system: ranking points are given for each engagement, and when a certain number have been achieved the player is promoted. Whether a brigadier general would actually be involved in man-to-man combat isn't at issue...

Sniper! is a two-player game. Players can play against the computer or against themselves, or even watch other people play; however, they will normally play against someone else. Missions can be either patrol, infiltrate or specific, and can take place in different areas (Sicily, Normandy, Ardennes), each with its own map. A game will normally last between 20 to 45 minutes for players of similar rank, but if there's a big disparity then it could all be over in 10 minutes.

Being a two-player game drastically reduces the amount of socialisation that can take place. There is a saloon bar for friendly discussion, but little to do in the game itself. Sniper! is not for role-players. Unlike modem-to-modem games, it does actually run on CompuServe's computers, and therefore can only be played there. It's not merely a place for players to make contact and then call each other separately; if it were, it wouldn't be as lucrative as it is at present.

Like IOK, Sniper! does not have graphical client software. Since most American players use either an IBM PC or a Macintosh, this is inexcusable. The display it does have can be in colour, but it is composed of single ASCII characters; it is even more difficult to decipher than IOK's.

Sniper! has a reputation for intricacy and complexity. As with IOK, experienced players like being able to talk about fine, subtle details. It is certainly possible to play Sniper! without being aware of all the rules, but unlike normal MUAs there is little fun to be gained in discovering them: they're all available explicitly, and just have to be read and learned. Battle tactics are the "exploratory" side to the game.

Summary:

An adaptation of a boardgame that takes out all the tedious manual-reading during play and replaces it with tedious manual-reading before play. A good game for seriously minded wargamers.

Quotes:

> "Some people enjoy role-playing and use the radio to send insults or jibes when they hit, or complain when they miss."
> Steve Estvanik [author]

> "You have to think on your feet. While you're in the game, it's a real battle. Things happen, and you have to react. It's like a game of high-speed chess."
> Peter Soehnlen [player]

6.4 The Spy.

Name: The Spy
Author(s): Blane Bramble
Location: IOWA and/or Synergy
Pricing Structure: free

Brief Description:

First-generation graphics game.

Review:

A budding IOK-style game. Players are espionage agents armed with a gun and some grenades, who wander around a maze attempting to dispose of one another. Since there are no puzzles, playing The Spy alone is, at the moment, pointless.

The graphics used are simple ASCII characters, with screen addressing via VT52 codes. As with IOK, line noise can badly trash a screen. Also as with IOK, The Spy would benefit enormously from a client program that took the simple ASCII and turned it into a proper, high-quality pictorial display.

Summary:

A new game: playable, but badly in need of more MUA-like features. Probably going nowhere itself, but it may spark someone to attempt something more sophisticated, along IOK lines.

Quotes:

> "The idea is to provide a multi-user game with a semi-graphical user interface (similar to that found in the games Hack, Moria, Omega and so on)."
> Blane Bramble [author]

Name: You Guessed It!
Location: CompuServe
Pricing Structure: $15.50/hour plus
$9.40/hour for UK players

Brief Description:

Multi-player trivia quiz game.

Historical Notes:

Based on a US TV programme vaguely similar to Family Fortunes.

Review:

You Guessed It! (or YGI for short) is a simple multi-player quiz game with a now sadly diminished following on CompuServe. Players are asked a series of questions in turn by the program, and score points for 'correct' answers; the quotes are because the questions are based on the most popular answer given by 100 people surveyed in the mid-west, and are not always factually correct, eg. "Name a famous Italian opera" was answered "Carmen" by more people than was any other opera. Players can challenge the survey results, in which case a majority vote by all players is required for the new answer to be accepted.

Players can win bonus points for some answers, and these can be added up and turned into real cash; for legal reasons only US citizens aged 18 and over may do this, however. To pay for the prizes, there's a $3/hour surcharge on YGI contestants.

YGI's main problem is sterility. At the moment, its database contains around 2,000 questions, and some players have seen them all and recorded the answers. New questions involve taking surveys, which is expensive, although 2,000 is still rather measily.

The main reason people play YGI is nothing to do with the game itself, though. It has a lobby area, where players go to wait for a game to start, and they chat to one another there. Forming friendships in this way is the real reason people play. YGI is therefore really little more than a chatline.

The past few years have seen a decline in YGI, as it has lost players to British Legends, which provides better communication facilities with the bonus of role-playing - something YGI's socialisers enjoy.

Summary:

YGI is an innocuous quiz program that was successful for reasons its authors had not considered: the game itself was merely a focal point to draw like-minded people together, and it had no staying power of its own in the face of opposition from a fully-fledged MUA. YGI is now reduced to cult status.

Quotes:

> **"Will you have fun? Will you learn more about your friends on CompuServe? Will you discover the Meaning of Human Existence? - You guessed it!"**
>
> **You Guessed It! [promotional material]**

7. Discussion.

7.1 Organisation.

This section contains a selection of representative quotes on a variety of MUA-related subjects. Some of the quotes presented are solicited, unlike those in previous sections; most, however, are taken without permission from public sources such as magazine articles, bulletin boards, and InterNet's rec.games.mud list.

Between quotes are connecting paragraphs advancing the main points. At the end of each subsection is a summary.

7.2 Why Do People Play?

The first and most obvious reason people play MUAs is because it's fun to do so. In some cases, 'fun' is perhaps too weak a word, however:

> "There was little doubt that playing MUD was exciting and stimulating. After one long evening interview, wishing to experience the game first hand, I agreed to join a player as he prepared to access Essex. Not all who wished to play could, as it was strictly on a 'first come, first served' basis, and as the methods of access were no straightforward much of the excitement seemed to hinge upon whether one could gain entry. While waiting to see if his efforts had been successful, the interviewee thrust his wrist to me to feel his racing pulse. He did not get in, but stated that he always got an 'adrenalin high' before and during play."
>
> Margaret Shotton
> [Computer Addiction? A study of computer dependency]

Many MUA players feel this kind of a buzz playing the game - particularly killers, ie. those who attack other personae with intent to cause them harm. The 'thrill' of the hunt can be so strong that it doesn't always matter who wins the eventual fight - and in many ways, if the killer is taking a risk then it can be an even greater attraction (like gambling). Similarly, role-players can enjoy deceiving other people into believing things that aren't true, although realising that someone has attempted to trick you is rarely as exciting as avoiding persona death in a fight.

Contrast the heart-pounding excitement of the above MUD1 player with the faint enthusiasm of a TinyMUD veteran:

> "Why do I MUD? Same reason you use the phone. And it's a lot cheaper."
>
> Bryant Durrell [Islandia founder]

Here, it's mere convenience that determines why Durrell plays. TinyMUDs have little or no puzzles, exploration is seldom rewarding, so they settle down into chatlines. Players who met when the game first started, and were learning to build rooms together, struck bonds of friendship. However, when the futility of that activity sinks in, they just sit around talking. New players don't get the same initial fun, so don't play for very long, and older players are lost through general attrition. Eventually, the game/chatline is deserted.

(The reason it's cheaper, incidentally, is because Durrell uses InterNet, so the costs are borne by others).

So it seems there is a distinction between a MUA that models reality in some way and one that merely provides chatline facilities, with the former having more staying power than the latter because the emotional talons with which it holds its players are stronger. Why is this so, though? Why should interaction that occurs in a computer-moderated fantasy world be any more gripping than straight CB-style interaction?

> "I remember the first time I was killed in MUD - it was deliberate. I was in tears. I really knew what it was like to be dead, the simulation was so real."
> An interviewee (male)
> [Computer Addiction? A study of computer dependency]

The reason is that a good MUA can be believable. If it works the same way as the real world, then the players use the same mind-set as if they were in the real world, and hence emotional response to events in the MUA world are as if they were affecting the player directly in the real world. In a chatline, nothing happens; people don't interact, they merely communicate. Whatever, there must certainly be some other players - a SUA may be lifelike, but it's essentially private. For a world to seem truly real, it must be a shared experience.

> "One thing is for sure, and that is that the multi-user feature is very important."
> Lars Pensjo [LPMUD author]

If, however, MUA worlds can seem to the players like they are real, should events that take place in these worlds be treated as if they were real-world events? Or are they distinct? Should players shrug off what happens to them? What if they can't?

> "MUDs are games. Deal with it."
> Clay Webster [player]

This is a popular view: people who are unable to switch off when they leave a MUA ought to learn to do so, because the bottom line is that a MUA is just a game, and haranguing people about what they did in the game is as pointless as haranguing authors about what happened in books they wrote. This viewpoint is held mostly by people who have never played a MUA, have played but never let themselves become emotionally absorbed by it, or who play killer personae in order to get a kick out of annoying someone who doesn't hold the "MUAs are games" viewpoint.

Surely, though, things which wield this kind of emotional power over people can't be mere games? The passions roused in (traditional) MUAs have the kind of fire to them normally reserved for religious or political evangelism. People aren't so much playing the MUA as living it.

> "Ready for the shocker? Reality is a game. It has rules (physics), players (life forms), and many goals. ... I won't deny that MUDs are games, but if that is so then reality can also be considered a game."
> Ray Cromwell [TinyMUD player]

This argument is intended to show by reducto ad absurdum that MUAs (or at least TinyMUDs) aren't really games, because if they were then everything is a game. However, perhaps it be applied in reverse: if real life is as much a game as is a MUA, perhaps MUAs are as much a reality as real life?

> "My MUD philosophy is that it's more than just a game, it's a virtual reality."
> Bruce Woodcock [TinyMUD player]

Correct. Although the popular conception of virtual reality is a mass of electronic headsets and cybergloves containing Tomorrow's World presenters, MUAs are precisely the same thing, only instead of the images being generated by a computer they're created by the imagination of each individual player.

The 'virtual' in 'virtual reality' is used in the same sense as 'virtual image' in optics: the appearance of a real reality is there, but it actually doesn't exist. However, if it truly doesn't exist, then nothing that occurs in it really happens either, and therefore it should have no effect on the real world (which, we assume, does exist).

> **"All repeat after me: IT'S ONLY A GAME!"**
> **Anton Rang [TinyTalk author]**

The crucial point is that the virtual reality does exist; not in the same way as real life, but as a conceptualisation which can have an effect on people in real life.

> **"I'm hesitant to label it 'just a game'. Sure it looks like a game. It uses a text-adventure metaphor for social interaction. However, that geeky phrase doesn't even *begin* to convey the complexities of 'what mud is'."**
> **Stephen White [TinyMUCK author]**

When a player like Shotton's interviewee controls a persona in a MUA and becomes absorbed to such an extent that he is oblivious to the real world, concentrating only on the virtual reality, then the player and his persona fuse; he 'becomes' his persona in that MUA. As far as the player is concerned, things are happening not to the persona but to he himself. He can do things that are impossible in the real world, and be whoever he wants to be. That's the attraction.

Of course, a sudden change back to real life is going to be jarring. The emotions felt by the player as he lived in the virtual reality cannot be shaken off when he leaves that reality any more than real life emotions can be dismissed at the drop of a hat. No wonder Shotton's interviewee cried when his persona - ie. he himself - was killed in MUD1.

MUAs are not merely chatlines with games screwed on top; rather, they are a whole that is greater than the sum of these two parts. Of course, a good deal of their insidious attraction is that they can lure not just people who want a virtual reality buzz, but ones who simply like games and ones who simply like chatlines. People who just like talking can do that in a MUA if they want to. TinyMUD has a very weak 'learn what to do' game about it when it is first installed at a site, and then it rapidly degenerates into a chatline; however, even then it has enough of a virtual world about it to have prompted this recent posting on InterNet:

> **"I was thinking about things today, and realised that I was spending more than 8 hours a day MUDding, skipping classes and ignoring homework in favour of all the socialisation of the MUDs. It also hit me that I was going to flunk out of college if I didn't stop it. I'm addicted bad. Real bad. ... To all of you who insist that MUD is a game, I disagree. MUD is a socialisation tool that just happens to allow you to go adventuring and solve puzzles. Problem is, that I over-used it, to the exclusion of a real life."**
> **Garth Minette [ex-TinyMUD player]**

MUAs are very addictive. Chatlines can be addictive, and games can be addictive, but neither compares remotely with what a MUA can do to people. It happens in all MUAs:

> **"The burnout player has a very clear profile - he is a very active player who cannot be missed when he is in the game, he is chatty and likeable, a fighter (but not very good), and he sparkles, bubbles, burbles and froths all over chat. Above all, he wants to be involved with everything. The symptoms are very obvious from**

the outset: long hours of play every day may gradually move into peak time, followed by a furious activity towards the end of the first quarter, with a 'well I might as well be hanged for stealing a sheep as a lamb' attitude just before the bill arrives. Then the painful farewell to friends and enemies moments before dad consigns the modem to the dustbin. Then, silence forever. He is never seen again. Burnout."
Pip Cordrey [IOWA owner]

Apart from the predictable grouse about telephone charges, Cordrey has a genuine point here. People who like the world offered by a MUA more than they do the real world will often spend a lot of time there. If they are obliged to pay for their time after having played, and are aware that they can't, they'll play as much as they can before being cut off. This will increase their addiction even more, and when the phone is finally disconnect then the sudden wrench from the MUA can be devastating. Players have described it as 'cold Turkey'.

"MUDs are addictive, as we who play them are well aware. Gibson and the rest were right about the addictive possibilities of cyberspace. They were just wrong about the magnitude."
Bryant Durrell [Islandia founder]

The intersection between game and chatline which is so addictive is a form of role-playing. The term is appropriate, however note:

"Role-playing games have attracted some criticism; US religious fundamentalists have managed to conflate them with satanism and other evils - such as psychiatry."
Computer Weekly [magazine]

That's why these days, in discussing their relationship to their persona, smart American MUA players stay on the virtual reality bandwagon.

"In my case, Sir Bruce Sterling is mostly me. His words are generally my words in that situation, his actions often the ones I would take. But there are slight differences. I can do things in MUDs I can't in real life, which allows options I don't have in real life. And when I kill in virtual reality, it doesn't mean I'd actually kill under the same circumstances in real life, since no-one *really* dies or even ceases to exist on MUDs if they are killed."
Bruce Woodcock [player]

Why is role-playing seductive? Its principal attraction is that it allows players to be someone else, to take on an assumed identity. They can be themselves, but when things go wrong they don't feel so bad about it. Anonymity is the key.

"Considering my MUD persona - and I only have one, which probably says a lot in itself - there are a lot of similarities. I definitely hide behind the anonymity, but share a large number of traits (not all good) with my MUD personality."
Mike Prudence [player]

Anonymity also enables players to take on completely different roles, behaving outrageously, safe in the knowledge that they can't be hurt in the real world.

"Interaction can mean anything from kissing to killing or stealing."
The Economist

Often, this involves sexual manipulation - sometimes subtle, but not

always:

> **"The hozer: 'Yo, babe! I got this amazing ten-inch love muscle. Wanna date? Lie down and spread your legs.' Hozers are usually college freshmen with no social skills who can't get sex any other way. They tend to skew the male/female ratio on MUDs even further by causing all female characters in the vicinity to change to male or gender-neutral characters."**
> **Lauren Burka [TinyMUD player]**

The ability to live out sexual fantasies in a MUA does attract certain people, especially to games set up precisely for that purpose (eg. Zone). This can cause managerial problems if it is uninvited. Something common in all MUAs, though, is cross-gender playing. Most male players play female personae (usually admitting that they are really male if questioned) and many female players play male personae (usually not admitting it if asked). Sometimes, males playing females will attempt to get themselves picked up by players they think are male:

> **"The slut: 'Hey, does anyone here want a blow-job?' The slut comes in all different shapes and sizes, but her description always includes mention of her luscious lips and prominent nipples. 95% of all sluts are played by male players. Most of these used to be hozers."**
> **Lauren Burka [TinyMUD player]**

Rarely will this totally brazen technique fool anyone, but an accomplished role-player can build up amazingly detailed on-line relationships over time. Quite what the fun in this involves is hard to say - it's probably to do with enjoying manipulation other people, although the challenge of role-playing may be a significant factor. Certainly, it can lead to tragic cases where a player falls in love with a persona played by someone of their own gender (almost invariably they're both male - females don't appear to indulge in this kind of thing with quite the same dedication). Most MUAs will have that happen to them at some time in their history unless they're very well managed.

Male players in some games have developed a defence against the possibility that the female persona that they are talking to is actually male:

> **"If you see a persona with a female name, it's really a male. If they come up and talk all feminine and giggle, it's still a male. If they phone you, meet you in a park, chat for two hours about MUD and produce logs of their games, it's still a male playing the persona. If you actually see them sitting down, playing the game, behaving just like they do when you've snooped them, then they might be the real thing but the chances are they're not. You can't be too careful!"**
> **Richard Bartle [Comms Plus!]**

Except in games with a near-even male/female ratio, many women adopt the same attitude:

> **"Perhaps it's because women are so scarce on the computers that some men haven't realised that they don't have to talk any differently to us. I know that some women conceal their gender from those who think that just because someone says that they are female, this is an invitation to be harassed. This loss of freedom seems to be a high price to pay to get respect."**
> **Paola Kathuria [Comms Plus!]**

The 'freedom' Kathuria is talking about is that of being able to be yourself. Many new female players will be scared off by male players trying to chat them up all the time, and will not play as male personae because they

object to being forced into a role by the attitudes of others.

For those women who play openly as females, a barrage of pick-up lines can be expected (not normally meant to be offensive, just very numerous because there are many more males per female player). Once this has died down, women can play pretty much the same way as men. By then, however, male players will often have formed a visual impression of them that might not fit physical reality.

> **"In my experience, unless I have got to know someone well enough to call them a (platonic) friend, after face-to-face meetings things are never the same back on the talkers. I have therefore developed a rule of not meeting people while I am getting to know them and instead just relish wanting to meet them. I am inclined to think that if I were male there would be no problem. I put this down to my hunch that when men meet women on a computer the way women are imagined to look like tends to be more like an ideal than someone who may be skinny or fat, spotty, six feet tall or four feet short. I know that when I started to meet people I had a real shock when I found out they wore glasses or had a beard."**
> **Paola Kathuria [Comms Plus!]**

This reluctance to meet people face-to-face is quite sad in a way, because whereas more men than women get immediate pleasure from role-playing, more women than men find that their true enjoyment manifests itself in the way in which friendships and companionship can form between players over time.

> **"The biggest attraction for me would have to be the people here. I have developed many friendships that I will cherish for years to come."**
> **Stargazer [BL player]**

In two games at least (Shades and British Legends), players have married people whom they first met in the game. If female players don't want to go to face-to-face meetings for fear of shattering their friends' illusions of them, it can detract from their overall enjoyment of the MUA. Long-standing MUA players who may have jealously guarded their anonymity initially will often gladly turn up at face-to-face meetings to renew their friendships.

> **"One of the most interesting features of the MUG phenomenon is their social aspect, not just in the game but outside as well. Every game holds social gatherings, and at these events all the players get together and enjoy meeting the people behind the personae. It's always amazing to see people who were battling each other in cold fury the previous evening sitting down together over a pint discussing tactics."**
> **Pip Cordrey [Confidential]**

To summarise, then: chatlines can be addictive, games can be addictive; combining the two should therefore be addictive, and yes, MUAs do attract people who like chatlines and people who like games. However, MUAs can exert an influence over a large number of these players out of all proportion to that of either a chatline or game alone. MUAs have an emotional hold over their players which stems from the players' ability to project themselves onto their game personae, feeling as if the things which happen to the game personae are happening directly to the players themselves.

When persona and player fuse, as they do in a good MUA, events are given an impact far beyond that of the mere words that convey them. The game's virtual reality becomes (temporarily) the player's reality. Players can do things and have things done to them that are impossible in real life; they can experience feelings and imbue feelings in others that real life denies them. It's the belief that things are happening to you, not to a game persona, that makes MUAs unique.

This must be understood by the reader. The really exceptional thing about interactive, multi-user computer games of the MUA variety is not that you're chatting to someone miles away (although that can be fun), and it's not that you're competing against a real human instead of a machine (although that can also be fun); it's that you're existing in another world. That's the root of their appeal.

> "You get very excited with adventure games. Your adrenalin goes up and you get very tense. It's fascinating that you forget you are hunched over a computer and that others are - you feel you are all together in the magic land of MUD. It's a further extension from reading a book. It's totally engrossing - the mind is focused on one thing and you don't notice anything else."
> An interviewee (female)
> [Computer Addiction? A study of computer dependency]

7.3 Why Do People Not Play?

If MUAs are as entertaining as has just been claimed, why do some people start playing them and then give up shortly afterwards?

New players are the lifeblood of MUAs, as they are needed to replenish the older players who stop playing for personal or financial reasons. They also stop a game from becoming sterile. Hence, most MUAs make some effort to keep new players for long enough to get them hooked.

One of the things commonly cited as a reason for not playing a MUA is that it is too daunting. There is a class of person that finds huge amounts of pre-game reading a real appetiser for the game, and who by the time they've read all the documentation will be raring to go. Many people do not like it, however. They want simple, basic instructions, and they don't want to be told just how much they'll need to know to play the game in earnest - it's just too awesome.

The best way to achieve this is by means of on-line help. Players can ask for assistance on specific game-related topics, and the game will give them details. Purists argue that this spoils the atmosphere, but it's necessary if players are to learn gradually rather than be put off by an initial flood of facts.

> "Virtual reality is not hurt by being able to find out how the virtual reality is mapped to the real reality at any time. It's very unrealistic not to be able to whisper to someone because I forgot the command and the help command is not global. Sheesh."
> Lee Brintle [player]

However, the crucial factor in ensnaring new players into a game is how the other players react. New players are often confused in their first session, and longer-standing players can help enlighten them.

> "If you give people a little guidance, they'll all pull in the same direction, rather than one zillion different directions."
> Mike Prudence [TinyMUCK player]

Unfortunately, the behaviour of other players is as potent in its ability to scare off newcomers as it is to welcome them. In male-heavy games, women have special difficulties as outlined earlier. However, everyone suffers verbal abuse from time to time from anonymous personae. Older players will dismiss it without comment, but newcomers (and especially journalists looking for a story) are often shocked, and can easily be driven away (which is, of course, exactly what their abuser intended).

> "One of the most annoying things is when I'm sitting in a public (or private) place and someone comes by and starts swearing and insulting me and everyone else in there."
>
> Gregory Blake [player]

Proper game management, especially the ability of arch-wizzes to find out to which account any persona belongs, can do a great deal to stop these practices. However, they'll always be open to misuse by people using guest accounts, where no link between a persona and a real person can be determined.

Swearing and sexual innuendo can creep into any public service with a chatline component - 'sleaze' is the term used to refer to it. Due to mismanagement in some MUAs, eg. Shades, an attitude has set in that this is somehow inevitable, and that when anyone plays a MUA the result is a transformation comparable with that of Dr Jekyll's to Mr Hyde. Since this can be used as an argument against allowing MUAs at all, it is important that it be recognised as fallacious.

> "Computer interaction seems to make people nastier and more obnoxious. It doesn't: it merely gives the rude and ignorant more efficient and anonymous means to display their rudeness and ignorance."
>
> Lauren Burka [TinyMUD player]

In other words, MUAs don't make people behave badly; all they do is enable people who want to behave badly to do so. In a properly organised MUA, bad behaviour by an individual will occur at most twice: the first time, if they appear to have thought it was OK to do what they did, they'll perhaps be let off with a stern warning; the second time, they're ejected. Games that allow wrongdoers to return have a harder time of maintaining discipline. That said, when people play MUAs their emotions are often difficult to contain, so when disputes do break out they can escalate rapidly.

Note that sleaze is not limited to MUAs, and that BT is very sensitive about it:

> "Should you receive offensive or abusive material over any of our data transmission services or feel that material on a database is offensive and you wish to complain, please register your complaint in one of the following ways. ..."
>
> W. R. Broadhead
> [head of BT MNS Customer Service Unit,
> in a letter to PSS customers]

It is impossible to deal with sleaze so long as narrow-minded individuals have access to a system and know they cannot be traced. Automated censorship is presently impossible - computers would throw out words like 'Scunthorpe', and if they didn't then players would use them as swearwords.

To summarise: new players will lose interest if they find a game looks too complicated to play, or if it is too sleazy for them. More experienced players will leave if sleaze gets really bad, but otherwise have a higher tolerance of it. Good game management can reduce the amount of sleaze, in the same way as good Home Office policing can reduce the amount of sleaze on ham radio. However, it can't ever be removed 100%. You can discourage people from breaking a code of acceptable behaviour (eg. by throwing them out), but you can't actually stop them from breaking it.

> "If you think about it, you will realise that a game is just a coded collection of rules. With a multi-user adventure these rules are complex, and defy being entirely coded. So some externally applied rules have to exist. The purpose of rules in the game is to ensure that the game is fair and enjoyable to all players."

Pip Cordrey [IOWA owner]

7.4 Why Do People Stop Playing?

MUAs do lose long-standing players. Sometimes it's because the games are boring, or no longer games (as with TinyMUD and derivatives). Other times, the players or their circumstances change: they get older, change job, die, move house, marry, have children.

However, in the UK at least, the main reason that people stop playing is because telephone charges are too high. The evidence for this is overwhelming - almost every professional article on the subject complains about the cost.

> "The main obstacle to MUD, and similar programs, gaining a wider airing is the cost of making a telephone call."
> Popular Computing Weekly [magazine]

> "The problem area with this way to play is the cost and speed at which it operates. Current costs are prohibitive."
> New Computer Express [magazine]

> "These games are expensive to play, habit forming, and rapidly becoming big business."
> PC Plus [magazine]

> "No MUG is free when it comes to your telephone bill!"
> GM [magazine]

> "Maybe the forthcoming changes to BT might lead to a more enlightened attitude to telephone charges for this type of service. For the home user, however, MUD playing will be limited to the rich or the resourceful."
> The Times

The service BT provides is held in contempt by everyone in the commercial comms field. Usage patterns for MUAs are very different to those of voice users, with players commonly sitting down for several hours at a stretch playing a game. During that time they are, of course, occupying slots on the same exchanges that normal telephone users are paying full-price to use, however since they have no choice in the matter it can hardly be said to be their fault. Even the absolute minimum price for a local telephone call in the UK works out at 5.06p per 240 seconds, ie. L0.759/hour; for a long-distance call, it's 5.06p per 38 seconds, ie. L4.794/hour. An evening of playing even a free MUA would cost the players anything between L2 and L14 each. Even for commercial games, the bulk of the money players pay ends up in BT's coffers.

BT is very complacent about all this; after all, it's making money by doing nothing, so why bother? Indeed, since there are some people who apparently spout sleaze in these games, perhaps it would be better in the long run if they were all shut down? Less hassle for all concerned...

BT could make a lot more money from MUAs if it dropped its prices. One large phone bill will drive a person off a MUA, whereas they are likely to accept smaller ones over a much longer period. L300 for one quarter nets BT L300; L75 per quarter for two years nets BT L600. People don't play less when the price goes up, they either continue to play or just stop. It's an issue for Market Research to determine the exact trade-off point for maximum income, but it's definitely below 75p/hour.

Another important point is that although BT makes money from MUAs, they're commercially unattractive to games companies. Players are prepared to pay only a certain amount per hour to play, but if BT takes the lion's share of that then there's little profit for the MUA authors. This means companies that specialise in computer games prefer to invest their energies elsewhere, and so the number of commercial MUAs is small. The more games there are, the more players, and therefore the more income due to BT overall.

BT does provide alternative services for its users. Most of these suffer from the fact that they are distance-dependent: most telephone numbers may be local to London, but MUAs often hold a special appeal to people in remote areas, for whom a long-distance call is 5 or 6 times as much. Present facilities and their disadvantages are as follows:

- PSS
Allows inexpensive data transfer compared to direct dial over a modem long-distance, but is still a local call plus a high premium of several pounds per hour (depending on the amount of data sent).

- 0800 numbers
Players don't get big phone bills, they get big bills from the MUA owners, who in turn get the big phone bills. If they are charged up front to use the service, this can be beneficial - people don't get any nasty surprises. Unattractive to MUA owners because it's distance-dependent, and local callers subsidise distance callers. If, however, all calls to the number cost the MUA owners the same, and that amount was equal to or less than the price of a local call, it would be a very satisfactory option - especially if the MUA providers could claim back the VAT on their phone bills.

- 0345 numbers
These are numbers that are a local phone call from anywhere in the country. They're a cross between 0800 calls and normal calls - long-distance calls are subsidised by the owner of the 0345 number. If local call rate from pretty well everywhere in the country could be guaranteed, with no hidden charges, this would be a reasonable second-best option.

- 0898 numbers
These are the premium call-rate numbers, where users pay enormous amounts per minute and BT gives some of the resulting money to the 0898 number owner. This would work well for MUAs if the prices weren't so incredibly high - L19.80/hour. Bring it down to L1 or L1.50 an hour and it would be more reasonable. Players would get even larger phone bills to pay all at once, however, and thus may be even more inclined to give up their gaming.

- Midnight Lines
Midnight lines allow their owner to pay a flat fee per quarter and make unlimited phone calls any distance in the UK, so long as they do so between midnight and 6am. Best used as a call-back system, where players dial the game, give their password, log off, and the game calls them back on its midnight line; this way, only the game needs the midnight lines, not the players. The problem with these lines is that only the most hardened of players will stay up so late before they can start to play.

Given that BT's options are limited by its charter, there probably isn't much scope for altering these services or providing similar ones. As far as MUA players are concerned, the best solution is to have a service like the 0800 numbers where calls can be made from any distance and don't appear on the users' phone bill. Different prices for different times of day are a reasonable thing for BT to ask, but they should always be the same as or less than a local phone call. The MUA provider would sell players 'credits', take these away from their total at a certain rate depending on the time of day, and ask for more when they ran out. In this way, players can see precisely how much the game is costing them, can budget in advance, and have no nasty shocks when their phone

bills arrive:

> **"In general, I think paying for credits in advance is definitely better than running up a bill. It allows players to budget, and avoids the problems a lot of new players could encounter of a huge bill arriving after the first month or so, which puts them off playing and therefore loses the game a customer."**
> **Phil Purle [MUD2 player]**

From the MUA providers' point of view, the best solution is a service like the 0898 numbers. This is because they'll get more people playing during the day using their companies' resources; also, BT does all the billing. However, the 0800-lookalike solution is probably fairer.

A third alternative is for BT to charge the MUA providers a flat fee for a number that can be dialled by anyone without costing them anything - a sort of 0800/midnight/land line. This may be subject to time-of-day restrictions, perhaps only working at cheap-rate times. Provided the cost of doing this wasn't too large, it would benefit both the player (free calls to the MUA in the evening) and the MUA (daytime calls from users on their company phones). However, as a service it's perhaps a little complicated to operate.

All this assumes use of the existing telephone network. There are likely to be problems, however, in that providing new services primarily for transmitting and receiving data doesn't ensure that they will be used for those purposes. For example, if a company bought a data 0800 number that only cost it local call access outside business hours, there is nothing to prevent its being used for voice communication. It could, of course, be made a condition of having such a line that there should always be a modem on the end, but this may prove expensive to police.

Although at this stage there is probably insufficient evidence to tempt all but the most progressive of companies into setting up a data-oriented network, nevertheless that's probably the best way to proceed. Certainly it will be needed in the future, it's just a question of how long BT or their competitors (such as they are) wait before implementing it (or realising that they'll even need it - mind you, Finland has it already, and it's free). Local phone calls to a special data node will doubtless be with us for some time to come, but a national packet-switched data network that people don't require a special account to use will come eventually. All they'd have to do is dial the appropriate code for the data network followed by the number of the recipient, and instead of being charged on a time basis they'd be charged on a data transmitted/received basis. If CompuServe can knock up a system that gives local call access to their mainframes from pretty well anywhere in the USA, BT can surely manage something in Britain.

Of course, if BT is ever allowed to run its services on a subscription basis like cable TV, other avenues are open:

> **"I do feel that you're best off following the example of US TV or radio - don't charge the end-user if at all possible, and pull in the revenue someplace else."**
> **Bryant Durrell [Islandia founder]**

Summarising this, then, there are several options available for people who wish to use IMPCGs. A very important consideration is the cost: if at all possible, it should be standard countrywide, irrespective of distance; also, it should be no more expensive than a local phone call - otherwise, why would people a local call away bother with it?

MUAs are played most frequently in non-business hours, which may give some leeway in implementing changes to existing approaches. Of these, the most favoured are where all the cost is borne by the information provider, either as a flat fee per line or time-dependent as at present.

Ideally, data communications should have their own network which charges on a data sent/received basis rather than for time used. Voice sends lots of data over a short period, but on-line services send smaller amounts over a longer period, and furthermore can be carried more efficiently if their computer-oriented nature is known. This, a datanet would achieve.

> "The quality of networked services in the UK is very poor, and I do not wish the work that we have done up to this point to be swamped by poorly managed highly commercial services."
> Pip Cordrey [IOWA owner]

7.5 What Does the Future Hold?

> "With the software industry definitely looking for new ideas to keep home computer users interested, the multi-user game is strongly tipped as being a hot item."
> Datamation [magazine]

> "At a time when the microcomputer software industry is entering a period of crisis - the number of new ideas for computer games is painfully small - the idea of multi-user games has been put forward as the next big area for development."
> Computing [magazine]

MUAs are fun, rewarding to play, and compulsive. From a software author's point of view, they're a dream: the software is not made public, so there is no danger of piracy; people pay for them continually, they don't just make a one-off payment; larger computers acting as a host mean that more sophisticated games can be written than work on home micros. A pity BT takes such a huge percentage of the revenue. Nevertheless, MUAs are definitely the future.

But what exactly is that future? The present trend in MUA design is for games that allow players to add rooms etc. to it themselves. For many reasons, this approach is unlikely to be successful commercially - quality, security and the UK copyright laws are the main objections. However, that is not to say that new alternatives should not be examined; too many MUAs these days are formula issues that use the old, tried-and-trusted approaches.

> "The main thing hampering game development is the fact that the people writing them are content to produce yet another Shades clone. It seems that whilst there is a lot of enthusiasm for writing your own games, nobody is willing to be a bit adventurous and try and make things a little more complex."
> Wabit [player]

To seasoned players, the older MUAs look very dated. If members of the general public were given a wider access to these games, then after a while they'd come to feel the same way too. Unless work starts soon on the "next wave" of MUAs, there'll be nothing there to take their place.

> "Hopefully, they will be replaced by new games, but who is going to write them? And who is going to back them? BT don't need to replace Shades, it still brings in the money..."
> Wabit [player]

The authors are there, but the backers aren't. Even CompuServe doesn't commission games, it merely deigns to permit them on its network. Prestel will allow companies access to its user base, but at L6,500 per entry point plus L260 per channel, both sums charged annually, there are few takers. Unfortunately, BT is too big an organisation for this to make much difference to it, and its charter means that cross-subsidisation is not allowed; thus,

Prestel couldn't let new services join it for free in the knowledge that this would generate income for the telephone division, because Prestel itself would have to pay for the connection and would get nothing (or comparatively little) in return.

MUA authors and carriers generally agree on the next big step in MUAs:

> **"I see it splitting several ways. There'll be the continuing MUD/Shades type games, there'll be an increase in on-line chat/conferencing systems concentrating on the 'social' side of MUGs as they are, and there'll be the hard-edged commercial things, probably graphical games."**
> **Nigel Hardy [Comms Plus!]**

Graphics are seen as being the key to bringing MUAs to a wider audience; sound, too, if possible. Viewdata, sadly, is nowhere near good enough, despite Prestel's doggedness.

> **"To market MUDs successfully, the interface between host and client must be improved. It is a small percentage of the buying public that will suffer through typing and reading to enjoy a few hours' escapism. If someone were to combine the ease of watching television with the interactivity of MUDs and make it available to the world at large, they would soon put the passive networks (NBC, ABC, BBC, ITV etc.) out of business."**
> **Duncan Howard [author of An Introduction to MUD]**

Graphical MUAs are possible right now, it's just that no MUA author has the financial clout to do anything about it. The approach is not to send photographic images down the line, but instead to provide these on disc or multimedia systems at the user end. The MUA host merely transmits a few control codes that say "Print background 219, with a tree at co-ordinates (314, 16), and Eric at (210, 101) with a face using identikit image 12/11/23/1/92." This doesn't need ISDN telephone links, and it's the way games like Air Warrior work.

> **"Graphical MUGs won't work until the BT monopoly is broken and 15 year olds can afford to play shoot-em-and-run type games over the phone."**
> **Graeme [Ripper author]**

IMPCGs in the future will, in general, be one of the following types:

- **Arcade style.**
  These will appeal to people who like blasting aliens. However, blasting aliens is a lonesome thing, and players will not take kindly to being blasted by other people. When teenagers play such games over the phone, it'll be because that's a way the computer companies have figured they can make more money out of it. Making people pay as they play is always going to be more lucrative than making them pay once only.

- **Strategy.**
  These are mainly going to be two-player games between 'older' players of a generation that came too early for AD&D. People enjoy playing things like chess by post, and will enjoy playing such games by phone. They are unlikely to come in their hordes, however; this is a niche market. Networks will only be necessary as a place to meet opponents before playing direct-dial.

- **Simulators.**
  The players take sides in a competitive environment of fast action and/or skill. This covers everything from flight simulators to rock climbing. Doubtless there will be people who want to play golf against a real human being in a laserdisc rendition of the US Masters course, but whether

they'll keep coming back for more or grow tired when the novelty wears off (or they keep losing) is uncertain.

- Chatlines.
  Not really games, but such a socially useful tool that despite the sleaze factor they'll eventually conquer all. They'll appeal to people who are prudish about playing games but who don't mind a little gossip.

- MUAs.
  Chatlines plus games. Unbeatable, except for people who "don't like dragons and suchlike", ie. are too old or set in their ways. With graphics and sound, they'll be absolutely sensational.

There is going to be an enormous market for IMPCGs. Although the UK has a significant lead in MUAs, it'll disappear in a couple of years once the US academics get working on it in earnest, unless the UK industry is given support. If not, it'll be brushed aside by the US and Japanese giants, particularly purveyors of arcade games and simulators who have suddenly become aware of "virtual reality" and may implement such systems leap-frogging present-day MUAs completely.

There is a demand for these simulator games, unquestionably. However, the danger is that they will constitute all the games on offer. There's a common misunderstanding among company people discussing playing games over the phone: they think that the reason people do it is because they relish the challenge of taking on a real human being in a test of skill. They don't. People may have that idea initially, but any long-standing MUA player will tell you that it's not really this that keeps people playing. To some extent it's the social aspect of the game that holds the key, but the real juice is the virtual reality.

To summarise: single-player games that are modified merely by giving them more players will probably have some considerable appeal. This will be enough to satisfy their backers. However, shared virtual reality is where the big bucks lie hidden, and the first company to make a top-notch graphical MUA available to a large user base will clean up.

> "Business users pay for the system and we have to look after them, but we get a lot of satisfaction from the home users who come on the system in the evenings. They are the lifeblood - no, the SOUL of MicroLink"
>
> Derek Meakin [MicroLink chairman]

7.6 Conclusion.

BT has been lucky enough to have the leading technology for IMPCGs take root in its front garden. It can nurture this young shoot until it is strong, then plant its seeds elsewhere, or it can dig it up and wait a few years until someone else sells one at the garden centre.

BT can watch or participate - preferably the latter.

> "For adult educators and researchers, text-based virtual realities offer an opportunity to enter a synthetic society either as observers of the sociology (and sociopathy) of a predominantly adolescent culture, or as mission-oriented contributors to the informal education and enrichment of the young people populating the ethereal world of Cyberion City."
>
> Barry Kort [BBN scientist]