

FREE AMIGA BUYER'S GUIDE

November/December 1986
\$2.50 U.S.
\$3.50 Canada
ISSN 0744-8724

commodore

microcomputers

THE BEST OF 1986

**Inside
Lucasfilm's
Habitat**



Commodore

microcomputers

DEPARTMENTS

LETTERS 5

NEWS 10

TELECOMMUNICATIONS

Q-Link Update by Quantum Computer Services 14

SOFTWARE REVIEWS

Mind Mirror by Bob Guern 18

Bop'n Wrestle by Gary V. Fields 20

GBA Basketball by Scott A. May 22

Infiltrator by Ervin Bobo 28

Hacker II: The Doomsday Papers by Mark Colone 30

Shadowfire by Scott A. May 32

PaperClip II by Gary V. Fields 36

Escape by Gary V. Fields 38

Fantastic Animals/Creative Contraptions by Gary V. Fields 40

TIPS AND TRICKS

Hints for Fun and Utility Compiled by Louis F. Sander 44

JEFFIES

Phone Messages by D.W. Sampson 48

Modern Answering Machine by Donald and Darryn Graham 50

Easydata-128 by R. Harold Doid 56

Pick-up Blocks by Roger S. Macomber 58

SILICON VALLEY INSIDER

From Big Blue Reader to Toss Times in Tone Town
by Matthew Leeds 62

AMIGA UPDATE

Public Domain Software for the Amiga by Matthew Leeds 134

128 USERS ONLY

C128 Spectacular by M.N. Garswell 138

64 USERS ONLY

EditWedge by Michael Leidel 140

Windows by Richard F. and Sally J. Daley 148

COMPUTER TUTOR

Game Design, Part 5 by Robert Aloiso 156

Let's C Now, Part 2 by Paul Higginbottom 162

GAME PROGRAMS

Klondike Solitaire by John Andrew Bailey 166

100 Mile Race by Randy Maye 171

FEATURES



QUANTUMLINK'S HABITAT: THE ON-LINE WORLD FROM LUCASFILM GAMES 114

Visit the remarkable world of *Habitat*, a multi-player adventure game that takes place live on QuantumLink, the Commodore-specific telecommunications network. Create your character and off you go—questing for adventure with people from all over the country. by Shay Adams



THE BEST OF 1986 118

Our second annual collector's edition to what's worth buying for the Commodore 64, 128 and Amiga. From sports games to Amiga hardware—it's all here. by our top reviewers

HOW TO ENTER PROGRAMS 176

MAGAZINE ENTRY PROGRAMS 178

USER GROUPS 180

ADVERTISERS' INDEX 192

Coming Soon

L U C A S F I L M ' S
HABITAT™

Exclusively on QuantumLink

QuantumLink's Habitat

The On-Line World from Lucasfilm Games

BY SHAY ADDAMS

Vienna, Virginia, I recently discovered, is not the place where they make those funny little sausages. Instead, it is best known as the home of the QuantumLink telecommunications service, which I suspect will soon be best known as the home of Habitat—a breakthrough game that transforms telegaming into an exotic new kind of computer entertainment. On one of my rare outings from the QuestBusters cave, I drove to Vienna and witnessed Habitat in the final stages of development.

Version 1.6 arrived from the coast only minutes before I pulled in from Pennsylvania. (It arrived in much better condition than I.) All I knew was that it was supposed to be an adventure produced by Lucasfilm Games, whose trademark is the inventive use of fractal graphics in entertainment software. Having played *The Eidolon*, I expected to spend a few hours wandering through three-dimensional caves, slaying dragons and looking for treasure. So I was totally unprepared for *Habitat*, which turned out to be far more than a mere adventure game—it is a multi-player happening that takes place live, on-line, as an unlimited number of people inhabit, explore and interface in an alternative universe depicted with animated graphics.

Inside QuantumLink Central

Janet Hunter, QuantumLink's Entertainment Software Manager, slipped a disk into the drive, accessed the system and chose the People Connection department from the initial menu. (If you're wondering why a game is located in the section devoted to chatting on-line with other QuantumLink users rather than in the Just for Fun section, the answer is that people, not computer-controlled characters, are the game in

Habitat.) Next she chose Habitat from the menu and flipped the disk to the side containing the special software. Moments later, a vividly colored scene materialized onscreen.

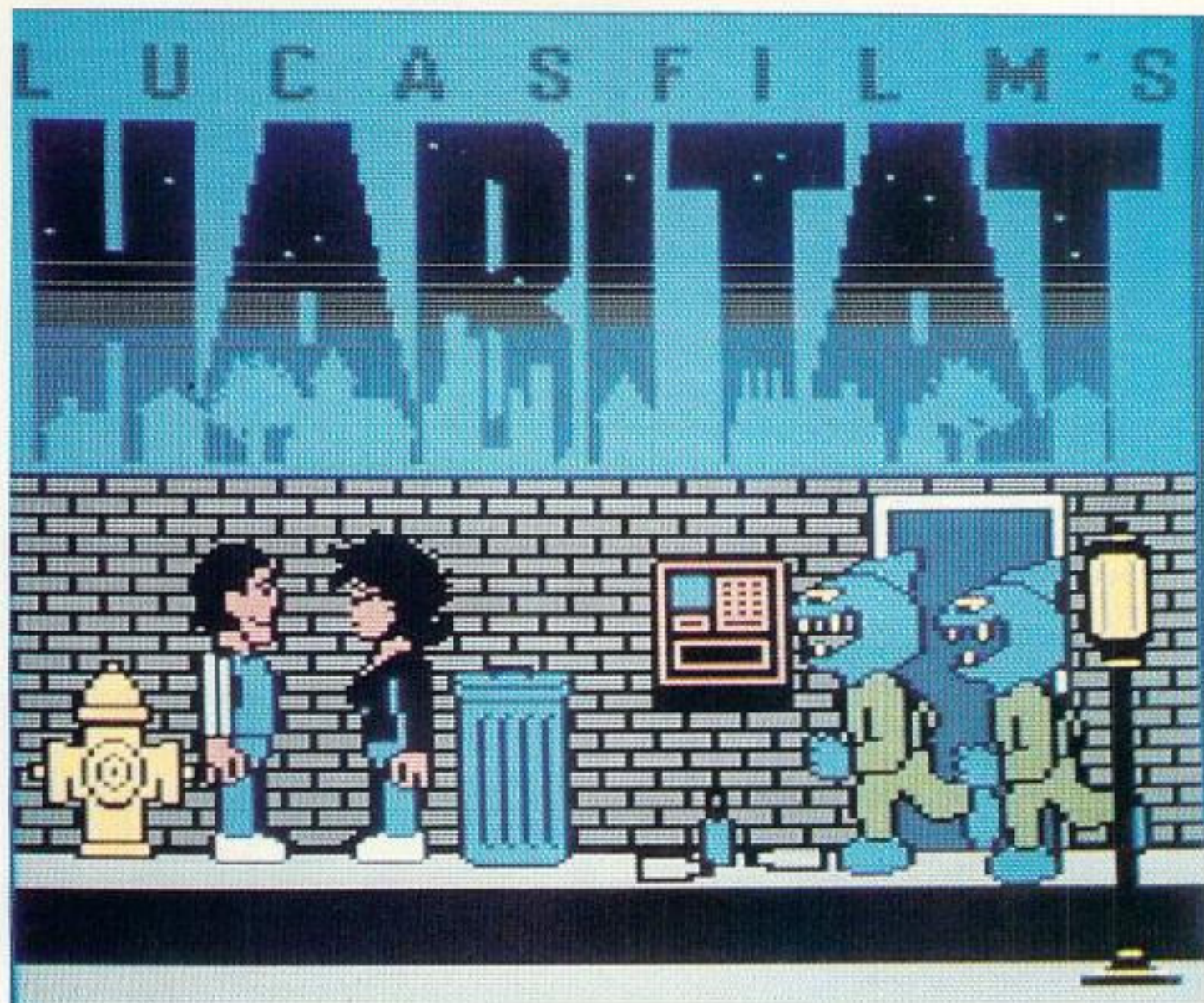
It showed Janet's "turf," a room where a character called an Avatar stood awaiting her command. All *Habitat* players have individual rooms, which they can redecorate by painting them with various colors and patterns, and by rearranging the furniture and adding new furnishings. Each Avatar's turf comes equipped with a pet cat, whose tail swishes back and forth in an example of the spot animation sometimes used to enliven the scenery.

Sorry dog-lovers, but no dogs are allowed in this fantasy world. And cat-haters can give up on the idea of killing the cat, which programmer/designer Chip Morningstar says was added as a sort of joke by Gary Winnick, who designed the graphics for *Habitat* (and other Lucasfilm games).

Besides customizing your turf, you can design your Avatar's appearance when you first start playing, by choosing a head and other parts that give your character its own personality.

Janet showed me how to maneuver the Avatar around with a joystick. By pressing the button, I displayed a question mark that was bordered by four arrows pointing at the available commands: go, do, get, and put. Choosing one is merely a matter of moving the joystick in the appropriate direction, punching the button and releasing it. To cross the room, I first moved the cursor to the destination and selected the "go" command. The Avatar, who reminded me of the Wizard of Id, walked over and stopped beside the chest of drawers. By now the room—the *real* room in which we sat—had filled with a crowd of QuantumLink staffers eager to see the latest version of the game.

The "do" command will activate any object that you can do anything to or with. When I positioned the cursor on a drawer and executed the "do" command, telling the Avatar to open it, the room's picture was replaced with one showing the drawer's contents. Like other objects, these could be obtained with the "get" command. The "put" command is handy for dropping things you're carrying. Avatars can only hold one object at a time, but you can fill a bag or other container and carry several things around. (It's like your



inventory in a typical adventure.)

After placing the cursor on the Avatar and choosing "do," I watched him sit down, stretch out on the bed, and cycle through his other motions. With a punch of the function keys, I had him in a game that's like an animated cartoon. Sound effects—a juke box with music, dial tones and busy signal on a phone—are also heard from time to time. Because the program (as well as QuantumLink itself) is designed exclusively for Commodore computers, the graphics and sound effects take full advantage of the Commodore 64's capabilities.

Regions to Roam

By moving to any of the room's doors or sides, your Avatar can stroll through a vast world that in the preliminary version encompassed more than 500 regions. (Each room or location, the standard term in an adventure game, is called a region in *Habitat*.) I visited a few, but since the game was still in the developmental stages when I saw it, I couldn't go

Your words go through a modem and over the phone wires to the Stratus computer that houses the QuantumLink network. From there, it is routed to the computers of every person whose Avatar is in the same region.

far. When the game goes on-line, there will be even more places to explore, visit and hang out.

You can do most of the things you normally would in a conventional adventure: shop in stores for clothes, tools and other gear, find things like keys and use them to open treasure chests, and solve object-oriented puzzles. While you can't cast spells on other Avatars, some objects do have



magical properties. If that were all you could do, then *Habitat* would be just another adventure—and not an exceptionally interesting one. But the “talk” command changes all that, opening countless possibilities that are limited only by the players’ imaginations.

To execute this command, toss away the joystick and hit the keyboard, typing in sentences as long as 110 characters. Your words go through the modem and over the phone wires to the Stratus computer that houses the QuantumLink network. From there, it is routed to the computer of every person whose Avatar is in the same *Habitat* region, no matter where in the country they are located. If you want to conduct a private conversation, just move the cursor to the Avatar you want to talk to before hitting the button: your message appears only on his screen.

It’s like QuantumLink’s chat mode, but your words pop up in a cartoon-style balloon at the top of the screen. If several Avatars are in the same room, their balloons are color-coded so you can tell who just said what. (And you can learn an Avatar’s user name by using the program’s “identify” feature.)

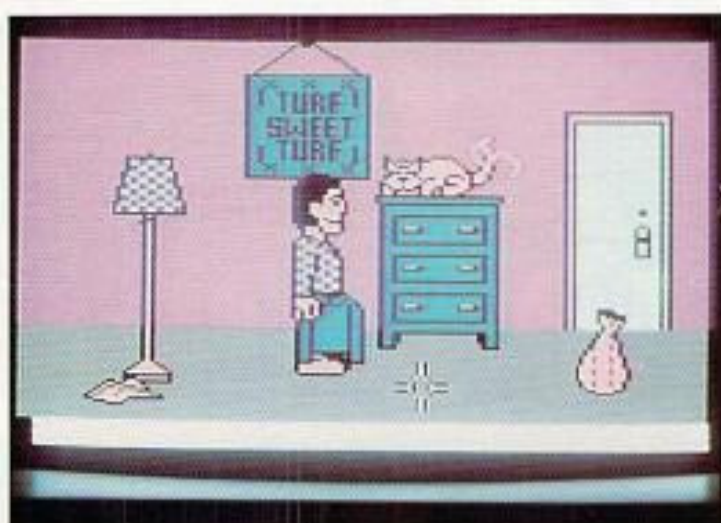
Personally, I have never liked talking with disembodied entities on CompuServe’s CB-style channels, or even in QuantumLink’s cozier chat mode. But this presentation puts the experience in a fresh and unique perspective. It’s like living in a cartoon world populated by people from this one. You can shoot the breeze with old friends, meet new people, even kill them (I’ve wanted to kill more than a few of the people I’ve encountered on-line), and organize gatherings to do whatever you want. You can let others in your turf visit, hold meetings, parties or Tupperware parties, but you can’t enter someone else’s turf without permission. (Just be sure to lock the door when you leave, and don’t lose the key to your turf.)

Questers Wanted, Apply Within

After learning the ropes, you’ll want to walk down to the

fountain and visit the Oracle, the unseen all-knowing mysterious power who runs the show around here. Here you can meet other Avatars, and you can also ask the Oracle to send you on an adventure—to find the mystic orb of Xebop and return it to the Temple of Zak, or to fulfill a similar quest that may take days, weeks or even months. As in one-player adventures, you’ll have to dig up clues and solve puzzles to complete the quest, but here you will have a crew of real people to work with collectively. If you’ve already organized a team of adventurers, great. Otherwise the Oracle will match you up with other adventurers. (Unless you really want to go it alone.)

You can also read the *Habitat Weekly Rant* for want ads about adventures. This newspaper might also yield valuable



clues or ads selling valuable items. Information also turns up in books, and you can write notes and leave them for others. Instead of heading out on a quest right away, you might prefer to roam around and see what’s happening, maybe draw a map for use in future sessions. There are hotels and inns in case you want to return to the real world without trekking all the way back to your turf. And if you already know where you want to go, you can teleport directly to your destination and save yourself a lot of footwork.

Conventional adventures are not the only kind of pastime available in *Habitat*. Chip Morningstar, the Lucasfilm programmer who dreamed up the idea and masterminded its production, explains, “Teams of contestants can play other games, something like capture the flag, for example, with a time limit. Other activities are mainly social, involving conversation and interaction. For instance, there’s an interaction theater in which you can play part of a character in a play.” According to Morningstar, “The only limits are those of the underlying medium, so there won’t be any skill and action videogames.”

Morningstar says the idea for *Habitat* “had been rattling

around in my head for years before I joined Lucasfilm." (He didn't work on Lucasfilm's *Ballblazer* or *Rescue on Fractalus!* but wrote the assembler and other tools for *The Eidolon* and *Koronis Rift*.) "I had played *Original Adventure* and the *Zork*s, and was a big fan. But computer-controlled characters don't have the depth and richness of human players, and I hope the characters in *Habitat* will evolve out of people interacting in the game. That was the idea, to create something in which a lot of different things and activities are possible, to pull in all kinds of people—something really new."

It's so new, Morningstar and QuantumLink don't quite know what to call it, referring to *Habitat* as a "world simulation."

How it Works

Written in PL1, a high-level language similar to PASCAL, the program has been underway since the summer of 1985. Basically, it consists of two programs. One resides in QuantumLink's computer, the other on a disk that goes to all players. The host program keeps track of everything happening in the game, things such as the location of each player. It also has object data, which determines the characteristics of each item—whether it can be used, picked up, or acted on in any way.

The software on your disk holds all the graphics, as well as corresponding data on the objects. When you move from one region to the next, the host program tells your disk about the new region, what objects are there, and which graphics to display. The more objects it has to transmit



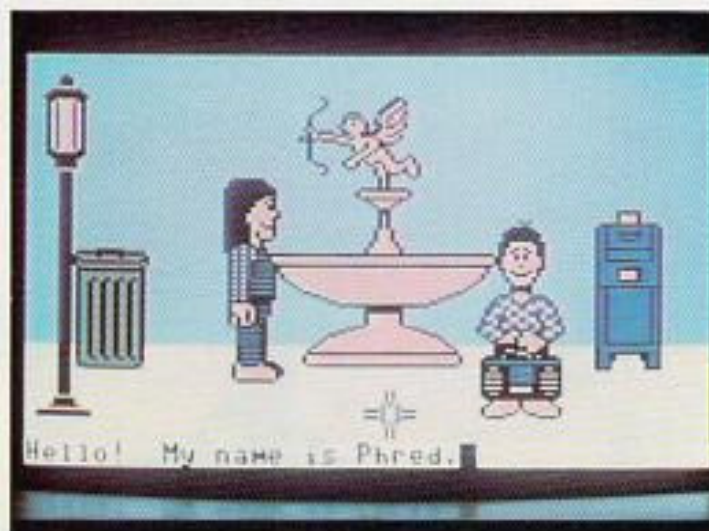
the joystick and know how to type.

Naturally, the pace is quickened with a 1200-baud modem, which boosts the speed at which your computer communicates with QuantumLink's computer. As with most on-line systems, the game may slow down somewhat if a lot of people are playing simultaneously—precisely how much remains to be seen. There's no limit to the number of people who can play, other than six (the maximum number of players permitted in a room) multiplied by the number of regions. Lucasfilm will be continually adding new regions, with the goal of permitting every QuantumLink subscriber to simultaneously participate in *Habitat*. The game is one of QuantumLink's "plus" services, which means it will cost six cents a minute to play.

Speculation: A Multitude of Multiplayer Possibilities

Because *Habitat* is a multiplayer game that I witnessed in a one-player setting, a critical review will have to wait until the game is actually on-line. Right now I can only comment on its potential, which is unparalleled in the history of telegaming. Visually, it is light years ahead of the only other multiplayer teladventure I've seen, which used primitive graphics—an X for your character and a Y for someone else's—and had ineffective communication capability. I didn't spend much time in that fantasy world. But I have played other multiplayer games, play-by-mail games in which hundreds of people interact in fantastic settings, and have observed a few things that are likely to occur in *Habitat* only faster, since you communicate via modem rather than the mail.

Whenever crowds of people get together in a new environment (whether in a game or even in real life), the result is more than just a lot of individuals in the same place; people form relationships, which gradually coalesce into a society. That's what happened when cattlemen, prospectors, sheep-



information about, the longer the process takes. But because the graphics are on the disk, you don't waste time waiting for fresh illustrations to download. When you end a session and return to the real world, all the relevant things you've done, objects you've found and so on are recorded in the data base of the main program. Of course, all you have to do is wield

Continued on pg. 188