.R This is the user manual for
.R Hollywood Medieval
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.W70
.L12
.CHOLLYWOOD MEDIEVAL
.L3
.Cby
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.CDouglas Crockford
.L10

.THollywood Medieval
.S
P A R T O N E
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OVERVIEW
.P0
HOLLYWOOD MEDIEVAL is a piece of
music which you fly through with
your computer. This is an interactive
musical experience. You have control
over the music, choosing a course
through the many melodies.
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This...thing (it seems more than a
program but isn't exactly a game) is
suitable for all ages.
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Read Part One of this manual for
instructions on how to run Hollywood
Medieval. Read Part Two only if you
care to discover something more about
it.
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HARDWARE REQUIREMENTS
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Cassette Version:
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   16K RAM
.L
   ATARI 410 Program Recorder
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Diskette Version:
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   16K RAM
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   ATARI 810 Disk Drive
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Optional Accessories:
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   1-4 Atari Joystick Contrllers
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PLEASE COPY THIS PROGRAM
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You are invited to make copies of this
program and to distribute them free of
charge to other Atari owners.
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GETTING STARTED

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The Hollywood Medieval program is autoloading. If you don't know what that means, then read on:
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Turn off the computer. Remove any programs from the cartridge slot of your computer console.
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If you care to, plug one or more Joysticks into any of the controller jacks.
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If you have the cassette version of Hollywood Medieval:
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.I5
Insert the Hollywood Medieval cartridge into the program recorder's cassette holder and press REWIND on the recorder until the tape rewinds completely. Then press PLAY to prepare the program recorder for loading the program.
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Turn on the computer while holding down the START key.
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When you hear a beep, release the START key and press the RETURN key. The program will load into computer memory and start automatically.
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Rewind the cassette before ejecting it from the recorder.
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.I1
If you have the diskette version of Hollywood Medieval:
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.I5
Have your computer turned off.
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Turn on your disk drive.
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When the BUSY light goes out, open the disk drive door and insert the Hollywood Medieval diskette with the label in the lower right-hand corner nearest you.
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Turn on your computer. The program will load into computer memory and start automatically.
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PERFORMING HOLLYWOOD MEDIEVAL
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First you will see a title screen and hear the opening fanfare. The title screen will fade out and will be replaced by a display of flying

through a rectangular trench. This
is a graphical representation of the
music. Don't pay too much attention
to it. Mostly, use your ears.
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The action is controlled by the three
yellow console buttons:
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.I5
OPTION: Start the program over.
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SELECT: Stop the music. Press
SELECT again to continue.
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START: Take the next turn.
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.I1
For your convenience, any Joystick
button will have the same meaning as
START: Take the next turn.
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What does it mean to take a turn? Well,
when the program starts, it repeats
the fanfare over and over. It does
this until you press START, which
causes you to turn and go an
alternate way through the trench. There
are many places in the piece where the
music can continue to go its own way
or to go in some other direction. As
you explore Hollywood Medieval you
will discover the turning places and
the consequences (always benign) of
taking the turn or not.
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So play around, see what you can
hear. At first many of the melodies
may sound alike to you. As you get
better acquainted, you should be able
to distinguish the melodies and to
tell the variations from the repeats.
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For the gamesters, I offer one small
challenge. In the game Sir Galahad
and the Holy Grail (APX-20132, $29.95)
there is music played when the Grail
is finally delivered to the
Chapel. That music is the finale or
coda of Hollywood Medieval. Try to
find it. You will know when you've
gone past it because silence
follows. Press START or OPTION to
start over.
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P A R T T W O
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ABOUT THE MUSIC
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The music was written in a style I
call Hollywood Medieval, after that
great guy, Mister Hollywood himself,
Carl Hollywood.
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It probably doesn't sound anything
at all like the secular music of the
Middle Ages. It does sound quite

a lot like the music most of us would expect to hear in a movie about the Middle Ages. (It's important to keep your mythologies straight.)
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I've been collecting melodies like these for many years. The melodies assembled here are similar to each other in key, style, and tempo so that the flow can pretty much go from one to another without the need of transition material.
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As far as I am aware, the material is all original. The only deliberate plagiarism is the insertion of one measure of Bolero, for which I am indebted to Maurice Ravel and Peter Schickele.
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ABOUT THE PERFORMANCE
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The sounds are extruded from a device called POKEY. POKEY is the Atari I/O and audio chip. It creates square waves from simple counters and shift registers. It is quite limited in its production of musical sounds, but does represent a very inexpensive way to synthesize music.
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I did several things to try to improve the quality of what you hear, the most audible being envelope generation. I also made lots of changes to the music itself. For example, I had to place each voice in a different octave or they would all blah together. Close harmony sounds horrible, forcing me to throw out some of my favorite stuff. I also had to cut the number of voices down to three or four. Even having four voices makes POKEY sound muddy. I used a trick where two voices are coupled into a single voice with greater range and better intonation. I tried to add color by varying the envelopes, but in the end it still sounds like square waves.
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I am eagerly looking forward to the next generation of personal computers with integral high-quality synthesizers. That should be fun.
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Speaking of fun, this program began as an experiment in integrating music into the action of video games.
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ABOUT THE DISPLAY
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The display is in ANTIC mode C, which is a high-resolution 2-color mode. A display-list interrupt is placed at

the vanishing point to set the color for the floor. The wall detail is made out of missiles, which get brighter and wider as they reach the edges.
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The playfield is very wide, eliminating the usual borders. Using a fast-fill and two buffers, a new playfield is produced 15 times a second. The missiles are moved 60 times a second, improving the apparent frame rate.
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If the program goes 9 minutes or so without a turn, then color shifting begins. This is called "attract mode" for historical reasons. It prevents damage to your picture tube. Not all personal computers have this feature. Shop and compare.
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DEVELOPMENT TOOLS
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I arranged the music using a Casio MT-30, my daughter Jane's Schoenhut, and Atari's Music Composer cartridge which is a very dull tool indeed.
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The programming was done on two Atari 800's. One was equipped with an Axlon Ramdisk. The other was attached to a 20MB Corvus Disk System via a Multiplexer network. It has been wonderful working with the Corvus. I don't know how I managed to put Galahad together with just a couple of 810's and an Assembler/Editor cartridge (another very dull tool).
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I used versions of MEDIT and AMAC (Atari's Macro Assembler) which had been modified to run on the Corvus. The music was prepared with a music compiler that I wrote in C, specifically John Palevich's Deep Blue C (APX-20166), a nice tool. I used Basic/A+ to do a couple of cheap and dirty utilities along the way. Both ran on the Corvus without modification.
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