

SIM CITY

THE CITY SIMULATOR

USER DOCUMENTATION

INFOGRAAMES



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Dedicated to Cassidy

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INTRODUCTION

FOREWORD

Enter SimCity and take control. Be the undisputed ruler of a sophisticated real-time City Simulation. Become the master of existing cities such as San Francisco, Tokyo, and Rio de Janeiro, or create your own dream city (or dream slum) from the ground up.

Whether you take over an existing city or build your own, you are the Mayor and City Planner with complete authority.

Your city is populated by Sims - Simulated Citizens. Like their human counterparts, they build houses, condos, churches, stores and factories. And, also like humans, they complain about things like taxes, mayors, taxes, city planners, and taxes. If they get too unhappy, they move out; you collect less taxes, the city deteriorates.

The next few sections will explain the overall concept of SimCity and give information that will help you win Scenarios and design and build better cities.

ABOUT SYSTEM SIMULATIONS

SimCity is the first of a new type of entertainment/education software, called **SYSTEM SIMULATIONS**. We provide you with a set of **RULES** and **TOOLS** that describe, create and control a system. In the case of SimCity the system is a city.

The challenge of playing a SYSTEM SIMULATION game is to figure out how the system works and take control of it. As master of the system you are free to use the **TOOLS** to create and control an unlimited number of systems (in this case cities) within the framework and limits provided by the **RULES**.

In SimCity, the **RULES** to learn are based on city planning and management, including:

Human factors - residential space and amenities, availability of jobs, and quality of life;

Economic factors - land value, industrial and commercial space, unemployment, internal and external markets, electric power, taxation, and funding for city services;

Survival factors - strategies for dealing with disasters, crime, and pollution;

Political factors - public opinion, zoning, and keeping residents and businesses satisfied with your city and your performance.

The **TOOLS** provide you with the ability to plan, layout, zone, build, bulldoze, re-zone, and manage a city.

Plan - Mapping systems give physical and demographic overviews of the entire city.

Layout - Design living and working areas, road and transit systems, and recreational areas.

Zone - Set zoning boundaries for parks, residential, commercial and industrial areas.

Build - Place roads, rails, airports, sea ports, fire and police stations, sports stadiums, and power plants.

Bulldoze - Clear forests for city growth, build landfill along waterways, clear and re-zone developed areas.

Manage - Using the mapping and graphing systems, gather up-to-date information on traffic density, population trends, power grid status, pollution, crime, land value, police and fire department efficiency, and cash flow. Set the tax rate and funding levels for city services.

But the most important TOOL of all is the Simulator itself. Test your plans and ideas as you watch the city grow or shrink through the immigration and emigration of industrious Simulated Citizens. Sims will move in and build homes, hospitals, churches, stores and factories in the zones you provide, or move out in search of jobs or a better life elsewhere. The success of the city is based on the quality of the city you design and manage.

SIMULATOR REACTION TIME

The simulator is a very complex multi-tasking piece of software. It is constantly performing many checks, calculations, and updates, as well as keeping watch on the mouse and keyboard to respond to your demands. When you load in a city, give the simulator a few minutes to compile its data and update the maps, graphs, population levels, etc. Some of the other times when the simulator lags behind you are: powering zones and updating the city services map after installing police and fire stations.

On PC :

Simulator reaction time is also greatly affected by your computer's clock speed and type of microprocessor. If you have an XT compatible running at 4.77 MHz, life in SimCity will be much slower than on a 386 running at 33 MHz. To speed up time on a slow machine, see FREQUENT ANIMATION, and ANIMATE ALL in the OPTIONS MENU.

THE GOALS OF SimCity

There are many goals to be pursued and reached in SimCity.

SCENARIOS

Each of the eight included Scenarios is actually a game in itself, with an unlimited number of ways to win - or lose.

Each Scenario is a city which is either the victim of horrible planning or about to be the victim of a natural disaster. After you load in a Scenario, you will have a limited amount of time to correct or repair the problems. If you are successful you will be given the key to the city. If not you may be ridden out of town on a rail.

If one strategy doesn't work, try another. There are a million stories in each city, and you write them.

YOUR DREAM CITY

Perhaps the main goal of SimCity is for you to design, manage and maintain the city of your dreams.

Your ideal place to live may be a bustling megalopolis, lots of people, lots of cars, tall buildings, high-energy, high-density living. Or it may be a small rural community, or a linked group of small communities providing slow paced country living.

As long as your city can provide places for people to live, work, shop and play, it will attract residents. And as long as traffic, pollution, overcrowding, crime or taxes don't drive them away, your city will live.

GETTING STARTED

COPY PROTECTION

SimCity is copy protected. We are using a form of protection that is not on the disk. You can easily run the program from a hard disk and make back up copies.

NOTE: It is a good idea to make and use copies of the SimCity Disk(s), and keep the originals in a safe place.

During the game you will need to look up information from a piece of paper that is included with the game. This paper is red, and cannot be photocopied. **DON'T LOSE IT!**

GETTING STARTED ON AMIGA & ATARI ST

On AMIGA:

First, turn off your computer. Wait for 30 seconds. (Anti-Virus action). Boot your Amiga, then insert your SimCity disk and double-click in the SimCity icon, then double-click on the SimCity Program icon.

On ATARI ST:

First, turn off your computer. Wait for 30 seconds. (Anti-Virus action). Boot your Atari ST, then insert your SimCity disk.

NOTE: in SimCity, use the left mouse button, unless otherwise noted. The RIGHT button is used primarily to activate the BULLDOZER function while in the Editor Window, so don't press it unless you mean it.

FOR AMIGA AND ATARI ST

After a few seconds, the "Welcome to SimCity" road sign will reappear, and the program will continue to load. You will soon see a small notice window that informs you that the program is terraforming a new city. A map of undeveloped land will be generated and displayed. You are given a choice of Game Play Level. Click EASY. You will now be asked to name your city. Go ahead and name it, or accept the default name SOMEWHERE. You are given a choice: GENERATE A NEW TERRAIN or USE THIS MAP. Click the OK box when you are done.

You will be shown the MAPS/GRAPHS WINDOW.

On the left side of the window is the map, an overall view of your entire terrain, approximately 10 miles by 10 miles in area.

The icons below the map are buttons to activate and display different demographic views of your city. We'll play with them later.

On the right side of the screen you can view time-based graphs of various city data. We'll come back to these later, too.

The rectangle located somewhere on the map indicates the portion of the terrain that will be visible in the EDITOR WINDOW - your main work area.

NOTE : The BUDGET WINDOW will pop up once a year in city time. When it does, just click the GO WITH THESE FIGURES box at the bottom.

NOW GO FIRST TO THE PARAGRAPH "HOW THE COPY PROTECTION WORKS ?" and after go to the paragraph "AMIGA USER REFERENCE" and finally go to "THE EDIT WINDOW".

GETTING STARTED ON MACINTOSH

SYSTEM INFORMATION

Use system 6.02 if possible.

When using a Mac II, set the control panel to black and white, and set the grey scale to 2 levels (unless you get a colour Mac II version).

SimCity works on the Mac Ix, Iix, and SE 30.

SimCity does not work with MultiFinder.

When using a Mac II with two monitors, the edit window cannot be stretched across both monitors, but it can fill one monitor, with the map and graph windows on the other.

Color Mac II

Requirements :

- Color Quick Draw in ROM, i.e. : Mac II, Ix, Iix or SE/30
- Monitor capable of a 16 colour setting.
- 2 Meg RAM

Special features

The colour Mac II version of SimCity includes all the features found in the black and white version 1.1, plus the following additional features :

- 16 color hi resolution graphics
- MultiFinder Compatibility
- Auto-scroll - While you are bulldozing, or laying road, rail, or power lines, when you reach an edge of the Edit Window, the city will automatically scroll under the window as long as you hold down the mouse button.

NOTE : There is no room on the colour Mac II disk for the scenario file. If you wish to run the SimCity scenarios, you will need a hard disk, and you must use the scenario file that came with your black and white version. Be sure the Colour Mac II program and the scenario file are in the same folder on your hard disk.

HOW TO START ?

Boot your Macintosh, then insert your SimCity disk and double-click on the SimCity icon.

After a few seconds, a screen with the options to start a new city, load a city, or select a scenario appears. Click START NEW CITY.

A map of undeveloped land will be generated and displayed. You will be given a choice : GENERATE A NEW TERRAIN or USE THIS MAP. Click USE THIS MAP.

You are now given a choice of GAME PLAY LEVEL. Click EASY, then click OK.

You will be asked to name your city. Go ahead and name it, or accept the default name SOMEWHERE. Click the OK box.

You are now in the MAPS WINDOW, looking down on an overall view of your entire terrain, approximately 10 miles by 10 miles in area. The icons along the left side of the MAPS WINDOW can be used to display different demographic views of your city. We'll play with them later.

NOW GO TO THE PARAGRAPH "HOW THE COPY PROTECTION WORKS?" and after go to the paragraph "MACINTOSH USER REFERENCE" and finally go to the paragraph "THE EDIT WINDOW"

GETTING STARTED ON PC

SIMCITY GRAPHICS SETS

SimCity for IBM, Tandy, and compatibles supports many graphics standards, including:

CGA in the high-res monochrome mode - 640x200,

Hercules monochrome - 720x348,

Tandy graphics - 320x200 in 16 colors,

EGA high-res - 640x350 in 16 colors, (requires 256K video RAM and 640K system RAM),

EGA low-res - 320x200 in 16 colors (if you have only 128K video RAM or 512K system RAM), and

EGA high-res monochrome - 640 x 350 (if you have only 128K video RAM or 512K system RAM).

SOUND

SimCity includes digitized sounds that support the Tandy sound chip. It also supports a new low cost sound board for IBM and compatible computers - the SOUNDMASTER board from COVOX. There is an information sheet and order form for this board included with the game.

SimCity can also send the digitized sounds out through the speaker built into most computers, but the sound quality is not very good.

PRINTING

SimCity supports only Epson compatible printers hooked to a parallel port. You can print your city on one page, or as a 6-page poster.

KEYBOARD, MOUSE, AND JOYSTICK

SimCity can be played without a mouse or joystick, but it is much easier to control with one. To help you find your way around SimCity, there is a KEYBOARD REFERENCE CHART, included on the USER REFERENCE CARD that comes with the game.

If you have a mouse driver installed, the joystick will be ignored.

INSTALLING SIMCITY

Before you can run SimCity, you must install it to let it know, among other things, what kind of monitor you are using. You will notice that we have included both 5 1/4" and 3 1/2" disks. Grab the one(s) that fit your computer and put the other(s) away.

FLOPPY DISK INSTALLATION

If you want to run SimCity from a floppy disk, you will need two (2) blank, formatted floppy disks. One will become your working copy of SimCity, the other will hold the cities you build.

NOTE: If you have a 5 1/4" 360K disk drive, not all the files you need to run SimCity will fit on one disk. You may from time to time be asked to put in one of the original disks during the play of the game. Keep copies of both original disks handy during play.

HARD DISK INSTALLATION

You will need approximately 580K free space on your hard disk to install SimCity, and more space to store the cities you create.

The install program must be run from a floppy disk. It will create a SimCity sub-directory on your hard drive, and copy the program and scenario files as well as the proper graphics and sound files to that sub-directory.

RUNNING THE INSTALL PROGRAM

Boot your computer.

Put the 3 1/2" disk, or 5 1/4" Disk #1 in your floppy drive.

At the prompt, type **INSTALL**, and hit **RETURN**.

You will be asked: **Install from drive: [*] A:, [] B:**

Use the **RIGHT** and **LEFT CURSOR KEYS** to move the asterisk to the drive you are installing from, and hit **RETURN**.

The program will then ask for confirmation. Hit **"Y"** or **RETURN** to confirm, **"N"** to go back and change your selection.

You will then be asked: **Install to drive: [] A:, [] B:, [*] C:, [] D:**

Use the **RIGHT** and **LEFT CURSOR KEYS** to move the asterisk to the drive you are installing to, and hit **RETURN**.

If you are installing to a floppy, you will be reminded to put your floppy in the drive.

At the prompt: **Destination Directory -> C:\SIMCITY**,

or: **-> B:**,

hit **RETURN**, or change the directory name, then hit **RETURN**.

NOTE: If you only have one floppy disk drive, and no hard drive, you must install from the A: drive to the A: drive. The program will prompt you when to change disks.

The program will then ask for confirmation. Hit **"Y"** or **RETURN** to confirm, **"N"** to go back and change your selection.

Next, you will be asked which graphics display you have. Use the **RIGHT** and **LEFT CURSOR KEYS** to move the asterisk to the proper graphics set, and hit **RETURN**.

If you have CGA, Hercules, or Tandy graphics, you have only one choice. If you have an EGA (or VGA) card, you have three:

640x350 in 16 colors - requires 640K RAM and 256K video RAM, and a color monitor.

320x200 in 16 colors - requires 512K RAM and 128K video RAM, and a color monitor.

640x350 monochrome - requires 512K RAM and 128K video RAM, and a color or monochrome monitor.

The program will then ask for confirmation. Hit **"Y"** or **RETURN** to confirm, **"N"** to go back and change your selection.

Next you will be asked what type of **JOYSTICK** (if any) you will be using. Use the **RIGHT** and **LEFT CURSOR KEYS** to move the asterisk to the proper setting, and hit **RETURN**.

NOTE: You cannot have both a mouse and joystick installed at the same time. If you have a mouse driver installed, the computer will ignore the joystick.

The program will then ask for confirmation. Hit **"Y"** or **RETURN** to confirm, **"N"** to go back and change your selection.

Next you will be asked about **SOUND**. Use the **RIGHT** and **LEFT CURSOR KEYS** to move the asterisk to the proper setting, and hit **RETURN**. If you wish no sound, choose None. If you want the digitized sounds sent through your built in speaker (low quality) choose IBM, if you have a Tandy computer with a DAC chip, choose Tandy Digital. If you have a COVOX Sound Master board installed, choose that.

You will be asked to confirm your sound installation, then you will be asked to reconfirm all your choices once more.

Now the SimCity program, scenarios, and the proper sound and graphics files will be copied to the destination disk. If you are installing from the 5 1/4" Disk 1, you will be asked to put in Disk 2 so more files can be copied.

Now you're ready to enter SimCity.



TUTORIAL - ON PC

A WALK THROUGH YOUR CITY

Boot your computer, and install a mouse driver if you are using a mouse.

If you have installed SimCity to a floppy disk, put the disk in drive A:. At the A> prompt, type **SIMCITY** and hit **RETURN**.

If you have installed it to a hard disk, **make sure that the SimCity sub-directory is the CURRENT DIRECTORY**. Type **SIMCITY** at the prompt, and hit **RETURN**.

NOTE: If you are running SimCity with only one floppy disk drive and no hard drive, you must keep the installed copy in the A: drive until the program is completely loaded. When you want to save your city, then take out the SimCity disk, and put in the data disk. If and when you need to put the SimCity disk back, the program will prompt you.

Soon you will see the road sign giving you the following choices: **START NEW CITY, LOAD A CITY,** and **SELECT SCENARIO**. Somewhere on the screen will be a pointer.

NOTE: The pointer is controlled by a mouse, a joystick, or by the cursor keys. When this tutorial instructs you to "CLICK" on something, it means to move the pointer to that spot, and either click the left mouse button, the joystick button, or the space bar. There are many keyboard shortcuts mentioned later in this manual. See the included KEYBOARD REFERENCE CHART.

Move the pointer to '**START A NEW CITY**,' and CLICK the mouse button, the joystick button or hit the space bar.

Now you will choose your city's name, and set the **GAME PLAY LEVEL**.

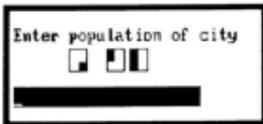
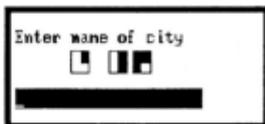
The default name is 'Herserville.' If you wish to change it, CLICK on the name Herserville. The pointer will disappear. Type in your new name, and hit RETURN. For this tutorial, I will use the name "OurTown." You may use up to 17 letters, but when you save your city to disk it will be cut off at 8 letters, and have the extension ".city" added to the end of the city name.



Once you have named your city, you can set the GAME PLAY LEVEL. To do this, just CLICK on the box to the left of Easy, Medium, or Hard. The GAME PLAY LEVEL changes many factors, including how much money you start with, how many disasters you will have, and how tolerant your Sims are. For now leave it at Easy. CLICK on the '**OK**' box.

SPECIAL NOTE FOR PC, AMIGA, MACINTOSH HOW THE COPY PROTECTION WORKS ?

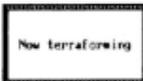
NOTE: Every so often, while playing SimCity, you will be presented with a small box with three symbols, and you will be asked for the Name or Population of a city. When this happens, you will need the red paper that came with the game. The first symbol is like a page number. Find



the page that has the same symbol in the upper right corner. Next, go down the columns on that page, looking at the two symbols to the left of each city name, until they match the other two symbols on the screen. Then enter the City Name, or population and hit RETURN.

You will have three chances to get it right. It is very important - the lives and welfare of many Sims depend on you getting this right.

Now you will see a message that lets you know that a new landform is being generated.

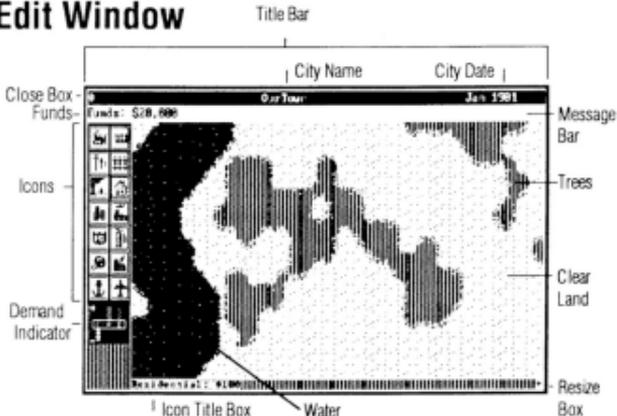


You are now in SimCity.

Along the top of the screen is the **MENU BAR**

Below that is the **EDIT WINDOW**.

Edit Window



The **EDIT WINDOW** is where you will do the actual building and zoning. At the top of the EDIT WINDOW is the **TITLE BAR**. This displays the name of the city, and the date. On the left side of the TITLE BAR is the **CLOSE BUTTON**. If you click on this button, the window will close, or go away. Go ahead and try it.

Now let's get it back. Move the pointer to the **WINDOWS MENU** in the upper right corner of the screen. **CLICK** on the word **WINDOWS**, and the menu will appear. If you have a mouse or joystick, move the pointer down to **EDIT**, and click the left button. If you are using the keyboard, use the **CURSOR KEYS** to highlight **EDIT**, and hit the **SPACE BAR**. The window comes back.

NOTE: The BUDGET WINDOW will pop up once a year in city time. For now, when it does pop up, just click the GO WITH THESE FIGURES box at the bottom.

Below the **TITLE BAR** is the **MESSAGE BAR**. The left side always displays your available **FUNDS**. The rest of the bar will occasionally display messages to you from the Sims.

Note the **ICONS** (pictures) below the **MESSAGE BAR** on the left. They are buttons that work just like icons in various draw and paint programs. These are your zoning and building functions. Somewhere in the middle of the window is the pointer. This will change size and shape depending on the active **ICON**.

Below the **ICONS** is the **DEMAND INDICATOR**. This gives the demand levels for Commercial, Residential, and Industrial zones, and can be helpful in planning your city.

Below the **DEMAND INDICATOR** and to the right is the **ICON TITLE BOX**, giving the name and cost of the active **ICON**.

At the bottom right corner of the window is the **RESIZE BOX**. You can point to this, click and hold, and drag it to stretch the size of the **EDIT WINDOW**.

The main portion of the window is the land. Your available land is made of three types of terrain, which will appear differently depending on your monitor. The brown (or lightest shaded) areas are **CLEAR LAND**, the green (or medium shaded) areas are forests and **TREES**, and the blue (or darkest shaded) areas are **WATER**. You can build only on **CLEAR LAND**. You can clear forest and extend coastlines with your **BULLDOZER**. You can run roads, rails and power lines across water.

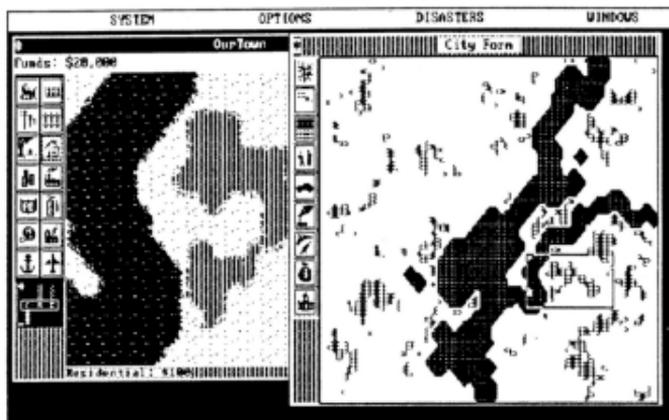
To scroll the terrain under the **EDIT WINDOW**, move the pointer to the top, bottom, sides or corners of the screen. Use the **MOUSE**, **JOYSTICK** or **CURSOR KEYS**. If it won't go in one direction then that means you are at a boundary of your territory.

NOTE: For now, keep the Scroll Lock off.

Another way to scroll is to hold down the **CTRL- KEY** while using the **CURSOR KEYS**. Holding down the **CTRL- KEY** while operating a **JOYSTICK** will also cause scrolling.

To get an overview of your entire city limits, look at the **MAP WINDOW**. You can open the **MAP WINDOW** by going to the **WINDOWS MENU** and clicking on **"MAPS,"** but there is also a shortcut: hit the **RETURN** key.

You can see many different demographic views of the city, chosen by the **ICONS** on the left. The type of map is shown at the top of the window, in the **TITLE BAR**. At the left of the **TITLE BAR** is the **CLOSE BUTTON** for this window.



Move the pointer so it is in the middle of the MAP WINDOW. It is now a large **RECTANGLE**. This **RECTANGLE** outlines the close-up view in the EDIT WINDOW. Move the rectangle so it covers a place on the map with open land, trees, and water, and **CLICK**. The EDIT WINDOW will redraw at the new location.

Now we'll go back to the EDIT WINDOW and build a city. The easiest way to get there is to just **CLICK** on any exposed part of the EDIT WINDOW. It will be brought to the top, covering most of the MAPS WINDOW. When you have more than one window on the screen at a time, it is a good idea to leave a part of each one showing, so you can easily bring it to the top by **CLICKING** on it.

To begin a city we need: places for Sims to live, places for Sims to work, and power.

You can only build on clear land, so use the **BULLDOZER** to clear away some trees. **CLICK** on the **BULLDOZER ICON**  Move the pointer over to land. It is now a small square, outlining the area that will be bulldozed every time you **CLICK**. Move your **BULLDOZER** pointer over some trees and **CLICK**. The forest section under your pointer is now **CLEAR LAND**. Now, hold the button (or **SPACE BAR**) down and move the pointer slowly across the forest. Mass destruction. Clear a large area of land to prepare for building.

CLICK the **RESIDENTIAL ICON**  then move back to your terrain. Your pointer is now a larger square outline. This outline indicates how much clear space you will need to create a Residential Zone - a place for Sims to live. **CLICKING** in clear terrain "zones" the land. The "R" in the center of the zone indicates that it is a Residential Zone. The flashing lightning symbol indicates that the zone has no power. Place a few more Residential Zones adjacent to the first one.

NOTE: If you have trouble placing a zone, make sure it is on open land. You cannot zone on water or over other zones. You cannot zone over trees, unless you have Auto-Bulldoze activated.

Now decide where to position a **POWER PLANT** in your city. Point to the **POWER PLANT ICON** and **CLICK**. A small menu will appear, giving you the option of choosing a coal or nuclear plant. For now, **CLICK** on the **COAL POWER PLANT**. The outline for a Power Plant is even larger than for the Residential Zone. Place the Power Plant in some open space near your residential zones. If your Power Plant is not directly adjacent to a residential zone, you will need to run a **POWER LINE** from your power plant to the residential zones.



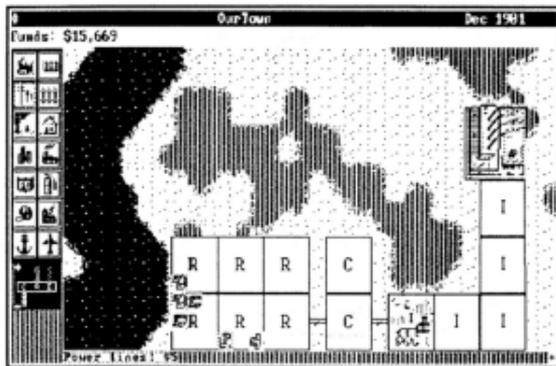
To do this, **CLICK** the **POWER LINE** **ICON**. Using your pointer and button or space bar, lay **POWER LINES** from your Power Plant to your Residential Zones. Adjacent power line sections will automatically connect to each other. Roadways and Transit Lines connect in the same manner. In a moment, the flashing symbols in the residential zones will disappear, indicating that your zones have been powered. Any zones that are adjacent to a powered zone do not need separate power lines run to them. Soon you will see small houses start to appear. The Sims have started to move in.

NOTE: When you zone land, you designate where building is allowed. It is the Sims who actually build.

Now that you have a few residential zones, you're ready for **COMMERCIAL** and **INDUSTRIAL** areas; places for the Sims to work, shop, and transact business. Select the **COMMERCIAL ICON** and place a few **COMMERCIAL ZONES** near your Residential ones. Then select the **INDUSTRIAL ICON** and place some **INDUSTRIAL ZONES**. Connect all necessary power lines.

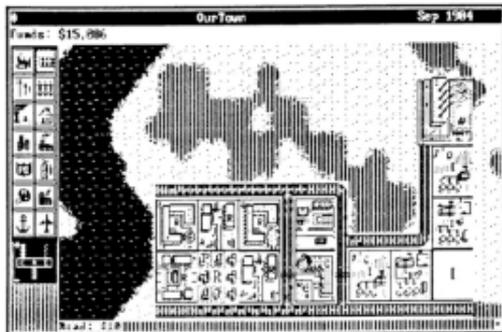


NOTE: There is a delay between the time you connect power to a zone and the time the flashing lightening symbol disappears. This delay gets longer as your city gets larger.



Notice that as you select different icons, the icon's description and its associated cost will be displayed in the box near the lower left corner of the window. The **MESSAGE BAR** displays your total funds available. If you do not have enough money in your treasury to pay for a certain function, that icon will be "ghosted," on your screen and is unavailable for use.

Now, **CLICK** on the **ROAD ICON**  and add **ROADS** from your residential housing to the commercial and industrial areas to allow the Sims to commute to work. **ROAD** sections connect themselves like **Power Line** sections. Once you have **ROADS**, traffic will be generated.



Now move the pointer to the **MENU BAR**. **CLICK** on the **WINDOWS MENU**, and select **BUDGET**. This is where you set the level of funding for your fire, police, and transportation departments. **CLICK** the **UP** or **DOWN ARROWS** to change the funding levels. You can also adjust the current property tax rate. If you have no police or fire departments, you can't fund them more than 100%. Since your city is so new, you can't do much here now, but come back later. **CLICK** the **GO WITH THESE FIGURES** box when you are done.

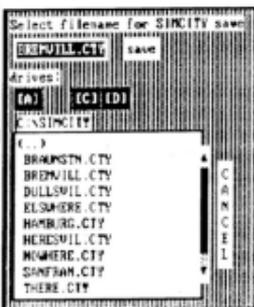
Now **CLICK** on any showing part of the **MAPS WINDOW**. Now you can get an idea of the size of your city, and how much room you have left. Try the different map views by clicking on the icons at the left. You will need this information to build and adjust conditions in your city. For example, you can pinpoint the areas with the highest crime to determine locations for new police stations.

Additional information can be gained through the available **GRAPHS**. Unlike the maps, which only show the current state of your city, the graphs give you a record of the past so you can gauge trends and cycles.

For **AMIGA**, **MACINTOSH** and **ATARI**, go to the paragraph "AMIGA USER REFERENCE" or "MACINTOSH USER REFERENCE" or "ATARI USER REFERENCE".
ONLY FOR PC.

Another way to gather information about your city is by using the **QUERY FUNCTION**. To use this, move the pointer to any area of your city in the **EDIT WINDOW**, hold down the "Q" key, and press the left mouse button, joystick button, or space bar. You will be shown a small window filled with information on the area under the pointer.

Now, let's **SAVE** the city to disk. If you are using a two-floppy system, make sure you have a formatted disk in drive B:. If you are using a one floppy system, take the SimCity disk out of the A: drive, and put in your data disk. **CLICK** on the **SYSTEMS MENU**. Highlight **Save City**, and **CLICK**. You will see the "File Saving Screen."



Near the top is a box with the name of your city. If you wish to change it now, CLICK on the name, and type in a new one.

Below that is the list of drives. CLICK on the drive to which you want to save the city.

Below that is the **Files Box**. If it is your hard drive, you may see your sub-directories, in parentheses, listed in the Files Box. CLICK on the sub-directory name to open it, and CLICK on (..) to move up one level of directory. If all the files or directories do not show, CLICK on the UP and DOWN ARROWS to the right of the files.

When you have chosen your city name and drive, and sub-directory (if any), then CLICK on the **SAVE BOX**. Your city will now be preserved for future use.



To load a city, open the SYSTEM MENU, and CLICK on **Load a City**. You will see the **File Loading Screen**. It looks and works almost like the File Saving Screen.

CLICK on the drive from which you want to load. Then find the right sub-directory (if any), and CLICK on the name of the city you want to load. The name will appear in the box at the top of the screen.

Now CLICK on the little box that says **LOAD**, and your city will be back in action.

This is all the basic information you need to run SimCity, but we suggest reading on. The **User Reference** section explains in detail how to use each program function. **Inside SimCity** explains the inner workings of the simulator, and gives some hints and tips for using it. There is also an essay on **The History of Cities and City Planning**, and a **Bibliography** for serious City Planners.

USER REFERENCE - PC

CONTROLLING SIMCITY IN GENERAL

A big part of controlling SimCity is controlling the windows. You can select which windows are displayed. Windows can be moved around the screen. They can be brought to the front, or hidden by selecting the appropriate WINDOWS MENU function. We suggest that you arrange the windows so there is always a part of each one showing. To bring a window to the front, just click on any part of it.

WITH A MOUSE

In SimCity, you will primarily use the left mouse button. The main function of the right mouse button is to activate the bulldozer function. If you have a middle button, SimCity ignores it.

To activate menus with a mouse, move the mouse pointer to the menu you wish to view, and press and hold the left mouse button. The menu will be displayed. Move the pointer down the menu to the item you want to activate, and release the mouse button. The menu item will be activated. Some menu items will bring up a sub menu. When this occurs, just move the pointer to the selection you want, and press and release the left mouse button.

Icons are selected by moving the mouse pointer to the icon you want, and clicking the left button. Building and zoning functions are performed by moving the pointer to the desired location, and clicking the left mouse button.

There are some functions in SimCity that are only activated through the keyboard. There are also keyboard shortcuts that can be used along with the mouse to speed up operation of SimCity. These are all explained below, and in the KEYBOARD REFERENCE CHART.

WITH A JOYSTICK

The joystick is used just like the mouse. The Joystick Button emulates the left mouse button. The joystick will not work if a mouse driver is installed. Holding down the **Ctrl-key** while operating the Joystick causes the screen to scroll without the cursor moving.

WITH A KEYBOARD

There are many keyboard functions in SimCity. Keep the KEYBOARD REFERENCE CHART handy.

Note: When running SimCity, the NumLock should be off.

CURSOR KEYS AND NUMERIC KEYPAD

- The **CURSOR KEYS** move the pointer around the screen.
- The **INSERT** and **SPACE** keys emulate the left mouse button.
- The **DELETE** key emulates the right mouse button.
- "5"** moves the pointer to the center of the screen.
- HOME** moves the pointer to the left side of the screen.
- END** moves the pointer to the right side of the screen.
- PgUp** moves the pointer to the top of the screen.
- PgDn** moves the pointer to the bottom of the screen.

When used with the **Ctrl**-key, the CURSOR KEYS and NUMERIC KEYPAD scroll the terrain or city under the EDIT WINDOW.

- Ctrl- Left Arrow** (4) scrolls the city to the left.
- Ctrl- Right Arrow** (6) scrolls the city to the right.
- Ctrl- Up Arrow** (8) scrolls the city up.
- Ctrl- Down Arrow** (2) scrolls the city down.
- Ctrl- Home** (7) scrolls the city angularly up and to the left.
- Ctrl- End** (1) scrolls the city angularly down and to the left.
- Ctrl- PgUp** (9) scrolls the city angularly up and to the right.
- Ctrl- PgDn** (3) scrolls the city angularly down and to the right.

+&-

If you are not using a mouse, then + & - on the NUMERIC KEYPAD are very helpful. They cycle the pointer around the "HOT SPOTS" of any window or message box. HOT SPOTS are places where clicking the pointer will either activate an ICON, or change a setting. For example, in the EDIT WINDOW, instead of using the CURSOR KEYS to move the pointer to an ICON and clicking, you can hit the + or - keys to cycle through and activate the ICONS. In the BUDGET WINDOW, where there are many small arrows to click on to change the settings. It can be difficult to accurately locate the pointer using the CURSOR KEYS. Use the + & - keys to cycle to the spot you want.

KEYBOARD SHORTCUTS

ESCAPE will cancel any menu and many functions. When in doubt, hit **ESCAPE**.

In POP UP MESSAGES that ask for a YES or NO answer, Hit **"Y"** or **RETURN** for YES, and **"N"** or **ESCAPE** for NO.

Holding down the **ALT** key while hitting the first letter of a menu name will open the menu.

- Alt-S** opens the SYSTEM MENU
- Alt-O** opens the OPTIONS MENU
- Alt-D** opens the DISASTERS MENU
- Alt-W** opens the WINDOWS MENU

SimCity also follows the **Tandy Deskmate** interface for opening menus:

- F2** brings up the first menu - SYSTEM
- F3** brings up the next - OPTIONS
- F4** brings up the next - DISASTERS, and
- F5** brings up the last - WINDOWS

Once a menu is displayed, you may use the UP and DOWN CURSOR KEYS to highlight the menu choice, and hit SPACE or INSERT to activate it. You may also highlight a menu choice by hitting the key with the first letter of the choice. If there is more than one menu choice beginning with the same letter, then repeatedly hitting the key will cycle the highlight through all the choices beginning with that letter. For example, once the SYSTEM MENU is open, if you hit the "L" key, "LOAD SCENARIO" will be highlighted. Hit the "L" key again, and "LOAD CITY" will be highlighted. Hit it again and "LOAD SCENARIO" will be highlighted again, etc.

To close a menu without choosing a function, hit the **ESCAPE** key.

Many menu items can be activated directly, without displaying the menu. This is done through the following **CTRL-key** combinations.

Ctrl-L	Activate Load City menu function
Ctrl-S	Activate Save City menu function
Ctrl-X	Exit SimCity, and return to DOS
Ctrl-A	Toggles Auto-Bulldoze mode on and off
Ctrl-M	Brings up the MAP WINDOW (also the ENTER or RETURN key)
Ctrl-G	Brings up the GRAPHS WINDOW
Ctrl-B	Brings up the BUDGET WINDOW
Ctrl-E	Brings up the EDIT WINDOW
Ctrl-U	Brings up the EVALUATION WINDOW
Ctrl-C	Closes the front window
Ctrl-H	Hides the front window (moves it to the bottom)

OTHER SPECIAL KEYS

- P** Temporarily activates the POWER LINE icon as long as it is held down
- T** Temporarily activates the TRANSIT LINE icon as long as it is held down
- R** Temporarily activates the ROAD icon as long as it is held down
- B** Temporarily activates the BULLDOZER icon as long as it is held down
- 0** Pauses the Simulator
- 1** Sets Simulator to Slow speed
- 2** Sets Simulator to Average speed
- 3** Sets Simulator to Fast speed
- 4** Sets Simulator to Fastest speed

Q - Activates the **QUERY** function - This gives you information on items or areas in the city. While in the EDIT WINDOW, point to an item or area with the pointer, hold down the "Q" key, and click the left mouse button or hit SPACE or INSERT.

TAB Hitting TAB is the same as clicking on the GOTO button. Hitting TAB again will return you to where you were.

F10 Hides the front window.

SCROLL LOCK disables EDIT WINDOW scrolling by moving the pointer to the edges of the screen. Scrolling can still be performed by using the Ctrl- key with the NUMERIC KEYPAD.

The **SHIFT** keys constrain road laying, rail laying, bulldozing, and park building to a straight line.

MENUS

SYSTEM MENU

ABOUT SIMCITY brings up a screen giving fascinating and vital information about SimCity and Maxis.

PRINT brings up a window giving you the choice of printing out your city on a single page, or on a multi-page poster. SimCity printing only supports Epson compatible printers.

LOAD SCENARIO brings up a menu of available SCENARIOS to load and run.

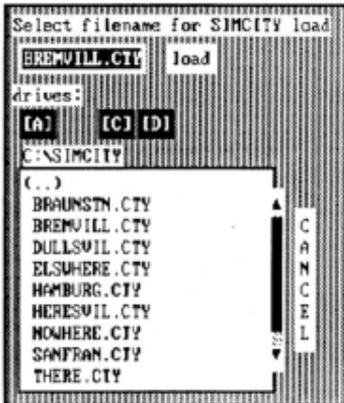
START NEW CITY generates a new, empty terrain. Clears existing city (if any) from memory. You will be asked if you are sure, to give you a chance to go back and save the old city first. You will next be given a chance to set the GAME PLAY LEVEL and name your city.

LOAD CITY brings up the "File Loading Screen," allowing you to load a previously saved city. If you have an existing city in progress, SimCity will first ask if you want to save changes to your old city before loading another, and allow you to cancel the function if you wish.

Once the File Loading Screen is open, choose the drive you want to load from, by moving the cursor to the drive letter and pressing the left mouse button, the SPACE key, or the INSERT key. Only city data files will be displayed. Sub-directories are shown in parentheses. To view the files in a sub-directory, click on its name. To move up a sub-directory level click on the double dot (.). If there are more files than can be displayed in the window, click on the up and down arrows to the right of the file names to scroll through the list.

You may also enter the name of the file you wish to load by clicking on the file name box and typing it in. If you decide not to load a city at this time, you may click on "CANCEL," or hit ESCAPE.

Use the + & - keys to move the pointer to the various HOT SPOTS in the File Loading Screen.



SAVE CITY AS... brings up the "File Saving Screen," allowing you to save the scenario or city in progress to disk for later use. Use this option to save a city for the first time, or if you want to save it under a different name, or to a different disk or sub-directory.

Once the File Saving Screen is open, choose the drive you want to save to, by moving the cursor to the drive letter and pressing the left mouse button, the SPACE key, or the INSERT key. Only city data files will be displayed. Sub-directories are shown in parentheses. To view the files in a sub-directory, click on its name. To move up a sub-directory level click on the double dot (.). If there are more files than can be displayed in the window, click on the up and down arrows to the right of the file names to scroll through the list.

Once you have located the place you wish to save your city, enter the name under which you wish to save the city by clicking on the file name box and typing it in. Then click on the SAVE button. If you decide not to save a city at this time, you may click on "CANCEL," or hit ESCAPE.

Use the + & - keys to move the pointer to the various HOT SPOTS in the File Saving Screen.

NOTE: Once you have loaded a scenario, it can be saved and reloaded, like any city, without the impending disaster.



SAVE CITY saves the scenario or city in progress to disk. Use this option to save a city under the same name and to the same place that it has already been saved. If you wish to change the name or location of a city, use the **SAVE CITY AS...** option. If you choose **SAVE CITY** and your city has not yet been saved, you will be asked to name the city and indicate where to save it.

EXIT ends SimCity, and returns you to DOS.

DEMAND INDICATORS in the lower left-hand corner of the EDIT WINDOW give a constant reading of the resident's need for residential, commercial and industrial zoning. Above the center line indicates a positive demand. Below the line is negative demand.

CLOSE BOX closes the EDIT WINDOW.

GROW BOX resizes the window.

JOYSTICK BOX moves you around your city. The city scrolls in the direction you point as long as you are holding the mouse button down.

SCROLL ARROWS scroll your city horizontally and vertically.

SCROLL BOXES quickly move you to distant portions of your city.

ZOOM BOX sizes the window to cover the entire screen.

SELECTED ITEM & COST BOX displays active item and related cost.

FILE MENU

LOAD SCENARIO provides you with a menu of available scenarios. Click a city to load it.

START NEW CITY generates a new, empty terrain. You will be given the option to accept it or generate another terrain.

LOAD CITY lets you load a previously saved city.

SAVE CITY saves any scenario or city-in-progress for later use. Once you have loaded a scenario, it can be saved and re-loaded, like any city, without the impending disaster.

PRINT CITY prints your city in either of two sizes; all on one page or on a three-page by two poster. Requires an ImageWriter printer. Laser printer is not supported.

QUITS ends SimCity.

AMIGA USER REFERENCE

SPECIAL EDITOR WINDOW KEYBOARDS COMMANDS

X and **Z** = Cycle through and activate functions.

Q - (Query) = Point to a zone or object in the EDITOR WINDOW, hold down ←Q→ while clicking the left mouse button to bring up information about the zone or object.

B activates the Bulldozer while depressed, overriding active icon.

R activates roads laying while depressed, overriding active icon.

T activates Transit line laying while depressed, overriding active icon.

P activates Power line laying while depressed, overriding active icon.

CURSOR KEYS scroll the terrain under the EDITOR WINDOW.

GENERAL KEYBOARD COMMANDS

The Amiga Shift-key refers to the key marked with an "A" just to the right of the space bar.

Amiga Shift - B - Brings up the BUDGET WINDOW

Amiga Shift - E - Brings up the EVALUATION WINDOW

Amiga Shift - G - Brings up the MAPS/GRAPHS WINDOW

Amiga Shift - L - Loads a city

Amiga Shift - P - Brings up the PICK SCENARIO MENU

Amiga Shift - Q - Activates the UNDO command

Amiga Shift - S - Saves a city

EDITOR WINDOW GADGETS

TITLE BAR displays the city name, the date, and available funds. Clicking and dragging the Title Bar allows you to relocate the EDITOR WINDOW.

Note : *The EDITOR WINDOW must be all the way to the top of the screen for the scrolling to work properly.*

At the right of the Title Bar are the standard Amiga gadgets for moving the window to the top and bottom of the stack.

Behind the Title Bar is the Menu Bar.

The **MESSAGE BAR**, located directly below the Title Bar displays status messages to you from the simulator and demand from the Sims themselves.

GOTO BUTTON take you to the scene of a disaster or a major event mentioned in the Message Bar.

ICONS along the right side of the window are for the editing functions.

The ICONS TITLE BOX, located just above the Icons give the name and cost of the selected icon.

FILE MENU

SimCity Menus follow the standard Amiga interface. Use the RIGHT mouse button to activate and select menus.

ABOUT brings up a screen giving fascinating and vital information about SimCity and MAXIS. Sorry, but not about INFOGAMES !!

START NEW CITY generates a new, empty terrain. Clears existing city (if any) from memory. You will first be asked if you wish to "GENERATE A NEW GROUND MAP AND LOSE THE CURRENT ONE ?" and gives the option to go ahead or cancel. You will next be given a chance to set the GAME PLAY LEVEL, and then name your city.

PICK SCENARIO brings up a menu of available SCENARIOS to load and run.

LOAD CITY brings up the standard Amiga "File Loading Screen", allowing you to load a previously saved city.

SAVE CITY brings up the standard Amiga files ~File Saving Screen~ allowing you to save the scenario or city-in-progress for later use. Once you have loaded a scenario, it can be saved and reloaded, like any city, without the impending disaster.

PRINT CITY brings up a window giving you the choice of printing out your city on a single page, or on a multi-page poster. You may also cancel the print function.

QUITS OUT! ends SimCity.

EDIT MENU

UNDO cancels the last operation you performed.

ATARI ST USER REFERENCE

SPECIAL EDITOR WINDOW KEYBOARDS COMMANDS

X and **Z** = Cycle through and activate functions.

Q - (Query) = Point to a zone or object in the EDITOR WINDOW, hold down ~Q~ while clicking the left mouse button to bring up information about the zone or object.

B activates the Bulldozer while depressed, overriding active icon.

R activates roads laying while depressed, overriding active icon.

T activates Transit line laying while depressed, overriding active icon.

P activates Power line laying while depressed, overriding active icon.

GENERAL KEYBOARD COMMANDS

Control - B - Brings up the BUDGET WINDOW

Control - E - Brings up the EVALUATION WINDOW

Control - G - Brings up the MAPS/GRAPHS WINDOW

Control - L - Loads a city

Control - P - Brings up the PICK SCENARIO MENU

Control - Q - Activates the UNDO command

Control - S - Saves a city

EDITOR WINDOW GADGETS

TITLE BAR displays the city name, the date, and available funds.

For more info, see ATARI ST USER CHART

OPTIONS MENU for AMIGA, ATARI ST, PC, MACINTOSH

Most of the options set in this menu are saved with the city. When an option is active, there will be an arrow head to the left of the option.

AUTO-BULLDOZE allows you to place zones, roadways, etc., directly on top of trees and shoreline without manually bulldozing first. You will be charged the same as for manual bulldozing.

AUTO-BUDGET keeps your budget at the same percentage settings without asking for approval every year. If there isn't enough money to meet the budget, then funds will be allocated first to the Transit system, then to the Fire Department, then the Police.

AUTO-GOTO automatically transports you to the scene of a disaster or major event. If AUTO-GOTO is not active, and there is a disaster or event, you will be given a message in the EDIT WINDOW MESSAGE BAR and you will be supplied with a GOTO button.  To go to the disaster or event, click on the button, or hit the TAB key. Hit the TAB key again to return  to where you were.

SOUND toggles the city sounds on and off. It will say SOUND ON when it is active, and SOUND OFF when it is not. The simulation runs slightly faster with the sound off.

SPEED brings up a sub-menu allowing you to set the simulation speed. FASTEST sets city time to maximum speed possible on your machine. FAST is slightly slower. Average is the default setting. SLOW is the slowest setting. PAUSE stops time. Zoning and building are possible in paused time, but there will be no growth or evolution.

On PC :

If you have a computer based on an 8088 running at 4.77 MHz (XT compatible) you will probably want to be at the Fastest setting most of the time.

ANIMATE ALL activates animation and updating in all windows. When it is not active, then only the front window will be animated or updated. When this option is off, the simulation, and therefore time, will run faster. This option is not saved with a city. (Only on PC)

FREQUENT ANIMATION sets the frequency that the simulation stops crunching numbers and animates the screen. When this option is off, the simulation, and therefore time, will run faster. This option is not saved with a city. (Only on PC)

DISASTERS MENU

The DISASTERS MENU allows you to set natural disasters loose in your city. Use these disasters to test your ability to deal with emergencies in your city or just to release some aggression. More information on disasters, their causes, and dealing with them is presented later.

****WARNING**** *It is a good idea to save your city to disk before you set a disaster loose - just in case.*

FIRE starts a fire somewhere on the map.

FLOOD causes a flood to occur near the water.

AIR DISASTER causes a plane to crash. If there are no planes in the air, one will be generated.

TORNADO causes a tornado to appear somewhere on the map.

EARTHQUAKE causes a MAJOR earthquake.

MONSTER sets a monster loose in your city.

DISABLE eliminates the random disasters.

WINDOWS MENU

MAPS opens the MAP WINDOW.

GRAPHS opens the GRAPHS WINDOW.

BUDGET opens the BUDGET WINDOW.

EDIT opens the EDIT WINDOW.

EVAL opens the EVALUATION WINDOW.

CLOSE closes the top window.

HIDE moves the top window to the bottom.

THE EDIT WINDOW (example on PC)



THE EDIT WINDOW

This is where all actual zoning and building takes place.

TERRAIN

There are three types of terrain in the EDITOR WINDOW, Open Land, Trees, and Water.

OPEN LAND is where you can zone and build. Depending on the type of monitor and graphics card you have, it will be shown as brown, or as a very light shade with speckles.

TREES and **FORESTS** are shown as green, or as a medium shade. You cannot zone or build on trees. You may **BULLDOZE** trees and forests to turn it into clear land. While some bulldozing is necessary, clearing away too much green area will result in lower property values.

WATER is shown as blue, or as a dark shade. You cannot zone or build on water. You must bulldoze coastlines to create landfills before you can build or zone there.

Roads, rails and power lines can be laid across water, with no turns or intersections.

EDIT WINDOW GADGETS

The **TITLE BAR** displays the city name and date. Clicking and dragging the Title Bar allows you to relocate the EDIT WINDOW. On the far left of the Title Bar is the **CLOSE BUTTON**. Clicking on this button will close the window.

The **MESSAGE BAR**, located directly below the Title Bar displays your current FUNDS, and status messages to you from the simulator and demand messages from the Sims themselves. Clicking on the message bar will bring back the last message.



A **GOTO BUTTON** will appear in the Message Bar along with a message about a disaster or event somewhere in the city. Clicking on the GOTO button takes you to the scene of the disaster or event. The **TAB** key activates the GOTO button. Hitting TAB again will return you to where you were. (Only on PC)

ICONS along the left side of the window are for selecting the editing functions. **ICONS** are activated by pointing to them and clicking the left mouse button. You can also use the "+" and "-" keys to cycle through the icons, and activate them. See the **KEYBOARD REFERENCE CHART** or the **Keyboard** section of **CONTROLLING SIMCITY** above.

The **ICON TITLE BOX**, located near the lower left corner of the window, gives the name and cost of the selected icon.



The **DEMAND INDICATOR**, located just below the icons, lets you know how many Commercial, Residential, and Industrial zones the Sims need. If the bars point up, there is a positive demand - they need more. If the bars point down, there is a negative demand - they have too many.

The **RESIZE BOX**, located in the lower right corner of the EDIT WINDOW, allows you to resize the window. Move the pointer to the resize box, and press and hold the mouse button, the SPACE bar, or the INSERT key. Then drag the mouse or use the cursor keys to resize the window. When you let go of the button or key, the window will redraw at its new size.



TRANSIT LINES create a railway system for intra-city mass transit. Place tracks in heavy traffic areas to help alleviate congestion.

Intersections and turns are created automatically. Lay continuous transit lines by clicking and dragging your pointer. Tracks laid under rivers will appear as dashed lines. These are underwater tunnels, and must be vertical or horizontal - no turns, curves or intersections.

Holding down the SHIFT key while laying tracks will constrain them to a straight line.

Transit lines are maintained by the transit budget. The level of funding affects the efficiency of the system. The amount of yearly funding requested by the transportation department is \$4 for each section of rail, and \$10 for each section of tunnel.

It costs \$20 per section of track laid on land, \$100 per section under water.



PARKS can be placed on clear land. Parks, like forests and water, raise the land value of surrounding zones. Parks can be bulldozed as fire breaks or reserve space for later mass transit expansion.

Holding down the SHIFT key while building parks will constrain them to a straight line.

It costs \$10 to zone one park.



RESIDENTIAL ZONES are where the Sims live, build houses, apartments and community facilities such as schools, hospitals and churches.

Most Residential zones develop into one of four values: slums, lower middle class, upper middle class, and upper class. They can range in population density from single-family homes to high-rise apartments and condominiums. Some Residential zones will automatically develop into Churches and Hospitals.

Factors influencing residential value and growth are pollution, traffic density, population density, surrounding terrain, roadway access, parks and utilities.

It costs \$100 to zone one plot of land as Residential.



COMMERCIAL ZONES are used for many things, including retail stores, office buildings, parking garages and gas stations.

There are four values for commercial property, and five levels of growth, from the small general store to tall skyscrapers. Factors influencing the value and growth of commercial areas include internal markets, pollution, traffic density, residential access, labor supply, airports, crime rates, transit access and utilities.

It costs \$100 to zone one plot of land as Commercial.



INDUSTRIAL ZONES are for heavy manufacturing and industrial services. There are four levels of industrial growth, from small pumping stations and warehouses to large factories.

Factors influencing industrial growth are external markets, seaports, transit access, residential access, labor supply and utilities.

It costs \$100 to zone one plot of land as Industrial.



POLICE DEPARTMENTS lower the crime rate in the surrounding area. This in turn raises property values. Place these in high-density crime areas as defined by your Crime Rate map. The efficiency of a station depends on the level of police department funding.

It costs \$500 to build a Police Station. Full yearly maintenance of each Police Station is \$100.



FIRE DEPARTMENTS make surrounding areas less susceptible to fires. When fires do occur, they are put out sooner and do less damage if a station is near. The effectiveness of fire containment depends on the level of fire department funding.

It costs \$500 to build a fire station. Full yearly maintenance of each Fire station is \$100.



STADIUMS encourage residential growth, once a city has become fairly large. You may build a stadium in a smaller city without negative (or positive) effect. Stadiums indirectly generate a lot of revenue, but create a lot of traffic. Properly maintaining a stadium requires a good road and transit network.

It costs \$3000 to build a stadium.



POWER PLANTS can be coal or nuclear, chosen from a sub-menu provided when you activate the Power Plant icon. The nuclear plant is more powerful but carries a slight risk of meltdown. The coal plant is less expensive, but less powerful and it pollutes.

All zoned land needs power to develop and grow. When developed land loses power, it will degenerate to barren ground unless power is restored. Connecting too many zones to a Power Plant causes brownouts.

Coal power plants cost \$3000 to build, and supply enough energy for about 50 zones. Nuclear plants cost \$5000 and supply electricity for about 150 zones.



SEA PORTS increase the potential for industrial growth. They have little effect in a small city, but contribute a lot to industrialization in a large city.

Sea Ports should be placed on a shoreline. The shoreline must be bulldozed prior to zoning a Sea Port, unless Auto-Bulldoze is active. Once the port is operational you may see ships in the water.

It costs \$5000 to zone land for use as a Sea Port.



AIRPORTS increase the growth potential of your commercial markets. Once a city starts getting large, commercial growth will level off without an Airport. Airports are large and expensive and should not be built unless your city can afford one. Position airports to keep flight paths over water whenever possible, lessening the impact of air disasters.

Once you build an Airport you will see planes flying above your city to and from the airport. There is also a traffic helicopter which alerts you to heavy traffic areas.

It costs \$10,000 to zone land for use as an airport.

THE BUDGET WINDOW

When your first taxes are collected in a new city, and each year after, the BUDGET WINDOW will appear (unless you select the Auto-Budget function). You will be asked to set the funding levels for the fire, police, and transportation departments, and to set the property tax rate.

The BUDGET WINDOW can be opened from the WINDOWS MENU, or by hitting Ctrl-B. (Only on PC)

When Auto-Budget is active, all the funding levels will remain at full funding, or your last setting. If there is not enough money to completely fund the budget, money will go first to the Transit Department, then the Fire Department, then the Police Department.

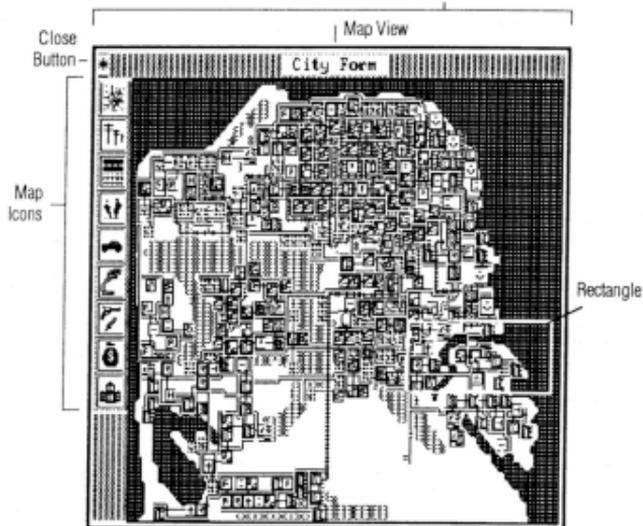
You can raise and lower budget levels by clicking on the little arrows that correspond to each category. A percentage indicator will display the level of funding that will be maintained if you turn on the Auto-Budget function. You may adjust your tax rate by clicking on the arrows next to the tax rate indicator. Click on "GO WITH THESE FIGURES," or hit RETURN to exit the BUDGET WINDOW.

Use the + & - keys to cycle the pointer around to all the HOT SPOTS. When adjusting funding or tax levels, clicking on an arrow with the left mouse button, SPACE, or INSERT will move the amount up or down by 1%. Clicking on an arrow with the right mouse button or the DELETE key will move the amount up or down by 10%.

NOTE: When you first load in a city, all the Budget amounts will be zeroed out until the next January. This first year is a "grace period," and all City Services will be considered completely funded.

1987 Fiscal Budget			
Tax Rate	7% <input type="button" value="↑"/> <input type="button" value="↓"/>		
Taxes collected	\$2528		
Amount Requested	Amount Allocated	Funding Level	
Trans \$2185	\$2185	<input type="button" value="↑"/> <input type="button" value="↓"/>	100%
Police \$880	\$880	<input type="button" value="↑"/> <input type="button" value="↓"/>	100%
Fire \$280	\$280	<input type="button" value="↑"/> <input type="button" value="↓"/>	100%
Cash Flow	(665)		
Previous Fund	\$28,000		
Current Funds	19,335		
Go with these figures			

MAPS WINDOW (example on PC) Title Bar



CITY FORM



POWER GRID



TRANSPORTATION



POPULATION



TRAFFIC DENSITY



POLLUTION



CRIME



LAND VALUE



CITY SERVICES



DENSITY KEY

MAPS WINDOW

The **MAPS WINDOW**, which can be opened from the **WINDOWS MENU**, by hitting **Ctrl-M** (Only PC) or hitting **RETURN**, gives you various overviews of your city. When the pointer is in the main portion of **MAPS WINDOW**, it becomes a **RECTANGLE**. You can move the rectangle around the map with the mouse or cursor keys. Clicking the **LEFT MOUSE BUTTON**, the **SPACE BAR** or **INSERT** will redraw the land that is visible in **EDIT WINDOW** to this location of the map.

For demographic maps that show density, rate or comparative levels, a **Density Key** will be shown in the lower left corner of the window. Depending on your monitor and graphics card, this will either be in color or in shades.

On PC :

You may also notice letters on the map. These are markers to let you know where moveable objects are. An **"S"** marks the location of a ship. An **"R"** marks the location of a railroad train. An **"H"** marks the location of a helicopter. An **"A"** marks the location of an airplane. An **"M"** marks the location of a Monster, and a **"T"** marks the location of a Tornado.



The **CITY FORM MAP** shows the physical shape of your city, showing developed and non-developed areas. Use this map to plan city expansion.



The **POWER GRID MAP** shows the power network of your city. Use this map to locate unpowered zones and breaks in the power lines.



The **TRANSPORTATION MAP** is a road and rail map of the city. Use this map to examine traffic access to all parts of the city and plan further expansion of the network.



The **POPULATION MAPS** icon brings up a sub-menu offering two map views.

The **POPULATION DENSITY** view displays the average number of people occupying an area each day. Use this map to locate under-utilized areas and overpopulated areas.



The **RATE OF GROWTH** view shows the most recent growth (positive or negative) of your city, and where it is occurring.



The **TRAFFIC DENSITY MAP** shows the amount of traffic on the roads. Spot traffic problems and determine where new roadways are needed.



The **POLLUTION INDEX MAP** shows levels of pollution throughout the city. Pollution is generated primarily by industry, traffic, and coal Power Plants.



The **CRIME RATE MAP** shows the level and location of crime in your city. Crime is calculated from population density, land value, and proximity of police stations.



The **LAND VALUE MAP** shows the relative value of land within the city limits. Land values are used to establish the amount of revenue generated by taxes.



The **CITY SERVICES** icon brings up a sub-menu offering views of police or fire services.

The **FIRE PROTECTION MAP** displays the effective radius of Fire Stations based on their location, power, and funding levels, and access.

The **POLICE INFLUENCE MAP** displays the effective radius of Police Stations based on their location, power, and funding levels, and access.

USING THE MAPS

The MAP WINDOW should be constantly referred to in all stages of city planning, building and managing.

BEFORE YOU BUILD

Use the map before beginning a new city to plan:

- where you want your city center,
- where you want the high class waterfront residential areas,
- where you will cross water with bridges, power lines and tunnels,
- where to place power plants,
- where to place large industrial sections away from the residential sections,
- the general layout of the city.

Printing the map and sketching in your plan with pencil or pen can save a lot of bulldozing and re-zoning and rebuilding.

DURING CITY GROWTH

Use the map to guide your city's growth around forest areas, to preserve the trees and improve property values.

Use the transportation map along with the traffic density map to plan traffic control and expansion.

Use the city maps to make sure you have the proper ratio of residential to commercial to industrial zones.

Use the pollution map to detect problem areas, and disperse the industrial zones and/or replace roads with rails.

Printing out the map in various stages of development and doing some preliminary expansion planning with pencil can be useful. Printouts can also be used for city historical records.

DURING CITY MAINTENANCE

Use the power grid map to locate zones that have lost power.

Use the city services maps to evaluate the effective coverage of your police and fire departments.

Use the crime rate map to locate problem areas that need more police protection.

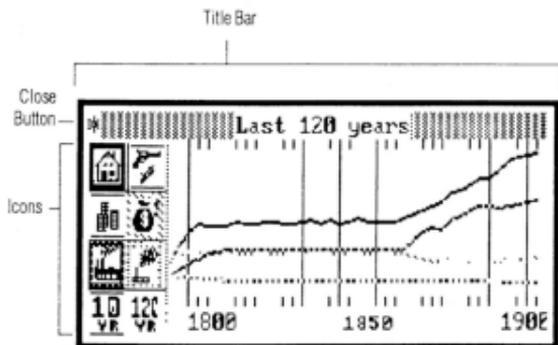
Use the pollution map to locate problem areas.

Use the transportation and traffic density map to determine where to replace roads with rails.

Use the land value map to locate depressed areas for improvement or replacement.

Use the city maps to maintain the proper ratio of residential to commercial to industrial zones.

GRAPHS WINDOW (example on PC)



RESIDENTIAL POPULATION



CRIME RATE

COMMERCIAL POPULATION



CASH FLOW

INDUSTRIAL POPULATION



POLLUTION

10 YEAR DISPLAY



120 YEAR DISPLAY

GRAPHS WINDOW

The GRAPHS WINDOW gives you time-based graphs of various city data. It can be opened through the WINDOWS MENU or by hitting Ctrl-G (Only on PC). Click and drag the TITLE BAR to relocate the window.



You may view graphs for time periods of either the last ten years or the last 120 years by clicking on the "10 YEAR/120 YEAR" button.



The **RESIDENTIAL POPULATION GRAPH** shows the total population in residential zones.



The **COMMERCIAL POPULATION GRAPH** shows the total population in commercial zones.



The **INDUSTRIAL POPULATION GRAPH** shows the total population in industrial zones.



The **CRIME RATE GRAPH** shows the overall crime rate of the entire city.



The **CASH FLOW GRAPH** shows your city's cash flow: money collected in taxes minus money it took to maintain your city. The line in the center of the CASH FLOW graph represents a cash flow of zero. Do not build more infrastructure (roads, rails, police departments, fire stations) than you can support with tax revenues.

Note: Cash flow has little to do with your current funds, or how much you spend in building and zoning (except that city expansion will increase both taxes collected and maintenance costs).



The **POLLUTION GRAPH** shows the overall average pollution reading of the entire city.

USING THE GRAPHS

The Graphs give information on many of the same factors as the Maps, but show the information over time. Graphs are for locating trends in city life that won't be noticeable in a map. If you look at a map, for example the crime rate map, every year, a very slight rise in the crime rate will not be noticeable. But on a graph, you would easily locate the upward trend in crime because you will be viewing the levels for a number of years at the same time.

Residential, commercial and industrial population growth and/or decline can be tracked and displayed. If you notice a downward trend in any of these, refer to the User Reference Card to locate potential problems and solutions.

Crime rate can be displayed, revealing slight but consistent upward or downward trends.

Use the cash flow graph to track your city's efficiency as it grows. If your maintenance costs are higher than your tax revenues, you will have a negative cash flow.

Use the pollution graph to catch rising levels of pollution before they reach a problem level.

THE EVALUATION WINDOW

The EVALUATION WINDOW gives you a performance rating. You can access it through the WINDOWS MENU, or by hitting Ctrl-U (ONLY FOR PC)

1987 City Evaluation	
PUBLIC OPINION	STATISTICS
Is the mayor doing a good job?	Population 10586
66% YES	Net Migration -106 (last year)
34% NO	Assessed Value \$68,610,000
What are the worst problems?	Category:METROPOLIS
28% CRIME	Game Level:Easy
15% TAXES	Overall CityScore 48 - 1000
15% TRAFFIC	current score:annual change
9% HOUSING COSTS	582 -88

PUBLIC OPINION is presented in poll form, rating your overall job as mayor and listing what the public regards as the city's most pressing problems. You are advised to keep your residents happy or they might migrate away, and you will be left with a "ghost town."

In general, if more than 55% of the populace thinks you are doing a good job, then you can feel secure of keeping your job.

If 10% or less of the people think something is a problem, then it's not too bad.

These are most of the problems that citizens complain about, and how to correct them:

- Traffic** - Replace dense sections of roads with rails.
- Crime** - Add police stations and/or raise property values.
- Pollution** - Replace roads with rails, disperse industrial zones.
- Housing** - Zone more residences.
- Housing costs** - Zone more residences in low property value areas.
- Fires** - Build more fire departments.
- Taxes** - Lower taxes (if you can).
- Unemployment** - Zone more commercial and industrial areas.

STATISTICS on POPULATION, NET MIGRATION, and ASSESSED VALUE are displayed, along with the city's GAME LEVEL and the OVERALL CITY SCORE. This data is calculated once a year at budget time.

POPULATION is the number of residents in your city.

The **NET MIGRATION** statistic provides a rating of the desirability of your city. If people are leaving in droves, then you know something is rotten in SimCity.

The **ASSESSED VALUE** is the combined value of all city-owned property: roads, rails, power plants, police and fire stations, airports, sea ports, parks, etc. It does not include residential, commercial and industrial zones.

The **CATEGORIES** are defined by population as follows:

Village	0 to 1,999
Town	2,000 to 9,999
City	10,000 to 49,999
Capital	50,000 to 99,999
Metropolis	100,000 to 499,999
Megalopolis	500,000 and above.

OVERALL CITY SCORE is a composite score based on the following factors (some positive, some negative):

MAJOR FACTORS - Crime, pollution, housing costs, taxes, traffic, unemployment, fire protection, unpowered zones, city growth rate.

MINOR FACTORS - Stadium needed (but not built), sea port needed (but not built), airport needed, (but not built), road funding, police funding, fire department funding, and fires.

A large population is not necessarily a sign of a successful city. Population size does not affect the overall city score, since low population could indicate a new or growing city.

Since city growth rate does affect the overall city score, a city in which growth has been intentionally stopped for environmental or aesthetic reasons will have a slightly lower score.

DISASTERS

Disasters will randomly occur as you play SimCity. At higher game levels the disasters will happen more often. Most disasters can be activated from the DISASTERS MENU. Random disasters can be eliminated by the DISABLE option on the DISASTERS MENU.

FIRES can start anywhere in the city. Fires spread fairly rapidly through forests and buildings, somewhat slower over roadways. Fire will not cross water or clear land.

The effectiveness of the fire department (which can be viewed in the MAPS WINDOW) is based on how close it is to the fire, and its funding levels. Fires inside this effective radius will be extinguished automatically. If you have no operational fire departments in the area you can try to control the fire yourself. Since fire will not spread across clear terrain, you can build fire breaks with the bulldozer. Just surround the fire with clear areas and it will stop spreading and eventually burn itself out.

Note: You cannot directly bulldoze a fire.

FLOODING occurs near the water. Floods gradually spread and destroy buildings and utilities. After a while the flood waters recede, leaving behind cleared terrain.

AIR CRASHES can happen anywhere in the city if an airport is operational. This happens whenever aircraft collide with things, such as tornados or another aircraft. When a crash occurs, a fire will start, unless the crash is on water. A good strategy is to locate the airport away from the central city to minimize the fire damage.

TORNADOS can occur anywhere on the map at any time. Very fast and unpredictable, they can appear and disappear at a moment's notice. Tornados destroy everything in their path, and can cause planes, helicopters, trains, and ships to crash.

EARTHQUAKES are the most devastating disaster. This is a MAJOR Earthquake - between 8.0 and 9.0 on the Richter Scale. It will destroy buildings and start fires. The initial damage will vary with the severity of the earthquake, and the eventual fire damage depends on your fire control efforts.

When an Earthquake occurs, you will see the EDIT WINDOW shake for a while. When it stops you will have to take charge and control the scattered fires. Use the bulldozer to contain the largest fires first and work your way down to the smaller ones.

MONSTER ATTACKS are provoked by high levels of pollution. A monster destroys everything in its path, starts fires, and causes planes, helicopters, trains, and ships to crash.

MELTDOWNS are only possible if you are using a nuclear power plant. If a meltdown occurs, your nuclear plant will explode into flames. The surrounding area will be unusable for the remainder of the simulation due to radioactive contamination. Meltdowns are not available on the DISASTERS MENU.

SHIPWRECKS can occur once you have an operating seaport. They can cause fires where the ship crashes into a shore or bridge. Shipwrecks are not available on the DISASTERS MENU.

SCENARIOS

The scenarios provide both real and hypothetical problems for you to deal with in seven famous (and one not so famous) cities. They present various levels of difficulty. Some problems are in the form of disasters which will occur some time after you start. Other problems are more long-term, such as crime.

Your task is to deal with the problem at hand as well as possible under the circumstances. After a certain amount of time the city residents will rate your performance in a special election. If you do very well you may be given the key to the city. However, if you do poorly, they just might run you out of town.

NOTE: To avoid the disaster which is tied to a scenario, save it to disk and reload the city from the saved file.

DULLSVILLE, USA 1900 - BOREDOM

Things haven't changed much around here in the last hundred years or so and the residents are beginning to get bored. They think Dullsville could be the next great city with right leader. It is your job to attract new growth and development, turning Dullsville into a Metropolis by the 21st century.

Difficulty: Easy
Time Limit: 30 years
Win Condition: Metropolis

SAN FRANCISCO, CA 1906 - 8.0 EARTHQUAKE

Damage from the earthquake was minor compared to that of the ensuing fires, which took days to control. 1500 people died. Controlling the fires should be your initial concern here. Afterwards, clearing the remaining rubble will allow the city to start rebuilding.

Difficulty: Very Difficult
Time Limit: 5 years
Win Condition: Metropolis

HAMBURG, GERMANY 1944 - FIRE

Allied fire-bombing of German cities in WWII caused tremendous devastation and loss of life. People living in the inner cities were at greatest risk. You must control the firestorms during the bombing and then rebuild the city after the war.

Difficulty: Very Difficult

Time Limit: 5 years

Win Condition: Metropolis

BERN, SWITZERLAND 1965 - TRAFFIC

The roads here are becoming more congested with automobile traffic every day, and the residents are upset. They demand that you do something about it. Some have suggested a mass transit system as the answer, but this may require major rezoning in the downtown area.

Difficulty: Easy

Time Limit: 10 years

Win Condition: Low Average Traffic Density

TOKYO, JAPAN 1957 - MONSTER ATTACK

A large reptilian creature rose from Tokyo Bay and rampaged through the city, destroying much of the industry along the bay.

Difficulty: Moderately difficult

Time Limit: 5 years

Win Condition: City Score above 500

DETROIT, MI 1972 - CRIME

By 1970, competition from overseas and other economic factors pushed the once "automobile capital of the world" into recession. Plummeting land values and unemployment increased crime in the inner-city to chronic levels. You have just been elected after promising to reduce the crime and rebuild the industrial base of the city.

Difficulty: Moderately Difficult

Time Limit: 10 years

Win Condition: Low Average Crime Density

BOSTON, MA 2010 - NUCLEAR MELTDOWN

A major meltdown is about to occur at one of the new downtown nuclear reactors. The area in the vicinity of the reactor will be severely contaminated by radiation, forcing you to restructure the city around it.

Difficulty: Very Difficult

Time Limit: 5 years

Win Condition: City Score above 500

RIO de JANEIRO, BRAZIL 2047 - FLOOD

In the mid-21st century, the greenhouse effect raised global temperatures 6 degrees F. Polar icecaps melted and raised sea levels worldwide. Coastal areas were devastated by flood and erosion. Unfortunately, some of the largest cities in the world are located on the coasts.

Difficulty: Moderately Difficult

Time Limit: 10 years

Win Condition: City Score above 500

GAME PLAY LEVEL

When you first start a new city you must pick a difficulty level. Once a city is started you cannot change the game play level; it remains at your initial setting for the life of the city. The game level setting is displayed in the evaluation window.

This level - Easy, Medium, or Hard - adjusts the simulation to your current abilities by altering several factors. A harder setting will increase the chance of disasters, make residents more intolerant of taxation, cause maintenance costs to grow, etc.

GROWING A CITY

While growing a city, refer often to the USER REFERENCE CARD. It provides a chart of CITY DYNAMICS; how all factors of city life and growth are related.

The main points to keep in mind while growing a city are:

Grow slow. Watch your money.

All zones must be powered to develop.

Zones must be developed to generate tax money.

Roads or rails must provide access to and from each zone for it to fully develop.

There is a yearly maintenance cost for each section of road, rail, bridge and tunnel. This can add up. Don't build too many roads and rails and generate high maintenance costs before your city can generate enough tax revenues to support them.

Extra power plants and redundant power lines are expensive, but can keep zones from losing power during a disaster or emergency and deteriorating.

Rails can carry much more traffic than roads. While building and zoning an area that you predict will generate heavy traffic, install rails instead of roads in the early stages of development.

If you get a lot of heavy traffic warnings, replace roads with rails. You can even build an entirely roadless city.

Grouping zones together, 4 or 5 in a row touching each other, can eliminate a lot of power line segments.

Airports, sea ports and stadiums won't help a small city grow - so save your money until the city gets larger. The Sims will tell you when they need these things.

Place zones, roads, etc. carefully - they cannot be moved, and you will have to pay to bulldoze them and rebuild.

As a rule of thumb, the number of residential zones should be approximately equal to the sum of commercial and industrial zones. When your city is small, you will need more industrial zones than commercial, and when your city gets larger, you will need more commercial zones than industrial.

Separate the residential areas from the industrial areas.

Proximity to forest, parks, and water increases land value, which increases the taxes collected. Don't bulldoze any more forest than you must. Natural shoreline increases property values more than landfill shoreline.

Keep in mind that proximity to downtown raises property values. The simulator defines the downtown area as "the center of mass of the population density." It calculates the average geographical center of the population.

A bigger, more populous city is not necessarily better. Having a self-supporting, profitable city with pleasant surroundings is better than a huge city that is always broke and has no forest or shoreline.

Use the various maps and graphs to plan city growth, locate problems, and track your progress. Look for areas that need police and fire coverage as you go, so you don't have to go back and bulldoze developed zones to make room for police and fire stations.

Save your city to disk before trying any major new policy so you can go back if your plan doesn't work.

Print out your city in different stages of evolution to track and plan growth.

Check the EVALUATION WINDOW often. The Sims will let you know how you are doing. Also the statistics can be useful; if your population is shrinking, don't go zoning new areas that may never develop, look for problems in the existing zoned areas, and spend your time and money solving them.

SAVE YOUR CITY TO DISK OFTEN!!!

NOTE: There is only one animated train car at a time in SimCity. It will not necessarily cover every section of track. This does not mean that the tracks are not working. Don't worry, everything is OK.

THE USER REFERENCE CARD

Included in the SimCity box is the USER REFERENCE CARD, which includes the ZONE EVOLUTION CHART, THE CITY DYNAMICS CHART, AND THE KEYBOARD REFERENCE CHART.

ZONE EVOLUTION CHART

The Zone Evolution Chart shows the various levels of development and decline of residential, commercial and industrial zones. The level of development depends on the land value and population density. The graphic set shown on the Zone Evolution Chart is from the Hercules graphics set. Other graphics modes will differ, but they are very similar.

Use this chart along with the Query function to identify, and gather information on, individual zones.

CITY DYNAMICS CHART

The City Dynamics Chart lists the factors of city life and growth and shows how they inter-relate. Use this chart to guide you in designing your city. It will help you find solutions to the Sims' complaints, and to problems you discover from the maps and graphs.

KEYBOARD REFERENCE CHART (ONLY FOR PC)

The Keyboard Reference Chart gives a visual summary of all the keyboard controlled functions and shortcuts.

LIST OF FILES ON THE DISKS ON PC

5 1/4" DISK #1

SIMCITY	.EXE	The SimCity executable program
INSTALL	.EXE	The Installation program
BERN	.PSN	Scenario File
BOSTON	.PSN	Scenario File
DETROIT	.PSN	Scenario File
DULLSVIL	.PSN	Scenario File
HAMBURG	.PSN	Scenario File
RIO	.PSN	Scenario File
SANFRAN	.PSN	Scenario File
TOKYO	.PSN	Scenario File
SOUND DAT	.V4	Sound Data File

5 1/4" DISK #2

CEGADAT	.PGF	EGA High - Res Color Graphics File
CEGANTRO	.PPF	EGA High - Res Color Intro Screen
CEGASCEN	.PPF	EGA High - Res Color Scenario Menu Screen
SEGADAT	.PGF	EGA Low - Res Color Graphics File
SEGANTRO	.PPF	EGA Low - Res Color Intro Screen
SEGASCEN	.PPF	EGA Low - Res Color Scenario Menu Screen
CGADAT	.PGF	CGA Graphics File
CGANTRO	.PPF	CGA Intro Screen
CGASCEN	.PPF	CGA Scenario Menu Screen
MONODAT	.PGF	Monochrome Graphics File (for Hercules and EGA Mono)
MONONTR	.PPF	Monochrome Intro Screen (for Hercules and EGA Mono)
MONOSCEN	.PPF	Monochrome Scenario Menu Screen (for Hercules and EGA Mono)
TDYDAT	.PGF	Tandy Color Graphics File
TDYNTRO	.PPF	Tandy Color Intro Screen
TDYSCEN	.PPF	Tandy Color Scenario Menu Screen

The 3 1/2" Disk contains all the files on both the above disks.

INSIDE SimCity

HOW THE SIMULATOR WORKS AND STRATEGIES FOR USING IT

Many factors influence the chance of your city's prospering or floundering: both internal factors (the structure and efficiency of your city) and external factors (the regional economy, disasters, etc.).

ZONES

Your city is divided into three primary zones: residential, commercial and industrial. These zones symbolize the three basic pillars upon which a city is based: population, industry, and commerce. All three are necessary for your city to grow and thrive.

RESIDENTIAL ZONES are where the Sims live. Here they build houses, apartments and community facilities such as churches and schools. Sims are the work force for your city's commercial and industrial zones.

INDUSTRIAL ZONES are used to site warehouses, factories, and other unsightly and polluting structures which have a negative impact on surrounding zones. One of the major goals of planning is to separate these "nuisances" from the areas where people live. In this simulation, industrial zones represent the "basic" production of your city. Things produced here are sold outside the city to an "external market," bringing money into the city for future growth.

COMMERCIAL ZONES represent the retail stores and services in your city, including gas stations, grocery stores, banks, and offices. Commercial areas are mainly dedicated to producing goods and services needed within your city. This is called "non-basic" production or production for the "internal market".

POPULATION - RESIDENTIAL

The major factors controlling residential population are birthrate, availability of jobs and housing, unemployment, and quality of life within the city.

Birthrate as used here, is actually a combination of the birthrate (+) and the deathrate (-). Within SimCity there is always a positive birthrate.

Availability of jobs (the employment rate) is a ratio of the current commercial and industrial populations to the total residential population. As a rule of thumb, the number of commercial and industrial zones together should roughly equal the number of residential zones.

If there are more jobs in your city than residents, new settlers will be attracted. If the job market declines during a local recession, your people will migrate away in search of jobs.

Housing for your residents is built in the residential zones. These zones must be powered and connected to the places of employment by roads. The structures built in residential zones are influenced by land value and population density.

Quality of life is a measure of relative "attractiveness" assigned to different zone locations. It is affected by negative factors such as pollution and crime, and positive factors such as parks and accessibility.

EXTERNAL MARKET - INDUSTRIAL

There are thousands of variables that influence your city. All these variables can be influenced by your actions with the exception of one.

The external market (the economic conditions that exist outside of your city) is controlled by the simulation - there is nothing you can do to change it. In many ways, this external market is the original source of all city growth. Towns frequently begin as production centers (steel towns, refineries, etc.) that service a demand in the surrounding region. As time passes, the external market grows to reflect the regional growth going on around your city.

The industry in your city will attempt to grow as the external market grows. For this to happen there must be room for expansion (more industrial zones) and an adequate labor supply (more residential zones).

INTERNAL MARKET - COMMERCIAL

The internal market is completely influenced by the conditions within your city. Internal production, created in the commercial zones, represents all the things which are purchased and consumed within the city. Food stores, gas stations, retail stores, financial services, medical care, etc. - all depend on a nearby population to service. Within SimCity, the size of the internal market determines the rate at which commercial zones will prosper. Commercial zones need enough zoned land to build on and an existent, sufficient work force to employ. The structures built in commercial zones are mainly influenced by land value and population density.

Commercial zones grow and develop to serve the expanding internal market. Commercial growth will usually be slow at first, when the population is small and needs very little. As your city grows, commercial growth will accelerate and the internal market will become a much larger consumer of your total city production. This accelerating effect, when the external/industrial production is overtaken by the accelerating internal/commercial sector, can turn a sleepy little town of 50,000 into a thriving capital of 200,000 in a few short years.

TAX RATE

The tax rate you set controls the amount of income generated by your city. As taxes are collected each year (simulation time), the BUDGET WINDOW will appear, giving you the fiscal details of your city and a chance to adjust rates. The simulation determines the amount of revenue collected by assessing each zone an amount based on its land value, current level of development and the current tax rate.

The tax rate has a global affect on your city's growth rate. If you set it low (0 - 4%), growth will be brisk but the city income will be low. If you set it high (10 - 20%), you will collect a lot in the short run but in the long run tax income will decrease along with the population. You must keep tax income high enough to invest in new development, but low enough not to scare off residents and businesses. A high tax rate is one way to control city growth, should you want to experiment with "growth control measures".

BUDGETING

City budgeting affects the way your city grows. City infrastructure cost is represented by three departments: police, fire, and transportation. You may set the funding levels separately for each. All three departments will request a certain level of funding each year. You may supply all or part of the requested funds, in the attempt to balance safety needs and budgetary concerns.

POLICE DEPARTMENTS

Police stations lower the crime rate within a territory. The effective radius of your police station is related to the amount of funding allocated to the police department.

FIRE DEPARTMENTS

Fire departments prevent and extinguish fires. The level of funding determines the effective radius of a fire department. Fire departments put out fires within this radius much sooner than outside it, and decrease the chance that they will start in the first place. Fire Departments cost \$100 per year to fund.

TRANSPORTATION DEPARTMENT

When you build roads and rail systems you are charged for construction and yearly maintenance. The larger your transportation network, the more it will cost for upkeep. If you decide not to or are unable to pay this maintenance cost, roads will slowly deteriorate and become unusable. The maintenance cost for each piece is: Road – \$1, Bridge – \$4, Rail – \$4, Rail tunnel – \$10.

POWER

Electrical power makes modern cities possible. Efficient and reliable power transmission to all zones is the goal of good "power management".

Periodically in the simulation the entire power grid of your city is checked for links to power. If a zone is connected (by other zones or power lines) to a power plant, the zone is considered powered.

Zones must be powered for development to occur. Many things (such as fires, tornadoes, earthquakes and bulldozers) can knock down power lines and cause blackouts in parts of your city. Development will stop in unpowered zones, and if power is not quickly restored, the zone will decline back to its original state of emptiness.

Redundant Power Plants and power connections can make your power grid more reliable, but running more line adds construction costs.

TRANSPORTATION - TRAFFIC

One of the most important elements of city structure is the transportation network. It moves Sims and goods throughout your city. Roads typically occupy as much as 25% - 40% of the land in urban areas. Traffic along these roads indicates which sections of your road system are used the most.

Traffic levels are simulated by a process known as "Trip Generation." Over time, each populated zone in the city will generate a number of trips, depending on the population. Each generated trip starts at the origin zone, travels down the road, and if a "proper destination" is reached, ends at the destination zone - otherwise, the trip fails. Trip failure indicates inaccessibility of a zone and limits its growth.

The majority of generated trips represent people commuting to and from work. Additional traffic is generated by residents traveling to shopping, recreation, etc. When analyzing traffic, the simulator tests the following traffic routes:

From: ORIGIN

Residential zones
Commercial zones
Industrial zones

To: DESTINATION

Commercial zones and Industrial zones
Residential zones and Industrial zones
Residential zones.

When Sims drive away from an origin zone, they have a limited "trip range" in which to find a destination zone. Heavy traffic decreases the trip range. If the destination zone is too far away, the trip is unsuccessful. Repeated unsuccessful trips will cause the Sims to move out of the origin zone.

Each road has a limited capacity for traffic. When this capacity is exceeded traffic jams will form. Traffic jams drastically lower the capacity of a road, compounding the problem and frustrating drivers.

Traffic conditions fluctuate quickly. Avoid traffic problems by providing several routes for the traffic to take.

A road must be adjacent to a zone for the zone to be connected to the traffic pattern. Zones do not conduct traffic the way they conduct power.

POLLUTION

Pollution levels are tracked in all areas of your city. This is a general "nuisance level" which includes air and water pollution, noise pollution, toxic wastes, etc. Pollution has a negative impact on the growth of residential areas.

The primary cause of pollution is industrialized zones. The level of pollution created by an industrial zone increases with its level of growth.

Traffic is another cause of pollution. There are limited means of combating the pollution level. Lowering traffic density, limiting industrial development, and separating the pollution from the residential areas will help.

CRIME

Crime rates are influenced by population density, local law enforcement, and land values. As population density increases in an area, the number of crimes committed increases. Crime will also increase in areas of low land value.

The most effective way to deal with high crime rates is to introduce a police station into the area. Based on its level of funding, the police station will reduce the rate of crime in its sphere of influence. A long-term approach to lowering crime is to raise the land value of the area. One way to do this is to demolish and rezone (urban renewal).

LAND VALUE

Land value is one of the most fundamental aspects of urban structure. The land value of an area affects how that area is used. In this simulation the land value of an area is based on terrain, accessibility, pollution, and distance to downtown.

The farther the residents have to go to work, the lower the land value where they live, due in part to transportation costs. The value of commercial zones depends greatly on accessibility by the populace.

Land value is also affected by surrounding terrain. If land is closer to water, trees, agricultural areas, or parks, its value will rise. Creative placement of zones within the terrain, with little bulldozing, can make good use of this natural advantage.

CONCLUSION: GOOD CITY FORM

What is the good city? We are unlikely to arrive at an unequivocal answer; the diversity of human needs and tastes frustrates all attempts to provide recipes or instruction manuals for the building of cities. However, we can identify the crucial dimensions of city performance, and specify the many ways in which cities can achieve success along these dimensions.

A most useful guide in this enterprise is Kevin Lynch's *A Theory of Good City Form* (Cambridge, Mass. MIT Press, 1981). Lynch offers five basic dimensions of city performance: vitality, sense, fit, access, and control. To these he adds two "meta-criteria," efficiency and justice.

For Lynch, a vital city successfully fulfills the biological needs of its inhabitants, and provides a safe environment for their activities. A sensible city is organized so that its residents can perceive and understand the city's form and function. A city with good fit provides the buildings, spaces, and networks required for its residents to pursue their projects successfully. An accessible city allows people of all ages and backgrounds to gain the activities, resources, services, and information that they need. A city with good control is arranged so that its citizens have a say in the management of the spaces in which they work and reside.

Finally, an efficient city achieves the goals listed above at the least cost, and balances the achievement of the goals with one another. They cannot all be maximized at the same time. And a just city distributes benefits among its citizens according to some fair standard. Clearly, these two meta-criteria raise difficult issues which will continue to spark debates for the foreseeable future.

These criteria tell aspiring city builders where to aim, while acknowledging the diverse ways of achieving good city form. Cities are endlessly fascinating because each is unique, the product of decades, centuries, or even millennia of historical evolution. As we walk through city streets, we walk through time, encountering the city-building legacy of past generations. Paris, Venice, Rome, New York, Chicago, San Francisco—each has its glories and its failures. In theory, we should be able to learn the lessons of history and build cities that our descendants will admire and wish to preserve. That remains a constant challenge for all who undertake the task of city planning.



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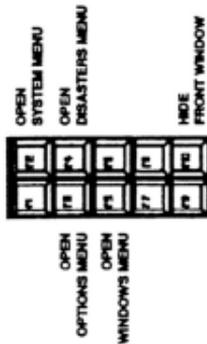
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SIMCITY KEYBOARD REFERENCE CHART

FUNCTION KEYS

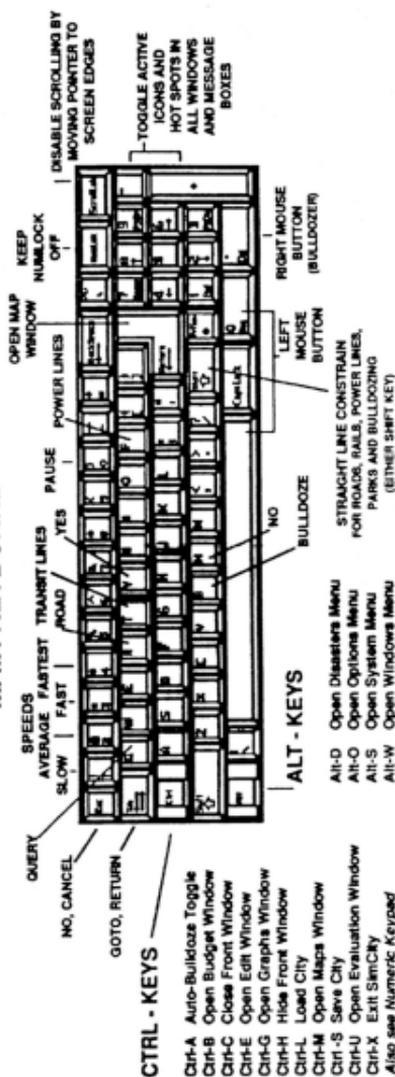


NUMERIC KEYPAD

MOVES POINTER
(With CTRL- Scrolls Screen)



MAIN KEYBOARD



SIMCITY™

CITY DYNAMICS CHART

These Levels →
are affected by
These Factors ↓

	Maintenance Funds	Taxes Collected	Land Value	Crime	Pollution	Traffic Density	Industrial Population Density	Commercial Population	Residential Population	Overall City Score
Residential Population	+						+	+	+	+
Commercial Population	+						+	+	+	+
Industrial Population	+					+	+	+	+	+
Population Density				+						
Traffic					+	+				-
Pollution		-							-	-
Crime		-								-
Land Value	+		-						+	+
Trees-Parks		+								
Water		+								
Proximity to City Center		+								
Radioactivity				+						
Tax rate	+							-	-	-
Unemployment									+	-
Stadium									+	
Sea Port							+			
Airport								+		
Police Departments	+		-							
Fire Departments	+									
Roads	+									
Mass Transit	+									

+ Positive Effect
- Negative Effect

SIMCITY™

ZONE EVOLUTION CHART

