

ActRaiser Maximum Population Guide

by The Admiral

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|
|           ACTRAISER
|           Platform: SNES
|
|           MAXIMUM POPULATION GUIDE
|           Version 1.3 (December 14, 2018)
|
|           By The Admiral
|           Email: Admirall018@yahoo.com
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Introduction

Despite being one of the more integral parts of the game, the exact workings of the population system in Actraiser have always remained mysterious. A player could complete this game numerous times and notice differences in the population totals for some or all regions in each play through. Most sources never discuss this topic beyond general tips and build strategies, and no source has ever quantified the maximum population or explained how that total is attainable.

This guide is the first to explore this topic in detail, including discussion of the maximum populations in each region and all the specific factors that influence this number. Everything from the impact of game score, item use, map size, building types, number of structures, and even the direction of roads will be analyzed, as all of these affect population. Whether you are a first-time player or an Actraiser veteran, you will likely learn something new about this game that will help make your future adventures more interesting.

DISCLAIMER

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1. THE MAXIMUM POPULATION AR03

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Population in Actraiser is one of the game's integral mechanics as you attempt to rebuild the barren world. It is the determining factor for your character's level, hit points, and spell points. While it is not necessary to achieve the absolute maximum population to reach the highest level (level 17 at 4,600 people), you will need to come relatively close in most regions to have a chance. Each region has a maximum population that can be attained under ideal circumstances, as shown below.

Region	Max Population
=====	=====
Fillmore	914
Bloodpool	874
Kasandora	874
Aitos	802
Marahna	538
Northwall	650
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TOTAL	4,652

The maximum global population in the game is 4,652. This allows you some leeway in reaching level 17 (52 people to be exact). If you have fallen short of 4,652, the likely culprits are shortfalls in Fillmore or Bloodpool. A few tips mentioned below should allow you to reach the maximum with a little work (see "Factors Limiting Population").

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2. GENERAL TIPS FOR MAXIMIZATION AR04

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The tips below will help you maximize populations in most regions. See the following sections for specific details on understanding how and why population growth occurs, as well as how to maximize populations in each specific region.

1. DESTROY LEVEL 1 AND 2 HOUSES

In all stages, houses begin holding more people as the civilization level increases. Once you reach level 3, destroy all the existing level 1 and 2 houses. This will need to be done using Lightning early on, but Earthquakes work much more effectively later in the game, as they leave level 3 buildings intact and affect the entire map with one use.

2. REPLACE CORN FIELDS WITH WHEAT FIELDS

In Kasandora and Marahna, you will need to replace corn fields with wheat fields to achieve the maximum population. Wheat fields provide resources to a larger number of people than corn fields do, so fewer of these structures are required. This indirectly allows more housing structures to be created. You do not need to worry about replacing corn fields with wheat in Fillmore or Northwall, as fields are eventually replaced by factories (the large, purple-roofed buildings).

3. RUN UP THE SCORE DURING THE ACTION STAGES

Unknown to most people, your score in the action stages directly affects your maximum population. The higher your score, the greater the number of "souls" that are freed. These souls later become the people who inhabit each region. The exact cumulative (Act 1 + Act 2) score that you need varies in each level, but it is between 16,300 and 27,100 (see the "Factors Limiting Population" section for specific point totals).

4. MINIMIZE BRIDGES

There has been a long-standing myth that the number of bridges affect the maximum population in each region. As it turns out, this myth is correct. However, it's not the bridges in themselves that limit population -- each region is restricted to 128 total structures, and bridges count towards that total. Bridges become a major limiting factor in Fillmore and Bloodpool. You will need to be creative with build orders to minimize the number of bridges yet still build over each square of the map. For reference, Fillmore's population is maximized with 2 (or fewer) bridges and Bloodpool's population is maximized with 3 bridges. You do not have to worry about the number of bridges in Marahna or Northwall.

5. COVER THE MAP

It is important to make sure every inhabitable square is covered. Some regions, like Bloodpool and Aitos, have a few squares near the borders of the map that are easy to overlook. While they may only hold a couple of houses, every structure is important. You will not be able to maximize population in any region except Kasandora if every inhabitable square is not built out.

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3. THE SOUL COUNTER

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According to Actraiser's backstory, Tanzra (the Evil One) transformed the inhabitants of the world into demons after he defeated the Master and forced him to retreat into his Sky Palace to recover. Your main role in the game is to free these lost souls so that civilization can flourish again. This is done by defeating as many demons as possible, both in the action and simulation portions of the game.

As you defeat demons and free the souls of the lost people, the game keeps track of this in a hidden statistic called the "soul counter," which records the number of "freed souls" in each region. Freed souls ultimately become the people who end up populating new houses when the town expands.

=====
HOW THE SOUL COUNTER WORKS
=====

The soul counter for each new region begins at zero. So long as it is zero, you cannot begin building the town. You will notice this every time you enter a new area. During simulation mode, you can free souls in two ways:

1. Defeat enemies with the angel's arrows or Bomb (1 soul)
2. Seal a monster lair (souls = number of monsters in lair)

Each time a soul is freed, whether from a defeated enemy or sealed lair, you will see a small, white "cloud" head to the temple. This signifies an addition to the soul counter. The soul counter is then decreased once the town is expanded and the population increases (as these people are no longer souls, but now living beings).

The easiest way to increase the soul counter, and thus grow your population, is by sealing monster lairs. You can see the number of trapped souls in a monster lair by hovering over it and pressing the B button. You will receive a message that says something like "There seems to be 172 Napper Bats in this Lair." In this case, 172 is the number of trapped souls. If this lair is sealed, the soul counter (and potential population) will increase by 172.

At the outset of each region, you will need to defeat at least a few monsters with the angel so that the town can be built out far enough to reach the first lair. You will also need a population of at least 10 to seal a monster lair.

If your people are killed, whether by monsters or by you, the souls of these dead townsfolk will be added to the trapped souls in the monster lairs. If a monster kills the townsfolk, those souls will return to the lair of that particular monster. If you kill the townsfolk, the souls will be divided evenly across the remaining monster lairs.

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|EXAMPLE|

|Let's say there is one Napper Bat lair (with 100 enemies) and one Blue|

|Demon lair (with 50 enemies) remaining. Below is a table showing what|

|happens to the enemy count in each lair when your people are killed. In|

|the first case, the Blue Demon uses its lighting attack to kill 8 people. |

|In the second case, you use lightning to kill 8 people. |

| |

| |

Enemy Lair	Enemies in Lair (starting)	Enemies in Lair (Blue Demon kills 8)	Enemies in Lair (you kill 8)
Napper Bat	100	100	104
Blue Demon	50	58	54

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If all monster lairs have already been sealed, the souls of slain townspeople will simply be added back to the soul counter.

=====
HOW SOULS AFFECT MAXIMUM POPULATION
=====

Something that should start becoming apparent now is the relationship between enemies in monster lairs, the soul counter, and the maximum population in a

region. The maximum population during Act 1 of the simulation mode cannot be higher than the number of starting monsters in all four lairs. The following equation always holds true:

$$\text{Maximum Population} = \text{Population} + \text{Soul Counter} + \text{Enemies in Monster Lairs}$$

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|EXAMPLE                                     |
|You begin a region with a population of 2.  You have not killed any enemies |
|yet, so the soul counter is 0.  You add the number of enemies in all four |
|lair and calculate 600.  Therefore, the maximum population you can reach |
|during Act 1 is 602:                                     |
|                                                         |
| 602 = 2 (population) + 0 (soul counter) + 600 (enemies in monster lairs) |
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```

Note that there are still other factors that may limit population even if you have ample souls for growth. These will be discussed in later sections of this guide.

You may be wondering a couple of things based on your past experience:

1. Why is the number of enemies in monster lairs always different?
2. How does the city keep growing after Act 2, even after all the monster lairs have been sealed?

The answer to both of these has to do with the amount of points you score during the two action segments of the stage.

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HOW SCORE AFFECTS SOULS AND ENEMIES
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The number of points you score during the action stages affects both the number of starting enemies in monster lairs (during Act 1) and the soul counter directly (during Act 2).

When you begin a new region, there is a starting number of enemies that will always be in each monster lair regardless of the how many points you score during the action segment (the exact totals are in the "Factors Limiting Population" section). This total will be then be increased by 1 enemy for every 50 points you earn during the action stage.

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|EXAMPLE 1                                     |
|Fillmore will always begin with a minimum of 500 cumulative enemies in the |
|monster lairs, regardless of score.  Let's say you score 9,600 points |
|during the action portion of Act 1.  You will add 9,600/50 or 192 enemies |
|to the monster lairs.  This amount is spread evenly across the lairs, so |
|each lair would add 192/4 or 48 new enemies.  Therefore, the new total |
|number of souls in the region will be 694 (enemies plus 2 for the founders |
|This is now the highest population you can achieve during Act 1 of the |
|simulation.                                     |
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```

In the event that your score is not evenly divisible by 50, round down to get to the number of additional enemies.

Score has a similar effect during the Act 2 action stage. However, since all the monster lairs will be sealed, the additional souls are added directly to

the soul counter.

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|EXAMPLE 2                                     |
|Continuing from example 1, let's say the player was able to reach a |
|population of 694 in Act 1. Population growth stopped since there were not |
|enough souls left to continue growing the town. During Act 2, the player |
|scores 10,000 points. This would add 10,000/50 or 200 new souls directly |
|to the soul counter. Once the act resumed, you could continue building |
|until you either ran out of souls (at population 694+200 or 894) or reached |
|some other limiting factor of the region. |
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The table below summarizes the impact of score on souls:

Stage	Impact of Score
=====	=====
Act 1 action	Each 50 points adds 1 enemy to an enemy lair
Act 2 action	Each 50 points adds 1 soul to the soul counter

Given its relationship to the soul counter, the number of points you score during the action stages can actually limit the maximum population of each region. Therefore, there is a minimum number of points that you should try to score during Acts 1 and 2 to maximize population. A breakdown of these point totals can be found in the "Factors Limiting Population" section.

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4.  S T R U C T U R E S   A N D   D E V E L O P M E N T                               AR06
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In order to understand how population grows (and peaks), it is important to understand the different structures and their impact on how a town is constructed. Also, several in-game events will have an affect on growth rate, and these are discussed below.

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HOUSING STRUCTURES
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Housing structures are the basic buildings that your denizens will occupy. Each stage has three different types of housing depending on the current civilization level. Civilization level increases when certain monster lairs are sealed, and the game will let you know when this happens.

The housing structures at different civilization levels have different appearances and hold a different number of people.

Civilization Level	Type of Housing	Number of People
=====	=====	=====
1	Mud Huts	4
2	Log Cabins/Tents	6
3	Brick/Stone Houses	8

Each region has slightly different housing after level 1 to match the geography of that area. However, this has no effect on the number of people these buildings can hold.

Once you reach civilization level 3, you will want to go back and destroy older level 1 and level 2 buildings (the easiest way to do this is via an Earthquake). This will allow you to fit more people into the same space and helps you reach the maximum population.

=====
SUPPORTING STRUCTURES
=====

While most people ignore their existence, each area requires supporting structures capable of providing food or resources to sustain the population. These are the non-populous buildings like fields, windmills, and even factories (large, purple-roofed buildings) that are automatically constructed along with houses. Below is a list of each structure, along with how many people each will support.

Supporting Structure	Number of People Supported	Civ Level	Region
=====	=====	=====	=====
Bridge	32	N/A	All but Aitos and Kasandora
Corn Field	32	1-3	All but Aitos
Horse Ranch	32	1	Aitos
Wheat Field	48	1-3	All but Aitos
Factory	72	3;2-3	Fillmore and Northwall
Windmill	72	2-3	Aitos

Two of these structures will not be created until you reach civilization levels 2 or 3 (windmill and factory). These structures, along with wheat fields and bridges, cannot be destroyed by earthquakes. Bridges cannot be destroyed by anything and are permanent once built.

The "Number of People Supported" column indicates that how many people the structure provides resources for. There must be adequate resources already available before the population can expand.

A supporting structure will often be the first building created to ensure adequate resources for the new population. If, however, the first square you build to cannot physically be occupied by a supporting structure, one will be created as soon as possible. Similarly, if you intentionally destroy the supporting structures but leave the houses intact, the game will rebuild all of them before adding any new houses and growing the population.

o-----o
|EXAMPLE|
|You have a town with 60 people and 2 corn fields (the two corn fields|
|support 32*2 or 64 people). The town expands to 68 people. During this|
|expansion, you will also see an additional corn field being created, as one|
|is required for every 32 people. Supporting structures will always be|
|created in advance of houses to make sure enough resources are provided in|
|advance.|
o-----o

The different regions have different supporting structures. Since some supporting structures provide more resources than others, some regions will

have fewer structures than others at the same population total. This is important to keep in mind, as the number of total structures is a limiting factor of maximum population (see "Factors Limiting Population" for more).

The resources provided also give a rationale for replacing corn fields with wheat fields when you can: wheat will support more houses. You will need to replace corn fields with wheat fields in both Kasandora and Marahna to reach the maximum population. You do not need to do this in Fillmore or Northwall, as the final supporting structure (factory) can replace the fields.

The stand-out structure on the above list is the bridge. Unlike the other structures, you do have some control over the creation of bridges based on the direction you expand the town. If a bridge exists, fewer of other types of supporting structures will have to be built to support the people. However, bridges provide the least amount of resources of any supporting structure. In stages where your population is limited by the physical number of structures (Fillmore and Bloodpool), you will want to minimize bridges and instead create more supporting structures of other types to allow for more houses. For some strategies on how to minimize bridges in both regions, see the "Maximizing Population in Each Region" section below.

=====
INHABITABLE SQUARES
=====

One of the factors that limits maximum population is the physical amount of space in which housing units can be constructed. While it may seem like there is additional space for expansion in some regions that stop growing, you need to consider that houses can only be placed in certain orientations.

Each region is made up of 64 squares (8 by 8). You can see the square by selecting the lightning (or similar miracle) or by choosing a direction to build the town. Both of these will highlight one of the 64 squares with a yellow box. Within each square, either housing structures, supporting structures, or roads can be placed. These are restricted to designated spots within the square, and are also limited by natural terrain (like a river or mountain).

Within each square, structures will always be built as indicated by the image below. H = housing structures, S = supporting structures, and = designates roads.

```
-----  
|SSSS|SSSS|====|HHHH|  
|SSSS|SSSS|====|HHHH|  
|----|----|----|----|  
|SSSS|SSSS|====|HHHH|  
|SSSS|SSSS|====|HHHH|  
|----|----|----|----|  
|====|====|====|====|  
|====|====|====|====|  
|----|----|----|----|  
|HHHH|HHHH|====|HHHH|  
|HHHH|HHHH|====|HHHH|  
-----
```

Within each square, no more than 5 housing units can ever be created. Supporting units will always appear at the top-left corner, and roads will separate the two. Even if roads or supporting structures do not exist on a particular square, housing can never be built on any part of the square where a

supporting structure or road *could* exist.

This construction pattern debunks some of the older tips for this game that told you to delete excess fields and supporting structures to make more space for houses.

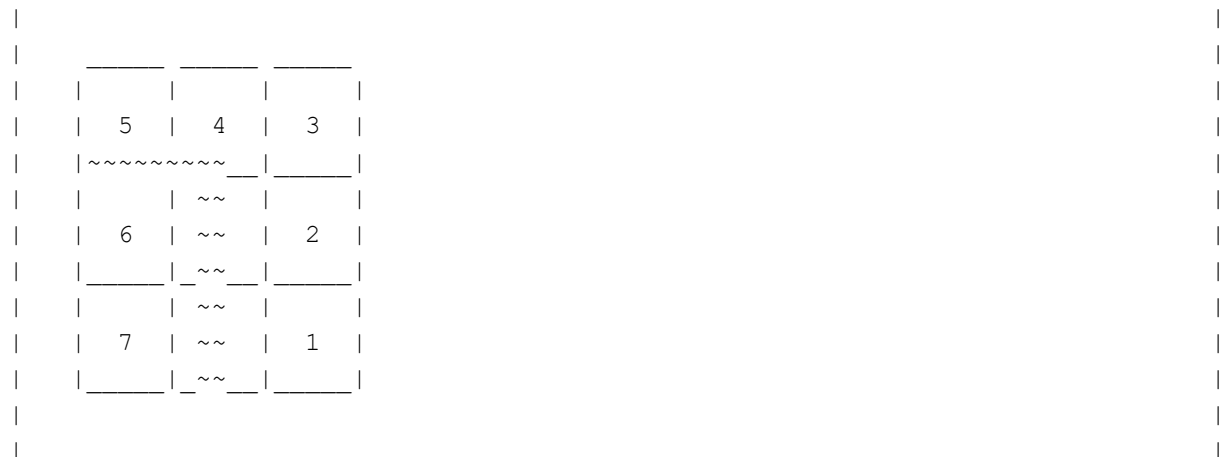
=====
DIRECTION OF ROADS
=====

Roads within each square can run north-south or east-west. Roads will typically follow your building direction. For example, if you order the town to be built three units upward from the temple, roads will only appear north-south. Also, if you select a building direction and do not move to any different squares (just press B and remain on the current square), roads will typically be filled out in the square for both directions. This is how you can get N-S and E-W roads on squares in the corner of the screen that can only be approached from one direction.

Road direction is important when it comes to regions where bridges are built (particularly Fillmore and Bloodpool). You can minimize the bridges built by ordering the building direction to run strictly parallel to rivers, rather than perpendicular (or right at them). If the roads are built perpendicularly, bridges will automatically be constructed once you build on the other side of the river.

o-----o

|EXAMPLE |
|The image below shows 9 squares with a river (river indicated by ~) that |
|divides squares 1-3 and 5-7 (similar to the river in Fillmore). If you |
|command the build direction to go from 1-7, sequentially, only one bridge |
|will be built (in square 5). If you build or enter squares 1, 2, 6, or 7 |
|from the east or west, the game will build another one or two bridges over |
|the river. This area can have as few as one bridge or as many as three. |



|Build parallel to the river and carefully choose where you wish to cross it |
|to minimize bridges. |
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"PHANTOM" CONSTRUCTION
=====

One of the odder occurrences in the game is when a town's population mysteriously grows in regions when you are not there. This is referred to as "phantom construction" and occurs in Fillmore, Aitos, and Northwall. Phantom construction happens when regions have a square that is capable of holding a house but is partially obstructed on one or more sides. These houses are not

built because the game's pathing rules for townspeople forbid them from passing through other objects on their way to build a structure. However, the game is still programmed to build on all portions of a square that are free, so there is a conflict. This produces phantom construction of new houses while you are in another region.

A couple of oddities concerning phantom construction:

1. When you enter a different region from the one where the phantom buildings will be constructed, you must wait for the hour glass to empty and fill three times. After the third time, the global population will increase and the new buildings will be placed.
2. Phantom construction will only occur after Act 2 has been completed.

You will need to make use of phantom construction in Fillmore and Aitos to reach the maximum population. In Fillmore, this phantom house is constructed either one square left and one square up from the temple (just underneath the corner of the river) or the square one left from that (just underneath the riverbend). In Aitos, there are three phantom houses built in each of the inhabitable squares along the bottom of the screen. You can also use this technique in Northwall to build a house in the bottom-left corner of the square directly below the temple when no bridge or road exist.

=====
POPULATION STATUS
=====

While you are building, different events and occurrences will affect the population status as indicated on the Status of Cities screen.

- | | |
|------|---|
| NONE | This is the status in regions that you cannot enter yet. This will change once you complete Act 1. |
| NORM | Indicates that all the proper factors are in place for population growth to continue. |
| SLOW | Population status is listed as Slow when the soul counter runs low OR when you have reached the maximum population during Act 1. Even if this population is the highest that can later be attained in Act 2, the status will still be Slow instead of Max. |
| STOP | There are a few instances in the game where events will unfold that require your intervention before the city can continue to grow. See the next subsection for a complete list of these events. You must remedy these problems before continuing to build the city. |
| MAX | Max means that you have reached the maximum population *given* the current limiting factors. You may still be able to increase the population further if you can eliminate or change one of the limiting factors. Max will never be displayed until after Act 2 of a region, regardless of whether the maximum has been reached or not. |

=====
EVENTS THAT STOP POPULATION GROWTH
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The following events occur in various regions and put a complete stop to population growth. You must resolve the situation before any new growth will resume.

Region	Event	Resolution
=====	=====	=====
Fillmore	A fire breaks out	Use Rain or wait until fire burns out on its own
Bloodpool	Teddy is missing	Take the loaf of bread and use it on Teddy near the lake
Bloodpool	Conflict engulfs the town	Use Harmonious Music from Kasandora
Kasandora	A plague spreads	Use Herbs from Marahna
Aitos	No wind	Use Wind
Northwall	Townspople are too cold	Use Sheep's Fleece from Aitos

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5. FACTORS LIMITING POPULATION AR07

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In trying to maximize population in each region, there are always one of three possible factors that will eventually limit your maximum growth:

1. Number of Souls
2. Map Size
3. Number of Structures

Every region can potentially be limited by the number of souls you have freed. This limitation will be determined by your score in the action portions of each stage. See the "Souls" subsection below for specific scores. You have control over the number of souls by targeting a high enough score in the action stages, so that this is never a permanent limiting factor.

After souls, regions will either be limited by physical size (no room left to expand) or number of structures (you have reached the 128-structure maximum). The table below shows which secondary factors limit population in each region:

Region	Limiting Factor
=====	=====
Fillmore	Structures
Bloodpool	Structures
Kasandora	Structures
Aitos	Size
Marahna	Size
Northwall	Size

=====

SOULS

=====

As discussed in the first section, your score during the two action sections

determines the number of souls you can free. To reach the maximum population in a region, you must therefore acquire a minimum number of cumulative points. The table below shows the starting number of enemies in each region (this is the sum of the 4 monster lairs), the maximum population, and the combined score you need on the two Acts to free enough souls to reach the maximum population.

	Starting Enemies In Monster Lairs =====	Maximum Population =====	Act 1 + Act 2 Score Needed =====
Fillmore	500	914	20,600
Bloodpool	330	874	27,100
Kasandora	450	874	21,100
Aitos	320	802	24,000
Marahna	210	538	16,300
Northwall	180	650	23,400

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|EXAMPLE |
|You are building out Fillmore. In Act 1, you score 10,000 points. This |
|adds 10,000/50 or 200 souls to the enemy lairs. Assuming you built your |
|town optimally, you should have a population of 702 when you enter Act 2. |
|Now, based on the table above, you will need 20,600-10,000 or 10,600 points |
|in Act 2 to reach the maximum population. 10,600 points will yield 212 |
|souls. When added to the previous population (702+212), you now have enough |
|freed souls to reach the maximum population of 914. However, your |
|population can still be limited by the other factors below. |
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Note that in addition to the souls that can be freed from monster lairs, every region starts you with 2 inhabitants automatically (the founders) as soon as Act 1 is completed. The founders cannot be killed or turned back into souls, so they will always represent the minimum population in a region.

MAXIMIZING SOULS IN ACT 1

In most regions (all but Fillmore and Aitos), it is possible to score enough points in first action stage so that you can reach the maximum population before Act 2. The advantage of doing this in the first Act is that it allows you to hit that region's maximum before some scripted event stalls population growth and forces you to retrieve an item from a different region (e.g. Bloodpool needing the Music from Kasandora, Kasandora needing the Herbs from Marahna after the plague). This allows you to reach the highest possible population sooner and even allows you to reach the highest global population without ever needing to return to most regions after Act 2.

Here are the scores needed in Act 1 to maximize population in each region:

	Maximum Act 1 Population =====	Act 1 Score Needed =====	Remaining Act 2 Score Needed =====
Fillmore	906/914	20,600	400
Bloodpool	874/874	27,100	0
Kasandora	874/874	21,100	0
Aitos	778/802	22,800	1,200
Marahna	538/538	16,300	0
Northwall	650/650	23,400	0

In Fillmore and Aitos, the final houses needed to maximize population are the ones built via phantom construction, and this never occurs until after the Act 2 boss has been defeated.

One final observation about maximizing population in Act 1 is that most Act 1 action stages are fairly stingy with points, so attempting to get enough to reach the totals above takes a bit of grinding. I suspect this was done intentionally by the developers for balance purposes to give players a reason to remain in the region after Act 2 and some reward for completing the retrieval quests from other regions.

The bottom line is that hitting the scores needed for the maximum souls in Act 1 will take time. The strategy in most of those stages will be collecting points, finding a 1-Up, dying, collecting the 1-Up again, and repeating. Keep in mind that enemies will respawn every 11 game seconds so long as you have moved away from the screen where they originally spawned, so use this to your advantage when grinding.

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STRUCTURES
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The game has a hard limit of 128 structures in each area. The game does not care about the size or type of the structures -- a bridge counts just the same as a house, wheat field, or factory. Once you reach the 128-structure limit, you cannot build any more structures under any circumstances. This limit is most easy to see in Kasandora, where there is still ample space left when the building ceases.

If you cross a river once there are 128 structures, the road will continue on the other side but no bridge will be built (however, if you destroy some other supporting structure, a bridge will appear immediately as space is available, so be careful).

The table below shows a breakdown of the structures in each region under ideal conditions. The Minimum Bridges column indicates the fewest number of bridges you can construct in each region. This number is only important in Fillmore and Bloodpool, although in Fillmore it is still possible to reach maximum population with 2 bridges. In Marahna, you can have 1 or 2 bridges and it will not affect maximum population. Northwall can have up to 5 bridges with no adverse effect.

	Housing Structures =====	Supporting Structures =====	Minimum Bridges =====	Total Structures =====
Fillmore	114	13	1	128
Bloodpool	109	16	3	128
Kasandora	109	19	0	128
Aitos	100	12	0	112
Marahna	67	11	1	79
Northwall	81	8	3	92

One note on Bloodpool: even though you should need 17 wheat fields to support a population of 874 (with 3 bridges), the game only creates 16. The reason for this is because there is simply no room left for any more wheat fields. In reaching the maximum population, you will always fill every possible square

with a field. The game does not penalize you for this, and instead allows a few houses to exist despite a lack of resources to support them.

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MAP SIZE
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The last three regions in the game are limited by the physical size of the maps. Although it may appear that there is still some additional room once the population is at maximum, keep in mind that there are restrictions on where housing structures can appear within each square (see "Inhabitable Squares" subsection above). These regions will simply stop growing once there is no inhabitable space remaining.

Since size (and not number of structures) is the limiting population factor in Marahna and Northwall, you do not have to worry about the number of bridges in those stages.

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6. M A X I M I Z I N G P O P U L A T I O N I N E A C H R E G I O N
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AR08

Each region has slightly different requirements and idiosyncrasies regarding population growth. The section below will list some of the basic factors for maximizing population in each region. Note that this is NOT a walkthrough of each stage. It is expected that you understand the basics of how to play the game and create cities. If you want more general information on these topics, please refer to a comprehensive walkthrough.

=====
FILLMORE
=====

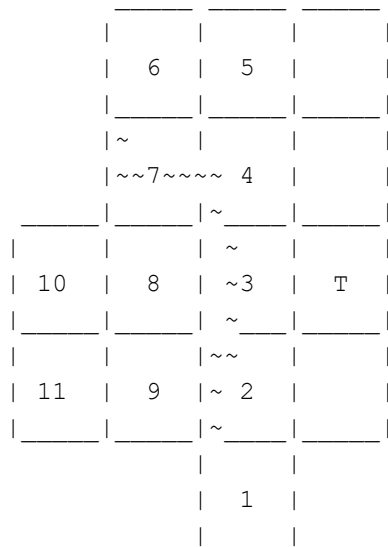
Maximum Act 1 Population: 906
Maximum Act 2 Population: 914

Fillmore is one of the pickier levels to maximize. If you want to achieve the highest possible population during Act 1 of this region, you must score at least 20,200 points during the action stage. This is a very tedious task, as the stage is short and does not have many high-point enemies. The stage does have two 1-Ups, however, so you will need to use the "earn points/collect extra lives/die/repeat" strategy.

The quickest way to earn a steady stream of points in Act 1 is to abuse the respawning of the gorilla-demon enemies (200 points). They will reappear every 11 game seconds after you defeat one so long as the spawn location is not visible. Simply kill them, move off-screen slightly, wait 11 game seconds, then move back towards their spawn point and repeat. There is a convenient spot to do this just after the second 1-Up before the boss.

Once you begin the simulation, your main goal will be to complete the stage with 2 or fewer bridges constructed over the river (the instructions below show how to construct the town with only one bridge). At the beginning, avoid building on any of the squares that border the river. This includes the squares directly NW, W, and SW from the temple. Seal the monster lairs in the south and northeast, and be sure to build over every single square with the exception of the aforementioned ones that border the river.

Once the southern and eastern sides of the region are built out, it's time carefully build around the river. You will want to build parallel to the river at all times. It is a good idea to save before you attempt this, just to be safe. The map below shows the northwest portion of the map. Below the map is the specific build order you should follow.



In the above picture, T represents the temple and ~ represents water. Build in the follow direction and do not stop or turn:

1 -> 2 -> 3 -> 4 -> 5 -> 6 (seal lair)

Square 6 contains a monster lair, if you have not already sealed it. If this is the third lair you are sealing, you will now learn how to build bridges. Now things get a little tricky. From this square, build in the following order:

6 -> 7 (bridge) -> 8 -> 9 -> 8 -> 10 -> 11 (seal lair)

If you only built north-south in square 3, you should not create a new bridge when you turn west at square 8. You will stop on the final monster lair. It is very important that you do not move the build direction square from this area. If you move it to any square other than 10 or 11, a new bridge will be created over the river.

At this point, your civilization level will be increased. Go around the map and use Lightning to destroy any level 1 or 2 buildings. It will take a little while, but you should eventually cover the map with level 3 structures. Assuming you scored 20,200 in the Act 1 action stage, you can max out the population at 906 right now. If you scored less than 20,600, make up the difference in Act 2.

Now, you will notice that the maximum Act 1 population is only 906. The reason this is different from the Act 2 maximum is because there is a "phantom" house that cannot be built while you are in the region. This house will be created in either square 7 below the riverbend or in square 4 below the corner of the river. Leave Fillmore and go to Bloodpool or some other region and wait until the hour glass has filled and emptied three times. After the third time, the global population should increase by 8. When this happens, the final building in Fillmore will have been constructed. Your population should now be 914.

Once your population is 914, you can move the build direction square anywhere you want. Moving it over the rivers will create roads but will not construct new bridges.

When you return to Fillmore after completing Act 2, you will be informed in the temple that one of the founders passed away. This does not reduce your population, despite that founder originally being included in the count.

=====
BLOODPOOL
=====

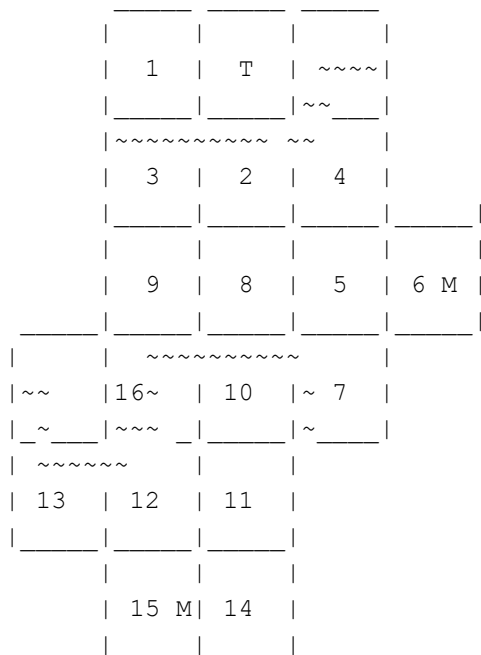
Maximum Act 1 Population: 874
Maximum Act 2 Population: 874

Bloodpool is another high maintenance level. This stage is even easier to screw up than Fillmore, as there are 10 possible bridges that can be constructed. Your goal is only to raise 3 of them: 1 over the north river and 2 over the south river.

If you want to maximize population during Act 1, you will need to score 27,100 points during the first action stage. As in Fillmore Act 1, you will want to repeatedly collect the 1-Up, die, and repeat to collect more points. There is an added reward for your persistence, however. Normally, once you complete Act 2, the region will be engulfed with conflict and the population growth will halt until you bring the Harmonious Music from Kasandora. You can avoid the population stagnation (and technically never need to use the music at all to reach the maximum population) if you reach 27,100 points during Act 1.

Once the simulation begins and you have cleared away the marshland, focus on developing the area to the north of the temple. Do NOT build east, west, or south at this point. When the northern area is cultivated and the monster lair is sealed, it's time to tackle the bridges. Note that you need to use the Bridge item from Fillmore before you can cross the rivers. As in the last stage, it's a good idea to save before this point.

The map below shows the southern portion of this region.



In the above image, T is the temple and ~ represents water. Squares 6 and 15 contain monster lairs. Start at the temple and build in the following order (note that you do not ever need to build on the square east of the temple; it will create bridges but cannot hold houses):

T -> 1 -> T

As stated, build to the square west of the temple, then build right back. Do not turn south or stop while on square 1. Next, build as follows:

T -> 2 (bridge) -> 3 -> 2 -> 4 -> 5 -> 6 (seal lair)

You should now seal the monster lair at square 6. Note, once again, the back-and-forth build order between squares 2 and 3. So long as you do not turn inside the square, you will not create roads in a different direction. Once the monster lair at square 6 is sealed, build as follows:

6 -> 5 -> 7 -> 5 -> 8 -> 9 -> 8

You should only be able to order the building direction square this far in a single command. At this point, you should have covered every inhabitable square above the south river. If you need to go back north for some reason, move right to square 7 before heading north. Now, the build order for the south:

8 -> 10 (bridge) -> 11 -> 12 -> 13 -> 12 -> 11

So far, you have only constructed one bridge over the southern river. From here, finish up the region in this order:

11 -> 14 -> 15 (seal lair) -> 12 -> 16 (bridge)

This final sequence seals the southern lair, constructs an additional bridge over the south river, and completes the development of the stage. Once you seal the lair at square 15, you should reach civilization level 3. Begin destroying all level 1 and 2 houses and watch the population soar.

If you scored 27,100 during the action portion of Act 1, you will be able to hit 874 people before taking on the second boss. If not, try to score enough points so your Act 1 + Act 2 scores total 27,100. After completing Act 2, the population growth will stop until you bring the Music item from Kasandora. You will need to wait until then to maximize the population.

=====
KASANDORA
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Maximum Act 1 Population: 874

Maximum Act 2 Population: 874

Kasandora is probably the easiest region to max. Use the Wheat item on the first field that appears and build out as you wish. If you want to maximize population during Act 1, you will need to score 21,100 points during the first action stage.

If score under 21,100 in Act 1, you may wish to avoid building over the square with the lost desert wanderer under after you have completed Act 2 and reached a population of 874. Saving this man will immediately trigger the plague after Act 2, which halts population growth. In fact, none of the following events will occur unless the wanderer is found:

1. Discovery of the scroll that the wanderer possessed
2. Birth of the Harmonious Music
3. Discovery of the scroll at the southern mountain
4. Discovery of the Ancient Tablet in the northwest
5. Spread of the plague

If you rescue the wanderer before reaching the maximum population, you will need to wait until finding the Herbs in Marahna to finish the stage. Even without building over the wanderer's square, there is ample room in the stage to maximize population.

Finally, while unlikely, it is possible that your population may stall before reaching the maximum if your citizens have built more wheat fields than they need. This is rare, but it can happen if you manually use the Wheat item to convert corn fields. A population of 874 only needs 19 wheat fields. If your population has inexplicably stopped short of 874, count the fields and destroy any excess ones with lightning. This will fix the issue.

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AITOS

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Maximum Act 1 Population: 778

Maximum Act 2 Population: 802

Aitos is also relatively simple to build. You can construct the town in any order you want. If you want to reach the highest population level in Act 1, you will need to score 22,800 points in the Act 1 action stage. This is not an easy task since there is no 1-Up in this stage, but it is possible to do by fighting as many enemies as you can until the timer expires.

During the simulation, be sure not to miss any inhabitable squares, particularly in the south by the mountains.

The Act 1 population maxes out at 778, which is three houses short of the Act 2 maximum. These three "phantom" houses will eventually be built in the southernmost three squares. They cannot be built while you are in the region because they are blocked by other structures and cannot be accessed by the townspeople. After Act 2, go to another stage and wait until the hour glass has filled and emptied three times; the global population will jump by 24. Assuming your cumulative score on Act 1 + Act 2 is 24,000, Aitos should now be complete with 802 people.

=====

MARAHNA

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Maximum Act 1 Population: 538

Maximum Act 2 Population: 538

Marahna is the quickest stage to build and does not require any special order. Simply use wheat on the first crop and develop the town in any way you would like. You can maximize the population in Act 1 by scoring 16,300 in the action stage. If you choose to go for this score, the second part of the stage has a 1-Up and is the best area for grinding. However, it is much easier to make up any score difference in Act 2, as that stage racks up points very easily.

It is possible to build up to two bridges in this stage, but these do not limit population size. The first bridge crosses the river leading to the monster

lair in the southwest corner. The second bridge can be built two squares right of this one. Place the build direction square on that location. Command the game to start and stop the build order on that square without moving to any other square. The build square will not move, but it should create a north-south road and construct a bridge to nowhere. Doing that is probably more of a novelty than anything else.

=====
NORTHWALL
=====

Maximum Act 1 Population: 650
Maximum Act 2 Population: 650

Like the previous three regions, Northwall does not have any special build order. In fact, Northwall's construction is always pretty linear given the restriction from building east of the river until the two monster lairs are sealed. If you scored 23,400 points during the action stage, you can max out Northwall during Act 1. That is a relatively difficult score to amass, but, if you decide to do so, take advantage of the 1-Up and 1,000-point token in the first indoor cave.

This region begins with corn fields. While you can plant wheat, you do not need to. The level 3 supporting structures can replace the fields.

Shortly after the town begins development, the people will complain that they are too cold to continue building. You will need to give them the Sheep's Fleece from Aitos before they will resume. There is no other way to get around this stoppage.

This region can have up to 5 bridges, but you do not need to worry about them affecting the population; build as many as you'd like. Once all the monster lairs are sealed, destroy the level 1 and 2 buildings (with an earthquake). Also, you will want to destroy all remaining wheat fields, as more efficient factories will spring up to replace them.

In order to make sure all houses can be built, you will need to have a bridge going east-west on the river one square below the temple. If you don't have this bridge, the house in the bottom left corner cannot be built (although it can still be "phantom" constructed after Act 2 without that bridge).

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7. THE INACCESSIBLE SQUARES AR09
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The maximum population detailed above in this guide (4,652) is the highest that you can legitimately achieve in Actraiser. However, the game does possess 5 squares that will allow houses to be constructed that you normally can't access because the building direction cursor will not pass over them. However, if the building direction cursor *could* pass over them, the game would populate them with houses in a perfectly normal fashion.

It's possible to experience this using PAR/Game Genie codes and exceed the game's maximum population. This does not produce any negative side effects whatsoever, as the game will just treat those squares like any others and will follow the same building algorithm it does normally. The game will also create proper roads and bridges in each square.

The additional squares that can be populated are in Aitos (3 squares) and

Marhana (2 squares). The specific squares are below, with coordinates in [row, column] format (going from the top-left corner; use the miracle cursor to easily see which square you池e in).

1. Aitos [3,3]: This square covers the top of the volcano. One additional house can be built here, in the top-right corner of the square.
2. Aitos [4,4]: This is directly on top of the small mountain southeast of the volcano. One additional house can be built here, in the top-right corner of the square.
3. Aitos [5,6]: This square covers the cliffs exactly one square up and one square right from the temple. It can hold two additional houses, one at the top and one at the bottom.
4. Marahna [2,2]: This is on southern coast of the northern peninsula. Two additional houses can be built, which will both be in the top-right corner of the square.
5. Marahna [6,2]: This is the same square as the temple you enter to fight the Act 2 boss. Building onto this square will even create a bridge that will extend to the side of the river with the temple. One additional house will be constructed along the bottom of the square.

If you build out all 5 of these squares, which constructs 7 additional houses, you will now have the following populations:

	MAX POPULATION =====
Aitos	834
Marahna	562
-----	-----
Global	4,708

If you would like to build over these squares and experience this for yourself, enter the PAR codes below. There are two codes needed to enable each square for building. Once entered, simply move the building direction cursor over each square and wait a normal cycle for new houses to be built. Note that housing construction for these houses are subject to exactly the same constraints as for any others, so you will still need to have enough freed souls and no other regional conditions that prevent building.

Aitos [3,3]	7F69A3B8 / 7F69A4B8
Aitos [4,4]	7F69B5B8 / 7F69B6B8
Aitos [5,6]	7F69CAB8 / 7F69CBB8
Marahna [2,2]	7F6A22B8 / 7F6A23B8
Marahna [6,2]	7F6A52B8 / 7F6A53B8

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8. T I P S F O R S C O R I N G P O I N T S AR10
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While you can typically score enough points in Act 1+2 by playing normally to free enough souls to reach the maximum population, you may opt to reach this total after Act 1 to maximize a region's population sooner. The advantages of

doing this are described throughout the guide. If you do go that route, some grinding will be required. Below are a few general tips for scoring points and hopefully making that process a little easier.

1. GRIND NEAR AREAS WITH A 1-UP

This is probably common sense to most people reading this guide, but the best ways to earn points in the action stages are to find some area with a 1-Up and then repeatedly kill enemies in that area until the timer expires. The 1-Ups are replenished each time you die, so you can repeat this cycle indefinitely for enough points provided you have the patience.

You can find at least one 1-Up in every action stage except for the two in Aitos. Among the two Aitos stages, I personally prefer the Act 1 stage for earning points, in particular the area near the end where the waterfall section starts.

2. TAKE ADVANTAGE OF ENEMY RESPAWNING

Most of the lesser enemies in Actraiser will respawn. Specifically, they respawn every 11 game seconds after being killed provided you've left the screen and can no longer see their spawn point. Use this knowledge to plan routes so that by the time you move from one part of the stage to another, all the enemies will have respawned.

3. EXTRA LIVES ARE A VALUABLE SOURCE FOR POINTS

After you beat the Act stage boss, you receive 1,000 points for every extra life and 10 points for every second remaining on the game clock. In addition to making sure you collect all the 1-Ups in each stage, this underscores the benefit of collecting all the Source of Life items, which provide a permanent starting increase to your extra life reserves.

For quick reference, here are the locations of the four Sources of Life:

1. Fillmore: Use the Compass, received in Bloodpool after using the Harmonious Music (after Act 2 only)
2. Bloodpool: Use Rain on the northern part of the lake
3. Kasandora: Use Earthquake once the Pyramid is uncovered
4. Northwall: Use Lightning on the temple

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9. P O P U L A T I O N L E V E L C H A R T AR11

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The rationale for focusing on population is primarily because it ties into your current level, as well as hit points (HP) and spell points (SP). The table below shows the population required to reach each level, as well as the HP and SP at that level. Level 17 is the highest level you can reach.

Level	Population	HP	SP
1	--	8	20
2	80	9	45
3	200	10	60
4	400	11	80
5	700	12	100
6	950	13	120
7	1200	14	140

	8		1400		15		160	
	9		1700		16		180	
	10		1900		17		200	
	11		2200		18		220	
	12		2500		19		240	
	13		2900		20		260	
	14		3300		21		280	
	15		3700		22		300	
	16		4100		23		320	
	17		4600		24		340	
o-----o								

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10. P O P U L A T I O N   P A R   C O D E S                               AR12
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If you would like to explore the effects of population on your own, there is no better way to do it than by examining the memory addresses. This section provides the locations of many relevant statistics that relate to population. The following section assumes you have some minor knowledge of emulation and memory editing, as no background information on these topics will be provided here.

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=====
CIVILIZATION LEVEL
=====
```

Civilization level affects the types of housing structures that can be created. The higher the civilization level, the more people each house will hold. At level 3, the highest quality building will be constructed. In the codes below, XX will range from 01 (lowest) to 03 (highest).

Fillmore	7E022EXX
Bloodpool	7E0230XX
Kasandora	7E0232XX
Aitos	7E0234XX
Marahna	7E0236XX
Northwall	7E0238XX

```
=====
SOUL COUNTER
=====
```

Each region has a separate soul counter. The future population is limited by this number of souls. The soul counter is represented by two bytes. XX can range from 00 to FF on each byte (no value will crash the game). Setting the first byte to 40 (64 in decimal) will be enough to allow for maximum expansion in all regions.

Fillmore	7F9EFAXX / 7F9EFBXX
Bloodpool	7F9EFCXX / 7F9EFDXX
Kasandora	7F9EFEXX / 7F9EFFXX
Aitos	7F9F00XX / 7F9F01XX
Marahna	7F9F02XX / 7F9F03XX
Northwall	7F9F04XX / 7F9F05XX

```
=====
MONSTER LAIR COUNT
```


Version 1.1 -- July 6, 2007

- Added specific locations of houses built by phantom construction
- Added additional information on finding the desert wanderer in Kasandora
- Clarified tips 2 and 3 in the General Strategies section
- Reformatted Examples to stand out from descriptive text
- Edited various sections for improved readability
- Fixed minor spelling, grammar, and formatting issues

Version 1.2 -- August 6, 2007

- Corrected populations for Bloodpool and Kasandora in first section

Version 1.3 -- December 14, 2018

- Added the section "The Inaccessible Squares," which details 5 additional squares that can hold houses but are inaccessible because of the game's building direction cursor limits
- Clarified that the maximum population can still be reached in Fillmore with 2 bridges
- Added a subsection under "Factors Limiting Population" listing the points required to maximize a region's population after Act 1 alone
- Added a tip for earning points in Act 1 of Fillmore and noted the time for enemies to respawn
- Changed the description of "mansions" to "factories" based on their description in the game's instruction manual (page 31)
- Changed the wording of some sections to be clearer and less technical
- Enumerated the main body sections
- Fixed minor spelling, grammar, and formatting issues

=====
C R E D I T S

AR15
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Big thanks to everyone who helped and inspired me with this guide, especially the members at the GameFAQs Actraiser message boards -- this guide would not have been possible without your encouragement. If I have accidentally omitted your name from this section, please feel free to contact me and I will include you immediately. Special thanks to the following people:

- flamingspinach (genesisreality@genesisreality.dyndns.org): You PAR codes guide was a helpful resource during the creation of this guide. You saved me the hassle of having to record all those codes, which was very useful.
- acote80: Thank you for creating the initial topic that sparked my interest in this topic again. It was your posts on populations in Fillmore and Bloodpool that ultimately began my research.
- Zidanax (zidanax@gmail.com): For some spelling and grammar corrections.
- Scott Colcord: Emailing me about too many wheat fields stalling growth in Kasandora.
- Jason Hildebrand: Suggesting that I split out points needed to maximize population in Act 1, which was a good idea.
- Other members of the GameFAQS Actraiser board who contributed to this topic, especially: --ShockWave--, _Kaz, arby64, AR788, comicfire, DarkstarRipclaw, DragonAtma, Evil Peer, Hasukawa Kazuyaa, Rec_rm, shinren27, SurvivorDude, zeldadude

- Everyone else for taking the time to read this guide and giving me feedback on it. I really appreciate your help.

=====END OF GUIDE=====

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