

David Leon

Polish Issues in Tropico 3

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Introduction

The following paper evaluates the heuristics of Haemimont Games' *Tropico 3*. The game contains pits the player as the newly minted president of a small island in the Caribbean by utilizing construction, management, and political simulation mechanics. This includes city planning, wage management, political negotiations with citizens, the U.S.S.R and U.S.A as well as business negotiations with shipping conglomerates. Most of these mechanics are controlled via the UI, as is common in simulation games. The game is well regarded, holding a Metacritic score of 7.9 and a user score of 8.2. For this assignment the tutorial and first mission of the campaign, "Bananas", were examined. Much of the issues revealed are indicative of this score, there are no glaring issues present. Rather, many of the heuristics are broken in a way that reflects a lack of time to thoroughly polish.

Heuristics

The heuristics chosen for this review reflect the UI heavy nature of the simulation genre and the need to reflect elements of the real world via these elements. The critical success of the game served as an indicator of many of the game's systems working well, so the heuristics were chosen to validate this status and find whether polish created issues which may have affected the game's success. The selected heuristics were picked from the heuristic guideline lists created by Jakob Nielsen, Jill Gerhardt-Powals, Susan Weinschenk and Dean Barker, and Ben Shneiderman's.

Heuristic	Creator
Offer simple error handling	Ben Shneiderman
Offer informative feedback	Ben Shneiderman
Match between system and the real world	Jakob Nielsen
Flexibility and efficiency of use	Jakob Nielsen
Aesthetic and minimalist design	Jakob Nielsen
Consistency and standards	Jakob Nielsen
Reduce uncertainty	Jill Gerhardt-Powal
Include in the displays only that info needed by the user	Jill Gerhardt-Powal
Predictability	Susan Weinschenk & Dean Barker

From Ben Shneiderman's list simple error handling was selected as the potential to accidentally make the incorrect game-altering decision is very real in the genre. Ensuring that this is difficult to do in a simulation game can reduce the likelihood of rage quitting. Offering informative feedback helps simulation players verify whether they have selected the right decision or object in the first place. Flexibility and efficiency of use is critical in this genre as players are often sifting through a great deal of layouts. Providing wide yet reasonably variety of ways to reach tools without multiple clicks will prevent players from growing tired of navigating multiple menus to find the desired option. It is very easy for sim games to provide too many options onscreen; aesthetic and minimalist design is necessary to prevent players from becoming overwhelmed.

Being a historically based sim, matching the system with the real world is critical to providing players a sense of realism. Providing options and icons which defy a player's mental model of events and options will have severe consequences on their enjoyment of the game. Adhering to consistency and standards can buy some leeway regardless of whether a game is strictly following real world models. Remaining consistent aids in the suspension of disbelief in this genre and can cover for moments and mechanics which may break from reality. As a corollary to providing informative feedback it is critical to reduce uncertainty. Remaining unsure of what an action taken will yield can create tension, but surprises because of this can be highly unpleasant. Including only needed info to the player helps maintain an aesthetically pleasing interface and reduces the cognitive load. Finally, predictability is key, if a player chooses to make a pact with the U.S.S.R and is subsequently denounced by them the player will not be pleased.

Jakob Nielsen's severity and impact rating scale was used for this review though no issues were found to be game breaking and non-issues were not included for the sake of brevity. This effectively results in a three-point scale in which three is the most severe issue.

Results Summary

Heuristic	Mean severity	Total Issues
Match between system and the real world	3	1
Flexibility and efficiency of use	3	1
Offer simple error handling	3	1
Reduce uncertainty	2.33	3
Predictability	2	2
Include in the displays only that info needed by the user	2	1
Aesthetic and minimalist design	1	1
Offer informative feedback	1	1
Consistency and standards	1	1

A total of eleven issues were found during one hour of gameplay. The additional time spent evaluating the game was due to the nature of simulation games, without spending enough time playing it would be difficult to assess the impact of some of the issues. No heuristics broken were found to be game breaking. The heuristics with the highest severity were those which would require either experimentation or an online search to proceed. These were all isolated incidents but their capacity to upset or soft lock the game for a new or inexperienced player places these heuristics at the top of the severity list. Two heuristics were broken by multiple issues with high frequency, resulting in them placing in the middle of the scale. The lower tiered issues had little gameplay impact and often dealt with poor sound implementation and cluttered or unclear design.

Heuristic Review

Mean severity 3

Mean severity 2

Mean severity 1



The central icon appears to indicate a waste issue, not a production issue. No info on the icon was available via hover or other dialogue boxes. The color has been removed from much of the image for clarity.

<i>Issue # 1</i>	
Issue Severity	3
Heuristic Broken	Match between system and the real world
Description	Iconography above buildings is unclear and information about the icons could not be found in-game.
Frequency	Medium
Impact	High, failing to understand the black bag icon prevented two of my farms from generating income for over a year
Persistence	A total of 30 minutes was spent without discovering what the two separate unknown symbols were
Next steps	Either add information about the issue on hover or revise the icons to better match players' mental models



None of the UI options shown on the default UI allow access to the building menu, it can only be found by right clicking

<i>Issue # 2</i>	
Issue Severity	3
Heuristic Broken	Flexibility and efficiency of use
Description	After completing the tutorial, I forgot how to bring up the building menu. I needed to press/click around until finding it
Frequency	Low
Impact	High, it is impossible to succeed without the building menu
Persistence	20 secs. were lost to this issue which only occurred once; inexperienced players could reach a soft lock this way
Next steps	The building menu should also be available on the lower left UI to provide multiple access points



Issue # 3

Issue Severity	3
Heuristic Broken	Offer simple error handling
Description	Unable to find ways to destroy buildings
Frequency	Low
Impact	High, it was clear that the black icon indicated an issue. Looking at the building's menu allowed me to see that no income was being generated but I was unable to destroy the building.
Persistence	Over ten minutes were lost before I inadvertently located the button
Next steps	Provide an option to demolish a building on the building's own menu once it has been selected

<i>Issue # 4</i>	
Issue Severity	3
Heuristic Broken	Reduce uncertainty
Description	Once the tutorial ended, I wasn't sure how to proceed; the radio informed me later that people were unhappy
Frequency	Low
Impact	Medium, new players may be put off by the lack of guidance at this stage.
Persistence	5 minutes were spent without any guidance as to how to proceed
Next steps	Use the tutorial notes at the at the end of the tutorial to offer suggestions as to how to proceed

<i>Issue # 5</i>	
Issue Severity	2
Heuristic Broken	Reduce uncertainty
Description	It is unclear whether there is a way to improve housing
Frequency	Low
Impact	Medium, the citizens wanted better housing but it was unclear whether I should make new houses or improve existing ones
Persistence	Over 30 minutes passed without finding a way to improve shacks
Next steps	Add a housing specific section to the tutorial or a guidance note from “El Penultimo”

<i>Issue # 6</i>	
Issue Severity	2
Heuristic Broken	Reduce uncertainty
Description	A strange crunch-like sound plays from time to time, it is unclear what it means
Frequency	Low
Impact	Low, though it is difficult to assess without knowing what the sound is
Persistence	Each instance only caused worry for a few seconds
Next steps	If, as suspected, the sound indicates that a building is complete use the notification text to support this sound



The textbox shown takes one to two seconds to appear. Occasionally the player must hover over a different icon and return to the desired icon in order to see the text.

<i>Issue # 7</i>	
Issue Severity	3
Heuristic Broken	Predictability
Description	Information on hover appears a little over a second after the hover begins
Frequency	High
Impact	Low, it is irritating however
Persistence	1 second per occurrence
Next steps	The hovered icon should show its text closer to the expected simple reaction time, between 0.2 to 0.4 seconds

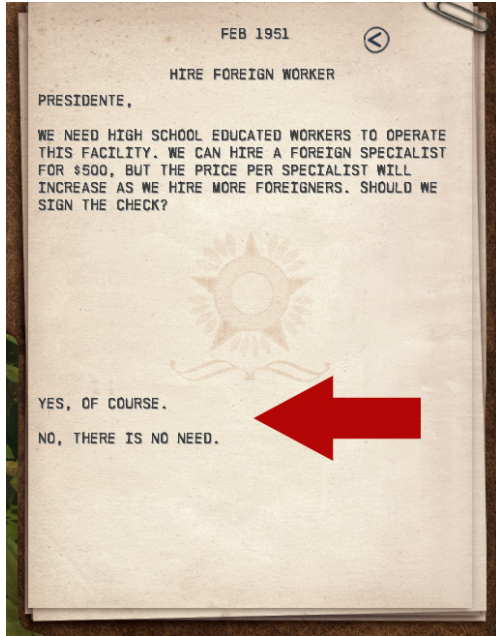
<i>Issue # 8</i>	
Issue Severity	1
Heuristic Broken	Predicability
Description	Pausing does not stop the dialogue audio from the tutorial, leaving me confused whether I've paused
Frequency	Low
Impact	Low, though it did cause unnecessary panic before finding that the game is paused
Persistence	Each instance only caused worry for a few seconds
Next steps	Ensure that no dialogue plays during the paused state



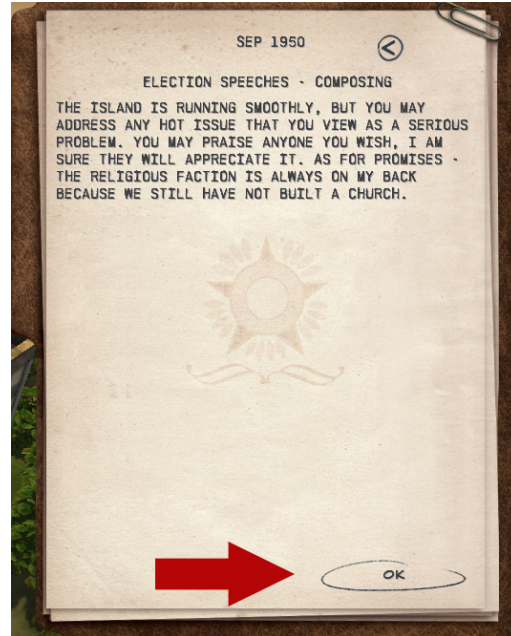
The arrows show the location of the buildings inhabitants or workers. This offers little gameplay benefit. Add an option to track the workers via the building's menu rather than adding clutter to the interface.

Issue # 9

Issue Severity	2
Heuristic Broken	Include in the displays only that info needed by the user at a given time
Description	All the workers are shown in the level when a building is clicked
Frequency	High
Impact	Low, the screen simply becomes overly cluttered
Persistence	Each instance ends after another in-game element has been clicked
Next steps	Do not show the arrows over the workers until the appropriate page has been selected on the building's UI



New users may not read these options as interactive as their state only changes when hovered.



The hand-drawn style of this interactive option should be applied to all notes.

<i>Issue # 10</i>	
Issue Severity	1
Heuristic Broken	Aesthetic and minimalist design
Description	The selectable choices on some notes are not visibly different from the rest of the text
Frequency	High
Impact	Medium, inexperienced players can reach a locked state if they don't move the mouse over the options
Persistence	5 seconds the first time, less than one for subsequent encounters
Next steps	Place checkboxes next to the options, add a writing sound and checkmark once selected

<i>Issue # 11</i>	
Issue Severity	1
Heuristic Broken	Offer informative feedback
Description	The tutorial narrator's audio cuts out when a tutorial action is completed without any confirmation given
Frequency	Low
Impact	Low, the issue only occurs after the player has completed the action though some players may accidentally proceed
Persistence	1 second each time
Next steps	Record impressed soundbites as affirmative confirmation rather than fading the audio and playing the next clip

<i>Issue # 12</i>	
Issue Severity	1
Heuristic Broken	Consistency and standards
Description	Penultimo audio didn't play when I unpaused and began next tutorial action
Frequency	1
Impact	Low
Persistence	2 seconds
Next steps	Check to see if the current tutorial clip has played upon resuming, if not, restart or resume the clip