

January 2005

Moose Week Special



Castle Nugget

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QUICK START

January 2005

You do not need to fully read this manual before starting your engine but these tips may help you for your first ride.

1. Have a look at the maps. These were enclosed after beta testers have reported some difficulties in finding their way around the first few laps. The in-game map will be of little help in the three superposed levels of the parking lot, and checkpoint markers have been omitted for performance reasons. Since there are no shortcuts^[1], this shouldn't bother you. The checkpoints' are located on the maps.
2. The track has a quite unique starting procedure which is outlined in the "R-Start" section.
3. Track graphics were optimized for activated anti-aliasing. The systematic use of 256x256 textures may cause some trouble. More on that in the sections "Antialiasing and anisotropic filtering", "Texture TV" and "Performance issues".
4. Unfortunately you cannot not race against the AI on this track. The reasons are described in the "Computer Trucks" section.

And as usual, as long as you stay more or less on the course you shouldn't experience pop-up effects.

Happy racing

ROCKETALCES

[1] The specialists from team SLO found some alternative routes which all proved to be longer than the normal course, so it's a safe bet to assume that there are no shortcuts.

Exclusive interview with **BORIS ELCHNER**

former owner of the “Elch Bar” at LaPaWop

Mooseweek:

Nice to meet you again Boris. Still riding the wave of success?

Boris:

Thanks. I really can't complain, except for having to wear a tie.

Mooseweek:

Yes, we heard about your promotion. Congratulations. You moved up from tending bar to chief financial officer (CFO) of the Elch Bar group holding company. Can you tell us how that happened?

Boris:

Regarding our success, our sales got a massive increase with LaPaWop, but our latest growth rates weren't satisfactory. Clearly we had to do something.

Mooseweek:

Things are likely to improve with the opening of this new location. Once again, it is bigger, bolder and probably more expensive than any Elch bar before.

Boris:

Oh, uh-huh.... More expensive in terms of construction costs, certainly. This new complex represents a big investment; it swallowed nearly half of Rocketalces' Expo03 prize money. However, the drinks are priced the same as everywhere else.

Mooseweek:

.. and the casino opens up new sources of revenue...

Boris:

We felt we had to adapt to the gradually changing needs of our customers. You see, the MTM2 racing series is getting older an older, and so are the racers. Elderly people do not feel the same urge for permanent bone breaking action. That's why we proactively developed alternative, but still monster truck related, forms of entertainment.



Access to the "Fossil's Lounge", the room where the casino is located, is of course restricted. This has the added benefit that veterans can talk quietly about their glory days without being disturbed by reckless youngsters who would be unable to discern the verbiage from the drivel and drool, and so be tempted to poke fun at the tall tales as spewed by the masters of the past.

Anyway, the main attraction, of course, is the real-time race gambling. Bets are accepted not only for final rankings, but also for various other events like "3 laps in a row without rolling over on the castle stairs", "next to crash in the gas station", "candelabra kiss champ" and the prestigious "antler master", just to name a few.

Mooseweek:

"Antler Master"? Can you tell us more about that?

Boris:

This refers to the tricky layout on the second floor of the parking garage. If you follow the best line (which will challenge even the best of drivers), you'll sketch the beautiful curve of a perfectly shaped antler - which, you know, is actually modeled after my own antler, as you can see.

Mooseweek:

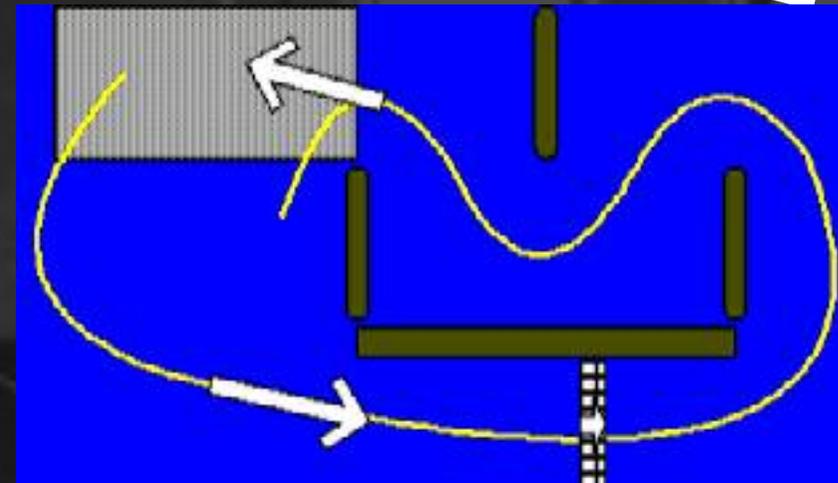
Yes I see. Next questi...

Boris:

Will there be a picture of me in your article? I'm sure your readers are educated people who want to judge by themselves.

Mooseweek:

Umhh, why not...



Just in case you didn't notice...

Mooseweek:

There are rumors about the long track making pause of Rocketalces being related to the reading of Wint's famous book ("Trackmaking, Procrastination and You"). Is there anything to that?

Boris:

That's only partly true. The book itself doesn't take that long to read ... it's mainly Cope's 600 page foreword, and the irresistible urge to follow the theory described in the remained twelve pages after you've read them. Those things will kill anybody's momentum.

Mooseweek:

Let's talk about the racing courses. What is this hype about this so called R-start?

Boris:

Castle Nugget presents a completely new starting experience. At the beginning of the race, trucks are in a confined but quite large area on the slope of a steep hill. Then, a huge gate slowly starts to open a couple of seconds later. The idea is to rush down the slope at maximum speed (well over 100 MPH) in order to pass through the gate at the right moment just after it goes down. After that, the road narrows from 8 to 2 lanes before jumping out of the large blue building opposite Traxx academy to join the main track.

Mooseweek:

From what I've heard that jump is quite ...challenging.

Boris:

Discouraged racers have given up right there and stopped in at the Elch bar instead to have a drink, so I really can't complain.

Mooseweek:

Sounds interesting. But what is the meaning of the letter R in R-start?

Boris:

Nobody knows with certainty. Among others it could mean

- o Rocketalces'
- o Retarded
- o Regatta
(That's actually where the idea comes from).
In regattas, contact with other ships is strictly prohibited while in MTM2 racing ...mhhh... things are sometimes different
- o Rumble

Mooseweek:

Like with LaPaWop, there are "Elk test" sections again here.

Boris:

Yes indeed. The divided section of the parking garage offers more than thirty seconds of side-by-side racing packed with tricky corners. If you're faster than the truck ahead of you, this is definitely the place to pass. And the nice thing is that floor after floor you can see where your opponents are.

The two other sections with alternate routes (i.e., the castle and the gas station) are much shorter and not well suited for passing maneuvers. In these spots, the alternative routes provide detours so you're not forced to wait for tow trucks to get less skilled (or unlucky) drivers out of your way.

Mooseweek:

Can you tell us more about the racing courses?

Boris:

Race of the Champs (ROC) corresponds to Rocketalces' primary design, hence the pompous designation. During beta testing, the course was found to be fun the other way round too and *Counter Clockwise* (CC) was borne. Both share the R-Start, and of course you need to know which way to go when joining the main track. *Parking Practice* (PP) was added because the parking garage turns out to be the place where imprecision causes the biggest time penalty, in both ROC and CC.

In addition, it is vaguely reminiscent of the *Urban Brawl* track of "Powerslide" (a game familiar to some guests of Fossil's Lounge.)

In spite of CC being an almost perfect reversal of ROC, a couple of subtleties make them distinctive:

- **The Stairs**

Rocketalces discovered that the handling of Monster Trucks is surprisingly bad on the stairs of his castle (where the other half of his prize money went) and, generous as he is, decided to share this experience with the racing community. The upward slide on the stairs (ROC) should be challenging enough even for those who prefer driving LaPaWop under snowy conditions. CC is less technical insofar as going down the stairs you don't have any control whatsoever.

- **The Parking Garage**

The CC version is shorter since you can drive directly down to the middle level, where a barrier has been removed. You are thus missing the fabulous "antler" combo of ROC. In a perfect lap you get into throttle-controlled oversteer near the end of the front wall (don't hit it) and around the first barrier, then countersteer to get around the chicane and up to the next level. Nothing compares to the satisfaction of getting this combo right, except perhaps the despair when trying to repeat the performance in the next lap.

- **The Shape**

Last but not least: did I mention it was inspired by the shape of my own antler?

Mooseweek:

I'm pretty sure you did, yes... please go on

Boris:

- **Mumhra's hairpin**
(inspired by X-Raid)

Relatively straight forward (so to say for a hairpin) upwards, it requires appropriate braking and throttle control downwards.

- **The long straight**

On the plus side of CC you have the long straight toward the Elch Center, allowing you to reach the braking zone with speeds above 100 MPH. If you miss the braking point, you will have plenty of time to regret it while hovering over the parabolic slope towards the (reinforced) facade of our establishment.

Mooseweek:

Speaking of the straight, I recently saw Rocketalces standing there. He seemed extremely agitated and was yelling "I can see it, I can see it". I guess this time there's no more hope for him...

Boris:

No, no, actually it's quite the contrary: he's getting much better. Do you remember his ridiculous fear of distances above 20 squares? He really believed that beyond that distance strange things started happening, like objects popping up out of nowhere. Well, he finally recognized the need to wear glasses. You probably saw him the day he tried them for the first time. He was so excited to see our building from the top of the straight.

Mooseweek:

What's exceptional about that? It was a clear day and the Elch center is a tall building...

Boris:

...and its only 40 squares away.

Mooseweek:

Absolutely. So there's nothing to rave about, I guess?

Boris:

Nothing I could think of.

Mooseweek:

Boris, thank you and good luck.

THE R-START

In most racing series (real as well as virtual) the start is one of the most exciting moments. Alas, this does not really apply to MTM2 where the starting position is pure luck and the start itself requires no reaction skills since the throttle is unleashed automatically at the green light. The R-Start is an attempt to bring racing skills into the foreground from the very beginning of a race. It works like this:

At the beginning of the race you are in a confined but quite large area on the slope of a steep hill. The only exit, at the bottom, is closed by a gate which will start moving downward approximately 6 seconds later. The trucks' starting position are along the sides near the top of the hill.

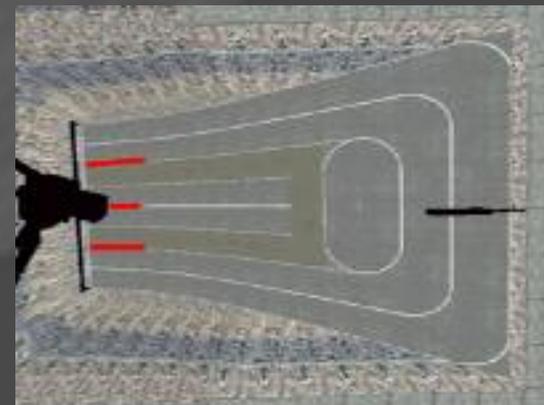
The idea is to rush down the slope at maximum speed (well over 100 MPH) in order to pass through the gate just after it goes down. It's not just a matter of timing, you also need to find a free way in front of you and you might think of blocking some of your opponents.

To prevent purely obstructive tactics from succeeding too easily, the gate area has been divided with barriers before as well as after the gate, thus giving an excellent opportunity to pass slower opponents who waited with their nose in the gate.

But the start is not over until you've joined the main course. It is not recommended trying to pass someone in the narrow part following the 8-lane section. If you're behind in the 2-lane section, you should stay there and concentrate on the jump to come. You are travelling at very high speed and the bump will not help you keeping much grip. If you hit the truck in front of you, chances are that both will lose control, speed and time, a lot of time. However if you hit him while still in the extremely steep exit, you might lose so much speed to come to a full stop before the jump...before falling backward.

If you drive in one of the "chase" views, you might experience problems seeing where you go because of the steepness of the slope. The somewhat odd-looking road marks were applied to facilitate the orientation. Memorize the pattern and you will never crash into the dividing barriers.

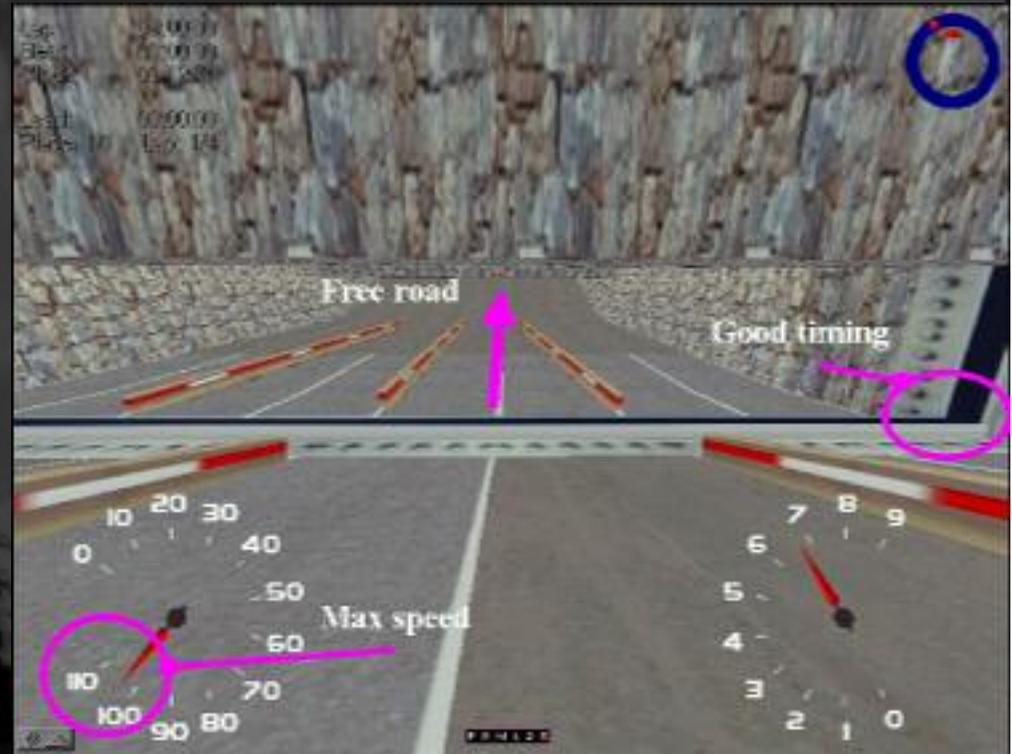
The sound of the opening gate (with alarm beeps) may help as well: to hear it, activate "pre-race music" in the sound options.



THE R-START

The R-Start was inspired by regatta starting procedures. Boats try to cross the line exactly at the end of the count-down period and it's amazing to see how precisely this is achieved, for example by the champs of the America's Cup.

During the count-down they try to maneuver each other into an unfavorable position. Contact with the other ship is strictly prohibited and the faulty skipper gets a penalty.



The three success factors



Pre-race rumble on the water

CASTLE NUGGET AERIAL MAP (ROC)



Elch Casino

Gas Station

Checkpoint

Nugget Mall

Parking

R-Start

Traxx Academy

Start - Finish

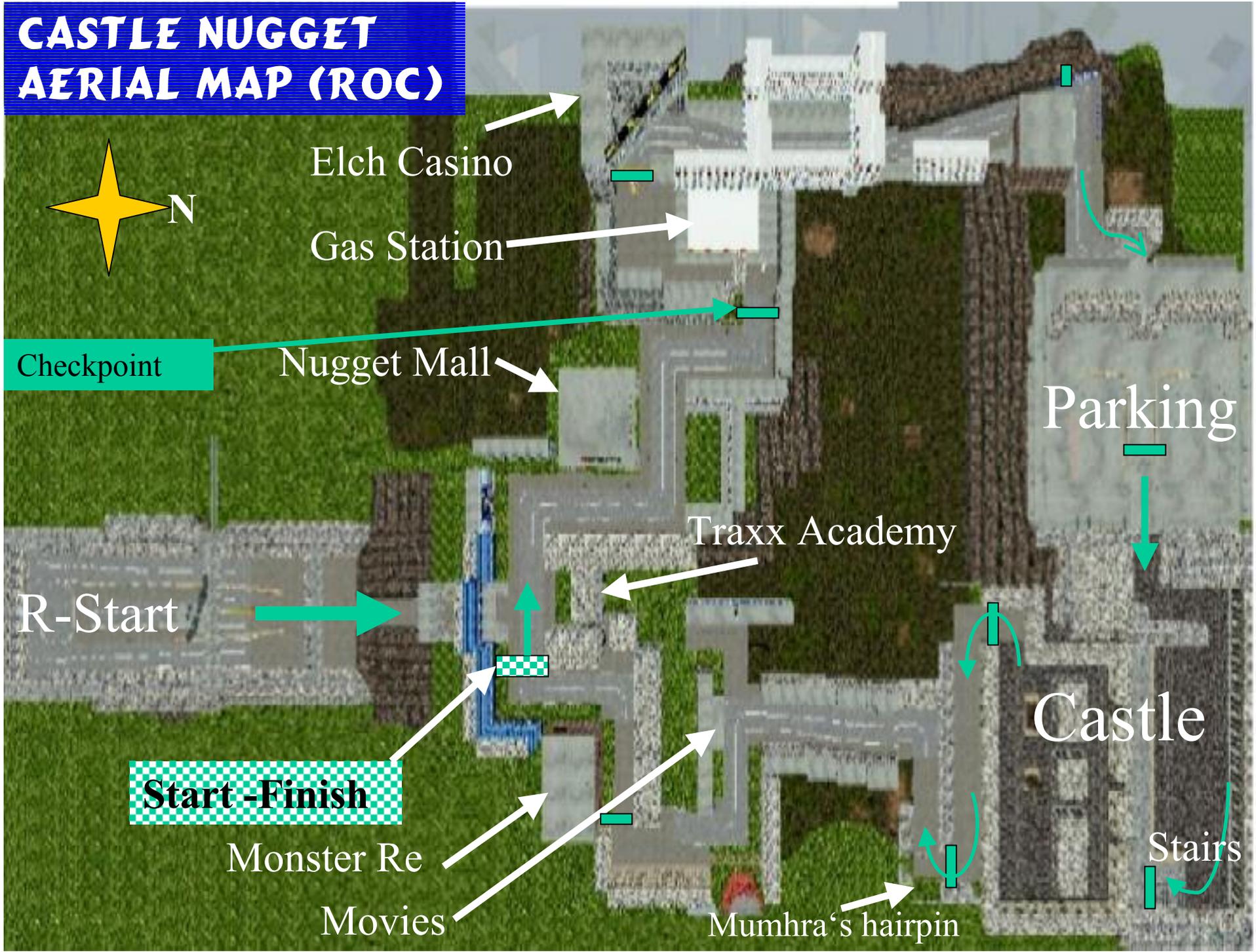
Castle

Monster Re

Movies

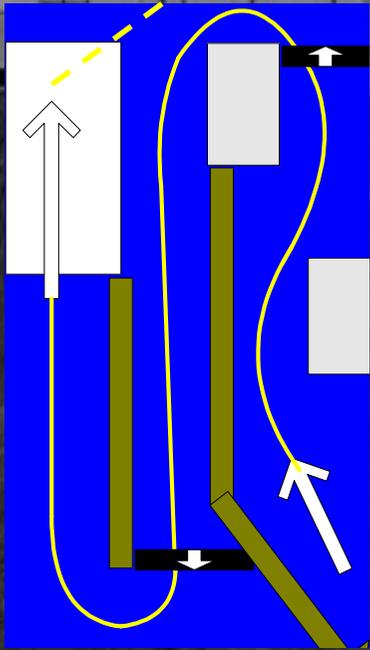
Mumhra's hairpin

Stairs

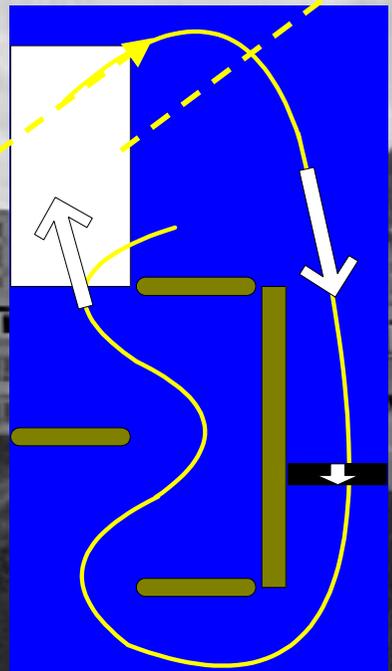


PARKING TRAFFIC MAP

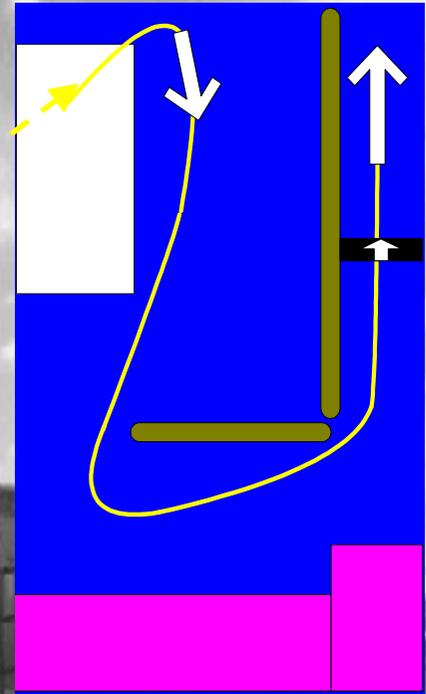
Race of the Champs
(map shows only the northern half; the south side is perfectly symmetrical)



Level 1 Ground floor

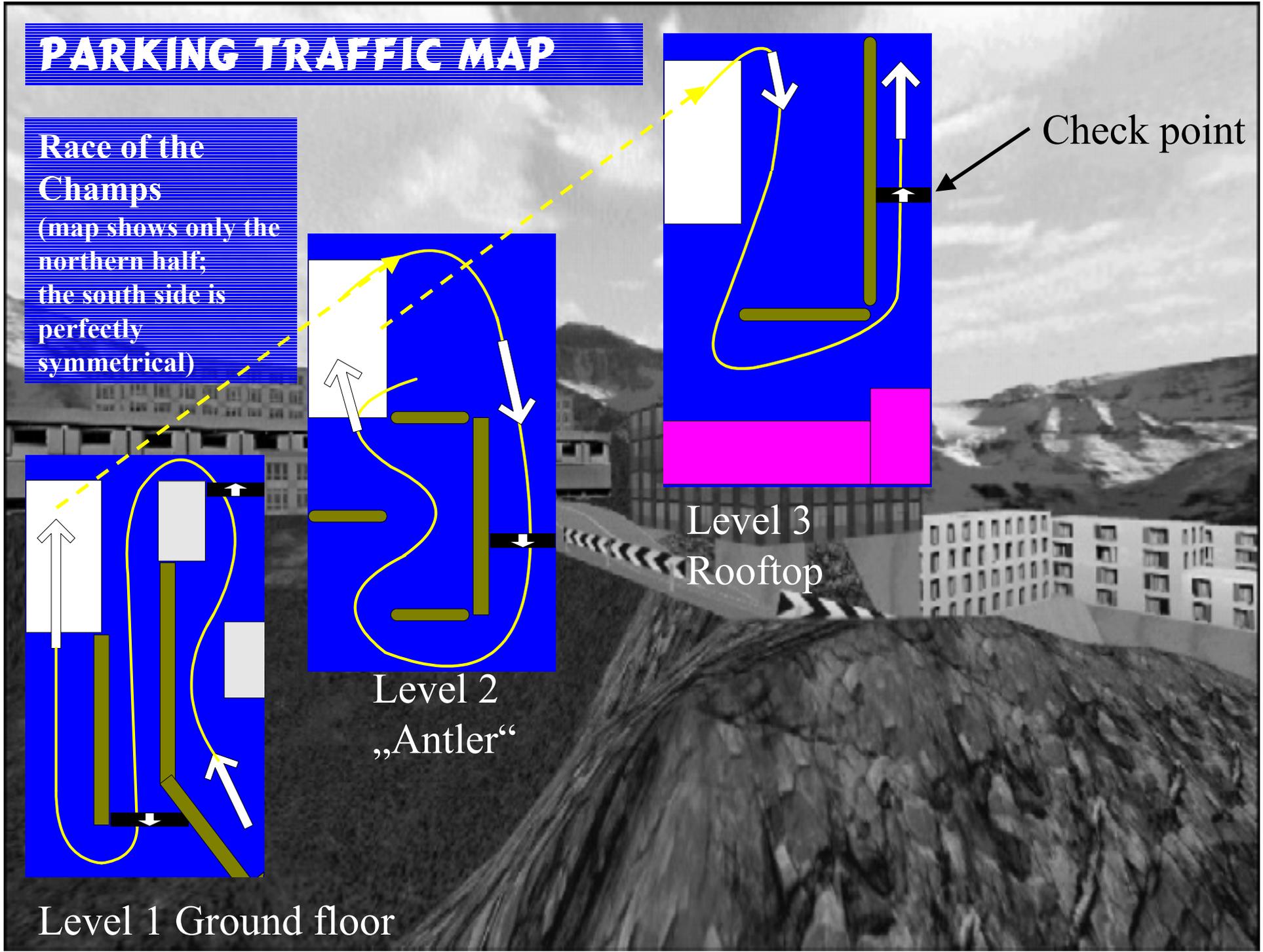


Level 2 „Antler“



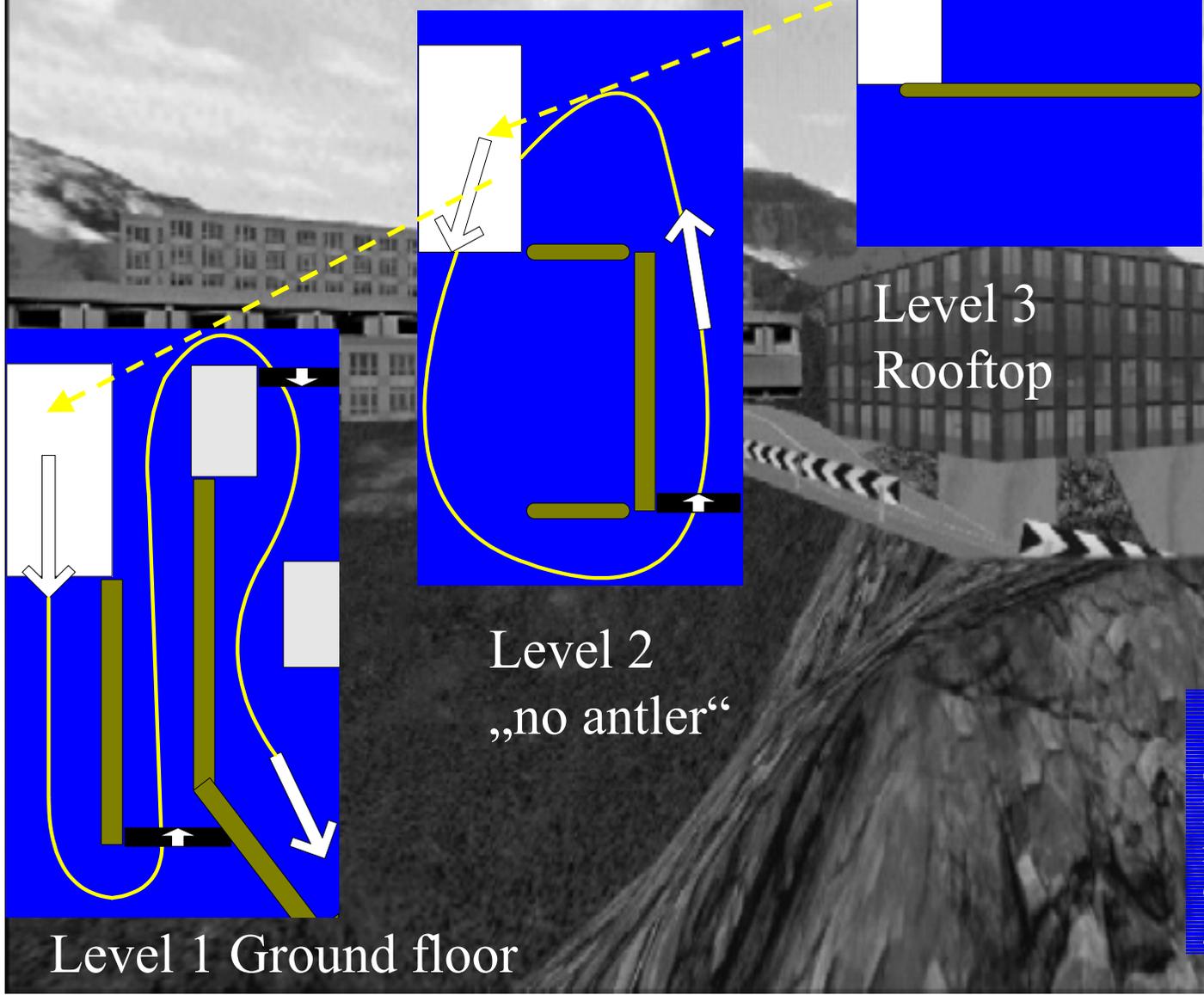
Level 3 Rooftop

Check point



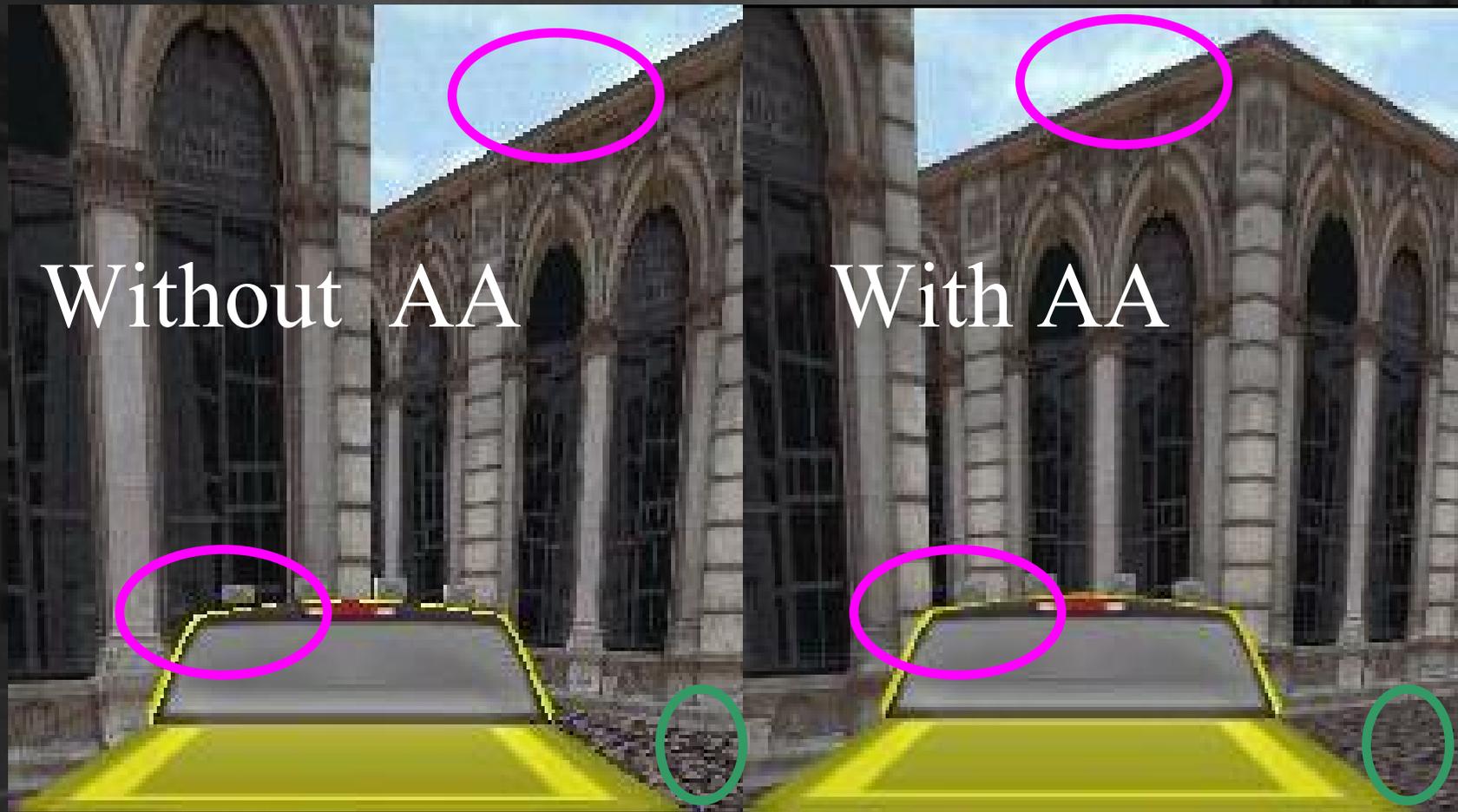
PARKING TRAFFIC MAP

Counterclockwise



Parking Practice
combines the north side of ROC to climb to the rooftop with the south side of CC to get back to the groundfloor.

ANTI-ALIASING AND ANISOTROPIC FILTERING



The pink circles show how the „stair“ effect is softened by AA. The improvement becomes much more noticeable in motion because of the seemingly moving stairs. The green circles show an area that looks sharper without AA, but in motion it will flicker unpleasantly.

HOW TO PLAY MTM2 WITH AA AND AF

The texture work and general layout of Castle Nugget have been optimized for best visual appearance on graphic cards with anti-aliasing (AA) and anisotropic filtering (AF) turned on. These advanced features were not standard back in 1998 and are thus not directly supported by the MTM2 engine.

To activate AA and AF in MTM2 you must adjust the D3D settings of your graphic card.

Here is a quick “how to” guide. (Sorry for possible inaccuracies but my Windows is not in English.)

1. Quit MTM2 (new settings only apply to D3D applications started **after** the change)
2. Right click the desktop and select properties.
3. Select the “Settings” tab (where you can chose the resolution)
4. Click “Advanced”
5. Select “D3D Settings” (or “Geforce” or “nVidia”) tab. Depending on your hardware, AA and AF settings may be hidden in a “Performance & Quality” tab or in the <your hardware’s name>-tab.
6. Uncheck the boxes “Application controlled” both for AA and AF
7. You can now select manually the values: maximum settings should work for cards from Geforce3 and ATI 9600 upwards. Depending on your hardware a little testing may be needed here, but the result is worthwhile. Already with a Geforce2 MX you should be able to use AA and AF.
8. Enjoy a smoother and better picture.

Note:

Unfortunately, these setting will affect all D3D applications (i.e. your games), and are probably not optimal for those with native AA&AF support. This means that you may need to reset these settings to their default (or other) values before running other games.

COMPUTER TRUCKS

The AI-trucks^[1] will not run properly on this track. There are several reasons for this, the main being the machine dependant behavior of the computer driven trucks. This seems to be linked somehow to the frame rate. The higher the frame rate, the wider the trucks go in corners. Furthermore, the system has apparently been designed for the range that was possible when the game hit the shelves back in 1998, i.e. around 30 fps. Blaming the track-maker for a non-working AI on your machine is too easy and often unfair.

The AI of the original stock tracks is not working on machines with frame rates above 100: they will go so wide in corners as to even pass a checkpoint outside in „the heights“. On my machine, the AI of most tracks is not working, even those of track makers known for caring about AI-trucks like Malibu350.

I really care about „off-liners“. I spend a lot (and I mean a lot) of time playing racing games off-line. And I remember how I disliked tracks with non-working AI when I started installing custom MTM2 tracks. Therefore I tried hard to get the AI working on Castle Nugget. But the track has certain aggravating features:

The narrow and winding section within the castle does allow nearly no tolerance with respect to the prescribed line. The 3 level parking lot with heavy overlaid routes is confusing the AI: at the end of a segment the AI will seek the closest segment in front of it. This may result in the AI choosing the path of the wrong floor. They get stuck in a wall, call a helicopter and get dropped on the roof, still trying to follow the route of a lower floor.

[1] I've heard AI stands for „artificial intelligence“, hmm...

COMPUTER TRUCKS

In spite of these inherent difficulties I was able to get the AI to work on my Laptop (I was heading home from a business trip and had a few hours to spend on that). Then I tested it at home and it didn't work on any of the three machines I tried. Nor did it on the Laptop in software mode. Later I tweaked it to work on my „main“ machine. When I tried other anti-aliasing settings on the same machine it did not work anymore. And of course it did not work on any other machine.

The only way to lead the AI trucks around the track would be to limit their speed to ridiculously low values in the parking lot, but even this would not help in the castle, where the truck would go either wide into the external wall or cut into the internal wall. That's where I decided to give up on the AI. Instead I took advantage of freedom gained to develop the R-Start.

If against all odds someone will be able to tweak the AI engine in the future, I'll be happy to reconsider my position, but for the moment the topic AI is dead.

I don't think that AI-trucks do offer a decent challenge to anybody even on machines where they technically run flawlessly. I hope off-liners will get some enjoyment from running the track alone, improving their lap times and comparing them with others.

TEXTURE TV

Texture TV is quite unique and claims to be the only programme with “*absolutely no commercials, no blahblah, no news, no sports, no movies. Just textures. 100% textures!*”

But texture TV is not just one of the most exciting TV channels available in Castle Nugget, it has a practical purpose as well. It will load all required textures during the starting phase. This should help reducing lag problems during the first lap.

Slight stutter during the first lap is usually caused by 256x256 textures when they are loaded. No matter how mighty the CPU and graphic card are, the MTM2 engine cannot load a 256 texture without noticeable lag. Furthermore, once the 64th texture needs to be loaded, all will be discarded and only the visible ones reloaded. This nearly halts the game for about two seconds and can happen because of textures from the previous race that were not discarded. The fix is to load all required textures at the start. It works as long as their number (including trucks) does not exceed 63.

It is highly recommended to start the race in chase far view. In combination with Texture TV, this is the only view ensuring that *all* textures, including those of *all* trucks will be loaded. If you feel like, this still leaves you enough time to switch to another view before the trucks start moving.

MISCELLANEOUS

The Blimp

The blimp eats into the parking building. To get rid of it there are two options:

1. Set graphics to *normal* instead of *complex*.
You will still get the full level of detail of the Castle Nugget tracks.
2. Place the NOBLIMP.POD on top of the pod.ini and the blimp will be gone (for all tracks).
In fact it's still there, but invisible and silenced: the ~300 vertices of the original blimp will no longer impact performance.
The model has been made by Malibu350 and included in the POD of his track "Toys in the Attic". In addition, NOBLIMP.POD will also remove the blimps' engine sound.

Custom Trucks

Custom trucks with more vertices than the stock trucks were reported to cause lag problems in the parking garage (more or less dramatic depending on the number of racers). The parking lot is quite critical in terms of vertex-count, which is also the main reason for not having included visual check-point markers.

Repainted trucks

Repaints of stock trucks obviously will not be subject to the problem discussed above. They are OK, as long as the original texture mappings with two 256x256 textures are used. However, repaints with modified (“beginner friendly”) mappings using three or more textures may cause the track to become completely unplayable. The reason is that it allows for maximum 16 hi-res truck textures ($8*2=16$). If 3 textures per truck are used, the field should be limited to maximum 5 trucks.

(More performance related info -> “Texture TV”)

CREDITS

TRI
GuitarBill
Oliver Pieper
Richard Borchard III
MDMRE

MTM2
Traxx
BinAnimator, PODmate, BinEdit
BinEdit2
Winpod

Phin

MTMG site and forum
Proof reading and editing of this manual
Suggestion to prefetch textures at the start
CP beeps and many other things.

Malibu350

<http://cownap.com/~malibu350/>

Sturdy candelabras, blimp remover,
track scraps and many other things

Wint

CH 2005

Gold Mode, “evil ground boxes”[®] and friendly support
Decoding of KLP files

Team SLO:

<http://teamslo.net/>

Extensive beta testing

Cope
Jumper
Bro_USA
Scrooch
Scatter

+ all the others who helped testing the track in multiplayer condition,
in particular the R-Start

Textures

Texture Monk

castle, parking facades (and others)

<http://www.texturemonk.com/>

Lemog Maya 3d

base pics for rock and concrete textures

http://lemog.club.fr/lemog_textures/

Fuchtelworld

sidewalk textures (and others)

<http://www.fuchtelworld.de/>

Most hi-res facades were custom made from pictures I took during a trip to Vienna.