

Tutorials

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GBC Course Designer, Recovering from Failures Tutorial

The GBC designer is relatively unchanged from the one used for the JN4 and JN5 games. In its different versions it has been available for several years and is quite stable relative to tools I have seen in other games.

However after regular use I am aware of two serious problems that could cause real difficulties for inexperienced users. I will describe these later along with some minor problems that I am aware of.

The following sections assume you have knowledge of how to create folders and copy files using Windows Explorer. If you are unsure about using Windows Explorer then seek advice.

Taking Backups

Regardless of how careful you are there is always a risk that something will go wrong and that your course files will be corrupted. A course can take many weeks if not months to build and over time problems will occur. For example you may have a hard drive failure, the GBC designer may fail or you may make a mistake and delete a file you shouldn't have. I have seen or heard about several examples of these and I cannot emphasise enough the need to take backups of your course on a regular basis.

I would recommend backing up your course file at the start of every significant design session that you work on the course. This can be done using several different methods but I would recommend copying and pasting the complete course folder into another directory using Windows Explorer. As a precaution against hard drive failure I would also recommend copying the folder onto a second hard drive or removable storage or even CD on a regular basis if you have these options available to you. This will offer most protection and don't forget that you may make design changes that you are not happy with so the ability to go back to the previous version is also a safeguard against this.

Saving Course Files

When you are working on a course you will often be asked by the GBC Designer whether you want to save changes. This permanently writes the changes onto the hard drive from the area of computer memory used by the GBC Designer whilst you are working with it. When you save changes then they are permanently held ie you cannot go back to the pre saved position unless you have taken a backup of that version or you have saved the changes using a different course name. There is a semi automated

backup facility in GBC that creates **.bak** files and saving creates new versions of these files but they do not facilitate recovery of all possible problems.

Saving changes as a different file name is an alternative way of taking backups but I would not recommend it if you are using custom objects because you will have to separately copy these into the new folder.

Recovery Techniques

If you have not taken a backup and the GBC Designer refuses to load your course then there are various things you can do dependent on what the problem is and I will describe these below. Firstly you should try to analyse what is causing the problem. The very first action is to take a new backup as described above because it is possible that the steps below will make matters worse if you are not careful in what you do or misunderstand the steps described.

Analysis and recovery

In this section I describe a process for identifying and fixing problems with an uncompiled course. It assumes that you have confirmed that the GBC Designer itself is working correctly by successfully loading other courses into it.

The symptoms of problems are usually either an error dialogue box, the PC exits out of the Designer with no warning or the Designer locks up. As a first step create a new course and then try to import holes from the original course one at a time. Doing this will sometimes help to identify where the problem is and will be a quick way of getting some of the holes back into a working state. However if the problems are due to file corruption then this may not work.

The following steps are fiddly and will take some effort and care. They are intended to be a systematic approach to identifying and fixing the problem. If you have a good idea of what the problem is then there is no reason why you cannot shortcut most of the following steps and carry out the appropriate corrective action immediately.

1. Take a backup of the course folder as a precaution.

I use copy and paste within Windows Explorer to create a copy on a second hard drive or zip drive.

2. Using Windows Explorer rename the course folder from **xxx** to **fail** where '**xxx**' is your course name

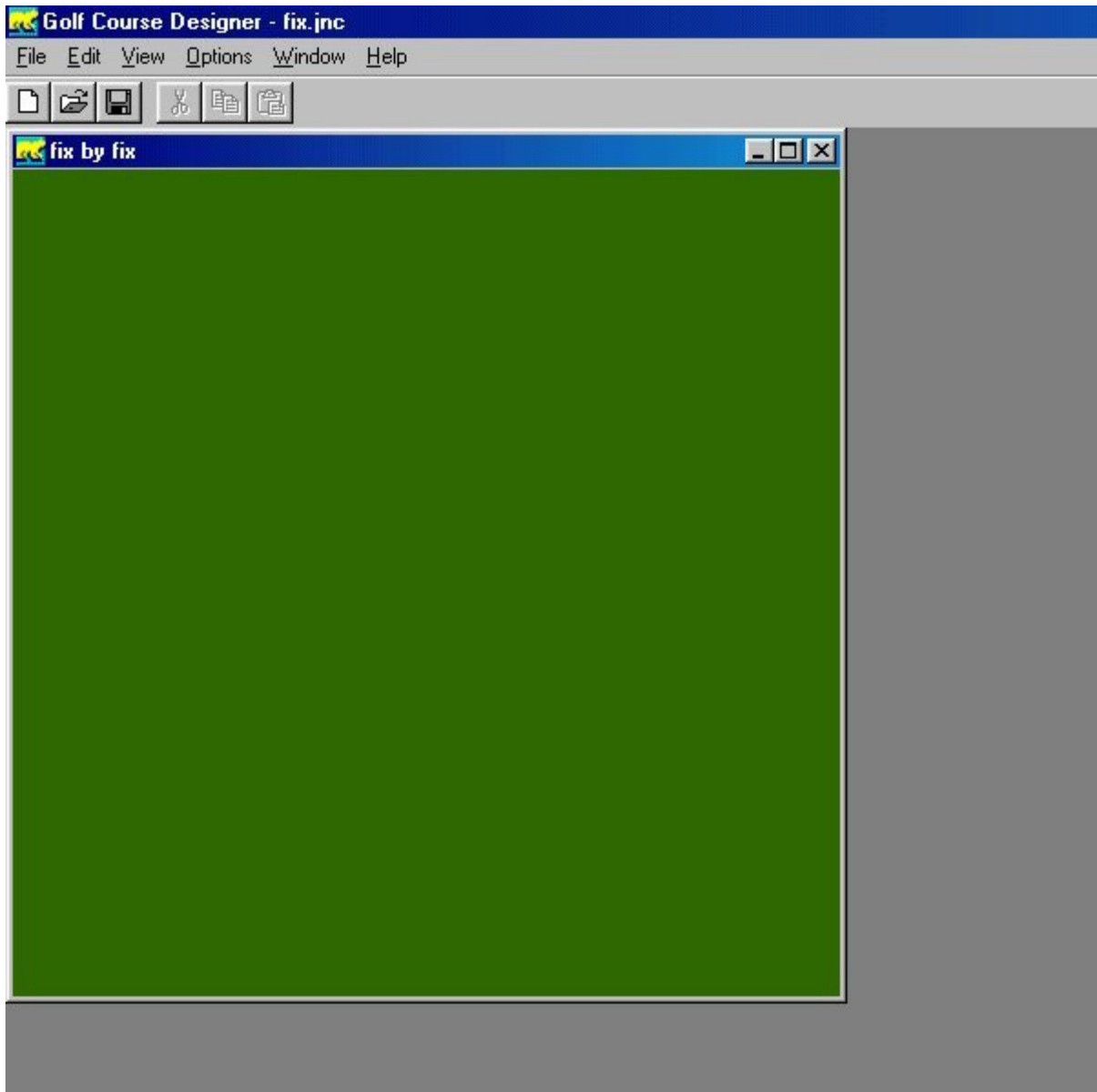
3. Create a new empty folder called **xxx** (where '**xxx**' is your course name) using Windows Explorer

4. Move or copy the **xxx.jnc** file from the fail folder into the **xxx** folder using Windows Explorer

5. Try to open the **xxx.jnc** file from within the **xxx** folder using the GBC Designer.

If it works you will see the course overview screen but with no holes displayed.

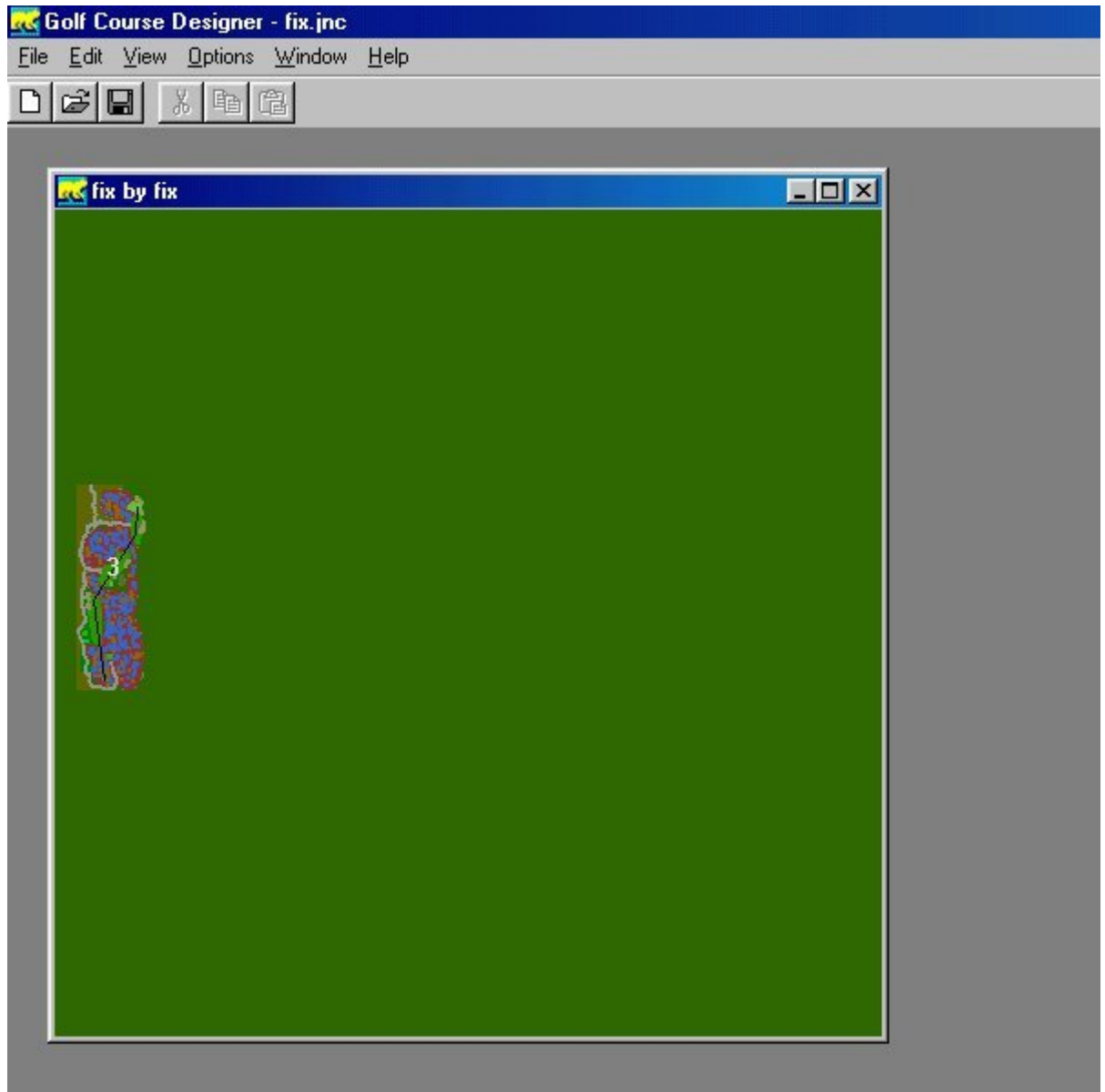
Close the GBC Designer and continue to step 6



If it fails then a corrupt jnc file is at least partly responsible for the problems. Try renaming and substituting the **xxx.bak** file (ie rename **xxx.bak** to **xxx.jnc** and replace the original) and see if this works. If this does not work then rename and substitute the generic jnc file **fix.jnc** which can be downloaded here [fix/fix.jnc](#) (ie rename **fix.jnc** to **xxx.jnc** and replace the original). Using the **fix.jnc** will mean you lose some information associated with the course header but it will not take a great deal of effort to recreate this information.

6. Copy all the **.hol** files to the **xxx** folder using Windows Explorer. Try to open the course using the GBC Designer.

If it works then the holes will be displayed on the course overview screen. Close the GBC Designer and continue to step 7.



If it fails then at least one of the **.hol** files is corrupted. Hopefully you will have been able to spot the corrupted **.hol** file whilst the Designer was trying to open it. If not then you will have to separately load each hole one at a time until you have identified it.

When you have identified the corrupt hole then rename and substitute the appropriate **holeyy.bak** where **'yy'** is the hole number.

If this does not work then that hole is not recoverable unless you have an earlier backup.

7. Copy the **xxx.ini** file to the **xxx** folder. Separately copy each custom horizon, sky, object, texture and sound and for each one try to load the course into the Designer. If any of these have been corrupted then the Designer may not load the course and they will have to be redone or replaced. Alternatively the Designer may replace the corrupted object with

a golden tee and clicking on it in the design window will identify the object concerned.

Known Causes of Failures

1. Deletion and renumbering of holes

If you delete a hole on the course and then renumber the remaining holes then this will often cause the Designer to fail. In failing the user will then find that some of the .hol files have been lost and that instead there are some .tmp files in the folder. The .tmp files are of no practical use and can be deleted. Fortunately the .bak files are not affected and so the original .hol files can be restored as described previously.

The problem appears to result from the way the .bak files are processed during the renumbering process. To avoid the problem it will be necessary to delete the .bak files prior to using the renumbering function. Under normal circumstances I do not recommend deleting the .bak files whilst design work is in progress but this is the one exception.

I have seen several instances of this problem and it is easy to recreate. It is also caused by a sequence of events that users will often initiate so this fault is a fairly serious one.

2. Changing the ini file.

Care should be taken when significantly altering the ini file if you are using custom objects. Occasionally this results in objects being reassigned and changing identity such that trees become houses or other inappropriate objects. This is due to a fault with the Designer. It does not cause any file corruption as such but the user will need to spend a lot of time reassigning objects back to their correct identity. I would recommend taking a backup prior to making any change to the ini file.

I have seen several instances of this problem and it may cause a lot of effort for the user to repair the damage. This is another serious fault.

3. Resizing objects

On a couple of occasions I have resized custom objects to about a third of their default size and successfully placed them onto a hole. The changes were successfully saved. Next time I opened the hole the object was not visible in the design window and caused the GBC Designer to crash in rendered view. I was not able to recover the hole except by going to a backup version.

I cannot systematically repeat the fault but I know it exists and it emphasises the need to regularly take backups of the course folder.

I have not seen any evidence of anyone else experiencing this problem.

4. Importing JNSE 'cvt' and JN4 'jnc' files

The GBC Designer will read JNSE and JN4 files and effectively create versions that can be edited in the designer and played in GBC. When the course is imported then it must be 'saved' first before 'saving as playable'. If it is not saved first then the GBC game will not allow you to play the course.

I have seen several instances of people finding this problem. It is not a serious problem but it creates confusion because it is not apparent what has gone wrong.

5. Memory Problem

On a lower specification PC the GBC Designer may not manage to open courses which contain holes that have excessively large numbers of objects placed. This generally results in the GBC Designer locking up when it tries to display the holes.

Other than to use a higher specification PC with more memory my main recommendation is to create a new course and to import into the new course all the holes that are not a problem from the original course.

6. Custom Objects

PCX files must be defined in the ini file and should be 8 bit 256 colour. If you change a custom object but get the specification wrong then it may cause the Designer or the GBC game itself to fail. Once the object is fixed to the correct specification the course should then load correctly.

7. Other GBC Designer problems

Virtually all the other problems I have seen are due either to some kind of hard drive problem (ie hard drive crash or accidental reformat of the hard drive), user mistakes (accidental deletion of a file) or very rare glitches where a .jnc or .hol file has been corrupted that is probably not caused by the GBC Designer itself.

Notes:

The **fix.jnc** file has been created by taking the third hole from the designer version of the hdc3 course and copying it seventeen times,. The reason for selecting this hole is that it is the largest .hol file I have seen. A jnc file from a new course will only work (outside the designer using Windows Explorer) with holes from another original course if the file size of the holes on the new course is greater than the file size of the equivalent holes on the original course. I have tried the fix.jnc file with several downloaded designer courses and it successfully loaded all of them using it.