LILAC SOUL'S NWN SCRIPT GENERATOR, v. 2.3,
Released May 11th, 2006, by Lilac Soul,
aka Carsten Hjorthøj.

http://lilacsoul.proboards13.com/index.cgi
http://nwvault.ign.com/View.php?view=User.EntriesListing&id=4683
lilacsoul@gmail.com

PLEASE TAKE THE TIME TO READ THIS DOCUMENT

Release notes version 2.3

Version 2.3 of the Script Generator incorporates many of the new functionalities from the 1.67 patch for Neverwinter Nights. There was still more I'd like to have added, but I am busy with exams and will be for quite a while yet to come. So I opted to release version 2.3 now (and it still has MANY cool new features, in my opinion), and then perhaps the rest will make it into version 2.4, if and when that is released.

There are a few important notes about version 2.x. One of the major changes in this new version is that the program now uses the NWN installation on the machine you're running the Script Generator from. This is used to be able to search palettes (both standard and custom) and to use BioWare's command line compiler, so that scripts can be compiled and, at will, saved or added to a .erf file (which you can import into a module) or added to an existing (not currently open in the Toolset) module file.

Another important update to the Script Generator is that, as of version 2.0, it is released under the GNU General Public License. A copy of the licence is included in the download of the Script Generator, but the main thing about it is that it means that **the Script Generator is now open source!!!** Yes folks, should you feel so inclined, you can now download the Delphi source code. It is available from the same location that you probably downloaded the Script Generator from, namely http://nwvault.ign.com/View.php?view=Other.Detail&id=4683&id=625.

Important update – please read!

IMPORTANT, UPDATED SINCE VERSION 2.1!

The Script Generator now gives an option to use two different systems for the item-related event scripts, i.e. OnActivateItem, OnAcquireItem, OnUnAcquireItem, OnPlayerEquipItem, and OnPlayerUnEquipItem. It is very important that you read the instructions either in the program or in the manual you should have received in the .zip file along with the program.

About the script generator

This is a tool for creating scripts for use in Bioware NWN Aurora Toolset.

It covers many of the basic functions that are used frequently in modules, as well as some, perhaps, less frequent ones. The program is suited for scripting newbies, who can't make these scripts themselves, as well as skilled programmers who don't want to waste time making the same, similar scripts all the time.

It has most of the features of the toolset's script wizard (which only works for conversation script), and much much more (this works everywhere, not just in conversation). And it is all integrated in an EASY TO USE WINDOWS ENVIRONMENT - if you know absolutely no scripting, you should be able to use this anyway!

What does it do?

It is divided into several parts. One for making 'text appears when' scripts for conversation (I think it is better than the Bioware wizard for this); one for making 'normal' scripts; one for making OnActivateItem scripts – the kind of scripts that handle the unique power items that can be activated in the game; and one for making black smith or item forge scripts – the kind where you put stuff into an anvil or something else, and if the correct items are found, a new item is created. And two for making scripts that fire when the PC acquires / unacquires something, and equips / unequips something.

The 'text appears when' part allows you to check for

Randomness (a percentage chance of something happening)

PC or party must or must not have an item (or have it equipped!)

PC must have a number of items

PC or party has enough gold (or too much!)

PC stats - abilities, feats, skill, level, etc.

Journal entry

Local variable(s)

There is also a tutorial on how to make it so that the same conversation node is only spoken once.

Basically, "text appears when" scripts are used in conversation to make sure the PC only hears the correct NPC lines and is only given options for response that you want him to have. There may be one line that you only want the PC to be able to choose if he has a certain item – that's what you check for, then! Check out the separate functions for complete details of all the 'text appears when' function does - it should be self-explanatory!

The normal script part allows you to do the following

- ❖ Give item(s) / XP / gold
- ❖ Take item(s) / XP / gold
- ❖ Adjust reputation
- ❖ Adjust alignment
- ❖ Set local variable(s)
- ❖ Start merchant
- ❖ Attack PC
- ❖ Spawn in creature
- ❖ Spawn in placeable
- ❖ Start conversation with PC
- ❖ Teleport PC
- ❖ Apply visual effect
- ❖ Destroy object(s)
- ❖ Add journal entry
- ❖ Create item in a non-PC inventory
- ❖ Deal damage to PC
- ❖ Make someone cast a spell
- ❖ Lock/unlock/open/close something
- ❖ Apply effect to someone or something

- ❖ Remove effect from someone or something
- ❖ Other actions and action queues
- ❖ Store information in local variables
- ❖ Turn lights on or off
- ❖ Speak string / floating text / send message to PC
- ❖ Sound objects, ambient sound, music
- ❖ Set PC's subrace and / or deity
- ❖ Henchmen and other followers
- ❖ Cutscenes
- ❖ Item scripting
- ❖ Appearance and name related functions
- ❖ Traps
- ❖ Miscellaneous functions
- ❖ Delay the next thing you script
- ❖ Make an 'if THIS then THAT condition'

They are all very easy to use! All of the above actions (with the exception of starting conversation, which can't happen from a conversation script, logically) can take place during these events:

From a conversation

When PC enters something (area, trigger...)

When PC exits something (area, trigger…)

When PC uses something (portal, altar...)

When PC destroys / kills a creature or a placeable

When PC opens something (door, chest...)

When PC closes something (door, chest…)

When PC clicks something (OnClick/OnFailToOpen)

When PC performs a hostile act (attack, pickpocket...)

When a PC is seen by NPC (OnPerceived script)

NPC heartbeat (unless fighting or talking)

When a PC dies (OnPlayerDeath script)

When a PC respawns (OnPlayerRespawn script)

Finally, in normal scripts, you are allowed to check for things. Before you start scripting the actions that happen to the PC, you get to choose if you only want this to happen sometimes. For instance, if you only want it to happen once in the game or only if PC possesses a certain item. These are the things you are allowed to check for:

Items (inc. equipped ones)	Feat	Randomness
Gold	Journal entry restriction	Success on saving throw
Levels	Ability restriction	Successful skill check
Class	Alignment restriction	Subrace
Level by class	Local variables	Deity
Race	Time of day	Gender

Plus, that it can only happen once per PC or once per game!

When making if statements, you are also allowed to check for all of the above to determine what shall or shall not happen. You can also make die-rolls in if-statements to make different stuff happen randomly. E.g., you roll a d4. On 1, PC is damaged, on 2 PC gets gold, on 3 PC gets XP, and on 4 PC loses XP. Or whatever you feel like ☺.

Using the palette tool

As of version 2.0, a palette tool has been added to the Script Generator which allows you to search through both the standard and the custom palettes. Technically, it does not actually look in the palette file, but searches through the appropriate resources. It is rather quick anyway, though a little slower than the palettes in the Toolset. It does however have the benefit compared to the Toolset's palettes that it can search in other fields than just the name, namely name, tag, description, comment, or all of the above. And as of version 2.2, you can now locate NWN manually – this should help the few users who have experienced a rare problem where the Script Generator would not locate NWN automatically, even though it was installed on the machine.

Options for saving the scripts

As of version 2.0, you can do more than simply saving the script or copying the script to the clipboard (which you can still do, of course). You can now also:

➢ Save and compile script – useful for putting compiled scripts in the override directory. Note that this is a dangerous thing to do if you don't understand how the override directory works.

➢ Save / append and compile script to .erf file - .erf files are files you can import into a module. Basically, they're sort of like .zip files, just without the compression part. So they're a way to pack several files (in this case, uncompiled and compiled scripts) into a single file. Once you've added as many files as you like, you can then open the Toolset, go to the File menu, select Import, and import the .erf file you've created. And voilà, your scripts are in the module, compiled and everything! When appending to an existing .erf file, a backup is made of it first (can be turned off in the Options menu).

- ➤ Append and compile to module (.mod) file – you can only use this option when the module is NOT already opened, for instance by the Toolset. Using this option, there's no need to import anything. The script (including the compiled version) is simply added to the module in question. Note that if it's a relatively big module, this is a slow process, and you'll probably be better off using the .erf approach. When you append a script to a module, a backup is first made of the module (can be turned off in the Options menu).

Note that these three options will only work on machines where NWN is installed properly.

Further help to the program and the NWN toolset is provided in the program.

Contact info

If you need to contact me, my email is lilacsoul@gmail.com

I receive a lot of email from people wanting me to script something for them. I'm afraid I don't have the time to do this, and anybody doing so will be turned down. Please post all such questions on BioWare's official scripting forum, which I link to from my website, and which I often answer questions on myself.

This is the site of my forums
http://lilacsoul.proboards13.com/index.cgi

If you have found a bug, or have a suggestion for the program (new functions, better layout, etc), the above forum is the place to post it.

Receiving information about updates

As of version 1.5, the Script Generator has an option to automatically check for updates on start up. Please refer to the section about the Automatic Updates for further information. My website was

shut down recently which broke the automatic update feature. I have altered it to work from version 2.0 again, however.

You can also sign up to receive a newsletter on my website – you will receive information about all major updates of my work, which will mainly be this program. You can sign up by going to this website: http://www.angelfire.com/space/lilacsoul/

What's new in version 2.3

Moved the #include lines and similar to just above the void main. There have been regular reports about scripts made by the Script Generator not compiling, and more or less all of them have been caused by people not copying the entire script, because they didn't want the comments. In order to try and prevent this problem, lines are no longer placed above the comments, but always below them.

Fixed a bug where attempting to save and compile a script to a drive's root directory wouldn't result in any files being created.

The "File" menu now gives an error message when you're trying to save and / or compile a script with unfinished if-statements.

Renamed "Make an NPC (or PC) action queue" to "Other actions and action queues" in order to reflect that you don't have to make a queue of actions in order to use this point in the menu. If you haven't looked at the actions available in that menu, I recommend that you do so!

In the "make an action queue" option, when making an unequip action, the item to unequip would be identified through GetObjectByTag, which is only guaranteed to work if only one item of that tag exists in the game. This has been fixed.

Added option to unequip an item identified by inventory slot position rather than tag. Located in the "Other actions and action queues" menu.

Added option to equip an item identified by tag. Located in the "Other actions and action queues" menu.

Added option to choose between talk, shout, and whisper when having someone speak a string. Talk is default, as it has always been.

Added a menu point to the event chooser called "Appearance and name related functions". This menu offers the option to change a creature's appearance type, as well as the following options

which all require NWN version 1.67 or later: Setting a creature's tail type; setting a creature's wing type; changing a creature's portrait - both by ID (row index in portraits.2da) and by ResRef (the filename without trailing size letter, e.g. po_el_f_09_); and changing an object's name. The latter doesn't work for PCs (limitation in NWN, not in the Script Generator) but works for NPC, placeables, doors, and items.

Added several 1.67 lock-related functions to the existing menu regarding locks. These are: Making an object require a specific key to open; associating a specific key (by tag) to an object; setting whether an object can be locked or not; and setting both the lock and unlock DC of an object. At the same time, the menu point has been renamed "Open, close, and lock related functions".

Added a bunch of trap-related functionality, much of which has been introduced in the 1.67 patch for Neverwinter Nights. This new functionality consists of: Creating a trap on a door or a placeable; creating a trap on a location; manipulating the active status of traps; manipulating whether a trap can be detected; manipulating whether a trap has been detected by a specific PC; manipulating whether a trap can be disarmed; setting a trap to either one-shot or continuous (i.e. can fire more than once); manipulating whether a trap can be recovered; disabling a trap; setting the disarm and/or detect DC of a trap; and setting the tag of a key required to disarm a specific trap.

Changed the names of some events in the event chooser, since it was somewhat unclear what the distinction was.

Added option to change the module's XP scale.

All places where you can make a script to check for ability score now offers the option to only check the base ability score, i.e. without any bonuses.

The "text appears when" option to check for skill rank now also offers the possibility of checking only the base skill rank, i.e. without any bonuses.

What was new in previously released versions

What was new in version 2.2
When making an NPC action queue, some actions require you to provide a target for the action. If this target was set to the owner of the script (i.e. OBJECT_SELF), the code produced would be incorrect, though it would still compile. This should be fixed.

Added support for BioWare's tagbased system of OnActivateItem, OnAcquireItem, OnUnAcquireItem, OnPlayerEquipItem, and OnPlayerUnEquipItem scripts. The user gets to choose whether to use the system used up to and including version 2.1 of the Script Generator, or the BioWare tagbased system. Please consult in-program instructions or the manual for more information, including which system is recommended in which circumstances.

Fixed a newly introduced bug where starting a conversation with someone by tag would create a broken script.

Added about 180 visual effects, so that you can now use all the VFX_IMP, VFX_FNF, and VFX_COM visual effects from NWN, SoU, and HotU in your scripting. Note that some visual effects may not be available if you don't have one or both of the expansions.

Added an option to locate NWN manually. This should fix a rare problem a few people have been having where the program would fail to locate NWN. The cause of this problem is unknown, but may be related to the user not having rights to administer the registry database.

Removed AssignCommand(OBJECT_SELF issues from the cast spell and cast fake spell option.

Added option to check for gender with script restrictions and if/else statements.

Added option to place all of PC's gold in a chest along with the existing option of stripping the PC.

Fixed bug where some of the miscellaneous functions were not delayed correctly.

Added option to check for deity in Text Appears When scripts.

Added option to ignore case in all places where you check for subrace or deity.

Added option to take all items with a given tag from the PC.

Changed spell names to reflect the spell's name rather than the spell's constant. Doesn't change functionality, just makes it easier to look at inside the Script Generator. No changes have been made to the amount of spells available in the blacksmith scripter, since it would require testing each spell individually to make sure it triggers the OnSpellCastAt event of placeables correctly. There are over 350 spells, and I just don't have the time for that.

Added a menu-point for making donations. Note that the program is still 100% free and there is no extra functionality or similar if you pay. It is placed in the "Help" menu, and is there mainly because some people have asked if they can donate money. It is certainly not something I expect that anybody does, but if you want to, the option is now there. It uses PayPal or credit card.

What was new in version 2.1
Optimized loading speed significantly by moving the loading of the standard palette information to the first time the palettes get used each session.

Fixed a bug where you wouldn't get to choose the modifier when adding level drain or wounding type OnMonsterHit properties to an item.

Fixed some parenthesis related bugs and intransparencies.

Removed some double negatives. For instance:

if (!(GetGold(oPC)>=15000) is exactly the same as
if (GetGold(oPC)<15000)
The latter is much easier to read, so has been changed whenever found. A few may have been missed, but rest assured that the functionality is the same.

Attempted to get rid of all cases of AssignCommand(OBJECT_SELF - it's bad programming practise since it's pointless, and it can even, on rare occasions, lead to different results than expected. If you observe a script that still produces AssignCommand(OBJECT_SELF code, please report this to me with a detailed description of how you produced the script in question.

When saving to .erf or .mod, the default erf / mod directory (respectively) is now chosen by default, rather than the main NWN directory.

Added function for stripping items from a player, either depositing them in a placeable's inventory or simply destroying the items. This new functionality is found under "Miscellaneous functions".

What was new in version 2.0
The Script Generator now interacts with the user's NWN installation:

Rather than contain a list of all the tags and ResRefs of items, creatures, and placeables, the Script Generator now reads this information directly from the user's NWN installation when using the palette tools. Furthermore, the Script Generator can now also read the object blueprints from custom modules. This means that the palette tool will be automatically updated to include whichever items are added in patches or when you update your modules. It also means, however, that the standard palette won't work on machines where NWN is not installed.

Usually, the only things you could do with the created scripts, directly from the script generator, was to copy them to clipboard or save as .nss files. Several new options have been added. You can now also:

Save and compile script (useful if you're compiling a script for the override directory - though that's probably something most people shouldn't do).

Save or append to .erf file: The generated script will be compiled, and both the uncompiled and compiled scripts will be saved or appended to an .erf file which can then be imported into your modules.

Append to module: The generated script will be compiled, and both the uncompiled and compiled scripts will be appended to an existing module (.mod) file. This will fail if the module is open in the Toolset.

Added option to remove effects in the event chooser.

Added for adding more than 30 additional effects compared to version 1.6.

HotU spells now supported (though not in the blacksmith generator, due to lack of time to test which ones would trigger the OnSpellCastAt event properly).

Added option to choose between adding item properties permanently or temporarily.

Made alterations to code so that the same value does not get assigned to the oTarget object variable repeatedly. There was technically nothing wrong with the way it used to work, this is just cleaner and a bit more efficient.

Added support for OnExit and OnClick / OnFailToOpen scripts.

Added support for will, fortitude, and reflex saving throws in text appears when (starting conditional) scripts.

Added support for gender checks in if-statement and script restrictions.

Added option to apply effects as normal, supernatural, or extraordinary, so the effects can't be removed by dispelling and/or sleeping.

You can now press ctrl-A to select everything in the script window.

Added palette buttons to the blacksmith creation tool.

Added support for OnClose scripts.

There was an issue in the Script Generator where, sometimes, the event chooser window would get hidden behind the main screen when it wasn't supposed to. It appears to have been fixed now (a simple SetFocus call whenever the event chooser was to be enabled seemed to do the trick). If this problem persists, please report this to me with detailed information on how to reproduce the behaviour.

When using the cutscene tool in an OnActivateItem script, the PC would sometimes not be assigned to the oPC variable. The script would compile, but it wouldn't work.

When creating a new blacksmith script, the generator would tell you about a missing file. It doesn't actually need the file and everything worked perfectly without it, I had just forgotten to remove the loading of the file - which I didn't notice because all the files are available in the folder I build it in. This has been fixed.

A bug caused the wrong track to be used when changing music. Also, some unnecessary lines were sometimes created when using that option.

The auto update function had stopped working, not because of a bug, but because my website was put to rest. An alternate location has been found for hosting the version information file, so the auto-update function should be working again, now.

When making if/else statements with local variables or journal entries, it could break the script from compiling because lines were added within the if/else logical flow.

In the section where you send messages etc. to the PC, typing in a " character would break the script from compiling. Now, all " characters are automatically replaced with '

Since the last release of the Script Generator, the URL to the Lexicon has changed. A button in the program would try to open your browser with a page from the Lexicon. The URL has been updated inside the program so the button will work correctly again.

Various minor bug fixes.

What was new in version 1.6
Added option for item scripting. Allows for adding and removing itemproperties, and setting plot, stolen, and droppable flags on or off on items. The itemproperties option requires you to be on at least version 1.59 of Neverwinter Nights.

Added support for the new OnPlayerEquipItem and OnPlayerUnEquipItem events.

The "text appears when" scripts still used the AutoDC function for skill rolls. It now uses the GetIsSkillSuccessful function instead. Also, some changes have been made to the layout of the skill selection in this segment of the program.

Prestige classes from Hordes of the Underdark now supported.

Feats from Hordes of the Underdark now supported, including all the epic feats.

Both the looping and the fire-forget Spasm animations are now supported when making a play animation part of a PC or NPC action queue.

A bug existed with the miscellaneous function for making the PC face an object based on its tag. The tag was never scripted, and the script wouldn't compile.

There was a bug with the creature and placeable palettes not always showing any items. This should be corrected. If it isn't, please let me know.

When creating blacksmith scripts that fired from a conversation: If there was more than one blacksmith script called from that conversation, it would only work correctly the first time one of those scripts was called, because the script checked for a local variable on the owner of the conversation when determining whether or not to read the instructions on how to create items (to put it popularly). This has been changed so that, for conversation called script, the instructions are now read every time the script fires.

Changed the functionality of the auto update slightly. For instance, if the current version was a patch version 1.6, a person with version 1.5 of the Script Generator would be taken to the site of the patch, which would only work for version 1.6 unpatched. Now, he will be taken to the correct download site - which is the download site for the fully patched version 1.6.

Important updates made to the documentation on how to get the item related events to work properly. This information is made available in a multitude of places, to make sure people actually read it.

New main screen art created by Martin Verna. See "thank you" section at the end of the document for more information.

What was new in version 1.5

Option to make DelayCommand calls, i.e. calls that are delayed. This is a two-step function. First, choose the "delay the next..." option, and then script it as normal.

Non-advanced support for making cutscenes added. Currently, the new "Cutscenes" option allows you to start / finish cutscene mode for a single PC, fade or black in / out that PC's camera, and temporarily switch the player's camera mode to chase-cam. There's currently no support for moving the camera otherwise. Combined with use of triggers, DelayCommands, and the Script Generator's many other functionalities, it should still be possible even for beginners to make some very nice cutscenes. If you want something more advanced, you may want to familiarize yourself with Gestalt's cutscene system. It can be found on the Vault. To learn more about making cutscenes with the Script Generator, please read the info on the form within the program, and consult with the appropriate section in the manual.

Option to make OnAcquireItem and OnUnacquireItem scripts added.

Option to manipulate the PC's followers (henchman, familiar, etc.) - both removing and adding to the PC's party supported. Also contains an option to level up the henchman.

Option to change tracks or play / stop ambient sounds and background music in the PC's current area. This option can be found together with the sound object handler under the option "Sound objects, ambient sound, music" (was previously called "Play or handle sound objects").

Option to make a simple weapon attack added to the action queue scripter. It does NOT utilize the DetermineCombatRound function, nor does it adjust reputation.

Option added to polymorph both PCs and NPCs. You can find this option under the "Apply effect" option. Advanced users who want to use a custom polymorph type from a hakpak can type in the identifier for the polymorph manually into the list box with the polymorph type (e.g. POLYMORPH_TYPE_LUNATIC or 65, whatever is valid in the hakpak - if you don't understand what this means, then it most likely doesn't apply to you. Just use the default polymorph types, at least for now). Note that some of the polymorph types may only be available if you have Shadows of Undrentide installed.

Option added to test for level by class. Previously, it was possible to test if, say, the PC had levels in Wizard, or if PC was at least level 12. But now you can also test if the PC has exactly, less than, or more than, say, 12 levels of Wizard. This option is both available when making text appears when script (starting conditionals), restrictions, and if-statements.

Option added to make restrictions and if-statements based on whether the PC either has or doesn't have a certain feat. This was previously only available for "text appears when" scripts (starting conditionals), mainly because I never realized I'd forgotten to put it in there. Furthermore, a pull down menu for the feats is available, unlike in previous versions, where you had to type in the constant name of the feat yourself.

A "Miscellaneous functions" option has been added in the event chooser. This will likely be expanded to contain more functions in later versions. In this version, it contains:

> An option to reveal the map of the current area to the PC
> An option to change the weather of the PC's current area
> An option to make the PC or an NPC face a certain object, including option for the NPC to face the PC. This could, for instance, be very useful in cutscenes.

When making normal scripts, it is now possible to make then fire even if the object triggering the event isn't a PC (e.g. if an NPC kills another NPC, and the killing NPC isn't part of a PC party). This can be turned on in the options menu. Turning this on is generally not recommended, and attempting to do so pops up a warning. In order to avoid problems if the user forgets that he or she has turned it on, this setting isn't saved and is thus turned off every time the Script Generator starts. Furthermore, pressing the "Clear for new script" button (and confirming) also turns the option off.

When making starting conditionals (i.e. text appears when scripts), the option for making conditions based on PC's stats had been broken with version 1.4. If more than one stat was marked for being checked, only the first one would be displayed, and pressing the "next" button would not switch to the next, as intended. Fixed.

The respawn script never actually made the PC respawn, i.e. resurrect, heal, and remove effects. It does now.

The full party teleport option didn't teleport followers, only PC party members, which would be a problem for teleportations within the same area. It should work correctly now.

The slashing type damage had been mistakenly left out of the Generator.

In a single instance, HALFORC had been spelled with the number zero instead of the letter O! Fixed.

The ResRef for the Lesser Robe of Eyes was incorrect in version 1.4.

When making a script that, OnActivateItem, would cause a creature to attack the targeted PC, the adjust reputation option was broken. This is a rare usage of the function, and there have been no reports about it. It was discovered by chance, and should now be fixed.

The "spawn placeable at targeted location" option was mistakenly labelled "near the PC", and didn't show up reliably. This should now be fixed.

The graph directory has been removed, and all graphical elements are now packed directly in the executable. While this makes the file slightly larger, the memory usage isn't much more because of the memory improvements introduced in 1.4, which destroyed forms (freeing their allocated memory) whenever they weren't used. Also, the file size hardly makes a difference due to the UPX compression technology used as of version 1.5. The reason why this has been changed is that, if a user was running the generator from a location without the graph directory (not counting shortcuts), they would experience hidden windows, where important windows (forms) were displayed behind the main form.

An option to automatically check for updates on start up has been added.

In stead of choosing the "use system tray" option by default, the first time you the Script Generator, it will ask you if you want to use it or not.

A few edits to some descriptions of how the script generator works have been changed.

What was new in version 1.4

Ability to make random things happen depending on a die-roll. This is added under the 'make an if-statement' option in the event chooser. It might have been more clean-code to use a switch statement, but since the Script Generator already supported if-statements, I decided to do it this way.

Added option to teleport entire party. Read the description in the program for more information, please.

Added option to have the PC pass a saving throw when making an if-statement or an "other restrictions" check.

Added option to have the PC pass a skill check when making an if-statement or an "other restrictions" check.

Added option to set PC's subrace and deity.

Added option to check for PC's subrace and deity when making an if-statement or an "other restrictions" check.

When making a "PC kills or destroys something" script, there is now an option to have the script reflect on the PC even if a follower (e.g. henchman or familiar) did the actual killing.

The list of spells when making someone cast a spell has been updated with SoU spells. The list of spells for use in making blacksmith scripts has NOT been updated because I haven't had the time to check if all of them trigger the OnSpellCastAt event correctly (not all the original spells did).

SpeakString / Send Message / Floating text had a bug which would pop up "insufficient data provided" even if enough data was provided, when pressing "okay - exit!". This was already fixed in the 1.3fix1 patch.

When spawning in creatures or placeables, the accompanying visual effect apparently never worked. This has been fixed and appears to work now. This was already fixed in the 1.3fix2 patch.

The Nightthief's Nimbleknife had been misplaced in the item palette under great swords rather than under daggers. This was already fixed in the 1.3fix2 patch.

Added opportunity to check for newer versions and patches (in the menus). This was already introduced in the 1.3fix2 patch.

The Script Generator has received some memory usage optimization. Specifically, I've changed it so that it no longer creates all the forms at start-up, but only when needed. Also, closing a form will now destroy it, freeing the memory associated with it. This makes for faster loading times, and more importantly, I'm hoping it might fix the problems a few people have had running this program.

The main screen is now centered on the desktop in all screen resolutions, and all other screens will be centered on the main screen.

The Script Generator now uses the system tray when minimized or not in focus. This can be disabled in the options menu.

Various minor fixes.

What was new in version 1.3

When choosing restrictions for a normal script, and when making an if statement, there were problems checking for multiple classes or races. The generated code would make use of bitwise operators, which would not work correctly in that context, though the script would compile without problems. If you have made scripts with previous versions that did this, you should probably redo them.
        At the same time, the code for checking for classes was optimized so that it now checks the level the PC has in that class, rather than checking each of the PC's three class positions for the class.

The missing line for assuring that heartbeat scripts are only run if NPC is not talking or fighting has been added.

The remove XP option didn't work - it would compile, but nothing would happen in game. This is because the command used for this couldn't take a negative amount. The Bioware script wizard uses it the same way, and that doesn't work either. I have now made a custom function for taking XP, and it appears to work without problems. If you have problems with it, please let me know.

The three victory animations all had a _ before the number, which caused scripts with those animations to not compile. Fixed.

When making a script that takes XP from the PC, the same amount of gold was taken in some cases. It should no longer do this, but if you notice that it does, please inform me.

In some instances, the ability DEXTERITY had been misspelled DECTERITY. This should now have been fixed.

When making a script that creates an item in an NPC's or placeable's inventory, a line would also be added giving gold to PC and party. This line apparently rewarded 0 gold, but it still had nothing to do there, so it has been fixed.

When casting spells on objects (not waypoints), the domain level option was never used by the script generator - and this caused the parameters for the function to get mixed up - the spell would be cast, but it might have been at different domain levels, projectile paths, and instant spell parameters.

The option to not show the popup screen ever again (the one pertaining to the event chooser) apparently didn't work. It has now been fixed. Part of the fix is that, now, instead of using a file, it uses Window's registry database.

Thought not really a bug, the generator was made to apply the VFX to a location. In most instances, it now applies it to the object instead, meaning that if the object moves, the effect will follow it. In the case of the effect applied at the location, it could look kind of odd, at times. If you experience odd behaviour due to this change, please let me know.

Due to popular demand, the script generator now supports creation of OnActivateItem script, i.e. scripts for Unique Power or Unique Power Self Only scripts.

The generator now includes a function for making blacksmith / item creation scripts - the type where you put something in a chest (or an anvil or whatever), perhaps firing a spell at it, and if the correct items were present, a new item is created instead. It has only been tested by one person, me, so it is recommended that you test if all the item creations are working before you release your module. If you find a certain part of the blacksmith script generator to produce faulty code, please inform me about this - instructions on how to submit bugs can be found elsewhere in this document, as well as in the program.

Added opportunity to make "else if" statements. Previously, it was only possible to make an "if" with an alternate "else". It is now possible to have "else if". Examples on use are provided within the program.

Added opportunity to play and handle sound objects via scripting.

Added an option to have somebody speak a string as an action, have the string appear as floating text over the PC's head, or have the string appear as a message in the chat window of the PC.

In the part where somebody is assigned to cast a spell, there is now an option to cast a fake spell instead - as well as a description of what, exactly, a fake spell is.

It is now no longer only possible to damage the PC, but a whole variety of objects.

Added opportunity to increment or decrement local integers.

Added option to speak a line in the action queue maker.

Added opportunity to check for several classes simultaneously when making starting conditionals (text appears when scripts). Also cleaned up the code using GetLevelByClass rather than GetClassByPosition.

Added opportunity to use the appraisal system with merchants, which was implemented in Shadows of Undrentide. Unfortunately, the function used for this is in nw_i0_plot, which can't be used together with nw_i0_tool, meaning that you can't give or take gold or give XP in the same script as the one that starts the merchant.

In all three places where you could check for an item, you can now also check for whether that item is equipped.

Added possibility to check for randomness in the "choose restrictions" bit and the "if maker". Previously, it was only available for "text appears when" scripts.

Added possibility for two additional script events: OnPlayerDeath and OnPlayerRespawn.

MAJOR GRAPHICAL REFRESHMENT: Colors everywhere have been altered, I've inverted the colors on the logo (still, thanks to Mokah for making it for me!), and added so-called glyphs to, I think, every single button in the program. Certainly looks A LOT nicer now!!!

In the part of the programs that makes normal scripts or OnActivateItem scripts, if insufficient data is provided by the user, a warning screen is displayed. This has not yet been added to the blacksmith script creator or the text appears when (starting conditional) script creator.

Many of the windows in the generator were set to a form style called fsStayOnTop. This meant that sometimes, when changing from the generator to another program on the taskbar, Windows would jump back to the generator. This has been taken care of, and program switching now finally seems painless!

In many events, it is now possible to use the caller of the script as a parameter - for instance, PC uses a chair; prior to version 1.3, to make the PC sit down, the tag of the chair had to be provided. Now, you just need to check the "use the owner of the script" checkbox instead!
        Note that this option hasn't been ADDED to ALL events, but all the ones where I found it was relevant. The option will NEVER be given when making OnActivateItem scripts, as OBJECT_SELF will be the module, and assigning an action queue to the module is known to make Neverwinter Nights crash...

The standard placeable, creature, and item palettes have been updated to include patch 1.30 and Shadows of Undrentide resources. As I have SoU, I can't know for certain whether this is correct, but I have tagged all creatures and items with a resref starting with x as requiring SoU (e.g., the name for the Pseudodragon in the palette will read Pseudodragon (SoU).) In the future, I plan on simply reading the palette from the NWN install, but for now, this is the best I can do.
   Not all resources have been made available in the palettes, but it is my believe that the ones I've left out wouldn't be very useable in general scripting, though they might be when placing them into the module at design time. People disagreeing with me on this can, of course, just type in the ResRefs and tags themselves...

In the screen where you check for local variables, some minor adjustments have been made - clicking okay - more without providing enough data will no longer close the window, just clear the screen. And the text of the "choose type of local variable" is now correctly reset every time the screen is cleared.

A few windows didn't reset to default when reopening them. I fixed those I found.

1.30 and Shadows of Undrentide included a number of new visual effects. Most of those, however, require a duration, and the generator currently allows only instantaneous visual effects. I might add an opportunity for permanent VFXs or VFXs of a specified duration, but for now, it means that the only new VFX is Bigby's Forceful Hand.

Version 1.2 news:
A major bug had been discovered about the Boolean logic used in if conditions etc. in this program. For instance:

if (!nInt>=2) always returns FALSE - this is the type of Boolean logic the script generator uses to exit the program on various occasions. It would say: if (!nInt>=2) return; however, as (!nInt>=2) always returns FALSE, the generated script would never exit on that one line. This is a major flaw, and needed correcting straight away! The correct syntax in this case would have been:
if (!(nInt>=2))

This is now fixed. However, please note that, of course, any scripts you have already made with previous versions of the script generator may have this very same problem. I advise you to TEST ALL SCRIPTS MADE WITH THE GENERATOR (I would advise you to do so in any circumstances), and then USE THIS NEW VERSION TO REMAKE THOSE SCRIPTS!!! I am terribly sorry about the introduction of this bug, it completely escaped my attention.

Also, two bugs were discovered in the 'assign action queue to NPC' option.

First: All places where you were allowed to choose between the PC as target or supply the tag of the target, if you chose the PC, no script line would be generated. This has been fixed.

Second: In the 'play animation' option, when choosing an animation with a duration, a so-called looping animation, the script generated would make the animation run until NPC was ordered to do something else, and at X times the normal speed, X being the duration entered by the user. This has been fixed to run at normal speed for X seconds, as was intended all along.
        Also, the animation ANIMATION_LOOPING_PAUSE_2 has been fixed to be ANIMATION_LOOPING_PAUSE2, as it should be.

Scripts generated with the ifchooser (from the event chooser) testing for journal entries mistakenly tested for the opposite of what they were supposed to. This has been fixed. It is possible that the bug here was actually introduced when fixing one of these other bugs, so it may not have been a bug in the released version.

For all of the three new possibilities for if statements in version 1.1, pressing okay without providing sufficient information would produce a faulty script. This has now been fixed.

In the ifchooser, the alignment panel was never reset after use, meaning that once it had been made visible, it would stay visible, possibly hiding further panels chosen afterwards. Fixed.

Ability to check for time / time of day both in the 'if chooser' and the condition chooser.

Ability to check for local variables (integers only) both in the 'if chooser' and the condition chooser.

Ability to store info about PC's or party's gold or level, in a local variable set either on the PC or on the entire party. This stored variable can then be checked for in an 'if' condition, as this is another new feature in version 1.2 (look above for more info).

Ability to turn lights on or off.

Ability to give and take gold, including possibility to take ALL of PC's gold. I have no idea why this function had been left out to begin with...

The 'assign action queue' handler will now also allow you to assign the action queue to the PC.

Ability to make NPC heartbeat scripts.

--previous updates--
Mokah (The Grumpy Strumpet) has made a new logo for me. I am thankful for this. Please see the end of this document for a few more lines on Mokah.

When pressing the 'finish current if' button to end an else statement, the program didn't make the required }, causing the generated script to not compile. This is now fixed.

Pressing cancel on the window where you choose conditions (before the event chooser) would send you to the main window and require you to press 'clear for new script' or close the program to continue, rather than pop up the event chooser. This has been fixed.

When choosing an if condition (from the event chooser or before the event chooser), pressing okay on the class or race condition when nothing was chosen (no classes, no races), it would generate a faulty script line. This has been fixed. From the event chooser, this was also true for items if no tag was entered. This too has been fixed.

The editbox on the take item event was set to lower case only. It is unknown whether or not this caused any problems, but it has now been set to normal case.

Pressing cancel on the if chooser window would not clear the window. This is now fixed.

A 'copy script to clipboard' button has been added. First of all, this is much easier than having to highlight the entire script first, and second of all, many users didn't know / understand that they had to copy everything, with compile errors as a consequence of them leaving out the first couple of lines of the script.

Major new functions and options

Tree structures have been added to all instances where a creature, item, or placeable had to be chosen. These trees of course only contain standard palette objects, and are valid as of NWN patch 1.28 (gnolls included ☺)
    EXCEPTIONS: Henchmen are not included in the creature tree, and creature items are not included in the item tree.

Also, there is now an:

Ability to add journal entries.
Ability to check for journal entries.
Ability to create items on non-PCs (i.e. other creatures, placeables).
Ability to damage PC.
Ability to have something/someone cast spells at something else / themselves. All spells in NWN patch version 1.28 supported!!!

Ability to open and close doors, as well as unlocking and locking both doors and containers.
Ability to apply effects to players, NPCs and other objects.
Ability to assign an action queue to an NPC!
Ability to check for ability score in 'other restrictions' and the 'if chooser'.

Ability to check for alignment in 'other restrictions' and the 'if chooser'.
Option to make OnOpen scripts
Option to make scripts for when PC performs a hostile act (GetLastHostileActor)

Valid effects to apply:

Ability Decrease	Dazed	Paralyze
Ability Increase	Deaf	Silence
AC Decrease	Death	Sleep
AC Increase	Haste	Slow
Attack Decrease	Heal	Spell Resistance Decrease
Attack Increase	Knockdown	Spell Resistance Increase
Blindness	Movement Speed Decrease	Stunned
Charmed	Movement Speed Increase	Ultravision
Concealment	Negative Level	

Valid visual effects to apply:

Breach	Gate	Polymorph
Death	Greater dispelling	Powerword kill
Destruction	Holy strike	Powerword stun
Divine strike fire	Horrid Wilting	Screen Shake
Doom	Icestorm	Sound Burst
Fireball	Implosion	Spell mantle
Firestorm	Meteor swarm	Summon celestial
Flame	Nature's balance	Sunbeam

| Time stop | Wail of the banshee | Word |
| Unsummon | Weird | |

List of available actions to assign to NPC's action cue

Clear All Actions	Give item to PC	Put down item
Close door	Jump to an object	Sit down on object
Equip most damaging melee weapon	Lock something	Take item from PC
	Move (walk) to an object	Unequip item
Equip most damaging ranged weapon	Move away from object	Unlock something
	Open door	Wait a specified amount of time
Equip most effective armor	Pick up item	
Follow someone	Play animation	

List of available animations to play from the action queue

Bow	Victory 1	Pause, drunk
Drink	Victory 2	Pause, tired
Greeting	Victory 3	Sitting in chair
Head turn left	Dead front	Sitting crosslegged
Head turn right	Get from low	Talk forcefully
Pause, bored	Get from waist height	Talk laughing
Pause, scratch head	Listen	Talk normal
Read	Look far	Talk pleading
Salute	Meditate	Worship
Steal	Pause	
Taunt	Pause, 2	

A panel on the main window had got shifted so that it was on top of the picture. It was supposed to be just above the picture, and this has now been fixed.

Some text panels were not set to read only. This has been fixed.

A few changes of colors.

The 'adjust alignment' window had a label that mistakenly read 'adjust reputation' - it still adjusted the alignment, though.

Pressing cancel on the 'adjust alignment' window did not close the window. This is now fixed.

The text labels on the if-chooser have been changed from reading (player must be) to (the following events will only happen if pc is...) and similar. Makes it easier to understand, I hope

The do once tutorial had a limitation that it couldn't be used if the line to only speak once had no reply (the kind of text that appears over the NPC's head rather than in the dialog window). The scripts have not been edited, but a comment has been added about this.

Also, simply copy - pasting the do-once scripts would result in some comment lines not having the required // and thus not working properly. Small issue, but it has been fixed.

Minor changes of text in the program in an attempt to make everything easier to understand.

Addition of a horizontal scrollbar in the if inspector to avoid line wrapping.

Thank you's

Mokah, obviously, for making my beautiful logo.

Martin Verna, just as obviously, for making my main screen art (with some elements borrowed from Mokah's work).

Troels Jakobsen for creating the CoolTrayIcon package, which I have used in this program. Go to http://subsimple.com/delphi.asp to download this and other of his stuff.

This program is packed with UPX. You can learn more about UPX on http://upx.sourceforge.net/.

Everyone who submitted bugs and suggestions for me - on my forum, through email, or by other means. Also thanks for all the nice words I've been getting about this!

Mokah

Mokah of the Grumpy Strumpet has provided me with a new logo. I am very proud that Mokah decided to do so, and I think it looks smashing, particularly in comparison with the cr@p I had before ☺

You may know Mokah's Grumpy Strumpet already, either from the Strumpet's website (http://www.thegrumpystrumpet.com/) or from the Strumpet being featured on the NWVault. Please check out the Strumpet website, it's great!

Martin Verna (Doconicus)

Martin Verna (Doconicus) has created the new main screen art for the Script Generator. You can send him an email at Martin.Verna@mail.wvu.edu and visit his (non-NWN related) website at http://www.140pvi.com/

Legal stuff

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