

The Spawn Waypoint Generator is for generating Neverwinter Nights® Waypoint names for use with Neshke's Spawn System, version 7.0.

SWG can be downloaded here: <http://www.lrjonline.net/swg>

Neshke's Extendable Spawn System (NESS) is an alternative encounter spawn system for use within BioWare's® game Neverwinter Nights®. With this system, the module builder has many more options when creating encounters than they do with the game toolkits' built-in encounter system. Though the system is very simple to use, the module builder often finds himself flipping through the system documentation trying to figure out which flag to use to accomplish certain tasks.

SWG is meant to ease the task of generating the waypoint names used by the spawn system to create the encounters.

- Just select the spawn options you want and the application generates the required waypoint name, then just copy the generated name and paste it into the toolkit. Click the 'New' button to clear the name and set all the options back to their default values.
  
- To help the user find the options they are looking for, spawn options have been divided into 6 groups: General, Checks, Timing, Location, Child Properties and Deactivation - with Child Properties further divided into General, Loot, Tasks and Placeable / Camp Options.
  
- Using Patrol Routes? The application also includes the ability to generate Patrol Route tags.
  
- Use F1 from any control to see help on the option it changes. Also includes HTML Help (.chm) version of help.
  
- If you use the ALFA enhanced version of NESS, there is also an option to enable the use of their additional flags and options.

- Float your mouse pointer over any control to see which NESS option it represents.
- Click on any control and hit F1 to see help on the NESS option it modifies.
- Use Ctrl+C or Right Click->Copy to copy the Waypoint name from the edit box.
- Use the arrow keys to increase/decrease spin box values by 1.
- Use Page Up / Page Down to increase/decrease spin box values by 10.
- Use the 'Options' menu to enable / disable ALFA enhancements and Zero Padding

This spawning system allows experienced developers to tailor their creature spawns to their tastes, while also being easy enough to use for beginner designers to include in their modules and get up and running quickly.

Download the Spawn\_v70.erf file here: [Spawn v7.0](#)

## Installation and Use

Installation of the Spawn system is easy, just import the files from the .erf above. Then place `#include 'spawn_main'` in your area's heartbeat and call `Spawn()`. A sample area heartbeat is included in the file 'spawn\_sample\_hb' to explain this visually.

Once installed, it is easy to create spawning points. Simply place a waypoint down, changing the Name and the Tag to suit your desires. While the spawn system has a great number of advanced features that can be implemented, the simplest form will be to change the waypoint Name to SP and then change the waypoint Tag to the Tag or ResRef of the creature you wish to spawn.

For example, this will maintain a spawn of one goblin:

Waypoint Name: SP  
Waypoint Tag: NW\_GOBLINA

## Available Flags

This is the list of all of the available flags to use with the system:

<u>SP</u> 00	Spawn Point
<u>ID</u> 00	Spawn ID
<u>FT</u>	Flag Table
<u>SN</u> 00 M00	Spawn Number
<u>SA</u>  00	Spawn All At Once
<u>SR</u> 00 M00	Spawn Radius
<u>SD</u> 00 M00	Spawn Delay
<u>CL</u> 00 M00	Child Lifespan
<u>RG</u> 000 C00	Random Gold
<u>RW</u>  R00	Random Walk
<u>RH</u>  D00	Return Home
<u>DY</u> 00 T00	Spawn Day
<u>HR</u> 00 T00	Spawn Hour
<u>DQ</u>  D	Day Only
<u>NO</u>  D	Night Only

## About Spawn Waypont Generator

<u>PC</u>  00 R	PC Check
<u>SF</u>	Spawn Facing
<u>SU</u> 00	Spawn Unseen
<u>FX</u> 000 D000	Spawn Effects
<u>PR</u> 00 T0	Patrol Route
<u>EE</u> 00 R00	Entrance/Exit
<u>EX</u> 00 R00	Exit
<u>PL</u> 0 T00	Spawn Placable
<u>SG</u>	Spawn Group
<u>CD</u> 000 T0	Corpse Decay
<u>LT</u> 00	Spawn Loot
<u>DS</u> 0 S000	Deactivate Spawn
<u>DI</u> 00	Deactivation Info
<u>CM</u>  D000	Spawn Camp
<u>SS</u> 000 D000	Spawn Script
<u>CC</u> 00	Spawn Check- Custom
<u>CP</u> 00 R00	Spawn Check - PCs
<u>TR</u> 00 D00	Spawn Trigger
<u>AE</u> 000 D000	Area Effect
<u>OE</u> 000 D000	Object Effect
<u>RS</u> 00	Random Spawn
<u>FC</u> 0	Spawn Faction
<u>AL</u> 0	Spawn Alignment
<u>HB</u> 000	Spawn Heartbeat
<u>DT</u> 000	Death Script
<u>SL</u> 00 R00	Spawn Location
<u>HL</u>	Heal Children
<u>ST</u>	Spawn Sitting
<u>IT</u>	Spawn Item
<u>PT</u>	Spawn Plot
<u>CF</u>	Custom Flag

### **Configuration Includes**

These are the files that can be modified if custom behaviors are needed. These can be modified with script along with settings, so that your settings can be conditional on custom script that is run if desired.

Global Settings

Spawn Flags

Spawn and Despawn Effects

## About Spawn Waypont Generator

- Object Effects applied to Spawns
- Area Effects with/without Spawns
- Inventory Loot Tables
- Spawn Groups
- Spawn Camps

### **Spawn Checks**

These includes allow you to check complex conditions before proceeding with the spawn.

- Check PCs for Items/Quests/Etc
- Open-Ended Check Code

### **Event Hooks**

These scripts fire custom code on event hooks that have been placed into the spawning system. They allow open-ended customization of the behavior of your spawns.

- Spawn and Despawn Scripts
- Patrol Stop Scripts
- Spawn Deactivation Scripts
- Spawn Heartbeat Scripts
- Death Scripts
- Camp Trigger Scripts

- [AE](#) Area Effect
- [AL](#) Child Alignment
- [CC](#) Spawn Check Custom
- [CD](#) Corpse Decay
- [CF](#) Custom Flag
- [CL](#) Child Lifespan
- [CM](#) Spawn Camp
- [CP](#) Spawn Check PC's
- [DI](#) Deactivate Info
- [DO](#) Day Only
- [DS](#) Deactivate Spawn
- [DT](#) Death Script
- [DY](#) Spawn Days
- [EE](#) Entrance / Exit
- [EX](#) Exit
- [FC](#) Spawn Faction
- [FT](#) Flag Table
- [FX](#) Spawn Effect
- [HB](#) Heartbeat Script
- [HL](#) Heal
- [HR](#) Spawn Hours
- [ID](#) Spawn ID
- [IS](#) Initial State
- [IT](#) Spawn Item
- [LT](#) Loot Table
- [NO](#) Night Only
- [OE](#) Object Effect
- [PC](#) PC Check
- [PL](#) Placeable Object
- [PR](#) Patrol Route
- [PT](#) Set Child Plot Flag
- [RG](#) Random Gold
- [RH](#) Return Home
- [RS](#) Random Spawn
- [RW](#) Random Walk
- [SA](#) Spawn At Once
- [SD](#) Spawn Delay
- [SF](#) Spawn Facing
- [SG](#) Spawn Group

## About Spawn Waypont Generator

- SL Spawn Location
- SM Spawn Merchant
- SN Spawn Number
- SP Waypoint
- SR Spawn Radius
- SS Spawn Script
- ST Children Sit
- SU Spawn Unseen
- SX Suppress Diminished  
XP
- TR Spawn Trigger

## **AEn|Dn**

Area Effects are Defined in 'spawn\_cfg\_fxae'

Waypoint Tag can be "AE" to Spawn only Area Effect

Optional Flag: D000

Area Effect Duration of 000 to 999 Seconds

Duration of 000 means Permanent Area Effect

Default Duration is 005 Seconds



## **ALn|Sn**

Shift Alignment of Children

Alignment 0: Neutral

Alignment 1: Law

Alignment 2: Chaos

Alignment 3: Good

Alignment 4: Evil

Alignment 5: All

Optional Flag: S00

Shift Alignment by S00

Default Shift by 10

## **CCn**

Check Custom Code to see if Spawn Proceeds  
Custom Code is Defined in 'spawn\_chk\_custom'

## **CDn|Tn**

Decay Corpse after CD000 to CD999 Seconds

Default No Corpse, Standard Loot Bag

Optional Flag: T

Corpse Inventory Type

Type 0: Inventory Items

Type 1: Inventory & Equipped Items

Type 2: Inventory Items, if PC Killed

Type 3: Inventory & Equipped Items, if PC Killed

## **CF**

Everything in Spawn Name after CF Is Stored in LocalString "CustomFlag" On Each Spawned Child

**CLn|Mn**

Child will Despawn after CL00 Minutes

Optional Flag: M00

Child will Despawn after M00 to CL00 Minutes

## **CM|Dn**

Spawns Camp of Creatures and Placeables

Waypoint Tag is Defined Camp

Despawns Camp when all Children Dead

Camps are Defined in 'spawn\_cfg\_camp'

Optional Flag: D000

Placeables Decay 000 Seconds after Camp Despawn

Camp Children Flags:

RW : Random Walk

SF : Spawn Facing Camp

SG : Spawn Group

LT00 : Loot Table

CD000|T0 : Corpse Decay

PL0|T00 : Placeable Type

Placeable Trap Disabled

**CPn|Rn**

Check Custom Code to see if Spawn Proceeds

Custom Code is Defined in 'spawn\_chk\_pcs'

Optional Flag: R00

Check all PCs in Radius R00

Default Check all PCs in Area

**DIn**

Deactivation Information



**DO|D**

Only Spawns at Day

Optional Flag: D

Despawn Children at Nightfall

## **DTn**

Run Script 001 to 999 on Death  
Scripts are Defined in 'spawn\_sc\_death'

**DSn|Sn**

Deactivate Spawn based on Condition

Type 0: Deactivate if all Children are Dead

Type 1: Deactivate if Spawn Number has been Spawned

Type 2: Deactivate Spawn until all Children are Dead

Type 3: Deactivate Spawn after DI00 Children

Type 4: Deactivate Spawn after DI00 Minutes

Type 5: Deactivate Spawn after DI00 Cycles

Type 6: Deactivate when Spawn Count == Spawn Number

This is similar to Type 1, except that Type 1 is based on number of children *\*ever\** spawned, so once deactivated can never be re-activated if 1 or more of its children have been killed or despawned.

Optional Flag: S000

Run Script 000 to 999 when Spawn Deactivated

Scripts are Defined in 'spawn\_sc\_deactiv'

Can Reactivate by Manually Calling: `SetLocalInt(oSpawn, "SpawnDeactivated", FALSE);`

If using ALFA version of NESS, use

NESS\_DeactivateSpawn or NESS\_DeactivateSpawnByID instead

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Text in green is only applicable in ALFA version of NESS

**DYn|Tn**

Spawn Only on Day DY00 to DY28

Children are Despawnd during Invalid Days

Optional Flag: T00

Spawn from Day DY00 to Day T00

**EEn|Rn**

Enter and Exit at Waypoint EE00

Optional Flag: R

Choose Random Entrance Exit from R00 to EE00

Entrance/Exit Name: Variable

Entrance/Exit Tag: EE00

If the 'Same as entry' Exit Waypoint option is set, then this flag (EE) will be used instead of the SL tag

**EXn|Rn**

Exit at Waypoint EX00

Optional Flag: R

Choose Random Exit from R00 to EX00

Exit Name: Variable

Exit Tag: EX00

## **FCn**

Change Faction of Children:

Faction 0: COMMONER

Faction 1: DEFENDER

Faction 2: MERCHANT

Faction 3: HOSTILE

Faction 4: CUSTOM

Change Faction to Same as Nearest Object with Tag 'SpawnFaction'

**FTn**

Use Flags from Table FT00  
Flags are Defined in 'spawn\_cfg\_flag'



**FXn|Dn**

Spawn in with Effect FX001 to FX999

Effects are Defined in 'spawn\_cfg\_fxsp'

Optional Flag: D000

Despawn with Effect D001 to D999

## **HBn**

Children will Run Script HB000 each Cycle  
Scripts are Defined in 'spawn\_sc\_hbeat'

**HL|n|E**

Heal Children if Not in Combat

Optional Value: 00

Heal 00% per Cycle

**HRn|Tn**

Spawn Only during Hour HR00 to HR24

Children are Despawnd during Invalid Hours

Optional Flag: T00

    Spawn from Hour HR00 to Hour T00

**IDn**

Sets LocalInt "SpawnID" to SpawnID  
On Spawn Waypoint Object

**ISn|Dn**

Initial State

Type 0 : Inactive

Type 1 : Default : Active

Optional Flag: D000

Delay Initial Spawn D000 Minutes

## **IT**

Spawn Item

Spawnpoint Tag is Item Template

## **LTn|An|Bn|Cn**

Spawn Loot on Children from Table LT000 to LT999

Loot Tables are Defined in 'spawn\_cfg\_loot'

LT500 to LT999 currently reserved for merchant-based loot tables

Optional Flag: A000

When using merchant-based loot tables, the percentage chance that only 1 item will spawn. Default is 50%. Values over 100% are truncated to 100%

Optional Flag: B000

When using merchant-based loot tables, the percentage chance that 2 items will spawn. Default is 15%. Values over 100% are truncated to 100%

Optional Flag: C000

When using merchant-based loot tables, the percentage chance that 3 items will spawn. Default is 05%. Values over 100% are truncated to 100%

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**NO|D**

Only Spawns at Night

Optional Flag: D

Despawn Children at Daybreak

## **OEn|Dn**

Object Effects are Defined in 'spawn\_cfg\_fxobj'

Optional Flag: D000

Object Effect Duration of 000 to 999 Seconds

Duration of 000 means Permanent Object Effect

Default Duration is Permanent

**PC|n|R**

Only Spawn Children if PCs are in Area

Children are Despawnd if no PCs in Area

Optional Flag: PC00

Depawn if no PCs in Area for PC00 Minutes

Optional Flag: R

Reset Spawn Point if no PCs are Present

**PLn|Tn|Pn**

Spawns a Placeable Object with Behavior

Behavior 0: Default Behavior

Behavior 1: Despawn if Empty

Behavior 2: Refill if Empty

Behavior 3: Refresh (despawn/respawn) every P00 minutes; default (if no Pn specified) is 60 minutes

Optional Flag: T00

Trap Disabled Chance

00% to 99% chance of Trap Disabled

Trap must already be part of Placeable's Template

Default 100% Chance Trap is Disabled

Optional Flag: P00

Refresh period (in minutes)

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## **PRn|Tn**

Assign Waypoints Route PR00 to PR99

Optional Flag: T0

Route Type

0 - Sequential

1 - Circular

2 - Random

3 - Walk Once/Despawn

Route Name: Variable

Route Tag: PR00\_SN00\_PS000\_RN\_FC\_DO\_NO\_SC000

PR - Route Number 00 to 99

SN - Stop Number 00 to 99

PS - Pause 000 to 999 seconds at Stop

RN - Run to Stop

SF - Face the Waypoint Direction

DO - Only Stop here during the Day

NO - Only Stop here during the Night

SC - Run script 000 to 999

Scripts are Defined in 'spawn\_sc\_patrol'

**PT**

Sets Children as Plot Items

**RGn|Mn|Cn**

Generates Random Amount of Gold on Children

From RG000 to RG999 Gold

Optional Flag: M00

Minimum Gold Amount

Optional Flag: C00

Gold Chance C00% to C99%

Default 100% chance

**RH|Dn**

Child will always Return to Home

Optional Flag: D00

Child will Return to Home Only if further than D00 Meters



## **RSn**

Percentage Chance Spawn will Occur

Default 100% Chance

**RW|Rn**

Children Wander Randomly

Optional Flag: R00

Wander Range, R00 to R99 Meters

WARNING: Setting a Range is Resource Intensive!!

**SA|n|Mn**

Default is Spawn One Child per Cycle

Optional Flag: 00

Spawn 00 Children per Cycle

Optional Flag: M00

Spawn Minimum M00 per Cycle

### **SDn|Mn|P**

Delay SD00 to SD99 Minutes between Spawns

Optional Flag: M00

Minimum Delay, M00 to SD99 Minutes

Optional Flag: P

This flag sets up a spawn period, whereas the default spawn delay specifies a spacing between spawns.

This is particularly useful with PL3 (keep the times the same on each) it will cause the placeable to refresh if alive or respawn if not on a regular schedule.

Note that if the P sub flag is used, the M sub flag is ignored.

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## **SF**

Set Facing of Children to Match Waypoint

Default Random Facing

## **SG**

Spawn Children from Group  
Waypoint Tag is Defined Group  
Groups are Defined in 'spawn\_cfg\_group'

### **SLn|Rn**

Spawn Children at Waypoint SL00

Optional Flag: R

Choose Random Location from R00 to SL00

Location Name: Variable

Location Tag: SL00

If the 'Same as entry' Exit Waypoint option is set, then EE will be used instead of the SL tag

## **SM**

Spawn Merchant

Spawnpoint Tag is Merchant Template



## **SNn|Mn**

Maintains a Spawn of SN00 to SN99 Children

Despawns Extra Children

Optional Flag: M00

Minimum Children

Will Randomly Spawn between M00 and SN00 Children

## **SP|n**

SP is Required on all Spawn Waypoints

Performs Spawning every SP01 to SP99 heartbeats

Default is SP, 01 Heartbeat : 6 Seconds

SP00 Defaults to SP01

**SRn|Mn|P**

Randomly Spawns Children in a Location SR00 to SR99 Meters from Waypoint

Optional Flag: M00

Minimum Radius, M00 to SR99 Meters

Optional Flag: P

Spawn Center is Near a Random PC in Area

## **SSn|Dn**

Run Script 001 to 999 on Spawn  
Scripts are Defined in 'spawn\_sc\_spawn'  
Optional Flag: D000  
    Run Script 001 to 999 on Despawn

## **ST**

Children will Sit in Nearest Unoccupied Sittable  
Sittable's Tag must be 'Seat'

## **SUn|In**

Only Spawn if PCs are not within SU00 to SU99 Meters

Optional flag: I00

Use the location of each individual child to determine if that child can spawn, instead of using the location of the spawn itself.

If using SR or SL|R, I00 to I99 additional random locations will be attempted

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**SX**

Suppress diminishing returns XP

Discourages 'spawn camping'

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**TRn|Dn**

Only Spawns if PC is within 00 Meters

Optional Flag: D00

Despawns if PC is not within D00 Meters



Functions for external control. Please use these when possible instead of modifying variables directly in NESS.

object NESS\_GetSpawnByID(int nSpawnID, object oArea)

Returns the spawn waypoint in area oArea with ID nSpawnID

void NESS\_ActivateSpawnByID(int nSpawnID, object oArea)

Activates the spawn in area oArea with ID nSpawnID

void NESS\_DeactivateSpawnByID(int nSpawnID, object oArea)

Deactivates the spawn in area oArea with ID nSpawnID

void NESS\_ActivateSpawn(object oSpawn)

Activates spawn oSpawn

void NESS\_DeactivateSpawn(object oSpawn)

Deactivates spawn oSpawn

void NESS\_ForceProcess(object oSpawn)

Force spawn oSpawn to be processed next heartbeat (regardless of SPxx value)

void NESS\_TrackModuleSpawns(int nFlag=TRUE)

Enable (nFlag == TRUE) or Disable (nFlag == FALSE) Spawn Tracking

int NESS\_IsModuleSpawnTracking()

Returns TRUE is spawn tracking is enabled, FALSE otherwise

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Text in green is only applicable in ALFA version of NESS

To help the user find the options they are looking for, spawn options have been divided into 6 groups:

- [General](#)
- [Checks](#)
- [Timing](#)
- [Location](#)
- [Child Properties](#)
- [Deactivation](#)

with Child Properties further divided into 4 sub groups

- [General](#)
- [Loot](#)
- [Tasks](#)
- [Placeable / Camp Options](#)

- AE Spawn Area Effect
- FT Flag Table
- FX Spawn Effect
- HB Heartbeat Script
- ID Spawn ID
- IS Initial State
- OE Spawn Object Effect
- SA Spawn At Once
- SN Spawn Number
- SP Designate Spawn  
Waypoint
- SR Spawn Radius
- SS Spawn Script
- SX Suppress Diminishing  
XP

- CC Spawn Check Custom
- CP Spawn Check PCs
- PC PC Check
- RS Random Spawn
- SU Spawn Unseen
- TR Spawn Trigger

DO Day Only

DY Spawn Day(s)

HR Spawn Hour(s)

NO Night Only

SD Spawn Delay

- EE Entrance / Exit
- EX Exit
- SF Spawn Facing
- SL Spawn Location

Child Properties has been divided into 4 sub groups:

- [General](#)
- [Loot](#)
- [Tasks](#)
- [Placeable / Camp Options](#)

- AL Child Alignment
- CD Corpse Decay
- CF Custom Flag
- CL Child Lifespan
- FC Child Faction
- IT Spawn Item
- PT Set Plot Flag
- SG Spawn Group
- SM Spawn Merchant



LT Loot Table

RG Random Gold

- DT Death Script
- HL Heal
- PR Patrol Route
- RH Return Home
- RW Random Walk
- ST Sit

CM Spawn Camp

PL Spawn Placeable  
Object

DI Deactivation  
Information

DS Deactivate Spawn