

CTF-FoT-Dipolarity

Patching component for NavAdder 2 mutator

addressing game UT'99 + XC_Engine v24

Description:

This file is used by **NavAdder v2** mutator for paths specific patching jobs in Map called **CTF-FoT-Dipolarity** for games of type CTFGame (aka Capture The Flag), made by **Swanky** as it shows LevelInfo.

Map's File Checksums:

File: CTF-FoT-Dipolarity

CRC-32: A3161E1E

MD5: 849A22B6163B50D13EED4091049A8815

SHA-1: AAC3D06948E2BA0349706B73F1D0301D153B8569

SHA-256: 37A50CD986F8C67799D15174BC96C7A4987A3A2D031F4633A2A872BD9DC249E3

Patch Notes:

Map has PathNodes placed in high spots over ramps developing seldom flaws - running in place unable to get properly at these PathNodes similar to stock map CTF-Command:

Logue inflicted mortal damage upon Cilia with the Shock Rifle



Bot from image was running there until Damage Amplifier went exhausted and useless.

We have a TranslocDest point un-linked anywhere. Randomly Bots are trying to follow jumpy paths bouncing in walls and wasting time for resuming navigation from Lifts. Several corrections need applied at kickers. Two Movers have the same tag any of them moving the same LiftCenter actor.

Plugin will do a few corrections:

- Linking lost TraslocDest into navigation if game uses Translocator;
- Removing several jumps previously causing flawed movement;
- Pushing down offending PathNodes;
- Adjusting AttachMover7 for working separate from AttachMover8 with connected LiftCenter;

- reusing a ReachSpec for generating a Path in Blue area similar to the path from Red area - aiming to balance movement over a Lift in both bases;
- Lift Combos and the rest of combos are reduced as Paths-Length and ExtraCost because there is not needed any high cost for them and Paths through these points are not having a real distance of 1000 UU (500+500) as UT Stock is claiming with hard-coded values...

```

if ( node->IsA(ALiftCenter::StaticClass()) )
{
    FName myLiftTag = ((ALiftCenter *)node)->LiftTag;
    for (INT i=0; i<Level->Actors.Num(); i++)
    {
        AActor *Actor = Level->Actors(i);
        if ( Actor && Actor->IsA(ALiftExit::StaticClass()) && ((ALiftExit *)Actor)->LiftTag == myLiftTag )
        {
            newSpec.Init();
            newSpec.CollisionRadius = 60;
            newSpec.CollisionHeight = 60;
            newSpec.reachFlags = R_SPECIAL;
            newSpec.Start = node;
            newSpec.End = Actor;
            newSpec.distance = 500;
            int pos = insertReachSpec(node->Paths, newSpec);
            if (pos != -1)
            {
                int iSpec = Level->ReachSpecs.AddItem(newSpec);
                node->Paths[pos] = iSpec;
                pos = insertReachSpec(((ANavigationPoint *)Actor)->upstreamPaths, newSpec);
                if (pos != -1)
                    ((ANavigationPoint *)Actor)->upstreamPaths[pos] = iSpec;
            }
            newSpec.Init();
            newSpec.CollisionRadius = 60;
            newSpec.CollisionHeight = 60;
            newSpec.reachFlags = R_SPECIAL;
            newSpec.Start = Actor;
            newSpec.End = node;
            newSpec.distance = 500;
            pos = insertReachSpec(((ANavigationPoint *)Actor)->Paths, newSpec);
            if (pos != -1)
            {
                int iSpec = Level->ReachSpecs.AddItem(newSpec);
                ((ANavigationPoint *)Actor)->Paths[pos] = iSpec;
                pos = insertReachSpec(node->upstreamPaths, newSpec);
                if (pos != -1)
                    node->upstreamPaths[pos] = iSpec;
            }
        }
    }
    return;
}

```

this way causing Pawns to use these paths more intensive due to distance+cost calculations operated by the same Unreal Engine v1;

- added a DefensePoint in each Base and connecting it into chain;

Explained files:

File [SS_NVADCTF-FOT-DIPOLARITY.u](#) is a server-side plugin file, not a mutator, it's working around authoritative pathing parts automatically lunched by NavAdder Update 2.

Installation:

Copy U file in System Folder from UT install where mutator NavAdder v2 was previously placed and is active. NavAdder v2 will find it and will load it when map is being loaded. Patch plugin is goes active by itself. If it's not needed any longer to patch map or map used it's another fixed version, just remove/move/delete this U plugin-type file.

The reminder:

NavAdder uses these plugin type files if are found and will not cry for them if are removed later (bugs reasons or whatever reasons). When other map is running, these files can be removed or replaced and then server will have an update or update removed without being re-started/stopped.

These features are **available ONLY IN PRESENCE OF XC_ENGINE at least v24 and higher**. Main Mutator using this plugin will **crash** a **plain server** because the default UE1 doesn't use newer XC iterators because it's not having them - it was year 1999.

Plugins mainly cannot be compiled with stock UT which has hilarious constants and compiler specific "rules" making impossible compiling of

several fixes which are doable without damaging anything.