

FishingGame Q&A;

()

A. Q&A; ()

Q1. GDI+ PNG ?

A1. Sprite::Load Gdiplus::Image Graphics::DrawImage
GDI+가

Q2. ?

A2. Game::EnsureBackBuffer CompatibleDC/Bitmap , DC BitBlt

Q3. ?

A3. main.cpp WndProc / Game . Game
keyDown_/keyPressed_/keyReleased_, mouseDown_/mousePressed_/mouseReleased_
, Update Player FishingSystem

Q4. FSM ?

A4. FSM Idle Charging() Casting Floating Bite Reeling Caught/Fail
가 , biteTimer , - ,

Q5. - / ?

A5. FishManager::CheckHookCollision Inflated AABB()
AttachTo , FishingSystem hookedFish_
(catchThreshold)
ConsumeCatch /

Q6. Rod/Line ?

A6. Rod (castPowerMax_) 가 . Line
(chargeRate_), (reelSpeed_), (lineTensionDecay_)

Q7. / ?

A7. $\text{base}(5/10/20) * (1 + \text{totalGold} * 0.0025)$, 10
Rod $20 * \text{level}^2$, Line $15 * \text{level}^2$ () ,
10

Q8. ?

A8. F12 + 100 Gold, Reset, Rod+1, Line+1 ,
HandleDebugClick

Q9. ?

A9. WM_ERASEBKGD , BitBlt

Q10. ?

A10. ResourcePath 가 exeDir, , CWD res/textures/...
fallback

Q11. list ?

A11. std::list hookedFish_
가 , 가

Q12. ?

A12. traits (), (DrawImage
, Kill , 가 . 가 GDI
/ , DrawImage Low .

B. /

- src/main.cpp: WinMain, (WS_EX_COMPOSITED), , Game ,
WM_PAINT Game::Render .
- src/Game.h / Game.cpp: . / FSM/ /UI/ / , ,
. . . , /
- src/Player.h / Player.cpp: / , (+), (+
) , .
- src/FishingSystem.h / FishingSystem.cpp: . / , , ,
, / / / .
- src/Fish.h / Fish.cpp: (, traits , / , alive/attached),
/ / /Attach(), .
- src/FishManager.h / FishManager.cpp: std::list , , ,
(waterRect ± 32), Kill, (InflateRect) .
- src/UI.h / UI.cpp: / , Rod/Line , Cast Power , .
- src/Shop.h / Shop.cpp: , (/) .
- src/Sprite.h / Sprite.cpp: GDI+ , Draw/DrawFlippedH .

1) WinMain

- GDI+ Startup
- (WS_EX_COMPOSITED)
- Game::Initialize
- Game
- 가 Game::Update
- WM_PAINT Game::Render , InvalidateRect

2) Game

- (waterRect)
- : boat.png, fishes/fish_03/07/12
- Player/FishManager
- / FishingSystem
- UI/Shop
- (EnsureBackBuffer)

3)

- WndProc / Game::OnKeyDown/OnKeyUp/OnMouse...
- Game keyDown_/keyPressed_/keyReleased_ mouseDown_/mousePressed_/mouseReleased_
/
- F12 , S
- / , FSM

4) (Game::Update)

- Player.Update:
- FishManager.Update: , ,
- FishingSystem.Update: FSM / / / / , -
- FishManager.CheckHookCollision: Fish
- FishingSystem.ConsumeCatch: / Game , totalGold/score/messages

-
- 1 pressed/released

5) (Game::Render)

- DC
- (/)
- (waterRect ± 32px)
- (/ /)
- Player()
- UI.Render: / / /
- Shop.Render:
- /F12
- BitBlt

FSM

- : Idle Charging Casting Floating Bite Reeling Caught/Fail
- Charging: (Rod)
- Casting: / /
- Floating: / , FishManager
- Bite: Reeling, Fail
- Reeling: , - Attach, -

Caught

- Caught/Fail: Idle
- / /

- Traits score/money/speed/tensionAdd/size per - frame

- : +4px ~ - 40px Y , /
- Update: bounds alive=false
- Render: waterRect ± 32px DrawImage
- : AABB InflateRect , Fish
- Attach: , Fish::AttachTo FishingSystem

hookedFish_

/

- ResourcePath: exe res/textures/...
- , fallback
- : Game::EnsureBackBuffer CompatibleDC/BMP ,

- WM_ERASEBKGDND
- /

- : base(5/10/20) * (1 + totalGold*0.0025), 10 late - game 가
- : Rod 20*level^2, Line 15*level^2, 10 曲
- : F12 gold, , 가

- Traits per - frame
- DrawImage
- Kill
- GDI

C. 가 Q&A;

Q13. (dt) ?

A13. dt(ms)
, Game::Update(dt) . Player, FishingSystem, FishManager dt *

dt , FPS가 가 .

Q14. / ?

A14. WM_SIZE Game::OnResize ,
(waterRect) UI (EnsureBackBuffer) .

Q15. (,) ?

A15. nullptr ,
DrawImage + .
가 .

Q16. ?

A16. 가 가 .

-
-
- (biteTimer)
-
, .

Q17. 가 가 ?

A17. FishingSystem ,
Fish/FishManager , UI UI .
, 가 가 .

Q18. ?

A18. .

- , 가
- Bite/Reeling (,) 가
- Shop bait, luck, auto - reel 가
- UI / , 가
가 , 가 .