

SANJUAN

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檔案

- main.c
- jobActRG.c
- jobActRN.c
- jobActFG.c
- jobActFN.c
- setCard.c
- print.c
- works.c
- sanJuan.h
- Makefile

結構

- 職業

```
1  typedef struct job{
2      int32_t producer;
3      int32_t builder;
4      int32_t prospector;
5      int32_t trader;
6      int32_t councillor;
7  }__attribute__((__packed__)) sjob;
```

- 生產建築卡

```
1  typedef struct produce{
2      int32_t indigoPlant;
3      int32_t sugarMill;
4      int32_t tobaccoStorage;
5      int32_t coffeeRoaster;
6      int32_t silverSmelter;
7  }__attribute__((__packed__)) sproduce;
```

- 特殊建築卡

```
1  typedef struct card{
2      int32_t tower;
3      int32_t chapel;
4      int32_t smithy;
5      int32_t poorHouse;
6      int32_t blackMarket;
7      int32_t crane;
8      int32_t carpenter;
9      int32_t quarry;
10     int32_t well;
11     int32_t aqueduct;
12     int32_t marketStand;
13     int32_t marketHall;
14     int32_t tradingPost;
15     int32_t archive;
16     int32_t prefecture;
17     int32_t goldMine;
18     int32_t library;
19     int32_t statue;
20     int32_t victoryColumn;
21     int32_t hero;
22     int32_t guildHall;
23     int32_t cityHall;
24     int32_t trinnhalArch;
25     int32_t palace;
26 }__attribute__((packed)) scard;
27
```

- 已建造的建築

```
1  typedef struct builded{
2      int32_t indigoPlant;
3      int32_t sugarMill;
4      int32_t tobaccoStorage;
5      int32_t coffeeRoaster;
6      int32_t silverSmelter;
7      int32_t tower;
8      int32_t chapel;
9      int32_t smithy;
10     int32_t poorHouse;
11     int32_t blackMarket;
12     int32_t crane;
13     int32_t carpenter;
14     int32_t quarry;
15     int32_t well;
16     int32_t aqueduct;
17     int32_t marketStand;
18     int32_t marketHall;
19     int32_t tradingPost;
20     int32_t archive;
21     int32_t prefecture;
22     int32_t goldMine;
23     int32_t library;
24     int32_t statue;
25     int32_t victoryColumn;
26     int32_t hero;
27     int32_t guildHall;
28     int32_t cityHall;
29     int32_t trinmhalArch;
30     int32_t palace;
31 }__attribute__((__packed__)) sbuilded;
```

- 已生產貨物

```
1  typedef struct goods{
2      int32_t indigoGoods;
3      int32_t sugarGoods;
4      int32_t tobaccoGoods;
5      int32_t coffeeGoods;
6      int32_t silverGoods;
7 }__attribute__((__packed__)) sgoods;
```

輸出函式

```
1 void introduce()
2 //介紹這款遊戲
3 void printgame()
4 //輸出遊戲起始畫面
5 void atten()
6 //輸出注意事項
7 void printProCard(sproduce *playerCard,sgoods *playerGood)
8 //印出所有生產建築卡
9 void printAllCard(sproduce *playerPro, scard *playerCar)
10 //印出所有卡牌
11 void printAllGoods(sgoods *playerGoods)
12 //印出所有貨物
13 void printJod(sjob *allJob)
14 //印出目前可選擇的職業
15 void printBuiledProCard(sbuiled * playerBui,sgoods *playerGood)
16 //印出已建造的生產建築
17 void printBuiledCard(sbuiled * playerBui)
18 //印出所有已建造的建築
```

發牌相關功能的函式

```
1 void setJob(sjob *allJob)
2 //初始化職業數量
3 void setGoods(sgoods *goods)
4 //初始化貨物數量
5 void setProduce(sproduce *allProduce)
6 //初始化生產建築卡數量
7 void setPlayerBuiled(sbuiled *builed)
8 //初始化玩家的建築數量
9 void setCard(scard *allCard)
10 //初始化特殊建築卡的數量
11 void setPlayerPro(sproduce *playerProduce)
12 //初始化玩家生產建築卡的數量
13 void setPlayerCard(scard *playerCard)
14 //初始化玩家特殊建築卡的數量
15 void poker(sproduce *allProduce, scard *allCard, sproduce *playerPro, scard *pla
16 //發牌
```

卡牌功能相關函式

```
1 void sellAndWinCard (int32_t choice, int32_t price, sproduce *allProduce, scard
2 //商人階段出賣出並贏得卡牌
3 void jobRid(int32_t job, sjob *allJob)
4 //把玩家已選擇的職業去掉
5 int32_t* money(int32_t chooseOne)
6 //商人階段時隨機選取五個價格表的其中一個 ( 印出 )
7 int32_t checkgoods(int32_t check, sgoods *playerGoods)
8 //確認玩家是否有貨物可以賣
9 int32_t checkcard(int32_t check, sproduce *allPro, scard *allCard)
10 //確認牌庫是否有牌
11 void addcard(int32_t addcard, sproduce *playerPro, scard *playerCar, sproduce *a
12 //隨機抽取一張卡牌加入玩家手牌
13 void paymoney (int32_t paycard, sproduce *playerPro, scard *playerCar)
14 //建築師階段時付出卡牌來建築
15 int32_t checkjob(int32_t job, sjob *alljob)
16 //確認此職業是否可選擇
17 int32_t checkWin(sbuildded *bui)
18 //確認是否有玩家已建造十二棟建築
19 void subCard(sproduce *allProduce, scard *allCard)
20 //扣掉牌庫的牌
21 void subCardP(int32_t num,sproduce *playerPro, scard *playerCar)
22 //扣掉玩家的牌
23 int32_t* Fmoney(int32_t chooseOne)
24 //虛擬玩家的價格表 ( 不印出 )
25 void checkNoCard(sproduce *allpro, scard *allCard)
26 //確認當牌庫沒有牌要重新整理牌庫
27 int32_t calScore(sbuildded *bui)
28 //計算總分
29 int32_t haveSmi(sbuildded * bui)
30 //處理smithy這張卡牌的功能
31 int32_t havePoor(sbuildded * bui)
32 //處理poor house 這張卡牌的功能
33 int32_t haveQua(sbuildded * bui)
34 //處理quarry這張卡牌的功能
35 int32_t haveWel(sbuildded * bui)
36 //處理well這張卡牌的功能
37 int32_t haveAqu(sbuildded * bui)
38 //處理aqueduct這張卡牌的功能
39 int32_t haveMH(sbuildded * bui)
40 //處理market hall這張卡牌的功能
41 int32_t whoWin2(int32_t p1, int32_t p2)
42 //玩家為兩人時 · 回傳贏家或平手
43 int32_t whoWin3(int32_t p1, int32_t p2, int32_t p3)
44 //玩家為三人時 · 回傳贏家或平手
45 int32_t whoWin4(int32_t p1, int32_t p2, int32_t p3, int32_t p4)
46 //玩家為四人時 · 回傳贏家或平手
```

主要進行遊戲函式

```
1 void jobActRG(int32_t job, sproduce *playerProduce, scard *playerCard, sbuiled
2 //使用者選擇職業進行特權
3 void jobActRN(int32_t job, sproduce *playerProduce, scard *playerCard, sbuiled
4 //使用者進行一般行動
5 void jobActFG(int32_t job, sproduce *playerProduce, scard *playerCard, sbuiled
6 //虛擬玩家選擇職業進行特權
7 void jobActFN(int32_t job, sproduce *playerProduce, scard *playerCard, sbuiled
8 //虛擬玩家進行一般行動
```