关于打包机故障的工作报告

一、故障现场：

1、打包机维护、或意外重启后，所有仓库无法打开，git 命令 error；

2、jenkins 打包管道无法有效检出目标分支；

3、jenkins 打包管道运行到资源压缩步骤时报错，无法打开、或处理压缩；

4、从 Timemachine 恢复项目异常中断；

5、压缩、解压文件异常中断；

6、copy 命令拷贝大文件目录异常中端；

7、git clone 检出异常中断；

二、排查：

首次：

1、压缩、拷贝等高 cpu 使用率任务无法完成，报错 device error；

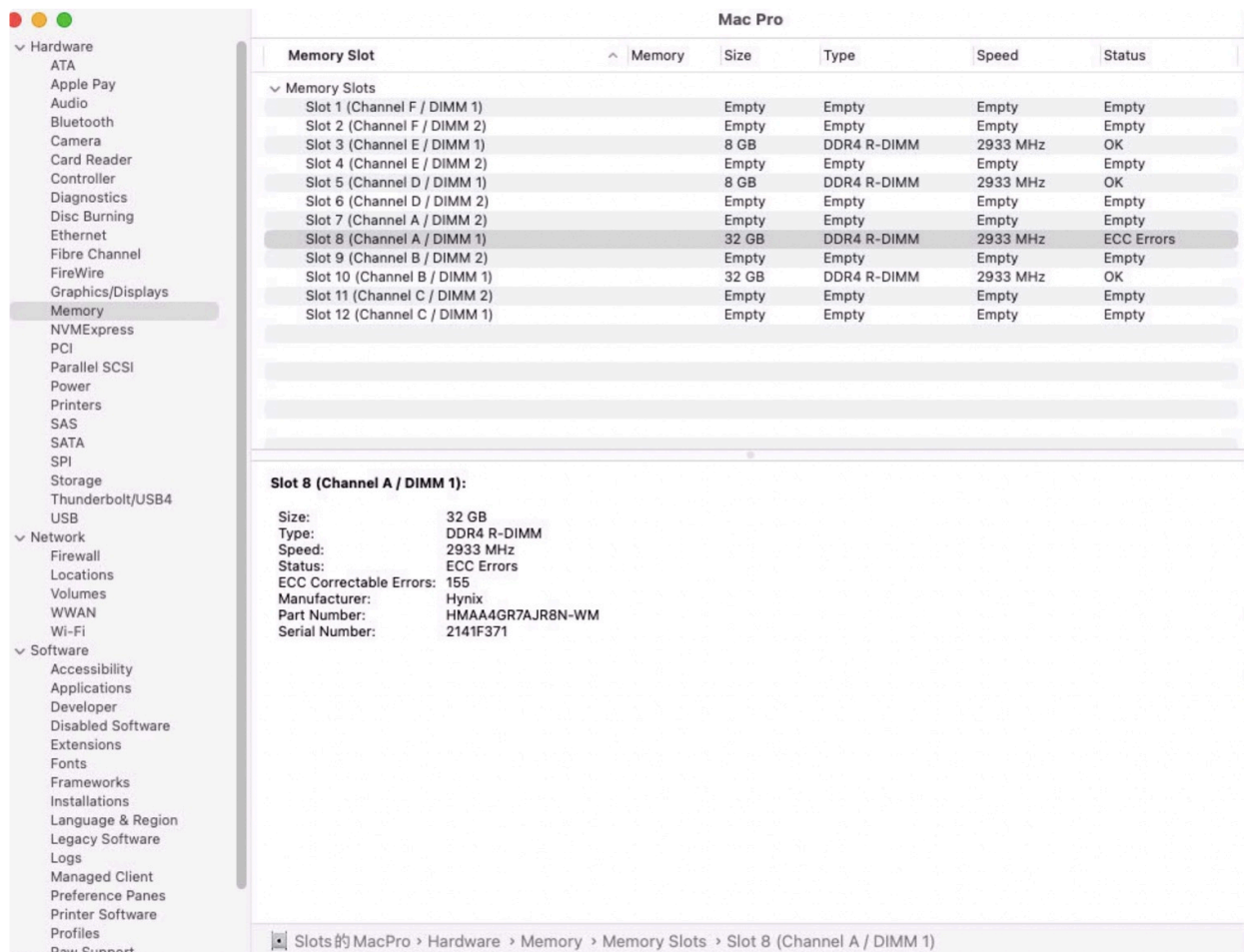2、检查系统硬件报告，发现内存 ECC Errors；

3、问题发生前有过打包机维护操作，期间把查过内存；

怀疑内存硬件问题；

复发：

4、部分图片文件无法打开，部分 js 文件打开后出现部分乱码现象；

5、文件拷贝到其他磁盘打开后仍见异常；

6、从其他设备拷贝仓库、git clone 重新拉去仓库后仍见异常；

7、问题再次发生前有过人为重启打包机操作，且期间 jenkins 工作中；

怀疑硬盘故障导致；

三：处理：

1、硬件故障：

  a. 内存故障：

Memory Slot		Memory	Size	Type	Speed	Status
∨ Memory Slots						
Slot 1 (Channel F / DIMM 1)			Empty	Empty	Empty	Empty
Slot 2 (Channel F / DIMM 2)			Empty	Empty	Empty	Empty
Slot 3 (Channel E / DIMM 1)			8 GB	DDR4 R-DIMM	2933 MHz	OK
Slot 4 (Channel E / DIMM 2)			Empty	Empty	Empty	Empty
Slot 5 (Channel D / DIMM 1)			8 GB	DDR4 R-DIMM	2933 MHz	OK
Slot 6 (Channel D / DIMM 2)			Empty	Empty	Empty	Empty
Slot 7 (Channel A / DIMM 2)			Empty	Empty	Empty	Empty
Slot 8 (Channel A / DIMM 1)			32 GB	DDR4 R-DIMM	2933 MHz	ECC Errors
Slot 9 (Channel B / DIMM 2)			Empty	Empty	Empty	Empty
Slot 10 (Channel B / DIMM 1)			32 GB	DDR4 R-DIMM	2933 MHz	OK
Slot 11 (Channel C / DIMM 2)			Empty	Empty	Empty	Empty
Slot 12 (Channel C / DIMM 1)			Empty	Empty	Empty	Empty

Slot 8 (Channel A / DIMM 1):

Size: 32 GB
Type: DDR4 R-DIMM
Speed: 2933 MHz
Status: ECC Errors
ECC Correctable Errors: 155
Manufacturer: Hynix
Part Number: HMAA4GR7AJR8N-WM
Serial Number: 2141F371

Slots 的 MacPro › Hardware › Memory › Memory Slots › Slot 8 (Channel A / DIMM 1)

    i.   拔插内存、调整内存插槽；重启

    ii.   更换内存条；

b. 硬盘故障：

    i.   需要的文件目录迁移到系统磁盘，已经损坏的文件从 Timemachine 中拷贝；

    ii.   更换硬盘；

2、软件故障：

a. git 仓库损坏：

```
[SlotsdeMacPro:ws apple$ git reset --hard
 error: bad signature 0x00000000
 fatal: index file corrupt
```

```
error: file .git/objects/pack/pack-b787e1cd9d0cedc678cff8ec930559831cd2884c.pack is not a GIT packfile
error: file .git/objects/pack/pack-b787e1cd9d0cedc678cff8ec930559831cd2884c.pack is not a GIT packfile
error: file .git/objects/pack/pack-b787e1cd9d0cedc678cff8ec930559831cd2884c.pack is not a GIT packfile
error: file .git/objects/pack/pack-b787e1cd9d0cedc678cff8ec930559831cd2884c.pack is not a GIT packfile
error: file .git/objects/pack/pack-b787e1cd9d0cedc678cff8ec930559831cd2884c.pack is not a GIT packfile
error: file .git/objects/pack/pack-b787e1cd9d0cedc678cff8ec930559831cd2884c.pack is not a GIT packfile
error: file .git/objects/pack/pack-b787e1cd9d0cedc678cff8ec930559831cd2884c.pack is not a GIT packfile
error: file .git/objects/pack/pack-b787e1cd9d0cedc678cff8ec930559831cd2884c.pack is not a GIT packfile
fatal: unresolved deltas left after unpacking
fatal: unpack-objects failed
error: bad signature 0x34353232
fatal: index file corrupt
```

    i.   硬件问题未修复：

        找运维修复硬件问题；消除内存 ECC Errors 状态；选择系统磁盘部署仓库、或更换硬盘；

    ii.   硬件问题已经修复：

        检查仓库状态：git fsck --full --no-dangling

        删除错误的 pack，删除 rm .git/index；rm .git/objects/pack/pack-0e25e4e60c83e81feded02c7d14f8225da7a8575.packrm .git/objects/pack/pack-0e25e4e60c83e81feded02c7d14f8225da7a8575.idx

        尝试从远端重新拉取对象：git fetch -p

        硬复位：git reset --hard

        清理仓库：git clean -fd

        清楚仓库缓存：git rm -r --cached .

        如无法解决问题，从 TimeMachine 恢复仓库；

        仍无法解决，重新 clone 仓库；

b. cocos2dx git 子仓库同步异常：

修正.gitmodule 文件中的远程地址，部分官方远程地址已经废弃仅支持 https 访问；

```yaml
[submodule "tools/bindings-generator"]
        path = tools/bindings-generator
        url = git://github.com/cocos2d/bindings-generator.git
        url = https://github.com/cocos2d/bindings-generator.git
[submodule "web"]
        path = web
        url = git://github.com/cocos2d/cocos2d-html5.git
        url = https://github.com/cocos2d/cocos2d-html5.git
```

删掉子仓库目录，重新同步子仓库；

```bash
git submodule sync
git submodule update --init --recursive
```

c. 文件损坏：

```
games_trigger_effect.png压缩后变大，直接使用原图
压缩进度: 619/26951
libpng error: IDAT: CRC error
Error! Could not process file
/Volumes/Storage/normal_builder/ws_cvs/publish/native/res_oldvegas/liberty_wilds/reels/symbol/liberty_wilds_symbol_batch_wild_h
ong_jackpot_moxing.png
Error! Cannot read input picture file
'/Volumes/Storage/normal_builder/ws_cvs/publish/native/res_oldvegas/liberty_wilds/reels/symbol/liberty_wilds_symbol_batch_wild_
hong_jackpot_moxing.png'
压
缩/Volumes/Storage/normal_builder/ws_cvs/publish/native/res_oldvegas/liberty_wilds/reels/symbol/liberty_wilds_symbol_batch_wild_
```

   i. 优先从 Timemachine 或其他未损坏位置拷贝文件；

   ii. 删掉中间文件，走脚本重新生成；

d. 文件同步异常：

```
objects/pack/pack-53ae21f79a6af35e2365a7def5b72d798b12221b.pack
 16976055489 100%  239.63MB/s    0:01:07 (xfer#3737, to-check=80/4653)
rsync: read errors mapping "/Volumes/Storage/normal_builder/ws_cvs2/.git/objects/pack/pack-53a
e21f79a6af35e2365a7def5b72d798b12221b.pack": Device error (83)
ERROR: objects/pack/pack-53ae21f79a6af35e2365a7def5b72d798b12221b.pack failed verification --
update discarded.
```
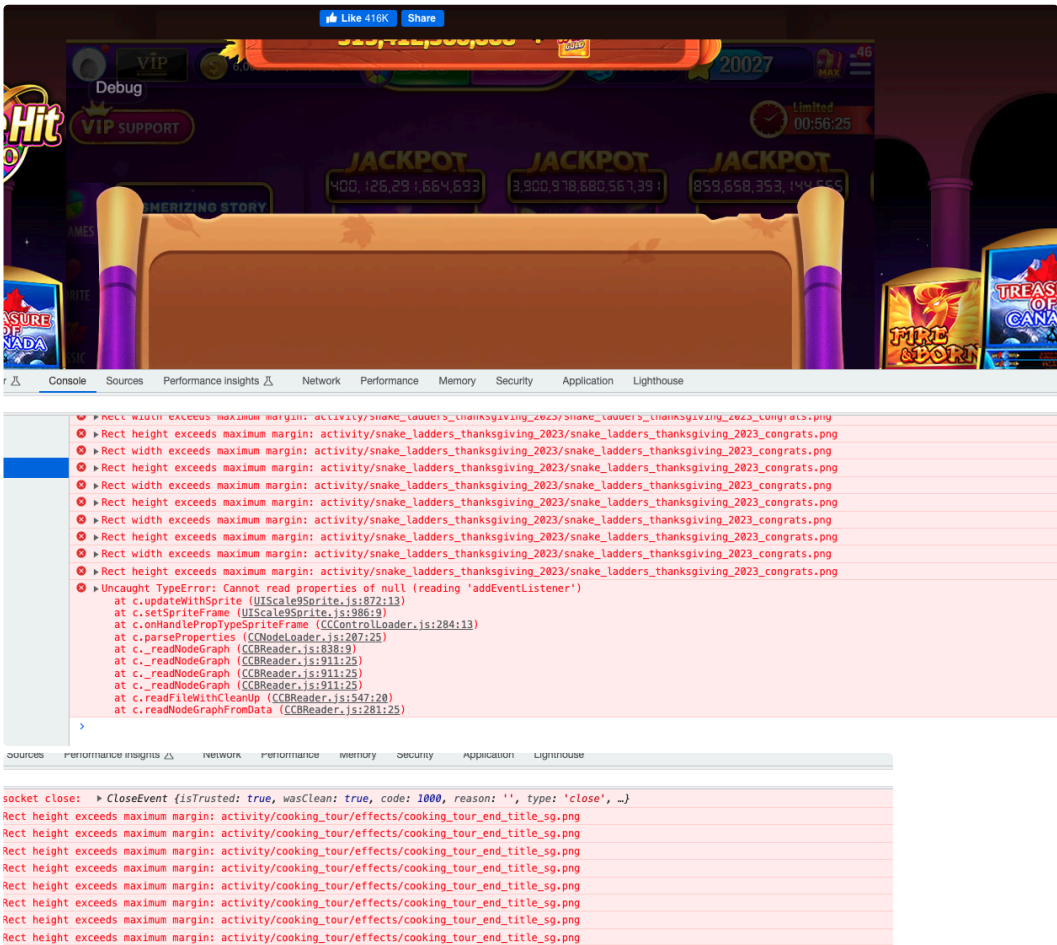
e. nginx 访问异常：

POST 访问静态资源被 nginx 拦截，修改 nginx 配置（具体问下幸泽）；

重启 nginx：sudo nginx –s reload

f. 资源访问丢资源：

删除.webpcache 目录，重新打包；时间较长；