WindowManagerService之启动篇

1. 在DisplayThread线程中同步创建WindowManagerService对象。

public static WindowManagerService main(final Context context,

final InputManagerService im,

final boolean haveInputMethods, final boolean showBootMsgs,

final boolean onlyCore) {

final WindowManagerService[] holder = new WindowManagerService[1];

DisplayThread.getHandler().runWithScissors(new Runnable() {

@Override

public void run() {

holder[0] = new WindowManagerService(context, im,

haveInputMethods, showBootMsgs, onlyCore);

}

}, 0);

return holder[0];

}

由于WMS对象在DisplayThread线程中创建，所以所有使用Looper.myLooper函数获取的loop都是DisplayThread线程的looper。

主要的数据结构的创建：

1.final WindowManagerPolicy mPolicy = new PhoneWindowManager();

1. final ArraySet<Session> mSessions = new ArraySet<>();
2. final HashMap<IBinder, WindowState> mWindowMap = new HashMap<>();
3. final HashMap<IBinder, WindowToken> mTokenMap = new HashMap<>();
4. final ArrayList<AppWindowToken> mFinishedStarting = new ArrayList<>();
5. final ArrayList<WindowState> mResizingWindows = new ArrayList<>();
6. final ArrayList<WindowState> mPendingRemove = new ArrayList<>();
7. final ArrayList<WindowState> mDestroySurface = new ArrayList<>();
8. ArrayList<WindowState> mLosingFocus = new ArrayList<>();
9. final ArrayList<WindowState> mForceRemoves = new ArrayList<>();
10. ArrayList<WindowState> mWaitingForDrawn = new ArrayList<>();
11. SparseArray<DisplayContent> mDisplayContents = new SparseArray<>(2);
12. final ArraySet<AppWindowToken> mOpeningApps = new ArraySet<>();
13. final ArraySet<AppWindowToken> mClosingApps = new ArraySet<>();
14. final ArrayList<WindowToken> mWallpaperTokens = new ArrayList<WindowToken>();

主要的数据结构：

Session

WindowState

WindowToken

AppWindowToken

DisplayContent

使用DisplayThread线程的looper创建Choreographer和 H 对象：

final Choreographer mChoreographer = Choreographer.getInstance();

final H mH = new H();

final AppTransition mAppTransition = new AppTransition(context, mH);

final WindowAnimator mAnimator = new WindowAnimator(this);

SparseArray<Task> mTaskIdToTask = new SparseArray<>();

SparseArray<TaskStack> mStackIdToStack = new SparseArray<>();

1. systemReady函数：

public void systemReady() {

mPolicy.systemReady();

}

创建锁屏窗口等。