## **IProductPlanService** - timerService:ITimerService productPlanDao:IProductPlanDao **ITimerService** + createProductPlan():long - timerDao:ITimerDao + saveProductPlan():boolean productPlanDao:IProductPlanDao + addProductPlan():boolean + addTimer():boolean + modifyProductPlan():boolean + editTimer():boolean + launchProductPlan():boolean + deleteTimer():boolean + getProductPlans():ProductPlanVO + getTimers():List<TimerVO> + batchGetByIds():List + getCurrentTimer():long + deleteByIds():boolean + batchModify():boolean + modifyAmount():boolean + checkOverlap():boolean + getCurPlanAnnId():long ProductPlanController - productPlanService:IProductPlanService timerService: ITimerService + create():SimpleResponse + save():SimpleResponse + edit():SimpleResponse + launch():SimpleResponse + menu():SimpleResponse + getOpenTime():SimpleResponse + addTimer():SimpleResponse + editTimer():SimpleResponse + deleteTimer():SimpleResponse + checkTime():SimpleResponse (interface) ProductPlanService «interface» + createProductPlan():long TimerService + saveProductPlan():boolean + addTimer():boolean + addProductPlan():boolean + editTimer():boolean + modifyProductPlan():boolean + deleteTimer():boolean + launchProductPlan():boolean + getTimers():List<TimerVO> + getProductPlans():ProductPlanVO + getCurrentTimer():long + batchGetByIds():List + batchModify():boolean + deleteByIds():boolean + checkOverlap():boolean + modifyAmount():boolean + getCurPlanAnnId():long **ITimerDao** - begin:Timestamp «interface» end:Timestamp ProductPlanDao + queryById():TimerEntity + findListByIds(): List + deleteById():boolean + getProductPlanById():boolean + getByAnnId():List<TimerEntity> + getProductPlansByAnnId():List + getCurBeginTime():Timestamp + getProductPlansByMenu():List + getCurrentTimer():TimerEntity + updateAvailable():boolean + batchGetTimer():List<TimerEntity> + modify():boolean + getOverlapTimer():List<TimerEntity> + batchDeleteByIds():booleann «interface» TimerDao **IProductPlanDao** + queryById():TimerEntity materialClient:MaterialClient + deleteById():boolean + getByAnnId():List<TimerEntity> + getCurBeginTime():Timestamp + findListByIds(): List + getCurrentTimer():TimerEntity + getProductPlanById():boolean + batchGetTimer():List<TimerEntity> + getProductPlansByAnnId():List + getOverlapTimer():List<TimerEntity> + getProductPlansByMenu():List + updateAvailable():boolean + modify():boolean + batchDeleteByIds():boolean DB