一、Class CC\_TelecommandFactory

即各种类实体的管理工厂，为每个类创建一个容纳一定数量类实体的管理池，该管理工厂可以管理各个相应类的管理池，所述类包括：[DC\_DummyPUSTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__DummyPUSTelecommand.html)，[DC\_DummyTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__DummyTelecommand.html)，[DC\_PUSControlDataReporting](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSControlDataReporting.html)，[DC\_PUSDefineDataReporting](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSDefineDataReporting.html)，[DC\_PUSDumpMemoryAbsolute](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSDumpMemoryAbsolute.html)，[DC\_PUSDumpMemoryOffset](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSDumpMemoryOffset.html)，[DC\_PUSMemoryLoadAbsolute](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSMemoryLoadAbsolute.html)，[DC\_PUSMemoryLoadOffset](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSMemoryLoadOffset.html)，[DC\_TestPUSTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__TestPUSTelecommand.html)。

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | **bool CC\_TelecommandFactory::isObjectConfigured** | **(** |  | **)** | **[virtual]** | |

查看所有组件类的实体管理池的实体是否都已经创建，若是则返回true，否则返回false。

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **CC\_TelecommandFactory::CC\_TelecommandFactory** | **(** | **void** |  | **)** | **[protected]** | |

初始化所有组件类的实体管理池的实体。

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | **[DC\_DummyPUSTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__DummyPUSTelecommand.html) \* CC\_TelecommandFactory::allocateDummyPUSTelecommand** | **(** |  | **)** |  | |

此函数从DummyPUSTelecommamd类实体库中找到第一个非in use的实体，标记该实体被使用后再返回该实体的引用；如果没有找到一个空闲的实体，那么将返回null。

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | **[DC\_DummyTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__DummyTelecommand.html) \* CC\_TelecommandFactory::allocateDummyTelecommand** | **(** |  | **)** |  | |

同上，类为DummyTelecommand

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **[DC\_PUSControlDataReporting](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSControlDataReporting.html) \* CC\_TelecommandFactory::allocatePUSControlDataReporting** | **(** | **unsigned int** | **MaxNumberSID** | **)** |  | |

同上，类型为PUSControlDataRep，此外，该函数携带一个参数MaxNumberSID,只有注册中组件的参数（getMaxNumberSID()函数获取组件实体注册时的参数）大于或等于该参数值的组件才可被返回。

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **[DC\_PUSDefineDataReporting](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSDefineDataReporting.html) \* CC\_TelecommandFactory::allocatePUSDefineDataReporting** | **(** | **unsigned int** | **NumberOfRawData** | **)** |  | |

同上，获取组件实体注册时的参数用getNumberOfRawData()函数。

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **[DC\_PUSDumpMemoryAbsolute](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSDumpMemoryAbsolute.html) \* CC\_TelecommandFactory::allocatePUSDumpMemoryAbsolute** | **(** | **unsigned int** | **NumberOfRawData** | **)** |  | |

同上，类改为PUSDumpMemoryAbslute。

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **[DC\_PUSDumpMemoryOffset](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSDumpMemoryOffset.html) \* CC\_TelecommandFactory::allocatePUSDumpMemoryOffset** | **(** | **unsigned int** | **NumberOfRawData** | **)** |  | |

同上，类改为PUSDumpMemoryOffset。

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  | | --- | --- | --- | --- | | **[DC\_PUSMemoryLoadAbsolute](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSMemoryLoadAbsolute.html) \* CC\_TelecommandFactory::allocatePUSMemoryLoadAbsolute** | **(** | **unsigned int** | **MaxNumberData,** | |  |  | **unsigned int** | **MaxNumberBlocks** | |  | **)** |  |  | |

改为判定两个参数。

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  | | --- | --- | --- | --- | | **[DC\_PUSMemoryLoadOffset](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSMemoryLoadOffset.html) \* CC\_TelecommandFactory::allocatePUSMemoryLoadOffset** | **(** | **unsigned int** | **MaxNumberData,** | |  |  | **unsigned int** | **MaxNumberBlocks** | |  | **)** |  |  | |

同上。

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **unsigned int CC\_TelecommandFactory::getCapacityPUSControlDataReporting** | **(** | **void** |  | **)** |  | |

返回相应组件类的实体管理池所能分配的实体最大容量。

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **[CC\_TelecommandFactory](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html) \* CC\_TelecommandFactory::getInstance** | **(** | **void** |  | **)** | **[static]** | |

返回CC\_TelecommandFactory创建的实体，若未被创建，则在创建之后再返回。

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **unsigned int CC\_TelecommandFactory::getNumberDummyPUSTelecommand** | **(** | **void** |  | **)** |  | |

返回已经分配过的组件实体数量。

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | **bool CC\_TelecommandFactory::isFreeDummyTelecommand** | **(** |  | **)** |  | |

确认一个没有被分配的组件实体是否可以被分配，若能返回true，否则返回false。

二、class CC\_TelecommandManager

该类用来管理telecommand类实体的执行，该类有一个telecommand类实体的列表，在telecommand要执行前，对每个实体对象检查一遍是否满足实现要求。

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | **void CC\_TelecommandManager::abort** | **(** | **[TD\_TelecommandId](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/BasicTypes_8h.html" \l "a9)** | **telecommandId** | **)** | |

从列表中丢弃一个id为telecommandId的telecommand的实体，列表相应位置空。

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **void CC\_TelecommandManager::abort** | **(** | **[Telecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classTelecommand.html) \*** | **pTelecommand** | **)** | **[virtual]** | |

通过指针来丢弃telecommand的实体，产生一个EVT\_TC\_ABORTED的报告。

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **void CC\_TelecommandManager::activate** | **(** | **void** |  | **)** | **[virtual]** | |

遍历列表，执行所有能执行的telecommand实体对象，产生三种事件报告，分别为，执行成功，执行失败，检查失败。

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **[ObsClock](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classObsClock.html) \* CC\_TelecommandManager::getObsClock** | **(** | **void** |  | **)** |  | |

获取OBS的clock，及pObsClock变量。

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **void CC\_TelecommandManager::setTelecommandLoader** | **(** | **[TelecommandLoader](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classTelecommandLoader.html) \*** | **pTcLoader** | **)** |  | |

当telecommand对象执行完成之后，ptcLoader释放资源，以让其它的telecommand对象获取资源继续执行。

三、class CriticalTelecommand

该类为telecommand对象标记一个critical标记，被标记为critical的telecommand对象遵循

Arm-fire协议，及第一次收到执行指令设置telecommand对象状态为armed，第二次为fire，若对象状态为fire则直接执行，注意若telecommand对象无critical标记，那麽telecommand对象的行为会像它的父类实体一样。

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **bool CriticalTelecommand::canExecute** | **(** | **void** |  | **)** | **[virtual]** | |

判定是否可被执行，判别条件有：

if (TC is critical and armed) {

if (TC has timed-out) {

Add an EVT\_CRIT\_TC\_TIMEOUT event to the log

return false;

}

if (TC image is not valid) {

Add an EVT\_CRIT\_TC\_IMG\_INV event to the log

return false;

}

}

return true;

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **[TD\_ActionOutcome](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/BasicTypes_8h.html" \l "a5) CriticalTelecommand::doAction** | **(** | **void** |  | **)** | **[protected, virtual]** | |

若TC是not critical的或者是armed的，doCriticalAction(),否则，设置TC为armed，保存OBS time，保存arm success日志。

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **virtual [TD\_ActionOutcome](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/BasicTypes_8h.html" \l "a5) CriticalTelecommand::doCriticalAction** | **(** | **void** |  | **)** | **[protected, pure virtual]** | |

子类会细化函数的实现，并实现critical telecommand的行为。

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **[TD\_ObsTime](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/BasicTypes_8h.html" \l "a2) CriticalTelecommand::getMaxArmedDuration** | **(** | **void** |  | **)** |  | |

获取TC获得armed的最大事件间隔，用以判定第二次接收到excute指令是否符合执行要求。

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **[ObsClock](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classObsClock.html) \* CriticalTelecommand::getObsClock** | **(** | **void** |  | **)** | **const** | |

获取TC时钟

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **[TD\_ObsTime](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/BasicTypes_8h.html" \l "a2) CriticalTelecommand::getTimeWhenArmed** | **(** | **void** |  | **)** |  | |

返回TC最后一次armed的时间

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **bool CriticalTelecommand::isArmed** | **(** | **void** |  | **)** |  | |

若TC非critical总是返回not armed，即非critical的TC不遵循armed-fire协议。

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **bool CriticalTelecommand::isCritical** | **(** | **void** |  | **)** |  | |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **bool CriticalTelecommand::isObjectConfigured** | **(** | **void** |  | **)** | **[virtual]** | |

对TC进行特定组件类的注册检查，查看组件对象是否注册、armed的持续时间是否有效、pObsClock是否被加载。

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **void CriticalTelecommand::reset** | **(** | **void** |  | **)** |  | |

isTcCritical=CRITICAL, isTcArmed=NOT\_ARMED, timeWhenArmed=-1, maxArmedDuration=-1, pObsClock=pNULL).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **void CriticalTelecommand::setCriticalityLevel** | **(** | **bool** | **isCritical** | **)** |  | |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **void CriticalTelecommand::setObsClock** | **(** | **[ObsClock](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classObsClock.html) \*** | **pObsClock** | **)** |  | |

设置pObsClock

1. class PUSTestCommand

属性有:telecommand identifier,The telecommand type ,The telecommand subtype ,The telecommand source,The acknowledge flags,The validity check code。

该类使用validity check code成员变量来确定TC是否合法。

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **[TD\_TelecommandId](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/BasicTypes_8h.html" \l "a9) PUSTelecommand::getPacketId** | **(** | **void** |  | **)** | **[static]** | |

返回identifier,包含version number，type，data，application id

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **[TD\_TelecommandSource](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/BasicTypes_8h.html" \l "a12) PUSTelecommand::getSource** | **(** | **void** |  | **)** | **const [virtual]** | |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **[TD\_TelecommandType](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/BasicTypes_8h.html" \l "a10) PUSTelecommand::getType** | **(** | **void** |  | **)** | **const [virtual]** | |

Get source，get type...

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **void PUSTelecommand::setAcknowledgeLevel** | **(** | **[TD\_TelecommandAck](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/BasicTypes_8h.html" \l "a13)** | **ackLevel** | **)** | **[virtual]** | |

Bit 0代表acceptance acknowledge flag。

Bit1 代表tart acknowledge flag

Bit2 代表progress acknowledge flag

Bit3 代表completion acknowledge flag

设置acknowledge level

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **void PUSTelecommand::setValidityCheckCode** | **(** | **[TD\_CheckCode](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/BasicTypes_8h.html" \l "a14)** | **valCheckCode** | **)** | **[protected]** | |

都是Set各种属性值

四、class TelecommandLoader

该类实现的功能是接收TC，并组装成一个telecommand对象，该对象代表了程序内部的遥测信号，该类还实现了为对象分配内存和释放内存的操作，

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **virtual void TelecommandLoader::activate** | **(** | **void** |  | **)** | **[pure virtual]** | |

具体实现在DC\_BasicPUSTcLoader,用来装载TC对象到telecommand manager里面，

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **[CC\_TelecommandManager](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandManager.html) \* TelecommandLoader::getTelecommandManager** | **(** | **void** |  | **)** | **[inline]** | |

获取telecommand manager对象地址。

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **bool TelecommandLoader::isObjectConfigured** | **(** | **void** |  | **)** | **[virtual]** | |

查看telecommand manager对象是否注册好，通过地址是否为空判断。

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **virtual void TelecommandLoader::release** | **(** | **[Telecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classTelecommand.html) \*** | **pTelecommand** | **)** | **[pure virtual]** | |

在DC\_BasicPUSTcLoader类中实现，释放存储空间。

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **void TelecommandLoader::setTelecommandManager** | **(** | **[CC\_TelecommandManager](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandManager.html) \*** | **pTcManager** | **)** | **[inline]** |

将telecommand manager对象地址保存到成员变量中。

1. telecommand类

CriticalTelecommand,PUSTelecommand,DC\_DummyTelecommand的基类，其主要设置了几个属性：time tag，表示telecommand什么时候能够被执行；telecommand identifier，唯一确定一个telecommand对象的结构，如上；telecommand source，表示遥控信号的发送者id；telecommand type，表示类型；telecommand subtype 对type补充；a validity check code,表示check的结果是否合法，excution check code，执行结果；acknowledge level；in use flag，动态改变，表示该telecommand对象是否正在被使用。

|  |  |
| --- | --- |
| virtual bool | [isObjectConfigured](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a0) () |
| 查看所有组件类的实体是否经 |  |
| void | [setTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a1) (unsigned int i, [DC\_DummyPUSTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__DummyPUSTelecommand.html) \*pItem) |
|  | Load one instance of type [DC\_DummyPUSTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__DummyPUSTelecommand.html) in the factory. |
| unsigned int | [getNumberDummyPUSTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a2) (void) |
|  | Return the number of component instances of type [DC\_DummyPUSTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__DummyPUSTelecommand.html) that are currently allocated. |
| unsigned int | [getCapacityDummyPUSTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a3) (void) |
|  | Return the number of component instances of type [DC\_DummyPUSTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__DummyPUSTelecommand.html) that are in the factory. |
| [DC\_DummyPUSTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__DummyPUSTelecommand.html) \* | [allocateDummyPUSTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a4) () |
|  | Allocate one instance of type [DC\_DummyPUSTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__DummyPUSTelecommand.html). |
| bool | [isFreeDummyPUSTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a5) () |
|  | Check whether a non-allocated component instance of type [DC\_DummyPUSTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__DummyPUSTelecommand.html) is available within the factory. |
| void | [setTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a6) (unsigned int i, [DC\_DummyTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__DummyTelecommand.html) \*pItem) |
|  | Load one instance of type [DC\_DummyTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__DummyTelecommand.html) in the factory. |
| unsigned int | [getNumberDummyTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a7) (void) |
|  | Return the number of component instances of type [DC\_DummyTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__DummyTelecommand.html) that are currently allocated. |
| unsigned int | [getCapacityDummyTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a8) (void) |
|  | Return the number of component instances of type [DC\_DummyTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__DummyTelecommand.html) that are in the factory. |
| [DC\_DummyTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__DummyTelecommand.html) \* | [allocateDummyTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a9) () |
|  | Allocate one instance of type [DC\_DummyTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__DummyTelecommand.html). |
| bool | [isFreeDummyTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a10) () |
|  | Check whether a non-allocated component instance of type [DC\_DummyTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__DummyTelecommand.html) is available within the factory. |
| void | [setTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a11) (unsigned int i, [DC\_PUSControlDataReporting](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSControlDataReporting.html) \*pItem) |
|  | Load one instance of type [DC\_PUSControlDataReporting](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSControlDataReporting.html) in the factory. |
| unsigned int | [getNumberPUSControlDataReporting](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a12) (void) |
|  | Return the number of component instances of type [DC\_PUSControlDataReporting](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSControlDataReporting.html) that are currently allocated. |
| unsigned int | [getCapacityPUSControlDataReporting](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a13) (void) |
|  | Return the number of component instances of type [DC\_PUSControlDataReporting](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSControlDataReporting.html) that are in the factory. |
| [DC\_PUSControlDataReporting](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSControlDataReporting.html) \* | [allocatePUSControlDataReporting](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a14) (unsigned int MaxNumberSID) |
|  | Allocate one instance of type [DC\_PUSControlDataReporting](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSControlDataReporting.html). |
| bool | [isFreePUSControlDataReporting](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a15) (unsigned int MaxNumberSID) |
|  | Check whether a non-allocated component instance of type [DC\_PUSControlDataReporting](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSControlDataReporting.html) is available within the factory. |
| void | [setTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a16) (unsigned int i, [DC\_PUSDefineDataReporting](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSDefineDataReporting.html) \*pItem) |
|  | Load one instance of type [DC\_PUSDefineDataReporting](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSDefineDataReporting.html) in the factory. |
| unsigned int | [getNumberPUSDefineDataReporting](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a17) (void) |
|  | Return the number of component instances of type [DC\_PUSDefineDataReporting](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSDefineDataReporting.html) that are currently allocated. |
| unsigned int | [getCapacityPUSDefineDataReporting](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a18) (void) |
|  | Return the number of component instances of type [DC\_PUSDefineDataReporting](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSDefineDataReporting.html) that are in the factory. |
| [DC\_PUSDefineDataReporting](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSDefineDataReporting.html) \* | [allocatePUSDefineDataReporting](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a19) (unsigned int NumberOfRawData) |
|  | Allocate one instance of type [DC\_PUSDefineDataReporting](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSDefineDataReporting.html). |
| bool | [isFreePUSDefineDataReporting](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a20) (unsigned int NumberOfRawData) |
|  | Check whether a non-allocated component instance of type [DC\_PUSDefineDataReporting](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSDefineDataReporting.html) is available within the factory. |
| void | [setTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a21) (unsigned int i, [DC\_PUSDumpMemoryAbsolute](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSDumpMemoryAbsolute.html) \*pItem) |
|  | Load one instance of type [DC\_PUSDumpMemoryAbsolute](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSDumpMemoryAbsolute.html) in the factory. |
| unsigned int | [getNumberPUSDumpMemoryAbsolute](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a22) (void) |
|  | Return the number of component instances of type [DC\_PUSDumpMemoryAbsolute](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSDumpMemoryAbsolute.html) that are currently allocated. |
| unsigned int | [getCapacityPUSDumpMemoryAbsolute](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a23) (void) |
|  | Return the number of component instances of type [DC\_PUSDumpMemoryAbsolute](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSDumpMemoryAbsolute.html) that are in the factory. |
| [DC\_PUSDumpMemoryAbsolute](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSDumpMemoryAbsolute.html) \* | [allocatePUSDumpMemoryAbsolute](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a24) (unsigned int NumberOfRawData) |
|  | Allocate one instance of type [DC\_PUSDumpMemoryAbsolute](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSDumpMemoryAbsolute.html). |
| bool | [isFreePUSDumpMemoryAbsolute](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a25) (unsigned int NumberOfRawData) |
|  | Check whether a non-allocated component instance of type [DC\_PUSDumpMemoryAbsolute](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSDumpMemoryAbsolute.html) is available within the factory. |
| void | [setTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a26) (unsigned int i, [DC\_PUSDumpMemoryOffset](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSDumpMemoryOffset.html) \*pItem) |
|  | Load one instance of type [DC\_PUSDumpMemoryOffset](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSDumpMemoryOffset.html) in the factory. |
| unsigned int | [getNumberPUSDumpMemoryOffset](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a27) (void) |
|  | Return the number of component instances of type [DC\_PUSDumpMemoryOffset](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSDumpMemoryOffset.html) that are currently allocated. |
| unsigned int | [getCapacityPUSDumpMemoryOffset](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a28) (void) |
|  | Return the number of component instances of type [DC\_PUSDumpMemoryOffset](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSDumpMemoryOffset.html) that are in the factory. |
| [DC\_PUSDumpMemoryOffset](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSDumpMemoryOffset.html) \* | [allocatePUSDumpMemoryOffset](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a29) (unsigned int NumberOfRawData) |
|  | Allocate one instance of type [DC\_PUSDumpMemoryOffset](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSDumpMemoryOffset.html). |
| bool | [isFreePUSDumpMemoryOffset](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a30) (unsigned int NumberOfRawData) |
|  | Check whether a non-allocated component instance of type [DC\_PUSDumpMemoryOffset](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSDumpMemoryOffset.html) is available within the factory. |
| void | [setTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a31) (unsigned int i, [DC\_PUSMemoryLoadAbsolute](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSMemoryLoadAbsolute.html) \*pItem) |
|  | Load one instance of type [DC\_PUSMemoryLoadAbsolute](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSMemoryLoadAbsolute.html) in the factory. |
| unsigned int | [getNumberPUSMemoryLoadAbsolute](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a32) (void) |
|  | Return the number of component instances of type [DC\_PUSMemoryLoadAbsolute](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSMemoryLoadAbsolute.html) that are currently allocated. |
| unsigned int | [getCapacityPUSMemoryLoadAbsolute](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a33) (void) |
|  | Return the number of component instances of type [DC\_PUSMemoryLoadAbsolute](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSMemoryLoadAbsolute.html) that are in the factory. |
| [DC\_PUSMemoryLoadAbsolute](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSMemoryLoadAbsolute.html) \* | [allocatePUSMemoryLoadAbsolute](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a34) (unsigned int MaxNumberData, unsigned int MaxNumberBlocks) |
|  | Allocate one instance of type [DC\_PUSMemoryLoadAbsolute](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSMemoryLoadAbsolute.html). |
| bool | [isFreePUSMemoryLoadAbsolute](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a35) (unsigned int MaxNumberData, unsigned int MaxNumberBlocks) |
|  | Check whether a non-allocated component instance of type [DC\_PUSMemoryLoadAbsolute](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSMemoryLoadAbsolute.html) is available within the factory. |
| void | [setTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a36) (unsigned int i, [DC\_PUSMemoryLoadOffset](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSMemoryLoadOffset.html) \*pItem) |
|  | Load one instance of type [DC\_PUSMemoryLoadOffset](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSMemoryLoadOffset.html) in the factory. |
| unsigned int | [getNumberPUSMemoryLoadOffset](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a37) (void) |
|  | Return the number of component instances of type [DC\_PUSMemoryLoadOffset](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSMemoryLoadOffset.html) that are currently allocated. |
| unsigned int | [getCapacityPUSMemoryLoadOffset](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a38) (void) |
|  | Return the number of component instances of type [DC\_PUSMemoryLoadOffset](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSMemoryLoadOffset.html) that are in the factory. |
| [DC\_PUSMemoryLoadOffset](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSMemoryLoadOffset.html) \* | [allocatePUSMemoryLoadOffset](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a39) (unsigned int MaxNumberData, unsigned int MaxNumberBlocks) |
|  | Allocate one instance of type [DC\_PUSMemoryLoadOffset](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSMemoryLoadOffset.html). |
| bool | [isFreePUSMemoryLoadOffset](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a40) (unsigned int MaxNumberData, unsigned int MaxNumberBlocks) |
|  | Check whether a non-allocated component instance of type [DC\_PUSMemoryLoadOffset](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__PUSMemoryLoadOffset.html) is available within the factory. |
| void | [setTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a41) (unsigned int i, [DC\_TestPUSTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__TestPUSTelecommand.html) \*pItem) |
|  | Load one instance of type [DC\_TestPUSTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__TestPUSTelecommand.html) in the factory. |
| unsigned int | [getNumberTestPUSTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a42) (void) |
|  | Return the number of component instances of type [DC\_TestPUSTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__TestPUSTelecommand.html) that are currently allocated. |
| unsigned int | [getCapacityTestPUSTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a43) (void) |
|  | Return the number of component instances of type [DC\_TestPUSTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__TestPUSTelecommand.html) that are in the factory. |
| [DC\_TestPUSTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__TestPUSTelecommand.html) \* | [allocateTestPUSTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a44) () |
|  | Allocate one instance of type [DC\_TestPUSTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__TestPUSTelecommand.html). |
| bool | [isFreeTestPUSTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classCC__TelecommandFactory.html" \l "a45) () |
|  | Check whether a non-allocated component instance of type [DC\_TestPUSTelecommand](C:/Users/wangshaobo_/Desktop/obs/doc/doxygen/html/classDC__TestPUSTelecommand.html) is available within the factory. |