

Reference Manual

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Chapter 1

Class Index

1.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

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Chapter 2

Class Documentation

2.1 Arc::Config Class Reference

The **Config**(p.3) class.

```
#include <MCC_Dummy.h>
```

2.1.1 Detailed Description

The **Config**(p.3) class.

Only a dummy **Config**(p.3) class instead of the real thing.

The documentation for this class was generated from the following file:

- MCC_Dummy.h

2.2 Arc::MCC Class Reference

The base class for all **Message**(p. 8) Chain Components.

```
#include <MCC_Dummy.h>
```

Public Member Functions

- **MCC** ()
A constructor.
- virtual **~MCC** ()
The destructor.
- virtual **MCC_Status process** (**Message** &request, **Message** &response)=0
The method that processes an incoming request.

2.2.1 Detailed Description

The base class for all **Message**(p. 8) Chain Components.

All **Message**(p. 8) Chain Component (**MCC**(p. 4)) classes will extend this class. It's main purpose is to define an interface for communication between MCCs, i.e. the **process**()(p. 4) method.

2.2.2 Constructor & Destructor Documentation

2.2.2.1 Arc::MCC::MCC () [inline]

A constructor.

This is the constructor. It does nothing since there are no attributes to initialize.

2.2.2.2 virtual Arc::MCC::~~MCC () [inline, virtual]

The destructor.

This is the destructor. It does nothing since there is nothing that needs to be cleaned up.

2.2.3 Member Function Documentation

2.2.3.1 virtual **MCC_Status Arc::MCC::process** (**Message** & *request*, **Message** & *response*) [pure virtual]

The method that processes an incoming request.

This method is called by the preceeding **MCC**(p. 4) in a chain when an incoming request needs to be processed. The advantage of sending out the response through a reference parameter is that no new **Message**(p. 8) object is created, as would be the case if the response was sent as a return value. The problem with creating new message objects is that it either involves a shallow copy of the payload (which may result in memory leaks or "dangling" pointers when the copy

is deallocated) or a deep copy of the payload (which may be an expensive operation or even impossible in case of streams).

Parameters:

- request*** The incoming request that needs to be processed.
- response*** A message object that will contain the response of the request when the method returns.

Returns:

An object (integer) representing the status of the call, zero if everything was ok and non-zero if an error occurred. The precise meaning of non-zero values have to be decided.

The documentation for this class was generated from the following file:

- MCC_Dummy.h

2.3 Arc::MCC_Dummy Class Reference

A dummy class illustrating how to extend the `MCC(p.4)` class.

```
#include <MCC_Dummy.h>
```

Public Member Functions

- **MCC_Dummy (Config *cfg)**
A constructor.
- **~MCC_Dummy ()**
The destructor.
- **virtual MCC_Status process (Message &request, Message &response)**
The method that processes an incoming request.

2.3.1 Detailed Description

A dummy class illustrating how to extend the `MCC(p.4)` class.

This is just a dummy `MCC(p.4)` class that does nothing. The sole purpose of it is to illustrate how to extend the `MCC(p.4)` class and coarsely what an implementation of the `process()(p.6)` method could look like.

2.3.2 Constructor & Destructor Documentation

2.3.2.1 Arc::MCC_Dummy::MCC_Dummy (Config * cfg)

A constructor.

This is the constructor. It should initialize the `next_` attribute to point to the `MCC(p.4)` that is the successor of the present `MCC(p.4)`.

Parameters:

cfg A configuration object. No details are known yet.

2.3.2.2 Arc::MCC_Dummy::~~MCC_Dummy ()

The destructor.

This is the destructor. Should it delete (deallocate) the `MCC(p.4)` pointed to by `next_`? If not, there may be a memory leak. If it does, there may be "dangling pointers" left in case several chains are merged to that `MCC(p.4)`.

2.3.3 Member Function Documentation

2.3.3.1 MCC_Status Arc::MCC_Dummy::process (Message & request, Message & response) [virtual]

The method that processes an incoming request.

See the corresponding method in the **MCC**(p.4) class for a thorough description.

The documentation for this class was generated from the following files:

- MCC_Dummy.h
- MCC_Dummy.cpp

2.4 Arc::Message Class Reference

The **Message**(p.8) class.

```
#include <MCC_Dummy.h>
```

2.4.1 Detailed Description

The **Message**(p.8) class.

Only a dummy **Message**(p.8) class instead of the real thing.

The documentation for this class was generated from the following file:

- MCC_Dummy.h

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