Task

ADTF : ADTF_Interface
MessageID : int
TaskID : int
Protocolversion : int
OrderNumber : int
MessageSize : int
MessageValue : String
MessageValueSplit : String[]
Parameter1 : String
Parameter2 : String
Parameter3 : String

__init__(ADTF_Interface ADTF, int MessageID,
   int TaskID, String Message)
ExecuteTask(Measurement MeasurementADTF)
   :Tuple
CreateAnswer(int MessageIDAnswer,
   String MessageValueAnswer):String

ADTF_Interface

log : adtf.Log
session : adtf.Session
console : adtf.Log

__init__()
PrintLog(String Text):void
GetRunlevel():int
LoadConfiguration(String SystemXMLFile):int
ShutDownConfiguration():int
SetRecordingFolder(String Folder):int
StartConfiguration():int
StopConfiguration():int
StartRecording(String RecorderID, String Filename):int
StopRecording(int RecorderID, String Filename,
   String ShortDescription, String LongDescription):int
FilterSendcommand(String Filterinstancename,
   String Command)

Measurement

ADTF : ADTF_Interface
Filename : String
ShortDescription : String
LongDescription : String

__init__(ADTF_Interface ADTF, String Filename,
   String ShortDescription, String LongDescription)
AddComment(String CommentShortDescription,
   String commentLongDescription)
GetInformation():(String Filename,
   String ShortDescription, String LongDescription)

OnlineAnalyser

Mode : int
UDPServer : UDP_Server
Filtername : String
Command : String
Options : String
OnlineAnalysisTask : Task

__init__(ADTF_Interface ADTF, UDP_Server UDPServer,
   String Command, String Options)
SetMode(ADTF_Interface ADTF, Task Task,
   String Command, String Options):void
StartAnalysis(ADTF_Interface ADTF):int
GenerateFiltercommand():void
ReceiveDataFromFilter(ADTF_Interface ADTF):Tuple mit
   verschiedenem Inhalt
CreateAnswerForTDA(ADTF_Interface ADTF,
   int MessageIDAnswer, String MessageValueAnswer)

ADTF_Adapter

ADTF : ADTF_Interface
Communication_Interface : TCP_Server
AnalyserInterface : UDP_Server

AliveCounter():void
SendMonitoringData(TCP_Server
   Communication_Interface):void

TCP_Server

Server : socket
CommunicationSocket : socket
Address : int
MonitoringData : String

__init__(ADTF_Interface ADTF, String IPAddress,
   int Port):void
__del__():void
Receive(ADTF_Interface ADTF, int blocking):
   (int, int, String)
SetMonitoringData(ADTF_Interface ADTF,
   String Data):void
Send(ADTF_Interface ADTF, String Message):void
SendMonitoringData(String Message):void
GetAmountOfPackages(String Message):(int, int[])

UDP_Server

Server : socket

__init__(ADTF_Interface ADTF, int Port):void
__del__():void
Receive(ADTF_Interface ADTF):String

Task

-MessageID : int
-TaskID : int
-Protocolversion : int
-OrderNumber : int
-MessageSize : int
-MessageValue : String
-MessageValueSplit : String[]
-Parameter1 : String
-Parameter2 : String
-Parameter3 : String
-Result : String

<<create>>+__init__(ADTF_Interface ADTF,
   int MessageID, int TaskID, String Message)
+ExecuteTask(Measurement
   MeasurementADTF):Tuple
+GetTaskID():int
+GetProtocolversion():int
+GetOrderNumber():int
-CreateAnswer(int MessageIDAnswer,
   String MessageValueAnswer):String

Online_Analyser

-Mode : int
-Filtername : String
-Command : String
-Options : String
-AnalysisFinished : Boolean

<<create>>+__init__(ADTF_Interface ADTF,
   String Command, String Options)
+SetMode(ADTF_Interface ADTF, Task Task,
   String Command, String Options):void
+ResetAnalyser(ADTF):void
+StartAnalysis(ADTF_Interface ADTF):void
+GetMode():int
+ReceiveDataFromFilter(ADTF_Interface ADTF,
   String ReceivedData):(String,Boolean)
-GenerateFiltercommand():String
-CreateAnswerForTDA(ADTF_Interface ADTF,
   int MessageIDAnswer, String MessageValueAnswer):
   String

-OnlineAnalysisTask   1   bearbeitet

+OnlineAnalyser 1

Task 1

benutzt

bearbeitet

führt aus

UDP_Server

-Server : socket

<<create>>+__init__(ADTF_Interface ADTF,
   int Port)
<<destroy>>+__del__()
+Receive(ADTF_Interface ADTF):String

1 +AnalyserInterface

benutzt

ADTF_Interface

-log : adtf.Log
-session : adtf.Session
-console : adtf.Log

<<create>>+__init__()
+PrintLog(String Text):void
+GetRunlevel():int
+LoadConfiguration(String SystemXMLFile):int
+ShutDownConfiguration():int
+SetRecordingFolder(String Folder):void
+StartConfiguration():int
+StopConfiguration():int
+StartRecording(String RecorderID,
   String Filename):int
+StopRecording(int RecorderID, String Filename,
   String ShortDescription, String LongDescription):int
+FilterSendcommand(String Filterinstancename,
   String Command):void

-ADTF 1 benutzt

+ADTF 1

benutzt

ADTF_Adapter

ADTF : ADTF_Interface
CommunicationInterface : TCP_Server
AnalyserInterface : UDP_Server

AliveCounter():void
SendMonitoringData(TCP_Server
   CommunicationInterface):void

benutzt

benutzt

benutzt

+CommunicationInterface 1

Measurement

-Filename : String
-ShortDescription : String
-LongDescription : String

<<create>>+__init__(ADTF_Interface ADTF,
   String Filename, String ShortDescription,
   String LongDescription)
+AddComment(String CommentShortDescription,
   String commentLongDescription):void
+GetInformation():(String, String, String)

benutzt

1 +Measurement

besitzt

TCP_Server

-Server : socket
-CommunicationSocket : socket
-Address : int
-MonitoringData : String

<<create>>+__init__(ADTF_Interface ADTF,
   String IPAddress, int Port)
<<destroy>>+__del__()
+Receive(ADTF_Interface ADTF, int blocking):
   (int, int, String)
+SetMonitoringData(ADTF_Interface ADTF,
   String Data):void
+Send(ADTF_Interface ADTF, String Message):void
+SendMonitoringData(ADTF_Interface ADTF):void
-GetAmountOfPackages(String Message):
   (int, int[])

```
┌─────────────────┐     ┌─────────────────┐     ┌─────────────────┐     ┌─────────────────┐
│ Kommunikationsint│───▶│ Setup Alive     │───▶│ Filter Interface │───▶│ Initialisierung │
│ erface bilden    │     │ Counter         │     │ (UDP Server)     │     │ Objekte und Werte│
│                 │     │                 │     │ bilden           │     │                 │
└─────────────────┘     └─────────────────┘     └─────────────────┘     └─────────────────┘
```

```
        ┌────────────┐                                                                          ┌──────────────┐
        │            │                                                                          │              │
        ▼            │                                                                          │              │
    ╱TDA Alive╲──ja──▶┌───────────┐──▶┌───────────┐──▶┌───────────┐──▶╱Onlineanalyse╲──Nein──▶│Antwort auf Task│──▶
    ╲         ╱       │ Nachricht │   │ Task      │   │ Task      │   ╲             ╱           │ senden        │
        │            │ empfangen │   │ erstellen │   │ ausführen │        │                   └──────────────┘
       nein                                                              ja
        │                                                                 ▼
        ▼                                              ┌──────────────┐  ┌──────────────┐  ┌──────────────┐
  ┌───────────┐                                        │Analyse       │  │Antwort auf   │  │              │
  │TDA schließen│                                      │initialisieren │─▶│Task senden   │─▶│Handler       │
  └───────────┘                                        │und starten(bei│  │              │  │Onlineanalyser│
                                                       │Bedarf,Monitoring│ └──────────────┘  └──────────────┘
                                                       │Thread)       │
                                                       └──────────────┘
```

ADTF_Adapter	CommunicationInterface : TCP_Server	Task1 : Task	ADTF : ADTF_Interface

1 : Receive(ADTF,NonBlocking): (int,int,String)

2 : MessageID, TaskID, Message = 2 , = 1 , = "..."

<< create >>
3 : Task(ADTF, MessageID, TaskID, Message)

4 : ExecuteTask(): Tuple

5 : LoadConfiguration (Parameter1): int

6 : Result

7 : SetRecordingFolder (Parameter2): void

8 : StartConfiguration(): int

9 : Result

Result:
0 wenn keine Fehler
1 bei Fehler

10 : CreateAnswer(MessageIDAnswer, MessageValueAnswer): String

11 : MessageAnswer

12 : MessageAnswer, RecordPath

13 : Send(ADTF, MessageAnswer): void

ADTF_Adapter

CommunicationInterface : TCP_Server

Thread
AliveTest

<< create >>
1 : TCP_Server(ADTF, IPAddress, Port)

2 : start(): void
mit 60 Sekunden
Verzögerung

3 : Receive(ADTF,NonBlocking): (int,int,String)

4 : MessageID, TaskID, Message
!= 0 , != 0 , != ""

Nachricht empfangen

5 : cancel(): void

Thread
AliveTest

6 : start(): void
mit 60 Sekunden
Verzögerung

Auftragsdurch-
führung mit
Erstellung Task und
Generierung der
Antwort für den
Auftrag

7 : Send(ADTF, MessageAnswer): void

8 : Receive(ADTF,NonBlocking): (int,int,String)

9 : MessageID, TaskID, Message
= 0 , = 0 , = ""

keine Nachricht empfangen

10 : Receive(ADTF,NonBlocking): (int,int,String)

11 : MessageID, TaskID, Message
= 0 , = 0 , = ""

keine Nachricht empfangen

TDAIsAlive = False

Kommunikation abgebrochen, alle Komponenten anhalten
(Messung mit Kommentar beenden) und Adapter anhalten

Klassenname
Parameter1 : Datentyp
Methode1(Datentyp1 Par1, Datentyp2 Par2):DatentypRückgabewert

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Communication_Interface : TCP_Server
AnalyserInterface : UDP_Server

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   String ShortDescription, String LongDescription):int
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   String Command)

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GetAmountOfPackages(String Message):(int, int[])

UDP_Server

Server : socket

__init__(ADTF_Interface ADTF, int Port):void
__del__():void
Receive(ADTF_Interface ADTF):String