

# ZPI\_AdminTools

1.0

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# Chapter 1

## Namespace Index

### 1.1 Namespace List

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## Chapter 2

# Hierarchical Index

### 2.1 Class Hierarchy

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## Chapter 3

# Class Index

### 3.1 Class List

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| <a href="#">Client</a>  | 32 |
| Represents handled client-agent . . . . .   |    |
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| Simple handler for configuration files . . . . .                                      |    |
| <a href="#">pl.edu.agh.zpi.admintools.ConnectionService</a>                           | 36 |
| Service for handling connection events and messages . . . . .                         |    |
| <a href="#">pl.edu.agh.zpi.admintools.connection.ConnectionTask</a>                   | 38 |
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| Contains <a href="#">Cpu</a> related information (times, cpu model details) . . . . . |    |
| <a href="#">DB</a>  | 42 |
| Database handler. Uses SQLite . . . . .   |    |
| <a href="#">SystemInfo::Cpu::Details</a>  | 45 |
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| <a href="#">TService</a>                                 | Information about service . . . . .   | 131 |
| <a href="#">TPacketConfig::TService</a>                  | Networ service data . . . . .   | 132 |
| <a href="#">SystemInfo::FileSystem::Usage</a>            | Informations about usage of directory/devie . . . . .                                     | 133 |
| <a href="#">pl.edu.agh.zpi.admintools.utils.Vector2D</a> | Represents two-dimensional vector as point . . . . .                                      | 134 |





## Chapter 4

# Namespace Documentation

### 4.1 Package pl.edu.agh.zpi.admintools

Admin tool module for android.

#### Packages

- package [connection](#)  
*Connection and packets module.*
- package [listdata](#)  
*Data adapters and handlers.*
- package [sensors](#)  
*Sensors data transfer objects (DTOs).*
- package [utils](#)  
*Utilities module.*

#### Classes

- class [AdminTools](#)  
*Main client activity, manage whole application.*
- class **KeyTextWatcher**  
*Text watcher for key text.*
- class [ChartsActivity](#)  
*Activity for interacting and handling charts visualization.*
- class **DatePickerFragment**  
*Date picker dialog.*
- class [ConnectionService](#)  
*Service for handling connection events and messages.*
- class [StatsActivity](#)  
*Activity for interacting and handling agents stats data.*
- class **ShortTextWatcher**  
*Text watcher for short text.*
- class **ShortOnFocusChangeListener**  
*On focus change event listener for short text.*

#### 4.1.1 Detailed Description

Admin tool module for android. TODO obsługa headerTimeout - teraz zawiesza się przy próbie zalogowania

## 4.2 Package pl.edu.agh.zpi.admintools.connection

Connection and packets module.

### Packages

- package [packets](#)  
*Packets submodule.*

### Classes

- class [ConnectionTask](#)  
*Handle connection events.*
- class [Header](#)  
*Packet header configuration and utility functions.*

#### 4.2.1 Detailed Description

Connection and packets module.

## 4.3 Package pl.edu.agh.zpi.admintools.connection.packets

Packets submodule.

### Classes

- interface [IPacket](#)  
*Packet data base interface.*
- class [PacketAgentsData](#)  
*Combined agents data.*
- class [PacketAuthKey](#)  
*Authentication packet.*
- class [PacketConfig](#)  
*Agent configuration.*
- class [PacketConfigRequest](#)  
*Requet for agent configuration.*
- class [PacketKeyReply](#)  
*Packet with authentication key.*
- class [PacketKeyRequest](#)  
*Packet request for authentication key.*
- class [PacketReply](#)  
*Packet with request reply value.*
- class [PacketStart](#)  
*Starting packet.*

- class [PacketStatsReply](#)  
*Reply for stats request.*
- class [PacketStatsRequest](#)  
*Stats request from agent.*
- class [ServiceConfig](#)  
*Service simple configuration.*

#### 4.3.1 Detailed Description

Packets submodule.

### 4.4 Package pl.edu.agh.zpi.admintools.listdata

Data adapters and handlers.

#### Classes

- class [AgentArrayAdapter](#)  
*Adapter for AgentData arrays for easy agent data visualization.*
- class [ChartsSurface](#)  
*Surface for displaying charts data.*

#### 4.4.1 Detailed Description

Data adapters and handlers.

### 4.5 Package pl.edu.agh.zpi.admintools.sensors

Sensors data transfer objects (DTOs).

#### Classes

- class [AgentData](#)  
*Agent data structure as serializable POJO.*
- class [DiskUsageData](#)  
*Disc usage data structure as serializable POJO.*
- class [SensorsData](#)  
*Sensors data structure as serializable POJO.*
- class [ServiceData](#)  
*Service data structure as serializable POJO.*

#### 4.5.1 Detailed Description

Sensors data transfer objects (DTOs).

## 4.6 Package pl.edu.agh.zpi.admintools.utils

Utilities module.

### Classes

- interface [Handable](#)  
*Used by handlers able to handle incoming message.*
- class [IncomingHandler](#)  
*Incoming message handler.*
- class [Vector2D](#)  
*Represents two-dimensional vector as point.*

### 4.6.1 Detailed Description

Utilities module.

## 4.7 SystemInfo Namespace Reference

System information gathering module.

### Classes

- class [Cpu](#)  
*Contains [Cpu](#) related information (times, cpu model details).*
- class [DiagnosticMgr](#)  
*Singleton manager for information gathering and visualization.*
- class [FileSystem](#)  
*Class contains file system informations.*
- class [InfoMapper](#)  
*Utils for easy Sigar to [SystemInfo](#) data mapping.*
- class [ModuleInfo](#)  
*Pure abstract class for module info ([Cpu](#), Memory etc.).*
- class [Resources](#)  
*Contains current resources status and its limits.*

### 4.7.1 Detailed Description

System information gathering module.

## 4.8 WinAgent Namespace Reference

Windows agent module.

### Classes

- class [Server](#)  
*Represents server connected to.*

## Functions

- int [recvallWin](#) (SOCKET sockfd, void \*data, int size, int timeout)  
*Receive data from given socket.*
- uint32\_t [getTicks](#) ()  
*Get time elapsed since Epoch in milliseconds.*
- vector< string > [explode](#) (const string &str, const string &delim)  
*Split given text by delimiter.*
- void [usleep](#) (\_\_int64 usec)  
*holds for usec microseconds*

### 4.8.1 Detailed Description

Windows agent module.

### 4.8.2 Function Documentation

#### 4.8.2.1 vector< string > WinAgent::explode ( const string & str, const string & delim )

Split given text by delimiter.

Parameters

|              |                  |
|--------------|------------------|
| <i>str</i>   | Text to explode. |
| <i>delim</i> | Delimiter.       |

Returns

Splitted strings.

#### 4.8.2.2 uint32\_t WinAgent::getTicks ( )

Get time elapsed since Epoch in milliseconds.

Returns

Time elapsed in milliseconds.

#### 4.8.2.3 int WinAgent::recvallWin ( SOCKET sockfd, void \* data, int size, int timeout )

Receive data from given socket.

Parameters

|                |                             |
|----------------|-----------------------------|
| <i>sockfd</i>  | Socket descriptor.          |
| <i>data</i>    | Pointer to received data.   |
| <i>size</i>    | Number of bytes to be read. |
| <i>timeout</i> | Time to wait for data.      |

Returns

Size of received data.

#### 4.8.2.4 void WinAgent::usleep ( \_\_int64 usec )

holds for usec microseconds

## Parameters

|              |              |
|--------------|--------------|
| <i>u</i> sec | microseconds |
|--------------|--------------|

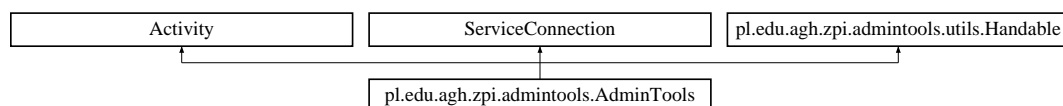
## Chapter 5

# Class Documentation

### 5.1 pl.edu.agh.zpi.admintools.AdminTools Class Reference

Main client activity, manage whole application.

Inheritance diagram for pl.edu.agh.zpi.admintools.AdminTools:



#### Public Member Functions

- void **onConnect** (View view) throws InterruptedException  
*Execute on establish connection.*
- void **onServiceConnected** (ComponentName name, IBinder service)  
*Execute on service connection establish event.*
- void **onServiceDisconnected** (ComponentName name)  
*Execute on service disconnected event.*
- void **handleMessage** (Message msg)  
*Handle incoming Message.*
- boolean **onCreateOptionsMenu** (Menu menu)  
*Execute on creation of options menu.*
- boolean **onOptionsItemSelected** (MenuItem item)  
*Execute on menu options item selection.*

#### Static Public Attributes

- static final String **HOST** = "pl.edu.agh.zpi.admintools.host"  
*Host field key.*
- static final String **PORT** = "pl.edu.agh.zpi.admintools.port"  
*Port field key.*
- static final String **KEY** = "pl.edu.agh.zpi.admintools.key"  
*Authentication key field key.*
- static final String **INTERVAL** = "pl.edu.agh.zpi.admintools.interval"  
*Time interval field key.*

- static final String `CONN_PREFS_NAME` = "connection\_prefs\_file"  
*Connection preferences name field key.*
- static final String `NETWORK_ERROR` = "pl.edu.agh.zpi.admintools.network\_error"  
*Network error field key.*
- static final int `STATS_ACTIVITY_CODE` = 1  
*Starting stats activity code.*
- static final int `CHARTS_ACTIVITY_CODE` = 2  
*Starting charts activity code.*

## Protected Member Functions

- void `onCreate` (Bundle savedInstanceState)  
*Execute on activity creation.*
- void `onDestroy` ()  
*Execute on activity destruction.*
- void `onResume` ()  
*Execute on activity resume event.*
- void `onActivityResult` (int requestCode, int resultCode, Intent data)  
*Execute on activity result request.*

### 5.1.1 Detailed Description

Main client activity, manage whole application.

### 5.1.2 Member Function Documentation

#### 5.1.2.1 public void pl.edu.agh.zpi.admintools.AdminTools.handleMessage ( Message msg ) [inline]

Handle incoming Message.

##### Parameters

|            |                   |
|------------|-------------------|
| <i>msg</i> | Incoming Message. |
|------------|-------------------|

##### Returns

None.

Implements [pl.edu.agh.zpi.admintools.utils.Handable](#).

#### 5.1.2.2 protected void pl.edu.agh.zpi.admintools.AdminTools.onActivityResult ( int requestCode, int resultCode, Intent data ) [inline], [protected]

Execute on activity result request.

##### Parameters

|                    |               |
|--------------------|---------------|
| <i>requestCode</i> | Request code. |
| <i>resultCode</i>  | Result code.  |



|             |              |
|-------------|--------------|
| <i>data</i> | Intent data. |
|-------------|--------------|

**Returns**

None.

5.1.2.3 `public void pl.edu.agh.zpi.admintools.AdminTools.onConnect ( View view ) throws InterruptedException` `[inline]`

Execute on establish connection.

**Parameters**

|             |               |
|-------------|---------------|
| <i>view</i> | Current View. |
|-------------|---------------|

**Returns**

None.

5.1.2.4 `protected void pl.edu.agh.zpi.admintools.AdminTools.onCreate ( Bundle savedInstanceState )` `[inline]`,  
`[protected]`

Execute on activity creation.

**Parameters**

|                           |                                 |
|---------------------------|---------------------------------|
| <i>savedInstanceState</i> | Bundle with object saved state. |
|---------------------------|---------------------------------|

**Returns**

None.

5.1.2.5 `public boolean pl.edu.agh.zpi.admintools.AdminTools.onCreateOptionsMenu ( Menu menu )` `[inline]`

Execute on creation of options menu.

**Parameters**

|             |            |
|-------------|------------|
| <i>menu</i> | Menu data. |
|-------------|------------|

**Returns**

true.

5.1.2.6 `protected void pl.edu.agh.zpi.admintools.AdminTools.onDestroy ( )` `[inline]`, `[protected]`

Execute on activity destruction.

**Returns**

None.

5.1.2.7 `public boolean pl.edu.agh.zpi.admintools.AdminTools.onOptionsItemSelected ( MenuItem item )` `[inline]`

Execute on menu options item selection.

## Parameters

|             |                     |
|-------------|---------------------|
| <i>item</i> | Selected menu item. |
|-------------|---------------------|

## Returns

If selected.

**5.1.2.8** `protected void pl.edu.agh.zpi.admintools.AdminTools.onResume ( ) [inline], [protected]`

Execute on activity resume event.

## Returns

None.

**5.1.2.9** `public void pl.edu.agh.zpi.admintools.AdminTools.onServiceConnected ( ComponentName name, IBinder service ) [inline]`

Execute on service connection establish event.

## Parameters

|                |                 |
|----------------|-----------------|
| <i>name</i>    | Component name. |
| <i>service</i> | Service binder. |

## Returns

None.

**5.1.2.10** `public void pl.edu.agh.zpi.admintools.AdminTools.onServiceDisconnected ( ComponentName name ) [inline]`

Execute on service disconnected event.

## Parameters

|             |                 |
|-------------|-----------------|
| <i>name</i> | Component name. |
|-------------|-----------------|

## Returns

None.

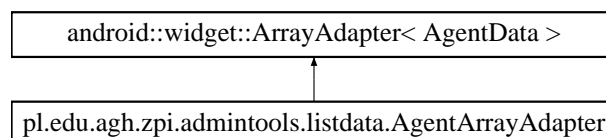
The documentation for this class was generated from the following file:

- client/AdminTools/src/pl/edu/agh/zpi/admintools/AdminTools.java

## 5.2 pl.edu.agh.zpi.admintools.listdata.AgentArrayAdapter Class Reference

Adapter for AgentData arrays for easy agent data visualization.

Inheritance diagram for pl.edu.agh.zpi.admintools.listdata.AgentArrayAdapter:



## Public Member Functions

- [AgentArrayAdapter](#) (Context context)  
*Constructor, set global context.*
- View [getView](#) (int position, View convertView, ViewGroup parent)  
*Get View created over current agent data.*
- void [set](#) (int position, [AgentData](#) agent, boolean isAlerted)  
*Set new agent data.*

## Static Public Attributes

- static final double [DIVIDER](#) = 1024 \* 1024 \* 1024  
*Memory divider (for byte to gigabyte calculations).*

### 5.2.1 Detailed Description

Adapter for AgentData arrays for easy agent data visualization.

### 5.2.2 Constructor & Destructor Documentation

5.2.2.1 `public pl.edu.agh.zpi.admintools.listdata.AgentArrayAdapter.AgentArrayAdapter ( Context context )` `[inline]`

Constructor, set global context.

Parameters

|                |                                       |
|----------------|---------------------------------------|
| <i>context</i> | Context with env global informations. |
|----------------|---------------------------------------|

### 5.2.3 Member Function Documentation

5.2.3.1 `public View pl.edu.agh.zpi.admintools.listdata.AgentArrayAdapter.getView ( int position, View convertView, ViewGroup parent )` `[inline]`

Get View created over current agent data.

Parameters

|                    |                         |
|--------------------|-------------------------|
| <i>position</i>    | Agent data index.       |
| <i>convertView</i> | Source view.            |
| <i>parent</i>      | Parental group. Unused. |

Returns

Instance of filled with agent data View.

5.2.3.2 `public void pl.edu.agh.zpi.admintools.listdata.AgentArrayAdapter.set ( int position, AgentData agent, boolean isAlerted )` `[inline]`

Set new agent data.

## Parameters

|                  |                              |
|------------------|------------------------------|
| <i>position</i>  | Agent data index.            |
| <i>agent</i>     | Agent data.                  |
| <i>isAlerted</i> | Flag with alert information. |

## Returns

None.

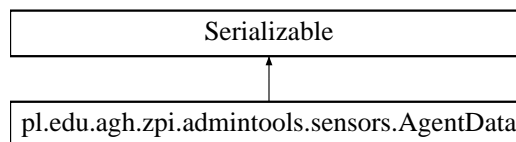
The documentation for this class was generated from the following file:

- client/AdminTools/src/pl/edu/agh/zpi/admintools/listdata/AgentArrayAdapter.java

### 5.3 pl.edu.agh.zpi.admintools.sensors.AgentData Class Reference

Agent data structure as serializable POJO.

Inheritance diagram for pl.edu.agh.zpi.admintools.sensors.AgentData:



#### Public Member Functions

- short [getId](#) ()  
*Get agent id.*
- [SensorsData](#) [getData](#) ()  
*Get current sensor data from agent.*
- String [getName](#) ()  
*Get agent name.*
- String [toString](#) ()  
*Convert [AgentData](#) to string representation.*
- boolean [equals](#) (Object o)  
*Check equality of object with given parameter.*
- void [setAgentData](#) ([AgentData](#) agent)  
*Set agent data from other object.*

#### Static Public Member Functions

- static [AgentData](#) [fromByteBuffer](#) (ByteBuffer buffer)  
*Fill agent data with given byte buffer.*

#### 5.3.1 Detailed Description

Agent data structure as serializable POJO.

### 5.3.2 Member Function Documentation

5.3.2.1 public boolean pl.edu.agh.zpi.admintools.sensors.AgentData.equals ( Object o ) [inline]

Check equality of object with given parameter.

**Parameters**

|          |                  |
|----------|------------------|
| <i>o</i> | Object to check. |
|----------|------------------|

**Returns**

If equals.

**5.3.2.2** `public static AgentData pl.edu.agh.zpi.admintools.sensors.AgentData.fromByteBuffer ( ByteBuffer buffer )`  
`[inline], [static]`

Fill agent data with given byte buffer.

**Parameters**

|               |                              |
|---------------|------------------------------|
| <i>buffer</i> | Byte buffer with agent data. |
|---------------|------------------------------|

**Returns**

Converted [AgentData](#) object.

**5.3.2.3** `public SensorsData pl.edu.agh.zpi.admintools.sensors.AgentData.getData ( )` `[inline]`

Get current sensor data from agent.

**Returns**

Current sensor data.

**5.3.2.4** `public short pl.edu.agh.zpi.admintools.sensors.AgentData.getId ( )` `[inline]`

Get agent id.

**Returns**

Agent id.

**5.3.2.5** `public String pl.edu.agh.zpi.admintools.sensors.AgentData.getName ( )` `[inline]`

Get agent name.

**Returns**

Agent name.

**5.3.2.6** `public void pl.edu.agh.zpi.admintools.sensors.AgentData.setAgentData ( AgentData agent )` `[inline]`

Set agent data from other object.

## Parameters

|              |                                   |
|--------------|-----------------------------------|
| <i>agent</i> | <a href="#">AgentData</a> object. |
|--------------|-----------------------------------|

## Returns

None.

5.3.2.7 `public String pl.edu.agh.zpi.admintools.sensors.AgentData.toString ( ) [inline]`

Convert [AgentData](#) to string representation.

## Returns

String representation.

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

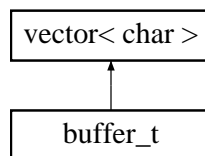
- client/AdminTools/src/pl/edu/agh/zpi/admintools/sensors/AgentData.java

## 5.4 buffer\_t Class Reference

Byte buffer used for marshalling.

```
#include <common.h>
```

Inheritance diagram for buffer\_t:



### Public Member Functions

- `template<typename T >`  
`bool append (const T &val)`  
*Append single data to buffer.*
- `template<typename T >`  
`bool append (const vector< T > &array)`  
*Append vector of data to buffer.*
- `template<typename T >`  
`bool fetch (T &val)`  
*Fetch parametrized data from buffer last position.*
- `bool fetch (string &val)`  
*Fetch string from buffer last position.*
- `void rewind ()`  
*Reset internal pointer.*

#### 5.4.1 Detailed Description

Byte buffer used for marshalling.

Implemented as stl vector of chars.

## 5.4.2 Member Function Documentation

5.4.2.1 `template<typename T > template< typename T > bool buffer_t::append ( const T & val )` `[inline]`

Append single data to buffer.

Parameters

|            |                 |
|------------|-----------------|
| <i>val</i> | Data to append. |
|------------|-----------------|

Returns

If succeeded.

5.4.2.2 `template<typename T > template< typename T > bool buffer_t::append ( const vector< T > & array )` `[inline]`

Append vector of data to buffer.

Parameters

|              |                 |
|--------------|-----------------|
| <i>array</i> | Data to append. |
|--------------|-----------------|

Returns

If succeeded.

5.4.2.3 `template<typename T > template< typename T > bool buffer_t::fetch ( T & val )` `[inline]`

Fetch parametrized data from buffer last position.

Parameters

|            |            |                |
|------------|------------|----------------|
| <i>out</i> | <i>val</i> | Fetches value. |
|------------|------------|----------------|

Returns

If succeeded.

5.4.2.4 `bool buffer_t::fetch ( string & val )` `[inline]`

Fetch string from buffer last position.

Parameters

|            |            |                 |
|------------|------------|-----------------|
| <i>out</i> | <i>val</i> | Fetches string. |
|------------|------------|-----------------|

Returns

If succeeded.

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

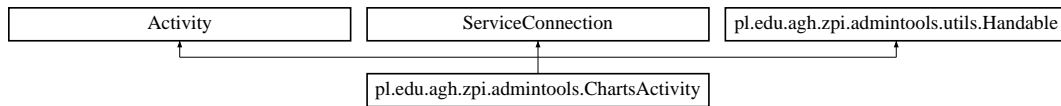
- common/common.h



## 5.5 pl.edu.agh.zpi.admintools.ChartsActivity Class Reference

Activity for interacting and handling charts visualization.

Inheritance diagram for pl.edu.agh.zpi.admintools.ChartsActivity:



### Public Member Functions

- void [handleMessage](#) (Message msg)  
*Handle incoming Message.*
- void [onServiceConnected](#) (ComponentName name, IBinder service)  
*Execute on service connection establish event.*
- void [onServiceDisconnected](#) (ComponentName name)  
*Execute on service disconnected event.*
- void [submit](#) (View view)  
*Submit given view. Do something.*
- void [setAxis](#) (int minVal, int maxVal)  
*Set charts axis.*
- void [updateDate](#) ()  
*Update charts date.*
- void [setDate](#) (View view)  
*Set charts date.*
- void [setDataType](#) (View view)  
*Set charts data type.*

### Static Public Attributes

- static final String [AGENT](#) = "pl.edu.agh.zpi.admintools.ChartsActivity.AGENT"  
*Agent item full key.*

### Protected Member Functions

- void [onCreate](#) (Bundle savedInstanceState)  
*Execute on activity creation.*
- void [onDestroy](#) ()  
*Execute on activity destruction.*
- void [onStop](#) ()  
*Execute on activity stop event.*
- void [onResume](#) ()  
*Execute on activity resume event.*

#### 5.5.1 Detailed Description

Activity for interacting and handling charts visualization.

## 5.5.2 Member Function Documentation

5.5.2.1 `public void pl.edu.agh.zpi.admintools.ChartsActivity.handleMessage ( Message msg )` `[inline]`

Handle incoming Message.

## Parameters

|            |                   |
|------------|-------------------|
| <i>msg</i> | Incoming Message. |
|------------|-------------------|

## Returns

None.

Implements [pl.edu.agh.zpi.admintools.utils.Handable](#).

**5.5.2.2** `protected void pl.edu.agh.zpi.admintools.ChartsActivity.onCreate ( Bundle savedInstanceState ) [inline], [protected]`

Execute on activity creation.

## Parameters

|                           |                                 |
|---------------------------|---------------------------------|
| <i>savedInstanceState</i> | Bundle with object saved state. |
|---------------------------|---------------------------------|

## Returns

None.

**5.5.2.3** `protected void pl.edu.agh.zpi.admintools.ChartsActivity.onDestroy ( ) [inline], [protected]`

Execute on activity destruction.

## Returns

None.

**5.5.2.4** `protected void pl.edu.agh.zpi.admintools.ChartsActivity.onResume ( ) [inline], [protected]`

Execute on activity resume event.

## Returns

None.

**5.5.2.5** `public void pl.edu.agh.zpi.admintools.ChartsActivity.onServiceConnected ( ComponentName name, IBinder service ) [inline]`

Execute on service connection establish event.

## Parameters

|                |                 |
|----------------|-----------------|
| <i>name</i>    | Component name. |
| <i>service</i> | Service binder. |

## Returns

None.

**5.5.2.6** `public void pl.edu.agh.zpi.admintools.ChartsActivity.onServiceDisconnected ( ComponentName name ) [inline]`

Execute on service disconnected event.

## Parameters

|             |                 |
|-------------|-----------------|
| <i>name</i> | Component name. |
|-------------|-----------------|

## Returns

None.

5.5.2.7 `protected void pl.edu.agh.zpi.admintools.ChartsActivity.onStop ( ) [inline], [protected]`

Execute on activity stop event.

## Returns

None.

5.5.2.8 `public void pl.edu.agh.zpi.admintools.ChartsActivity.setAxis ( int minVal, int maxVal ) [inline]`

Set charts axis.

## Parameters

|               |                     |
|---------------|---------------------|
| <i>minVal</i> | Minimal axis value. |
| <i>maxVal</i> | Maximum axis value. |

## Returns

None.

5.5.2.9 `public void pl.edu.agh.zpi.admintools.ChartsActivity.setDataType ( View view ) [inline]`

Set charts data type.

## Parameters

|             |               |
|-------------|---------------|
| <i>view</i> | Current View. |
|-------------|---------------|

## Returns

None.

5.5.2.10 `public void pl.edu.agh.zpi.admintools.ChartsActivity.setDate ( View view ) [inline]`

Set charts date.

## Parameters

|             |               |
|-------------|---------------|
| <i>view</i> | Current View. |
|-------------|---------------|

## Returns

None.

5.5.2.11 `public void pl.edu.agh.zpi.admintools.ChartsActivity.submit ( View view ) [inline]`

Submit given view. Do something.

## Parameters

|             |                 |
|-------------|-----------------|
| <i>view</i> | Submitted view. |
|-------------|-----------------|

## Returns

None.

5.5.2.12 `public void pl.edu.agh.zpi.admintools.ChartsActivity.updateDate ( ) [inline]`

Update charts date.

## Returns

None.

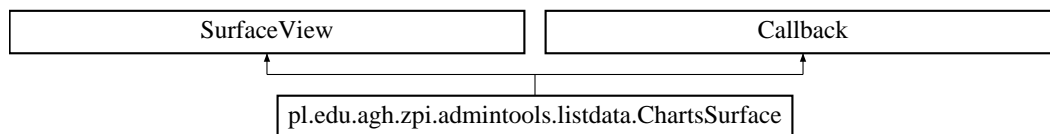
The documentation for this class was generated from the following file:

- client/AdminTools/src/pl/edu/agh/zpi/admintools/ChartsActivity.java

## 5.6 pl.edu.agh.zpi.admintools.listdata.ChartsSurface Class Reference

Surface for displaying charts data.

Inheritance diagram for pl.edu.agh.zpi.admintools.listdata.ChartsSurface:



### Public Member Functions

- [ChartsSurface](#) (Context context, AttributeSet attrs)  
*Constructor, set global context and set of attribute.*
- void [surfaceChanged](#) (SurfaceHolder holder, int format, int width, int height)  
*Execute on surface changed event.*
- void [surfaceCreated](#) (SurfaceHolder holder)  
*Execute on surface creation.*
- void [surfaceDestroyed](#) (SurfaceHolder holder)  
*Execute on surface destruction.*
- void [setData](#) (ArrayList< Float > data, int type)  
*Set new data tu surface and display it on charts.*

### Static Public Attributes

- static final int [ACCURACY](#) = 10  
*Charts data accuracy.*

#### 5.6.1 Detailed Description

Surface for displaying charts data.

## 5.6.2 Constructor & Destructor Documentation

5.6.2.1 `public pl.edu.agh.zpi.admintools.listdata.ChartsSurface.ChartsSurface ( Context context, AttributeSet attrs )`  
`[inline]`

Constructor, set global context and set of attribute.

### Parameters

|                |  |
|----------------|--|
| <i>context</i> | Context with env global informations.      |
| <i>attrs</i>   | A collection of attributes (AttributeSet). |

## 5.6.3 Member Function Documentation

5.6.3.1 `public void pl.edu.agh.zpi.admintools.listdata.ChartsSurface.setData ( ArrayList< Float > data, int type )`  
`[inline]`

Set new data tu surface and display it on charts.

### Parameters

|             |                           |
|-------------|---------------------------|
| <i>data</i> | List with series of data. |
| <i>type</i> | Stats type flag.          |

### Returns

None.

5.6.3.2 `public void pl.edu.agh.zpi.admintools.listdata.ChartsSurface.surfaceChanged ( SurfaceHolder holder, int format, int width, int height )` `[inline]`

Execute on surface changed event.

### Parameters

|               |                       |
|---------------|-----------------------|
| <i>holder</i> | Surface holder class. |
| <i>format</i> | Surface format.       |
| <i>width</i>  | Surface width.        |
| <i>height</i> | Surface height.       |

### Returns

None.

5.6.3.3 `public void pl.edu.agh.zpi.admintools.listdata.ChartsSurface.surfaceCreated ( SurfaceHolder holder )` `[inline]`

Execute on surface creation.

### Parameters

|               |                       |
|---------------|-----------------------|
| <i>holder</i> | Surface holder class. |
|---------------|-----------------------|

### Returns

None.

5.6.3.4 `public void pl.edu.agh.zpi.admintools.listdata.ChartsSurface.surfaceDestroyed ( SurfaceHolder holder )` `[inline]`

Execute on surface destruction.

**Parameters**

|               |                       |
|---------------|-----------------------|
| <i>holder</i> | Surface holder class. |
|---------------|-----------------------|

**Returns**

None.

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

- client/AdminTools/src/pl/edu/agh/zpi/admintools/listdata/ChartsSurface.java

## 5.7 Client Class Reference

Represents handled client-agent.

```
#include <client.h>
```

**Public Member Functions**

- [Client](#) (int [fd](#), const string &[ip](#), int [port](#))  
*Constructor, initialize data with incoming connection returns.*
- void [readData](#) ()  
*Read data from client-agent.*
- void [process](#) ()  
*Process all waiting request.*
- void [fetchConfig](#) ()  
*Fetch client-agent current configuration.*

**Public Attributes**

- int [fd](#)  
*Client id, mostly socket descriptor used for its communication.*
- string [ip](#)  
*Client ip address.*
- int [port](#)  
*Client port.*
- bool [toDelete](#)  
*If client is not used.*
- bool [settingsChanged](#)  
*If client settings changed.*

### 5.7.1 Detailed Description

Represents handled client-agent.

### 5.7.2 Constructor & Destructor Documentation

#### 5.7.2.1 Client::Client ( int *fd*, const string & *ip*, int *port* )

Constructor, initialize data with incoming connection returns.



## Parameters

|             |                                    |
|-------------|------------------------------------|
| <i>fd</i>   | Socket descriptor.                 |
| <i>ip</i>   | <a href="#">Client</a> ip address. |
| <i>port</i> | <a href="#">Client</a> port.       |

## 5.7.3 Member Function Documentation

## 5.7.3.1 void Client::fetchConfig ( )

Fetch client-agent current configuration.

## Returns

None.

## 5.7.3.2 void Client::process ( )

Process all waiting request.

## Returns

None.

## 5.7.3.3 void Client::readData ( )

Read data from client-agent.

## Returns

None.

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

- server/client.h
- server/client.cpp

## 5.8 Config Class Reference

Simple handler for configuration files.

```
#include <config.h>
```

## Public Member Functions

- [Config](#) ()  
*Default constructor, do nothing.*
- [~Config](#) ()  
*Destructor, do nothing.*
- bool [fromFile](#) (const string &path)  
*Load configuration from given file.*
- bool [saveToFile](#) (const string &path)

- *Save configuration to given file.*
- bool **hasKey** (const string &key)  
*Check if configuration contains given key.*
- string **getString** (const string &key, const string &def="")  
*Get string value connected with given key.*
- int **getInt** (const string &key, int def=0)  
*Get int value connected with given key.*
- void **setString** (const string &key, const string &value)  
*Insert string value and assign it with given key.*
- void **setInt** (const string &key, int val)  
*Insert int value and assign it with given key.*
- bool **fromFile** (const string &path)
- bool **saveToFile** (const string &path)
- bool **hasKey** (const string &key)
- string **getString** (const string &key, const string &def="")
- int **getInt** (const string &key, int def=0)
- void **setString** (const string &key, const string &value)
- void **setInt** (const string &key, int val)

### 5.8.1 Detailed Description

Simple handler for configuration files.

### 5.8.2 Member Function Documentation

#### 5.8.2.1 bool Config::fromFile ( const string & path )

Load configuration from given file.

##### Parameters

|             |                                      |
|-------------|--------------------------------------|
| <i>path</i> | Path pointing to configuration file. |
|-------------|--------------------------------------|

##### Returns

If succeeded.

#### 5.8.2.2 int Config::getInt ( const string & key, int def = 0 )

Get int value connected with given key.

##### Parameters

|            |  |
|------------|--|
| <i>key</i> | Key connected with wanted value.               |
| <i>def</i> | Default value in case of absence of given key. |

##### Returns

Value connected with key or default value def otherwise.

#### 5.8.2.3 string Config::getString ( const string & key, const string & def = " " )

Get string value connected with given key.

## Parameters

|            |  |
|------------|--|
| <i>key</i> | Key connected with wanted value.               |
| <i>def</i> | Default value in case of absence of given key. |

## Returns

Value connected with key or default value def otherwise.

**5.8.2.4 bool Config::hasKey ( const string & *key* )**

Check if configuration contains given key.

## Parameters

|            |               |
|------------|---------------|
| <i>key</i> | Key to check. |
|------------|---------------|

## Returns

If contained.

**5.8.2.5 bool Config::saveToFile ( const string & *path* )**

Save configuration to given file.

## Parameters

|             |                                      |
|-------------|--------------------------------------|
| <i>path</i> | Path pointing to configuration file. |
|-------------|--------------------------------------|

## Returns

If succeeded.

**5.8.2.6 void Config::setInt ( const string & *key*, int *val* )**

Insert int value and assign it with given key.

## Parameters

|            |                                    |
|------------|------------------------------------|
| <i>key</i> | Key connected with inserted value. |
| <i>val</i> | Inserted value.                    |

## Returns

None.

## Parameters

|              |                                    |
|--------------|------------------------------------|
| <i>key</i>   | Key connected with inserted value. |
| <i>value</i> | Inserted value.                    |

## Returns

None.

**5.8.2.7 void Config::setString ( const string & *key*, const string & *value* )**

Insert string value and assign it with given key.

## Parameters

|              |                                    |
|--------------|------------------------------------|
| <i>key</i>   | Key connected with inserted value. |
| <i>value</i> | Inserted value.                    |

## Returns

None.

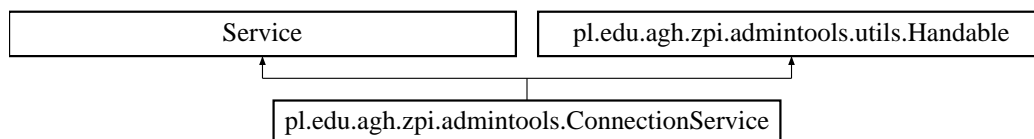
The documentation for this class was generated from the following files:

- common/config.h
- common/configWin.h
- common/config.cpp
- common/configWin.cpp

## 5.9 pl.edu.agh.zpi.admintools.ConnectionService Class Reference

Service for handling connection events and messages.

Inheritance diagram for pl.edu.agh.zpi.admintools.ConnectionService:



### Public Member Functions

- [ConnectionService](#) ()  
*Default constructor, calling super constructor.*
- void [onCreate](#) ()  
*Executed on service creation.*
- IBinder [onBind](#) (Intent intent)  
*Execute on service bind.*
- void [handleMessage](#) (Message msg)  
*Handle incoming connection message.*
- boolean [onUnbind](#) (Intent intent)  
*Execute on service unbinding.*
- void [onDestroy](#) ()  
*Execute on service destruction.*

### Static Public Attributes

- static final String [MESSENGER](#) = "pl.edu.agh.zpi.admintools.ConnectionService.MESSENGER"  
*Full service MESSENGER path.*
- static final int [GET\\_MESSENGER](#) = 0  
*Get messenger message type.*
- static final int [GENERATE\\_KEY](#) = 1  
*Generate key message type.*
- static final int [CONNECT](#) = 2

- Connect message type.*
- static final int [DISCONNECT](#) = 3
- Disconnect message type.*
- static final int [SEND\\_CONFIG](#) = 4
- Send configuration message type.*
- static final int [STOP](#) = 5
- Stop message type.*
- static final int [REQUEST\\_CONFIG](#) = 6
- Request configuration message type.*
- static final int [SET\\_INTERVAL](#) = 7
- Set interval message type.*
- static final int [STATS\\_REQUEST](#) = 8
- Stats request message type.*
- static final String [NAME](#) = "pl.edu.agh.zpi.admintools.ConnectionService"
- Full connection service class name.*

### 5.9.1 Detailed Description

Service for handling connection events and messages.

### 5.9.2 Member Function Documentation

5.9.2.1 `public void pl.edu.agh.zpi.admintools.ConnectionService.handleMessage ( Message msg )` `[inline]`

Handle incoming connection message.

Returns

None.

Implements [pl.edu.agh.zpi.admintools.utils.Handable](#).

5.9.2.2 `public IBinder pl.edu.agh.zpi.admintools.ConnectionService.onBind ( Intent intent )` `[inline]`

Execute on service bind.

Returns

New binder.

5.9.2.3 `public void pl.edu.agh.zpi.admintools.ConnectionService.onCreate ( )` `[inline]`

Executed on service creation.

Returns

None.

5.9.2.4 `public void pl.edu.agh.zpi.admintools.ConnectionService.onDestroy ( )` `[inline]`

Execute on service destruction.

Returns

None.

5.9.2.5 `public boolean pl.edu.agh.zpi.admintools.ConnectionService.onUnbind ( Intent intent ) [inline]`

Execute on service unbinding.

#### Returns

If succeeded.

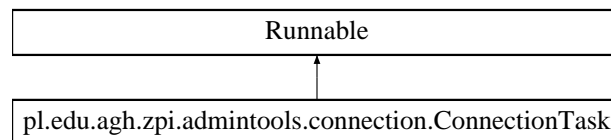
The documentation for this class was generated from the following file:

- `client/AdminTools/src/pl/edu/agh/zpi/admintools/ConnectionService.java`

## 5.10 pl.edu.agh.zpi.admintools.connection.ConnectionTask Class Reference

Handle connection events.

Inheritance diagram for `pl.edu.agh.zpi.admintools.connection.ConnectionTask`:



### Classes

- enum **State**

### Public Member Functions

- void `run ()`  
*Start connection task handling routine in different thread.*
- synchronized void `connect` (String host, int port, String key, short interval)  
*Connect to given host using auth key.*
- void `disconnect ()`  
*Disconnect from connected host.*
- void `stop ()`  
*Stop connection task handling routine.*
- synchronized boolean `isConnected ()`
- void `setMessenger` (Messenger activityMessenger)  
*Set current activity messenger.*
- void `enqueueMessage` (IPacket packet)  
*Add packet to queue.*

### Static Public Attributes

- static final int `CONNECTED` = 0  
*Connected callback flag.*
- static final int `AGENTS_DATA` = 1  
*Agents data callback flag.*
- static final int `AGENT_KEY` = 2

- Agent authentication key callback flag.*
- static final int `AGENT_CONFIG` = 3
- Agent configuration callback flag.*
- static final int `CONNECTION_ERROR` = 4
- Connection error callback flag.*
- static final int `STATS_REPLY` = 5
- Stats reply callback flag.*
- static final int `AUTH_FAILED` = 6
- Authentication failed flag.*

### 5.10.1 Detailed Description

Handle connection events.

### 5.10.2 Member Function Documentation

5.10.2.1 `public synchronized void pl.edu.agh.zpi.admintools.connection.ConnectionTask.connect ( String host, int port, String key, short interval ) [inline]`

Connect to given host using auth key.

Parameters

|                 |                           |
|-----------------|---------------------------|
| <i>host</i>     | Host address.             |
| <i>port</i>     | Host port.                |
| <i>key</i>      | Agent authentication key. |
| <i>interval</i> | Time interval.            |

Returns

None.

5.10.2.2 `public void pl.edu.agh.zpi.admintools.connection.ConnectionTask.disconnect ( ) [inline]`

Disconnect from connected host.

Returns

None.

5.10.2.3 `public void pl.edu.agh.zpi.admintools.connection.ConnectionTask.enqueueMessage ( IPacket packet ) [inline]`

Add packet to queue.

Parameters

|               |                |
|---------------|----------------|
| <i>packet</i> | Packet to add. |
|---------------|----------------|

Returns

None.

5.10.2.4 `public void pl.edu.agh.zpi.admintools.connection.ConnectionTask.run ( ) [inline]`

Start connection task handling routine in different thread.

#### Returns

None.

5.10.2.5 `public void pl.edu.agh.zpi.admintools.connection.ConnectionTask.setMessenger ( Messenger activityMessenger ) [inline]`

Set current activity messenger.

#### Parameters

|                           |                   |
|---------------------------|-------------------|
| <i>activity-Messenger</i> | Messenger to set. |
|---------------------------|-------------------|

#### Returns

None.

5.10.2.6 `public void pl.edu.agh.zpi.admintools.connection.ConnectionTask.stop ( ) [inline]`

Stop connection task handling routine.

#### Returns

None.

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

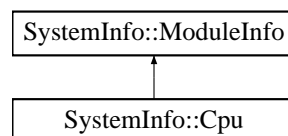
- `client/AdminTools/src/pl/edu/agh/zpi/admintools/connection/ConnectionTask.java`

## 5.11 SystemInfo::Cpu Class Reference

Contains [Cpu](#) related information (times, cpu model details).

```
#include <Cpu.h>
```

Inheritance diagram for SystemInfo::Cpu:



### Classes

- struct [Details](#)  
*Represents basic Cpu/core information (vendor, mhz etc.).*
- struct [Times](#)  
*Represents times that [Cpu](#) used on various operations and states.*



## Public Member Functions

- [Cpu](#) ()  
*Default constructor, initialize general times information and core times / details info.*
- void [displayCombinedInfo](#) ()  
*Display all information about cpu/cores using standard output (std::cout).*
- void [displayTimesInfo](#) ([Times](#) \*times)  
*Display information about times using standard output (std::cout).*
- void [displayDetailsInfo](#) ([Details](#) \*details)  
*Display information about details using standard output (std::cout).*

## Public Attributes

- [Times](#) \* [generalTimes](#)  
*Times combined with all the cores.*
- std::vector< [Times](#) \* > [coreTimes](#)  
*Times information per core.*
- std::vector< [Details](#) \* > [coreDetails](#)  
*Model Details per core.*

### 5.11.1 Detailed Description

Contains [Cpu](#) related information (times, cpu model details).

### 5.11.2 Member Function Documentation

#### 5.11.2.1 void SystemInfo::Cpu::displayCombinedInfo ( ) [inline], [virtual]

Display all information about cpu/cores using standard output (std::cout).

##### Returns

None

Implements [SystemInfo::ModuleInfo](#).

#### 5.11.2.2 void SystemInfo::Cpu::displayDetailsInfo ( [Details](#) \* details ) [inline]

Display information about details using standard output (std::cout).

##### Returns

None

#### 5.11.2.3 void SystemInfo::Cpu::displayTimesInfo ( [Times](#) \* times ) [inline]

Display information about times using standard output (std::cout).

##### Returns

None

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

- `agent_win/src/SystemInfo/Cpu.h`

## 5.12 DB Class Reference

Database handler. Uses SQLite.

```
#include <db.h>
```

### Static Public Member Functions

- static bool [open](#) (const string &path)  
*Open file with database.*
- static bool [createTables](#) ()  
*Creates initial tables.*
- static bool [generateNewKey](#) (char key[16])  
*Generate new key for agent.*
- static bool [findAgentByKey](#) (const char key[16], [TDBAgent](#) &agent)  
*Find agent with given key.*
- static bool [findAgentById](#) (uint16\_t id, [TDBAgent](#) &agent)  
*Find agent with given id.*
- static bool [updateAgent](#) (const [TDBAgent](#) &agent)  
*Update agent data based on id inside.*
- static bool [insertRecord](#) (int agentId, const [TSensorsData](#) &data)  
*Insert data from sensors connected to agent with given id.*
- static bool [insertRecord](#) (const [TDBAgent](#) &agent, const [TSensorsData](#) &data)  
*Insert data from sensors connected to given agent.*
- static bool [insertRecords](#) (int agentId, const vector< [TSensorsData](#) > &data)  
*Insert many data from sensors connected to given agent id.*
- static bool [insertRecords](#) (const [TDBAgent](#) &agent, const vector< [TSensorsData](#) > &data)  
*Insert many data from sensors connected to given agent.*
- static bool [getRecords](#) (int agentId, uint32\_t startDate, uint32\_t endDate, vector< [TSensorsRecord](#) > &records)  
*Get sensors data for given agent id based on time interval.*
- static bool [cleanup](#) ()  
*Remove old records from database.*
- static void [close](#) ()  
*Close database.*

### Static Public Attributes

- static sqlite3 \* [db](#)  
*Current database handle.*

#### 5.12.1 Detailed Description

Database handler. Uses SQLite.

## 5.12.2 Member Function Documentation

### 5.12.2.1 static bool DB::createTables ( ) [static]

Creates initial tables.

#### Returns

If succeeded.

### 5.12.2.2 static bool DB::findAgentById ( uint16\_t *id*, TDBAgent & *agent* ) [static]

Find agent with given id.

#### Parameters

|     |              |                    |
|-----|--------------|--------------------|
| in  | <i>id</i>    | Agent id to check. |
| out | <i>agent</i> | Agent data.        |

#### Returns

If succeeded.

### 5.12.2.3 static bool DB::findAgentByKey ( const char *key*[16], TDBAgent & *agent* ) [static]

Find agent with given key.

#### Parameters

|     |              |               |
|-----|--------------|---------------|
| in  | <i>key</i>   | Key to check. |
| out | <i>agent</i> | Agent data.   |

#### Returns

If succeeded.

### 5.12.2.4 static bool DB::generateNewKey ( char *key*[16] ) [static]

Generate new key for agent.

#### Parameters

|     |            |                 |
|-----|------------|-----------------|
| out | <i>key</i> | Table with key. |
|-----|------------|-----------------|

#### Returns

If succeeded.

### 5.12.2.5 static bool DB::getRecords ( int *agentId*, uint32\_t *startDate*, uint32\_t *endDate*, vector< TSensorsRecord > & *records* ) [static]

Get sensors data for given agent id based on time interval.

## Parameters

|     |                  |                              |
|-----|------------------|------------------------------|
| in  | <i>agentId</i>   | Agent-owner of sensors data. |
| in  | <i>startDate</i> | Interval start time.         |
| in  | <i>endDate</i>   | Interval end time.           |
| out | <i>records</i>   | Filtered sensors datas.      |

**5.12.2.6** `static bool DB::insertRecord ( int agentId, const TSensorsData & data ) [static]`

Insert data from sensors connected to agent with given id.

## Parameters

|                |                              |
|----------------|------------------------------|
| <i>agentId</i> | Agent-owner of sensors data. |
| <i>data</i>    | Sensors data.                |

## Returns

If succeeded.

**5.12.2.7** `static bool DB::insertRecord ( const TDBAgent & agent, const TSensorsData & data ) [inline],  
[static]`

Insert data from sensors connected to given agent.

## Parameters

|              |                              |
|--------------|------------------------------|
| <i>agent</i> | Agent-owner of sensors data. |
| <i>data</i>  | Sensors data.                |

## Returns

If succeeded.

**5.12.2.8** `static bool DB::insertRecords ( int agentId, const vector< TSensorsData > & data ) [static]`

Isert many data from sensors connected to given agent id.

## Parameters

|                |                               |
|----------------|-------------------------------|
| <i>agentId</i> | Agent-owner of sensors datas. |
| <i>data</i>    | List of sensors datas.        |

## Returns

If succeeded.

**5.12.2.9** `static bool DB::insertRecords ( const TDBAgent & agent, const vector< TSensorsData > & data )  
[inline], [static]`

Isert many data from sensors connected to given agent.

## Parameters

|              |                               |
|--------------|-------------------------------|
| <i>agent</i> | Agent-owner of sensors datas. |
| <i>data</i>  | List of sensors datas.        |

## Returns

If succeeded.

5.12.2.10 static bool DB::open ( const string & *path* ) [static]

Open file with database.

## Parameters

|             |                                 |
|-------------|---------------------------------|
| <i>path</i> | Path pointing to database file. |
|-------------|---------------------------------|

## Returns

If succeeded.

5.12.2.11 static bool DB::updateAgent ( const TDBAgent & *agent* ) [static]

Update agent data based on id inside.

## Parameters

|           |              |  |
|-----------|--------------|--|
| <i>in</i> | <i>agent</i> | Agent data to update with existing agent id. |
|-----------|--------------|--|

## Returns

If succeeded.

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

- server/db.h
- server/db.cpp

## 5.13 SystemInfo::Cpu::Details Struct Reference

Represents basic Cpu/core information (vendor, mhz etc.).

```
#include <Cpu.h>
```

## Public Member Functions

- [Details](#) ()  
*Default constructor, zeroes details variables.*

## Public Attributes

- std::string [vendor](#)  
*Vendor name.*
- std::string [model](#)

- *Cpu model.*
- uint16 [mhz](#)  
*Clock rate in MHZ.*
- uint64 [cache\\_size](#)  
*Cache size in bits.*
- uint16 [total\\_sockets](#)  
*Total number of available sockets.*
- uint16 [total\\_cores](#)  
*Total number of available cores.*
- uint16 [cores\\_per\\_socket](#)  
*Number of cores per available sockets.*

### 5.13.1 Detailed Description

Represents basic Cpu/core information (vendor, mhz etc.).

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

- `agent_win/src/SystemInfo/Cpu.h`

## 5.14 SystemInfo::FileSystem::Details Struct Reference

General information about device/disk.

```
#include <FileSystem.h>
```

### Public Member Functions

- [Details](#) ()  
*Default constructor, initialize general directory/device information.*

### Public Attributes

- std::string [dir](#)  
*Directory name.*
- std::string [dev](#)  
*Device name.*
- std::string [type](#)  
*Device type.*
- std::string [sys\\_type](#)  
*Device system type.*
- std::string [options](#)  
*Additional options.*
- std::string [fsType](#)  
*File system type.*
- uint32 [flags](#)  
*Additional flags.*

### 5.14.1 Detailed Description

General information about device/disk.

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

- `agent_win/src/SystemInfo/FileSystem.h`

## 5.15 SystemInfo::DiagnosticMgr Class Reference

Singleton manager for information gathering and visualization.

```
#include <DiagnosticMgr.h>
```

### Public Member Functions

- [Resources](#) \* [getResourcesInfo](#) ()  
*Get informations about resources used and its limits.*
- [Cpu](#) \* [getCpuInfo](#) ()  
*Get informations about CPUs/Cores.*
- [FileSystem](#) \* [getFileSystemInfo](#) ()  
*Get informations about file system (HDD, virtual, external drives).*

### Static Public Member Functions

- static double [getCpuTemp](#) ()  
*Get CPU tempeprature.*
- static [DiagnosticMgr](#) & [getInstance](#) ()  
*Get instance of [DiagnosticMgr](#) singleton class.*

### 5.15.1 Detailed Description

Singleton manager for information gathering and visualization.

Simple wrapper around Sigar and WMI libraries.

### 5.15.2 Member Function Documentation

#### 5.15.2.1 [Cpu](#) \* [DiagnosticMgr::getCpuInfo](#) ( )

Get informations about CPUs/Cores.

Returns

[Cpu](#) and cores informations.

#### 5.15.2.2 double [SystemInfo::DiagnosticMgr::getCpuTemp](#) ( ) [static]

Get CPU tempeprature.

Returns

Current CPU temperature in celsius degree.

### 5.15.2.3 FileSystem \* SystemInfo::DiagnosticMgr::getFileSystemInfo ( )

Get informations about file system (HDD, virtual, external drives).

Returns

FileSystem informations.

### 5.15.2.4 static DiagnosticMgr& SystemInfo::DiagnosticMgr::getInstance ( ) [inline],[static]

Get instance of DiagnosticMgr singleton class.

Returns

Instance of DiagnosticMgr.

### 5.15.2.5 Resources \* DiagnosticMgr::getResourcesInfo ( )

Get informations about resources used and its limits.

Returns

Resources informations.

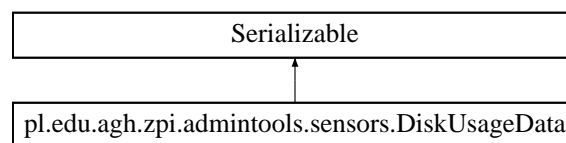
The documentation for this class was generated from the following files:

- agent\_win/src/SystemInfo/DiagnosticMgr.h
- agent\_win/src/SystemInfo/DiagnosticMgr.cpp

## 5.16 pl.edu.agh.zpi.admintools.sensors.DiskUsageData Class Reference

Disc usage data structure as serializable POJO.

Inheritance diagram for pl.edu.agh.zpi.admintools.sensors.DiskUsageData:



### Public Member Functions

- String [getName](#) ()  
*Get disc name.*
- long [getTotalSpace](#) ()  
*Get total available space on disc.*
- long [getUsedSpace](#) ()  
*Get used space on disc.*
- String [toString](#) ()  
*Convert [DiskUsageData](#) to string representation.*



## Static Public Member Functions

- static [DiskUsageData fromByteBuffer](#) (ByteBuffer buffer)

*Fill disc usage data with given byte buffer.*

### 5.16.1 Detailed Description

Disc usage data structure as serializable POJO.

### 5.16.2 Member Function Documentation

**5.16.2.1** `public static DiskUsageData pl.edu.agh.zpi.admintools.sensors.DiskUsageData.fromByteBuffer ( ByteBuffer buffer ) [inline],[static]`

Fill disc usage data with given byte buffer.

#### Parameters

|               |                              |
|---------------|------------------------------|
| <i>buffer</i> | Byte buffer with disc usage. |
|---------------|------------------------------|

#### Returns

Converted [DiskUsageData](#) object.

**5.16.2.2** `public String pl.edu.agh.zpi.admintools.sensors.DiskUsageData.getName ( ) [inline]`

Get disc name.

#### Returns

Disc name.

**5.16.2.3** `public long pl.edu.agh.zpi.admintools.sensors.DiskUsageData.getTotalSpace ( ) [inline]`

Get total available space on disc.

#### Returns

Total space.

**5.16.2.4** `public long pl.edu.agh.zpi.admintools.sensors.DiskUsageData.getUsedSpace ( ) [inline]`

Get used space on disc.

#### Returns

Used space.

5.16.2.5 `public String pl.edu.agh.zpi.admintools.sensors.DiskUsageData.toString ( ) [inline]`

Convert [DiskUsageData](#) to string representation.

#### Returns

String representation.

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

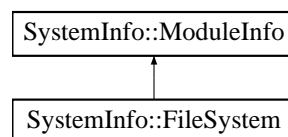
- `client/AdminTools/src/pl/edu/agh/zpi/admintools/sensors/DiskUsageData.java`

## 5.17 SystemInfo::FileSystem Class Reference

Class contains file system informations.

`#include <FileSystem.h>`

Inheritance diagram for SystemInfo::FileSystem:



### Classes

- struct [Details](#)  
*General information about device/disk.*
- struct [Usage](#)  
*Informations about usage of directory/devie.*

### Public Member Functions

- [FileSystem](#) ()  
*Default constructor, initialize sub-structures for details/usage information.*
- void [displayCombinedInfo](#) ()  
*Display all informations about file system on standard output (std::cout)*
- void [displayDetailsInfo](#) ([Details](#) \*details)  
*Display informations from [Details](#) struct over standard output (std::cout)*
- void [displayUsageInfo](#) ([Usage](#) \*usage)  
*Display informations from [Usage](#) struct over standard output (std::cout)*

### Static Public Member Functions

- static std::string [getFullFsTypeName](#) (sigar\_file\_system\_type\_e type)  
*Map file system type to human-readable string.*

## Public Attributes

- `std::vector< Details * > dirDetails`  
*List of details per directory.*
- `std::vector< Usage * > dirUsages`  
*List with usage information for every disc.*

### 5.17.1 Detailed Description

Class contains file system informations.

### 5.17.2 Member Function Documentation

**5.17.2.1** `void SystemInfo::FileSystem::displayCombinedInfo ( )` `[inline]`, `[virtual]`

Display all informations about file system on standard output (`std::cout`)

#### Returns

None

Implements [SystemInfo::ModuleInfo](#).

**5.17.2.2** `void SystemInfo::FileSystem::displayDetailsInfo ( Details * details )` `[inline]`

Display informations from [Details](#) struct over standard output (`std::cout`)

#### Returns

None

**5.17.2.3** `void SystemInfo::FileSystem::displayUsageInfo ( Usage * usage )` `[inline]`

Display informations from [Usage](#) struct over standard output (`std::cout`)

#### Returns

None

**5.17.2.4** `SystemInfo::FileSystem::getFullFsTypeName ( sigar_file_system_type_e type )` `[inline]`, `[static]`

Map file system type to human-readable string.

#### Returns

Human-readable file system type

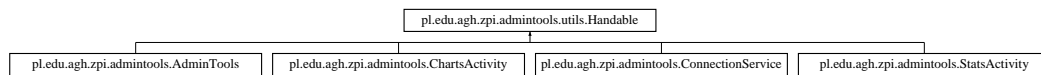
The documentation for this class was generated from the following file:

- `agent_win/src/SystemInfo/FileSystem.h`

## 5.18 pl.edu.agh.zpi.admintools.utils.Handable Interface Reference

Used by handlers able to handle incoming message.

Inheritance diagram for pl.edu.agh.zpi.admintools.utils.Handable:



### Public Member Functions

- void [handleMessage](#) (Message msg)  
*Handle incoming message.*

#### 5.18.1 Detailed Description

Used by handlers able to handle incoming message.

#### 5.18.2 Member Function Documentation

##### 5.18.2.1 public void pl.edu.agh.zpi.admintools.utils.Handable.handleMessage ( Message msg )

Handle incoming message.

Parameters

|            |                    |
|------------|--------------------|
| <i>msg</i> | Message to handle. |
|------------|--------------------|

Returns

None.

Implemented in [pl.edu.agh.zpi.admintools.AdminTools](#), [pl.edu.agh.zpi.admintools.StatsActivity](#), [pl.edu.agh.zpi.admintools.ChartsActivity](#), and [pl.edu.agh.zpi.admintools.ConnectionService](#).

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

- client/AdminTools/src/pl/edu/agh/zpi/admintools/utils/Handable.java

## 5.19 pl.edu.agh.zpi.admintools.connection.Header Class Reference

Packet header configuration and utility functions.

### Public Member Functions

- [Header](#) ()  
*Default constructor, do nothing.*
- [Header](#) (byte type, short size)  
*Constructor, set header type and size.*
- void [setData](#) (byte type, short size)  
*Set basic header data.*
- void [setType](#) (byte type)

- Set header type flag.*
- void [setSize](#) (short size)
- Set header size.*
- byte [getType](#) ()
- Get header type flag.*
- short [getSize](#) ()
- Get header size.*
- byte[] [toByteArray](#) ()

### Static Public Member Functions

- static [Header](#) [fromByteArray](#) (byte[] array)
- Create new [Header](#) object from its byte representation.*

### Static Public Attributes

- static final int [HEADER\\_SIZE](#) = 3
- [Header](#) size.*
- static final byte [PACKET\\_AUTH](#) = 0
- PacketAuthKey flag.*
- static final byte [PACKET\\_REPLY](#) = 1
- PacketReply flag.*
- static final byte [PACKET\\_AGENT\\_DATA](#) = 2
- Packet agent data flag.*
- static final byte [PACKET\\_START](#) = 3
- PacketStart flag.*
- static final byte [PACKET\\_STOP](#) = 4
- Packet stop flag.*
- static final byte [PACKET\\_PING](#) = 5
- Packet ping flag.*
- static final byte [PACKET\\_AGENTS\\_DATA](#) = 6
- PacketAgentsData flag.*
- static final byte [PACKET\\_KEY\\_REQUEST](#) = 7
- PacketKeyRequest flag.*
- static final byte [PACKET\\_KEY\\_REPLY](#) = 8
- PacketKeyReply flag.*
- static final byte [PACKET\\_CONFIG](#) = 9
- PacketConfig flag.*
- static final byte [PACKET\\_CONFIG\\_REQUEST](#) = 10
- PacketConfigRequest flag.*
- static final byte [PACKET\\_CONFIG\\_REPLY](#) = 11
- Packet configuration reply flag.*
- static final byte [PACKET\\_CHANGE\\_REQUEST](#) = 12
- Packet change request flag.*
- static final byte [PACKET\\_CHANGE\\_REPLY](#) = 13
- Packet change reply flag.*
- static final byte [PACKET\\_STATS\\_REQUEST](#) = 14
- PacketStatsRequest flag.*
- static final byte [PACKET\\_STATS\\_REPLY](#) = 15
- PacketStatsReply flag.*

### 5.19.1 Detailed Description

Packet header configuration and utility functions.

### 5.19.2 Constructor & Destructor Documentation

5.19.2.1 `public pl.edu.agh.zpi.admintools.connection.Header.Header ( byte type, short size ) [inline]`

Constructor, set header type and size.

Parameters

|             |                              |
|-------------|------------------------------|
| <i>type</i> | <a href="#">Header</a> type. |
| <i>size</i> | <a href="#">Header</a> size. |

### 5.19.3 Member Function Documentation

5.19.3.1 `public static Header pl.edu.agh.zpi.admintools.connection.Header.fromByteArray ( byte[] array ) [inline],  
[static]`

Create new [Header](#) object from its byte representation.

Parameters

|              |   |
|--------------|---|
| <i>array</i> | Array of bytes with <a href="#">Header</a> data to reproduce. |
|--------------|---|

Returns

Instance of new [Header](#) object.

5.19.3.2 `public short pl.edu.agh.zpi.admintools.connection.Header.getSize ( ) [inline]`

Get header size.

Returns

[Header](#) size.

5.19.3.3 `public byte pl.edu.agh.zpi.admintools.connection.Header.getType ( ) [inline]`

Get header type flag.

Returns

[Header](#) type flag.

5.19.3.4 `public void pl.edu.agh.zpi.admintools.connection.Header.setData ( byte type, short size ) [inline]`

Set basic header data.

## Parameters

|             |                              |
|-------------|------------------------------|
| <i>type</i> | <a href="#">Header</a> type. |
| <i>size</i> | <a href="#">Header</a> size. |

## Returns

None.

5.19.3.5 `public void pl.edu.agh.zpi.admintools.connection.Header.setSize ( short size )` `[inline]`

Set header size.

## Parameters

|             |                              |
|-------------|------------------------------|
| <i>size</i> | <a href="#">Header</a> size. |
|-------------|------------------------------|

## Returns

None.

5.19.3.6 `public void pl.edu.agh.zpi.admintools.connection.Header.setType ( byte type )` `[inline]`

Set header type flag.

## Parameters

|             |                                   |
|-------------|-----------------------------------|
| <i>type</i> | <a href="#">Header</a> type flag. |
|-------------|-----------------------------------|

## Returns

None.

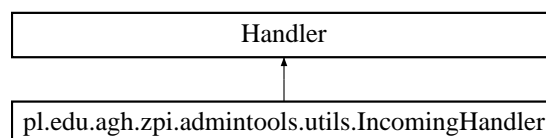
The documentation for this class was generated from the following file:

- client/AdminTools/src/pl/edu/agh/zpi/admintools/connection/Header.java

## 5.20 pl.edu.agh.zpi.admintools.utils.IncomingHandler Class Reference

Incoming message handler.

Inheritance diagram for pl.edu.agh.zpi.admintools.utils.IncomingHandler:



## Public Member Functions

- [IncomingHandler](#) ([Handable](#) handable)  
*Constructor, sets [Handable](#) msg handler.*
- void [handleMessage](#) (Message msg)  
*Handle incoming message.*

### 5.20.1 Detailed Description

Incoming message handler.

### 5.20.2 Constructor & Destructor Documentation

5.20.2.1 `public pl.edu.agh.zpi.admintools.utils.IncomingHandler.IncomingHandler ( Handable handable )` `[inline]`

Constructor, sets [Handable](#) msg handler.

Parameters

|                 |                                   |
|-----------------|-----------------------------------|
| <i>handable</i> | <a href="#">Handable</a> handler. |
|-----------------|-----------------------------------|

### 5.20.3 Member Function Documentation

5.20.3.1 `public void pl.edu.agh.zpi.admintools.utils.IncomingHandler.handleMessage ( Message msg )` `[inline]`

Handle incoming message.

Parameters

|            |                    |
|------------|--------------------|
| <i>msg</i> | Message to handle. |
|------------|--------------------|

Returns

None.

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

- client/AdminTools/src/pl/edu/agh/zpi/admintools/utils/IncomingHandler.java

## 5.21 SystemInfo::InfoMapper Class Reference

Utils for easy Sigar to [SystemInfo](#) data mapping.

```
#include <InfoMapper.h>
```

### Static Public Member Functions

- static [Cpu::Times](#) \* [sigarCpuToCpuTimes](#) (sigar\_cpu\_t \*cpuData)  
*Mapping cpu times data.*
- static [Cpu::Details](#) \* [sigarCpuInfoToDetails](#) (sigar\_cpu\_info\_t \*cpuData)  
*Mapping cpu info data.*
- static [Resources](#) \* [sigarResourcesLimitToResources](#) (sigar\_resource\_limit\_t \*resData)  
*Mapping resources limits data.*
- static [FileSystem::Details](#) \* [sigarFileSystemToFsDetails](#) (sigar\_file\_system\_t \*fsData)  
*Mapping file system data.*
- static [FileSystem::Usage](#) \* [sigarFileSystemUsageToFsUsage](#) (sigar\_file\_system\_usage\_t \*fsData, std::string dirName)  
*Mapping file system usage data.*



### 5.21.1 Detailed Description

Utils for easy Sigar to [SystemInfo](#) data mapping.

### 5.21.2 Member Function Documentation

**5.21.2.1** `static Cpu::Details * SystemInfo::InfoMapper::sigarCpuInfoToDetails ( sigar_cpu_info_t * cpuData ) [static]`

Mapping cpu info data.

Parameters

|                |                                      |
|----------------|--------------------------------------|
| <i>cpuData</i> | Sigar <a href="#">Cpu</a> info data. |
|----------------|--------------------------------------|

Returns

[Cpu::Details](#) data.

**5.21.2.2** `static Cpu::Times * SystemInfo::InfoMapper::sigarCpuToCpuTimes ( sigar_cpu_t * cpuData ) [static]`

Mapping cpu times data.

Parameters

|                |                                       |
|----------------|---------------------------------------|
| <i>cpuData</i> | Sigar <a href="#">Cpu</a> times data. |
|----------------|---------------------------------------|

Returns

[Cpu::Times](#) data.

**5.21.2.3** `FileSystem::Details * SystemInfo::InfoMapper::sigarFileSystemToFsDetails ( sigar_file_system_t * fsData ) [static]`

Mapping file system data.

Parameters

|               |                         |
|---------------|-------------------------|
| <i>fsData</i> | Sigar file system data. |
|---------------|-------------------------|

Returns

[FileSystem::Details](#) data.

**5.21.2.4** `FileSystem::Usage * SystemInfo::InfoMapper::sigarFileSystemUsageToFsUsage ( sigar_file_system_usage_t * fsData, std::string dirName ) [static]`

Mapping file system usage data.

Parameters

|                |                               |
|----------------|-------------------------------|
| <i>fsData</i>  | Sigar file system usage data. |
| <i>dirName</i> | Directory name.               |

Returns

[FileSystem::Usage](#) data.

5.21.2.5 **static Resources** \* **SystemInfo::InfoMapper::sigarResourcesLimitToResources** ( *sigar\_resource\_limit\_t* \* *resData* )  
[static]

Mapping resources limits data.

## Parameters

|                |                       |
|----------------|-----------------------|
| <i>resData</i> | Sigar resources data. |
|----------------|-----------------------|

## Returns

[Resources](#) data.

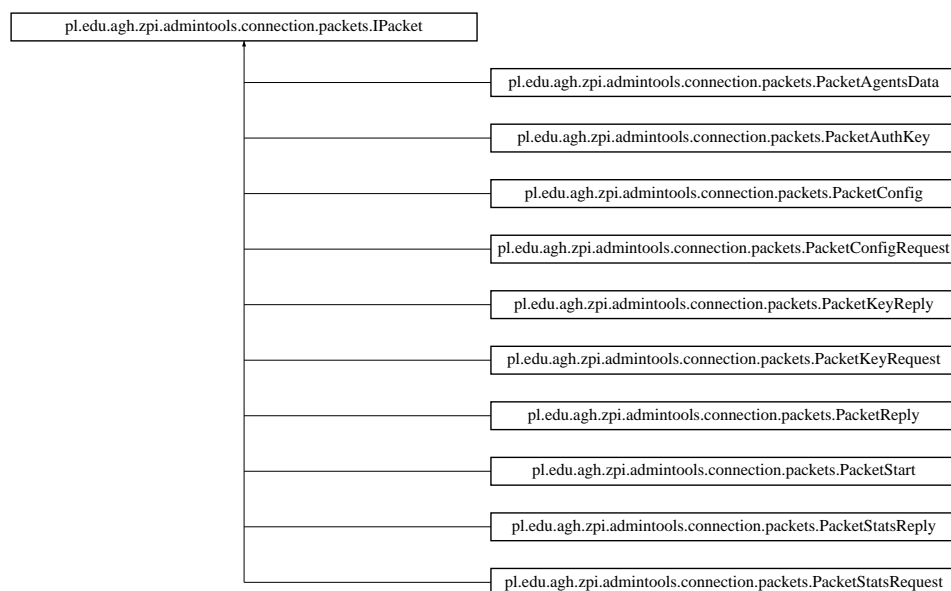
The documentation for this class was generated from the following files:

- agent\_win/src/SystemInfo/InfoMapper.h
- agent\_win/src/SystemInfo/InfoMapper.cpp

## 5.22 pl.edu.agh.zpi.admintools.connection.packets.IPacket Interface Reference

Packet data base interface.

Inheritance diagram for pl.edu.agh.zpi.admintools.connection.packets.IPacket:



### Public Member Functions

- `byte[] toByteArray ()`
- `void fromByteArray (byte[] array)`  
*Fill object with byte data.*
- `byte getType ()`  
*Get packet type.*

#### 5.22.1 Detailed Description

Packet data base interface.

## 5.22.2 Member Function Documentation

### 5.22.2.1 public void IPacket.fromByteArray ( byte[] *array* )

Fill object with byte data.

## Parameters

|                 |                    |                     |
|-----------------|--------------------|---------------------|
| <code>in</code> | <code>array</code> | Byte data as array. |
|-----------------|--------------------|---------------------|

## Returns

None.

Implemented in [pl.edu.agh.zpi.admintools.connection.packets.PacketConfig](#), [pl.edu.agh.zpi.admintools.connection.packets.PacketAuthKey](#), [pl.edu.agh.zpi.admintools.connection.packets.PacketStatsRequest](#), [pl.edu.agh.zpi.admintools.connection.packets.PacketAgentsData](#), [pl.edu.agh.zpi.admintools.connection.packets.PacketConfigRequest](#), [pl.edu.agh.zpi.admintools.connection.packets.PacketReply](#), [pl.edu.agh.zpi.admintools.connection.packets.PacketStart](#), [pl.edu.agh.zpi.admintools.connection.packets.PacketStatsReply](#), [pl.edu.agh.zpi.admintools.connection.packets.PacketKeyReply](#), and [pl.edu.agh.zpi.admintools.connection.packets.PacketKeyRequest](#).

5.22.2.2 `public byte IPacket.getType ( )`

Get packet type.

## Returns

Packet type.

Implemented in [pl.edu.agh.zpi.admintools.connection.packets.PacketStatsRequest](#), [pl.edu.agh.zpi.admintools.connection.packets.PacketConfig](#), [pl.edu.agh.zpi.admintools.connection.packets.PacketAuthKey](#), [pl.edu.agh.zpi.admintools.connection.packets.PacketAgentsData](#), [pl.edu.agh.zpi.admintools.connection.packets.PacketConfigRequest](#), [pl.edu.agh.zpi.admintools.connection.packets.PacketStatsReply](#), [pl.edu.agh.zpi.admintools.connection.packets.PacketReply](#), [pl.edu.agh.zpi.admintools.connection.packets.PacketStart](#), [pl.edu.agh.zpi.admintools.connection.packets.PacketKeyReply](#), and [pl.edu.agh.zpi.admintools.connection.packets.PacketKeyRequest](#).

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

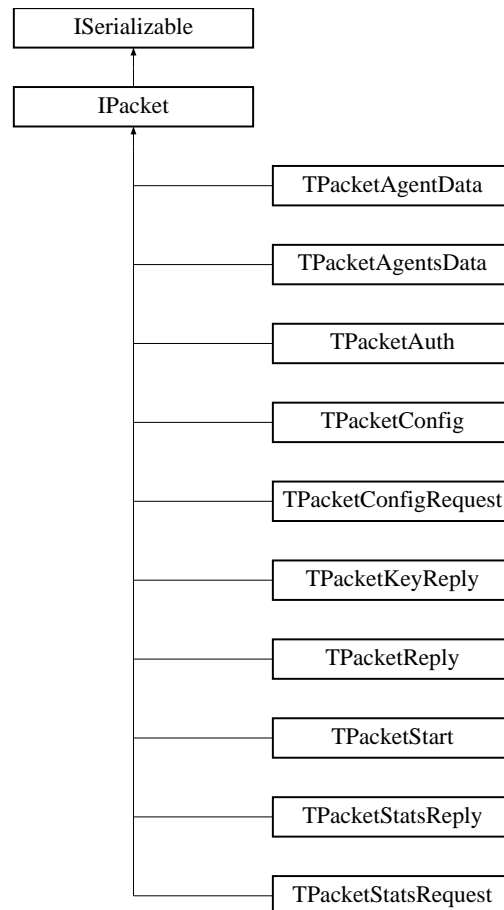
- `client/AdminTools/src/pl/edu/agh/zpi/admintools/connection/packets/IPacket.java`

## 5.23 IPacket Class Reference

Packet data base class.

```
#include <packets.h>
```

Inheritance diagram for IPacket:



## Public Member Functions

- virtual int [getType](#) ()=0  
*Get packet type.*

## Additional Inherited Members

### 5.23.1 Detailed Description

Packet data base class.

### 5.23.2 Member Function Documentation

#### 5.23.2.1 int IPacket::getType ( ) [pure virtual]

Get packet type.

#### Returns

Packet type.

Implemented in [TPacketStatsReply](#), [TPacketStatsRequest](#), [TPacketConfigRequest](#), [TPacketConfig](#), [TPacketKeyReply](#), [TPacketAgentsData](#), [TPacketAgentData](#), [TPacketStart](#), [TPacketReply](#), and [TPacketAuth](#).

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

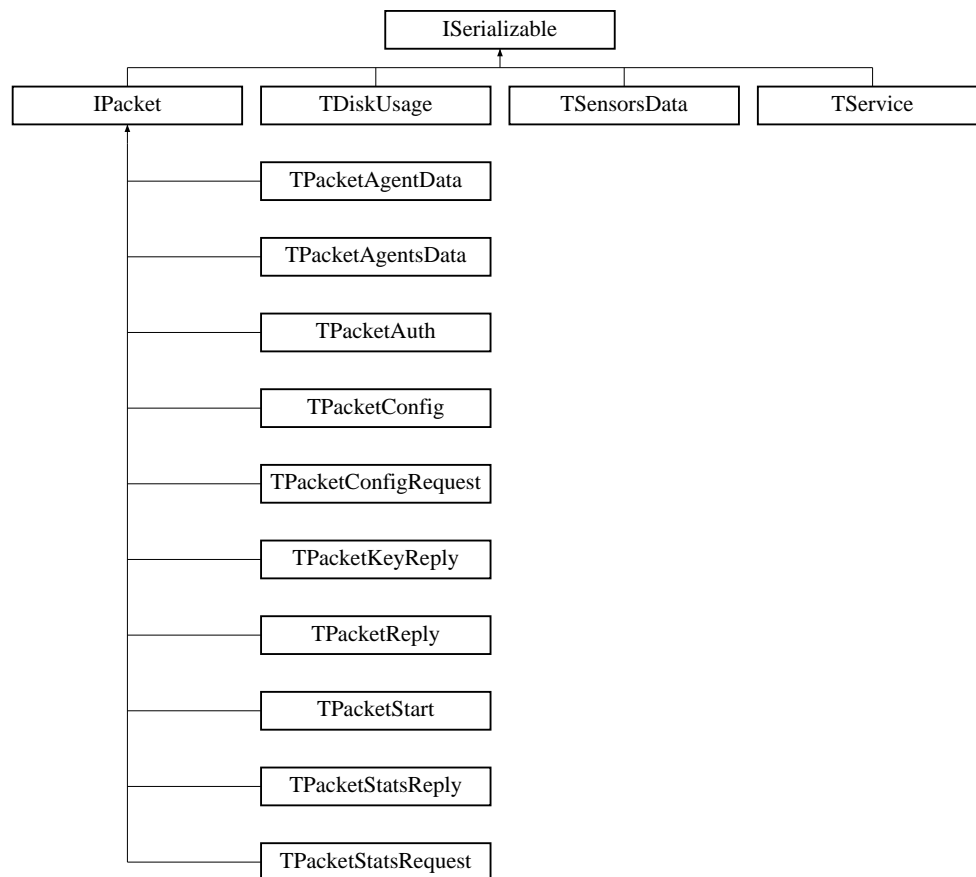
- common/packets.h

## 5.24 ISerializable Interface Reference

Object able to serialize himself into/from `buffer_t` class.

```
#include <common.h>
```

Inheritance diagram for ISerializable:



### Public Member Functions

- virtual void `toBuffer` (`buffer_t` &buf)=0  
*Convert object to byte buffer.*
- virtual bool `fromBuffer` (`buffer_t` &buf)=0  
*Fill object data with given buffer.*
- template<typename T >  
bool `append` (`buffer_t` &buf, T &val)  
*Append parametrized value to end of buffer.*
- bool `append` (`buffer_t` &buf, string &val)  
*Append string to end of buffer.*
- template<typename T >  
bool `fetch` (`buffer_t` &buf, T &val)  
*Fetch parametrized data from buffer last position.*
- bool `fetch` (`buffer_t` &buf, string &val)  
*Fetch string from buffer last position.*

## Protected Attributes

- int [m\\_pos](#)  
*Buffer cursor.*

### 5.24.1 Detailed Description

Object able to serialize himself into/from [buffer\\_t](#) class.

### 5.24.2 Member Function Documentation

5.24.2.1 `template<typename T> template< typename T> bool ISerializable::append ( buffer\_t & buf, T & val )`  
[inline]

Append parametrized value to end of buffer.

#### Parameters

|     |            |                  |
|-----|------------|------------------|
| out | <i>buf</i> | Target buffer.   |
| in  | <i>val</i> | Value to append. |

#### Returns

If succeeded.

5.24.2.2 `bool ISerializable::append ( buffer\_t & buf, string & val )` [inline]

Append string to end of buffer.

#### Parameters

|     |            |                   |
|-----|------------|-------------------|
| out | <i>buf</i> | Target buffer.    |
| in  | <i>val</i> | String to append. |

#### Returns

If succeeded.

5.24.2.3 `template<typename T> template< typename T> bool ISerializable::fetch ( buffer\_t & buf, T & val )` [inline]

Fetch parametrized data from buffer last position.

#### Parameters

|     |            |                |
|-----|------------|----------------|
| in  | <i>buf</i> | Source buffer. |
| out | <i>val</i> | Fetches value. |

#### Returns

If succeeded.

5.24.2.4 `bool ISerializable::fetch ( buffer\_t & buf, string & val )` [inline]

Fetch string from buffer last position.



## Parameters

|     |     |                 |
|-----|-----|-----------------|
| in  | buf | Source buffer.  |
| out | val | Fetches string. |

## Returns

If succeeded.

## 5.24.2.5 bool ISerializable::fromBuffer ( buffer\_t &amp; buf ) [pure virtual]

Fill object data with given buffer.

## Parameters

|    |     |                          |
|----|-----|--------------------------|
| in | buf | Buffer with object data. |
|----|-----|--------------------------|

## Returns

If succeeded.

Implemented in [TPacketStatsReply](#), [TPacketStatsRequest](#), [TPacketConfigRequest](#), [TPacketConfig](#), [TPacketKeyReply](#), [TPacketAgentsData](#), [TPacketAgentData](#), [TPacketStart](#), [TPacketReply](#), [TSensorsData](#), [TPacketAuth](#), [TService](#), and [TDiskUsage](#).

## 5.24.2.6 void ISerializable::toBuffer ( buffer\_t &amp; buf ) [pure virtual]

Convert object to byte buffer.

## Parameters

|     |     |                                       |
|-----|-----|---------------------------------------|
| out | buf | Byte buffer representation of object. |
|-----|-----|---------------------------------------|

## Returns

None.

Implemented in [TPacketStatsReply](#), [TPacketStatsRequest](#), [TPacketConfigRequest](#), [TPacketConfig](#), [TPacketKeyReply](#), [TPacketAgentsData](#), [TPacketAgentData](#), [TPacketStart](#), [TPacketReply](#), [TSensorsData](#), [TPacketAuth](#), [TService](#), and [TDiskUsage](#).

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

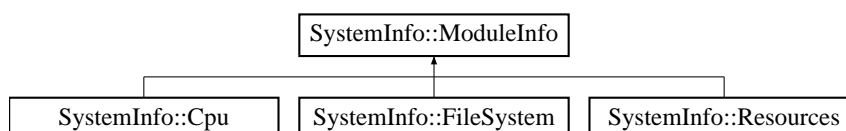
- common/common.h

## 5.25 SystemInfo::ModuleInfo Class Reference

Pure abstract class for module info ([Cpu](#), [Memory](#) etc.).

```
#include <ModuleInfo.h>
```

Inheritance diagram for SystemInfo::ModuleInfo:



## Public Member Functions

- virtual void [displayCombinedInfo](#) ()=0  
*Display full informations from module instance.*
- void [displayModuleHeader](#) (std::string name)  
*Display given module header using standard output (std::cout).*
- void [displayGroupHeader](#) (std::string name)  
*Display given group header using standard output (std::cout).*
- template<typename T >  
void [displaySingleInfo](#) (std::string description, T value)  
*Display single information as pair of label and parameterized value.*
- template<typename T , typename V >  
void [displayPairInfo](#) (std::string description, T current, V max)  
*Display single information as pair of label and parameterized pair value of current/max status.*

### 5.25.1 Detailed Description

Pure abstract class for module info ([Cpu](#), Memory etc.).

Provides method for easy displaying / forming system informations.

### 5.25.2 Member Function Documentation

#### 5.25.2.1 void SystemInfo::ModuleInfo::displayCombinedInfo ( ) [pure virtual]

Display full informations from module instance.

##### Returns

None.

Implemented in [SystemInfo::FileSystem](#), [SystemInfo::Cpu](#), and [SystemInfo::Resources](#).

#### 5.25.2.2 void SystemInfo::ModuleInfo::displayGroupHeader ( std::string name ) [inline]

Display given group header using standard output (std::cout).

##### Parameters

|             |                          |
|-------------|--------------------------|
| <i>name</i> | Group header to display. |
|-------------|--------------------------|

##### Returns

None.

#### 5.25.2.3 void SystemInfo::ModuleInfo::displayModuleHeader ( std::string name ) [inline]

Display given module header using standard output (std::cout).

##### Parameters

|             |                    |
|-------------|--------------------|
| <i>name</i> | Header to display. |
|-------------|--------------------|

**Returns**

None.

5.25.2.4 `template<typename T , typename V > template< typename T, typename V > void SystemInfo::ModuleInfo::displayPairInfo ( std::string description, T current, V max ) [inline]`

Display single information as pair of label and parameterized pair value of current/max status.

**Parameters**

|                    |   |
|--------------------|---|
| <i>description</i> | Description label for value.            |
| <i>current</i>     | Parameterized current value to display. |
| <i>max</i>         | Parameterized maximum value to display. |

**Returns**

None.

5.25.2.5 `template<typename T > template< typename T > void SystemInfo::ModuleInfo::displaySingleInfo ( std::string description, T value ) [inline]`

Display single information as pair of label and parameterized value.

**Parameters**

|                    |                                 |
|--------------------|---------------------------------|
| <i>description</i> | Description label for value.    |
| <i>value</i>       | Parameterized value to display. |

**Returns**

None;

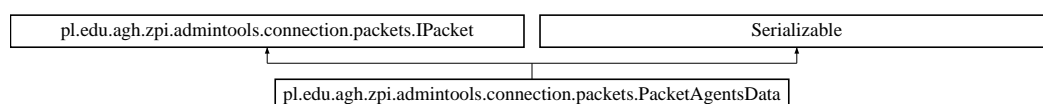
The documentation for this class was generated from the following file:

- agent\_win/src/SystemInfo/ModuleInfo.h

## 5.26 pl.edu.agh.zpi.admintools.connection.packets.PacketAgentsData Class Reference

Combined agents data.

Inheritance diagram for pl.edu.agh.zpi.admintools.connection.packets.PacketAgentsData:

**Public Member Functions**

- [PacketAgentsData \(\)](#)  
Default constructor, do nothing.

- [AgentData](#)[] **getAgentsArray** ()
- ArrayList< [AgentData](#) > **getAgentsList** ()  
*Get all agents data as array list.*
- byte[] **toByteArray** ()
- void **fromByteArray** (byte[] array)  
*Fill object with byte data.*
- byte **getType** ()  
*Get packet type.*
- String **toString** ()  
*Human readable string representation of packet.*

## Static Public Attributes

- static final String [PACKET\\_AGENTS\\_DATA](#) = "pl.edu.agh.zpi.admintools.connection.packets.PACKET\_AGENTS\_DATA"  
*Packet full class type.*

## 5.26.1 Detailed Description

Combined agents data.

## 5.26.2 Member Function Documentation

5.26.2.1 void [pl.edu.agh.zpi.admintools.connection.packets.PacketAgentsData.fromByteArray](#) ( byte[] array ) [inline]

Fill object with byte data.

### Parameters

|    |       |                     |
|----|-------|---------------------|
| in | array | Byte data as array. |
|----|-------|---------------------|

### Returns

None.

Implements [pl.edu.agh.zpi.admintools.connection.packets.IPacket](#).

5.26.2.2 public ArrayList< [AgentData](#) > [pl.edu.agh.zpi.admintools.connection.packets.PacketAgentsData.getAgentsList](#) ( ) [inline]

Get all agents data as array list.

### Returns

Array list of agents data.

5.26.2.3 byte [pl.edu.agh.zpi.admintools.connection.packets.PacketAgentsData.getType](#) ( ) [inline]

Get packet type.

### Returns

Packet type.

Implements [pl.edu.agh.zpi.admintools.connection.packets.IPacket](#).

5.26.2.4 `public String pl.edu.agh.zpi.admintools.connection.packets.PacketAgentsData.toString ( ) [inline]`

Human readable string representation of packet.

#### Returns

Packet as string.

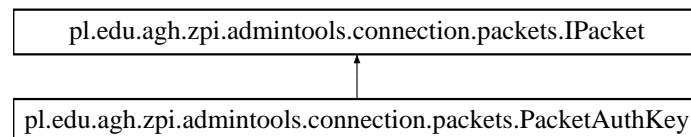
The documentation for this class was generated from the following file:

- client/AdminTools/src/pl/edu/agh/zpi/admintools/connection/packets/PacketAgentsData.java

## 5.27 pl.edu.agh.zpi.admintools.connection.packets.PacketAuthKey Class Reference

Authentication packet.

Inheritance diagram for pl.edu.agh.zpi.admintools.connection.packets.PacketAuthKey:



### Public Member Functions

- [PacketAuthKey](#) ()  
*Default constructor, do nothing.*
- [PacketAuthKey](#) (byte[] key, boolean sendConfig)  
*Constructor, sets key and config flag.*
- byte[] [getKey](#) ()
- void [setKey](#) (byte[] key)  
*Set current authentication key.*
- byte[] [toByteArray](#) ()
- void [fromByteArray](#) (byte[] array)  
*Fill object with byte data.*
- byte [getType](#) ()  
*Get packet type.*

### 5.27.1 Detailed Description

Authentication packet.

### 5.27.2 Constructor & Destructor Documentation

5.27.2.1 `public pl.edu.agh.zpi.admintools.connection.packets.PacketAuthKey.PacketAuthKey ( byte[] key, boolean sendConfig ) [inline]`

Constructor, sets key and config flag.

## Parameters

|                   |                     |
|-------------------|---------------------|
| <i>key</i>        | Authentication key. |
| <i>sendConfig</i> | Send config flag.   |

## 5.27.3 Member Function Documentation

5.27.3.1 `void pl.edu.agh.zpi.admintools.connection.packets.PacketAuthKey.fromByteArray ( byte[] array ) [inline]`

Fill object with byte data.

## Parameters

|           |              |                     |
|-----------|--------------|---------------------|
| <i>in</i> | <i>array</i> | Byte data as array. |
|-----------|--------------|---------------------|

## Returns

None.

Implements [pl.edu.agh.zpi.admintools.connection.packets.IPacket](#).

5.27.3.2 `byte pl.edu.agh.zpi.admintools.connection.packets.PacketAuthKey.getType ( ) [inline]`

Get packet type.

## Returns

Packet type.

Implements [pl.edu.agh.zpi.admintools.connection.packets.IPacket](#).

5.27.3.3 `public void pl.edu.agh.zpi.admintools.connection.packets.PacketAuthKey.setKey ( byte[] key ) [inline]`

Set current authentication key.

## Parameters

|            |           |
|------------|-----------|
| <i>key</i> | Auth key. |
|------------|-----------|

## Returns

None.

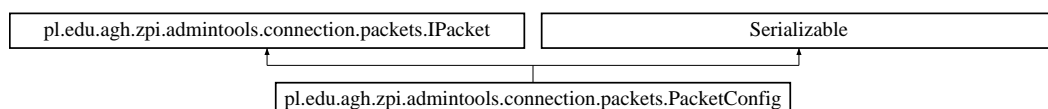
The documentation for this class was generated from the following file:

- `client/AdminTools/src/pl/edu/agh/zpi/admintools/connection/packets/PacketAuthKey.java`

5.28 `pl.edu.agh.zpi.admintools.connection.packets.PacketConfig` Class Reference

Agent configuration.

Inheritance diagram for `pl.edu.agh.zpi.admintools.connection.packets.PacketConfig`:



## Public Member Functions

- [PacketConfig](#) ()  
*Default constructor, do nothing.*
- [PacketConfig](#) (short agentId, String tempPath, short tempDivider, ArrayList< [ServiceConfig](#) > servicesConfig, short interval, String name)  
*Constructor, set variables value from given parameters.*
- byte[] [toByteArray](#) ()
- void [fromByteArray](#) (byte[] array)  
*Fill object with byte data.*
- void [addServiceConfig](#) ([ServiceConfig](#) sc)  
*Add single service configuration.*
- byte [getType](#) ()  
*Get packet type.*
- short [getAgentId](#) ()  
*Get agent id.*
- String [getTempPath](#) ()  
*Get temperature path.*
- short [getTempDivider](#) ()  
*Get temperature divider.*
- ArrayList< [ServiceConfig](#) > [getServicesConfig](#) ()  
*Get whole services configuration list.*
- short [getInterval](#) ()  
*Get agent time interval.*
- String [getName](#) ()  
*Get agent name.*
- String [toString](#) ()  
*Human readable string representation of packet.*

## Static Public Attributes

- static final String [PACKET\\_CONFIG](#) = "pl.edu.agh.zpi.admintools.connection.packets.PACKET\_CONFIG"  
*Packet full class type.*

### 5.28.1 Detailed Description

Agent configuration.

### 5.28.2 Constructor & Destructor Documentation

5.28.2.1 `public pl.edu.agh.zpi.admintools.connection.packets.PacketConfig.PacketConfig ( short agentId, String tempPath, short tempDivider, ArrayList< ServiceConfig > servicesConfig, short interval, String name ) [inline]`

Constructor, set variables value from given parameters.

Parameters

|                |           |
|----------------|-----------|
| <i>agentId</i> | Agent id. |
|----------------|-----------|

|                       |                                 |
|-----------------------|---------------------------------|
| <i>tempPath</i>       | Temperature path.               |
| <i>tempDivider</i>    | Temperature divider.            |
| <i>servicesConfig</i> | List of services configuration. |
| <i>interval</i>       | Time interval.                  |
| <i>name</i>           | Agent name.                     |

### 5.28.3 Member Function Documentation

5.28.3.1 `public void pl.edu.agh.zpi.admintools.connection.packets.PacketConfig.addServiceConfig ( ServiceConfig sc )`  
`[inline]`

Add single service configuration.

Parameters

|           |                             |
|-----------|-----------------------------|
| <i>sc</i> | Service configuration data. |
|-----------|-----------------------------|

Returns

None.

5.28.3.2 `void pl.edu.agh.zpi.admintools.connection.packets.PacketConfig.fromByteArray ( byte[] array )` `[inline]`

Fill object with byte data.

Parameters

|           |              |                     |
|-----------|--------------|---------------------|
| <i>in</i> | <i>array</i> | Byte data as array. |
|-----------|--------------|---------------------|

Returns

None.

Implements [pl.edu.agh.zpi.admintools.connection.packets.IPacket](#).

5.28.3.3 `public short pl.edu.agh.zpi.admintools.connection.packets.PacketConfig.getAgentId ( )` `[inline]`

Get agent id.

Returns

Agent id.

5.28.3.4 `public short pl.edu.agh.zpi.admintools.connection.packets.PacketConfig.getInterval ( )` `[inline]`

Get agent time interval.

Returns

Time interval.



5.28.3.5 `public String pl.edu.agh.zpi.admintools.connection.packets.PacketConfig.getName ( ) [inline]`

Get agent name.

Returns

Agent name.

5.28.3.6 `public ArrayList< ServiceConfig > pl.edu.agh.zpi.admintools.connection.packets.PacketConfig.getServicesConfig ( ) [inline]`

Get whole services configuration list.

Returns

Services configuration list.

5.28.3.7 `public short pl.edu.agh.zpi.admintools.connection.packets.PacketConfig.getTempDivider ( ) [inline]`

Get temperature divider.

Returns

Temperature divider.

5.28.3.8 `public String pl.edu.agh.zpi.admintools.connection.packets.PacketConfig.getTempPath ( ) [inline]`

Get temperature path.

Returns

Temperature path.

5.28.3.9 `byte pl.edu.agh.zpi.admintools.connection.packets.PacketConfig.getType ( ) [inline]`

Get packet type.

Returns

Packet type.

Implements [pl.edu.agh.zpi.admintools.connection.packets.IPacket](#).

5.28.3.10 `public String pl.edu.agh.zpi.admintools.connection.packets.PacketConfig.toString ( ) [inline]`

Human readable string representation of packet.

Returns

Packet as string.

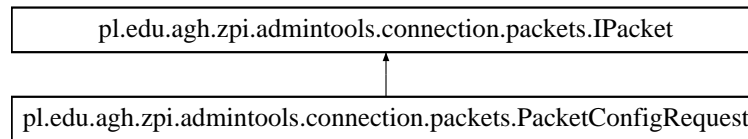
The documentation for this class was generated from the following file:

- `client/AdminTools/src/pl/edu/agh/zpi/admintools/connection/packets/PacketConfig.java`

## 5.29 pl.edu.agh.zpi.admintools.connection.packets.PacketConfigRequest Class Reference

Requet for agent configuration.

Inheritance diagram for pl.edu.agh.zpi.admintools.connection.packets.PacketConfigRequest:



### Public Member Functions

- [PacketConfigRequest \(\)](#)  
*Default constructor, do nothing.*
- [PacketConfigRequest \(short agentId\)](#)  
*Constructor, set agent id.*
- [byte\[\] toByteArray \(\)](#)
- [void fromByteArray \(byte\[\] array\)](#)  
*Fill object with byte data.*
- [short getAgentId \(\)](#)  
*Get agent id.*
- [byte getType \(\)](#)  
*Get packet type.*

### Static Public Attributes

- [static final String ID = "pl.edu.agh.zpi.admintools.connection.packets.PacketConfigRequest.id"](#)  
*Packet full class type.*

#### 5.29.1 Detailed Description

Requet for agent configuration.

#### 5.29.2 Constructor & Destructor Documentation

5.29.2.1 `public pl.edu.agh.zpi.admintools.connection.packets.PacketConfigRequest.PacketConfigRequest ( short agentId )`  
`[inline]`

Constructor, set agent id.

Parameters

|                |                 |
|----------------|-----------------|
| <i>agentId</i> | Agent id value. |
|----------------|-----------------|

#### 5.29.3 Member Function Documentation

5.29.3.1 `void pl.edu.agh.zpi.admintools.connection.packets.PacketConfigRequest.fromByteArray ( byte[] array )`  
`[inline]`

Fill object with byte data.

## Parameters

|    |       |                     |
|----|-------|---------------------|
| in | array | Byte data as array. |
|----|-------|---------------------|

## Returns

None.

Implements [pl.edu.agh.zpi.admintools.connection.packets.IPacket](#).

5.29.3.2 public short pl.edu.agh.zpi.admintools.connection.packets.PacketConfigRequest.getAgentId ( ) [inline]

Get agent id.

## Returns

Agent id.

5.29.3.3 byte pl.edu.agh.zpi.admintools.connection.packets.PacketConfigRequest.getType ( ) [inline]

Get packet type.

## Returns

Packet type.

Implements [pl.edu.agh.zpi.admintools.connection.packets.IPacket](#).

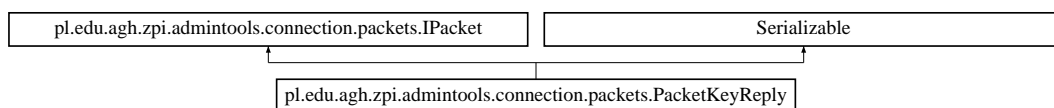
The documentation for this class was generated from the following file:

- client/AdminTools/src/pl/edu/agh/zpi/admintools/connection/packets/PacketConfigRequest.java

## 5.30 pl.edu.agh.zpi.admintools.connection.packets.PacketKeyReply Class Reference

Packet with authentication key.

Inheritance diagram for pl.edu.agh.zpi.admintools.connection.packets.PacketKeyReply:



### Public Member Functions

- [PacketKeyReply](#) ( )  
*Default constructor, do nothing.*
- byte[] [toByteArray](#) ( )
- void [fromByteArray](#) (byte[] array)  
*Fill object with byte data.*
- byte [getType](#) ( )  
*Get packet type.*
- String [toString](#) ( )  
*Human readable string representation of packet.*

## Static Public Attributes

- static final String [PACKET\\_KEY\\_REPLY](#) = "pl.edu.agh.zpi.admintools.connection.packets.PACKET\_KEY\_REPLY"

*Packet full class type.*

### 5.30.1 Detailed Description

Packet with authentication key.

### 5.30.2 Member Function Documentation

#### 5.30.2.1 void [pl.edu.agh.zpi.admintools.connection.packets.PacketKeyReply.fromByteArray](#) ( byte[] *array* ) [inline]

Fill object with byte data.

##### Parameters

|    |              |                     |
|----|--------------|---------------------|
| in | <i>array</i> | Byte data as array. |
|----|--------------|---------------------|

##### Returns

None.

Implements [pl.edu.agh.zpi.admintools.connection.packets.IPacket](#).

#### 5.30.2.2 byte [pl.edu.agh.zpi.admintools.connection.packets.PacketKeyReply.getType](#) ( ) [inline]

Get packet type.

##### Returns

Packet type.

Implements [pl.edu.agh.zpi.admintools.connection.packets.IPacket](#).

#### 5.30.2.3 public String [pl.edu.agh.zpi.admintools.connection.packets.PacketKeyReply.toString](#) ( ) [inline]

Human readable string representation of packet.

##### Returns

Packet as string.

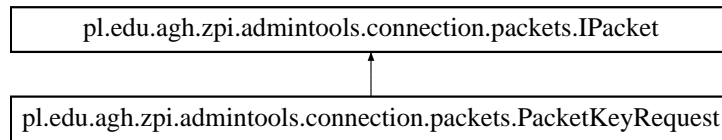
The documentation for this class was generated from the following file:

- `client/AdminTools/src/pl/edu/agh/zpi/admintools/connection/packets/PacketKeyReply.java`

## 5.31 [pl.edu.agh.zpi.admintools.connection.packets.PacketKeyRequest](#) Class Reference

Packet request for authentication key.

Inheritance diagram for [pl.edu.agh.zpi.admintools.connection.packets.PacketKeyRequest](#):



## Public Member Functions

- [PacketKeyRequest](#) ()  
*Default constructor, do nothing.*
- `byte[]` [toByteArray](#) ()
- `void` [fromByteArray](#) (`byte[]` array)  
*Fill object with byte data.*
- `byte` [getType](#) ()  
*Get packet type.*

### 5.31.1 Detailed Description

Packet request for authentication key.

### 5.31.2 Member Function Documentation

5.31.2.1 `void` [pl.edu.agh.zpi.admintools.connection.packets.PacketKeyRequest.fromByteArray](#) ( `byte[]` array ) [inline]

Fill object with byte data.

#### Parameters

|    |       |                     |
|----|-------|---------------------|
| in | array | Byte data as array. |
|----|-------|---------------------|

#### Returns

None.

Implements [pl.edu.agh.zpi.admintools.connection.packets.IPacket](#).

5.31.2.2 `byte` [pl.edu.agh.zpi.admintools.connection.packets.PacketKeyRequest.getType](#) ( ) [inline]

Get packet type.

#### Returns

Packet type.

Implements [pl.edu.agh.zpi.admintools.connection.packets.IPacket](#).

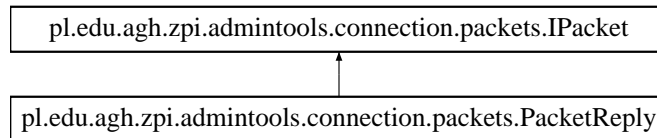
The documentation for this class was generated from the following file:

- `client/AdminTools/src/pl/edu/agh/zpi/admintools/connection/packets/PacketKeyRequest.java`

## 5.32 pl.edu.agh.zpi.admintools.connection.packets.PacketReply Class Reference

Packet with request reply value.

Inheritance diagram for pl.edu.agh.zpi.admintools.connection.packets.PacketReply:



### Public Member Functions

- [PacketReply](#) ()  
*Default constructor, do nothing.*
- int [getValue](#) ()  
*Get reply value.*
- byte[] [toByteArray](#) ()
- void [fromByteArray](#) (byte[] array)  
*Fill object with byte data.*
- byte [getType](#) ()  
*Get packet type.*

### Static Public Attributes

- static final int [NO\\_AUTH](#) = 0  
*No authentication flag value.*

#### 5.32.1 Detailed Description

Packet with request reply value.

#### 5.32.2 Member Function Documentation

5.32.2.1 void pl.edu.agh.zpi.admintools.connection.packets.PacketReply.fromByteArray ( byte[] array ) `[inline]`

Fill object with byte data.

Parameters

|    |       |                     |
|----|-------|---------------------|
| in | array | Byte data as array. |
|----|-------|---------------------|

Returns

None.

Implements [pl.edu.agh.zpi.admintools.connection.packets.IPacket](#).

5.32.2.2 `byte pl.edu.agh.zpi.admintools.connection.packets.PacketReply.getType ( )` `[inline]`

Get packet type.

Returns

Packet type.

Implements [pl.edu.agh.zpi.admintools.connection.packets.IPacket](#).

5.32.2.3 `public int pl.edu.agh.zpi.admintools.connection.packets.PacketReply.getValue ( )` `[inline]`

Get reply value.

Returns

Reply value.

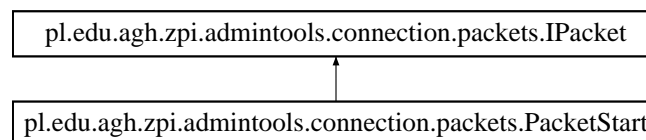
The documentation for this class was generated from the following file:

- `client/AdminTools/src/pl/edu/agh/zpi/admintools/connection/packets/PacketReply.java`

## 5.33 pl.edu.agh.zpi.admintools.connection.packets.PacketStart Class Reference

Starting packet.

Inheritance diagram for `pl.edu.agh.zpi.admintools.connection.packets.PacketStart`:



### Public Member Functions

- [PacketStart](#) ()  
*Default constructor, do nothing.*
- [PacketStart](#) (short interval)  
*Constructor, set time interval.*
- `byte[]` [toByteArray](#) ()
- `void` [fromByteArray](#) (`byte[]` array)  
*Fill object with byte data.*
- `byte` [getType](#) ()  
*Get packet type.*

### 5.33.1 Detailed Description

Starting packet.

### 5.33.2 Constructor & Destructor Documentation

5.33.2.1 `public pl.edu.agh.zpi.admintools.connection.packets.PacketStart.PacketStart ( short interval ) [inline]`

Constructor, set time interval.



## Parameters

|                 |                |
|-----------------|----------------|
| <i>interval</i> | Time interval. |
|-----------------|----------------|

## 5.33.3 Member Function Documentation

5.33.3.1 void [pl.edu.agh.zpi.admintools.connection.packets.PacketStart.fromByteArray](#) ( [byte\[\] array](#) ) [[inline](#)]

Fill object with byte data.

## Parameters

|           |              |                     |
|-----------|--------------|---------------------|
| <i>in</i> | <i>array</i> | Byte data as array. |
|-----------|--------------|---------------------|

## Returns

None.

Implements [pl.edu.agh.zpi.admintools.connection.packets.IPacket](#).

5.33.3.2 byte [pl.edu.agh.zpi.admintools.connection.packets.PacketStart.getType](#) ( ) [[inline](#)]

Get packet type.

## Returns

Packet type.

Implements [pl.edu.agh.zpi.admintools.connection.packets.IPacket](#).

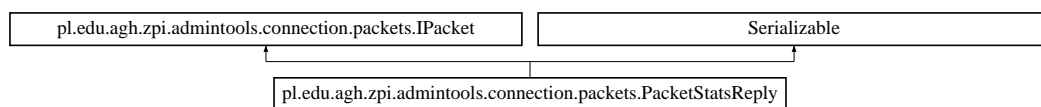
The documentation for this class was generated from the following file:

- [client/AdminTools/src/pl/edu/agh/zpi/admintools/connection/packets/PacketStart.java](#)

## 5.34 pl.edu.agh.zpi.admintools.connection.packets.PacketStatsReply Class Reference

Reply for stats request.

Inheritance diagram for [pl.edu.agh.zpi.admintools.connection.packets.PacketStatsReply](#):



## Public Member Functions

- [PacketStatsReply](#) ()  
*Default constructor, do nothing.*
- void [fromByteArray](#) ([byte\[\] array](#))  
*Fill object with byte data.*
- [ArrayList< Float > getPoints](#) ()  
*Get list with given points.*
- byte [getType](#) ()  
*Get packet type.*
- [byte\[\] toByteArray](#) ()

## Static Public Attributes

- static final String [PACKET\\_STATS\\_REPLY](#) = "pl.edu.agh.zpi.admintools.connection.packets.PacketStatsReply.PACKET\_STATS\_REPLY"  
*Packet full class type.*
- static int [CPU](#) = 0  
*CPU data flag.*
- static int [RAM](#) = 1  
*RAM memory data flag.*
- static int [TEMP](#) = 2  
*TEMPerature data flag.*
- static int [DISK](#) = 3  
*Disc data flag.*

### 5.34.1 Detailed Description

Reply for stats request.

### 5.34.2 Member Function Documentation

5.34.2.1 void [pl.edu.agh.zpi.admintools.connection.packets.PacketStatsReply.fromByteArray \( byte\[\] array \)](#) [*inline*]

Fill object with byte data.

Parameters

|           |              |                     |
|-----------|--------------|---------------------|
| <i>in</i> | <i>array</i> | Byte data as array. |
|-----------|--------------|---------------------|

Returns

None.

Implements [pl.edu.agh.zpi.admintools.connection.packets.IPacket](#).

5.34.2.2 public ArrayList< Float > [pl.edu.agh.zpi.admintools.connection.packets.PacketStatsReply.getPoints \( \)](#) [*inline*]

Get list with given points.

Returns

List with points.

5.34.2.3 byte [pl.edu.agh.zpi.admintools.connection.packets.PacketStatsReply.getType \( \)](#) [*inline*]

Get packet type.

Returns

Packet type.

Implements [pl.edu.agh.zpi.admintools.connection.packets.IPacket](#).

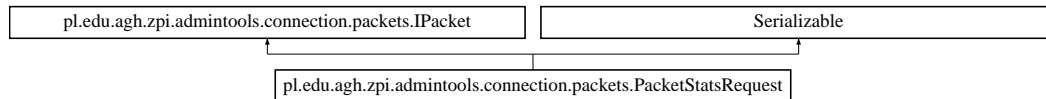
The documentation for this class was generated from the following file:

- client/AdminTools/src/pl/edu/agh/zpi/admintools/connection/packets/PacketStatsReply.java

## 5.35 pl.edu.agh.zpi.admintools.connection.packets.PacketStatsRequest Class Reference

Stats request from agent.

Inheritance diagram for pl.edu.agh.zpi.admintools.connection.packets.PacketStatsRequest:



### Public Member Functions

- [PacketStatsRequest](#) ()  
*Default constructor, do nothing.*
- `byte[]` [toByteArray](#) ()
- `void` [fromByteArray](#) (`byte[]` array)  
*Fill object with byte data.*
- `void` [setAgentId](#) (`short` agentId)  
*Set agent with stats id.*
- `void` [setStartDate](#) (`int` startDate)  
*Set stats start date.*
- `void` [setEndDate](#) (`int` endDate)  
*Set stats end date.*
- `void` [setPoints](#) (`short` points)  
*Set stats points.*
- `void` [setDataType](#) (`byte` dataType)  
*Set data type flag.*
- `void` [setDiskName](#) (`String` diskName)  
*Set disc name.*
- `short` [getAgentId](#) ()  
*Get agent with stats id.*
- `int` [getStartDate](#) ()  
*Get stats start date.*
- `int` [getEndDate](#) ()  
*Get stats end date.*
- `short` [getPoints](#) ()  
*Get stats points.*
- `byte` [getDataType](#) ()  
*Get data type flag.*
- `String` [getDiskName](#) ()  
*Get disc name.*
- `byte` [getType](#) ()  
*Get packet type.*

### Static Public Attributes

- `static final String` [PACKET\\_STATS\\_REQUEST](#) = "pl.edu.agh.zpi.admintools.connection.packets.PACKET\_CONFIG"  
*Packet full class type.*
- `static final byte` [CPU](#) = 0

*CPU data flag.*

- static final byte [RAM](#) = 1

*RAM memory data flag.*

- static final byte [TEMP](#) = 2

*TEMPerature data flag.*

- static final byte [DISK](#) = 3

*Disc data flag.*

### 5.35.1 Detailed Description

Stats request from agent.

### 5.35.2 Member Function Documentation

5.35.2.1 void [pl.edu.agh.zpi.admintools.connection.packets.PacketStatsRequest.fromByteArray \( byte\[\] array \)](#) [[inline](#)]

Fill object with byte data.

Parameters

|    |              |                     |
|----|--------------|---------------------|
| in | <i>array</i> | Byte data as array. |
|----|--------------|---------------------|

Returns

None.

Implements [pl.edu.agh.zpi.admintools.connection.packets.IPacket](#).

5.35.2.2 public short [pl.edu.agh.zpi.admintools.connection.packets.PacketStatsRequest.getAgentId \( \)](#) [[inline](#)]

Get agent with stats id.

Returns

Agent id.

5.35.2.3 public byte [pl.edu.agh.zpi.admintools.connection.packets.PacketStatsRequest.getDataType \( \)](#) [[inline](#)]

Get data type flag.

Returns

Type flag.

5.35.2.4 public String [pl.edu.agh.zpi.admintools.connection.packets.PacketStatsRequest.getDiskName \( \)](#) [[inline](#)]

Get disc name.

Returns

Disc name.

5.35.2.5 `public int pl.edu.agh.zpi.admintools.connection.packets.PacketStatsRequest.getEndDate ( ) [inline]`

Get stats end date.

Returns

End date.

5.35.2.6 `public short pl.edu.agh.zpi.admintools.connection.packets.PacketStatsRequest.getPoints ( ) [inline]`

Get stats points.

Returns

Stats points.

5.35.2.7 `public int pl.edu.agh.zpi.admintools.connection.packets.PacketStatsRequest.getStartDate ( ) [inline]`

Get stats start date.

Returns

Start date.

5.35.2.8 `byte pl.edu.agh.zpi.admintools.connection.packets.PacketStatsRequest.getType ( ) [inline]`

Get packet type.

Returns

Packet type.

Implements [pl.edu.agh.zpi.admintools.connection.packets.IPacket](#).

5.35.2.9 `public void pl.edu.agh.zpi.admintools.connection.packets.PacketStatsRequest.setAgentId ( short agentId ) [inline]`

Set agent with stats id.

Parameters

|                |           |
|----------------|-----------|
| <i>agentId</i> | Agent id. |
|----------------|-----------|

Returns

None.

5.35.2.10 `public void pl.edu.agh.zpi.admintools.connection.packets.PacketStatsRequest.setDataType ( byte dataType ) [inline]`

Set data type flag.

## Parameters

|                 |            |
|-----------------|------------|
| <i>dataType</i> | Type flag. |
|-----------------|------------|

## Returns

None.

5.35.2.11 `public void pl.edu.agh.zpi.admintools.connection.packets.PacketStatsRequest.setDiskName ( String diskName )`  
[inline]

Set disc name.

## Parameters

|                 |            |
|-----------------|------------|
| <i>diskName</i> | Disc name. |
|-----------------|------------|

## Returns

None.

5.35.2.12 `public void pl.edu.agh.zpi.admintools.connection.packets.PacketStatsRequest.setEndDate ( int endDate )`  
[inline]

Set stats end date.

## Parameters

|                |                 |
|----------------|-----------------|
| <i>endDate</i> | Stats end date. |
|----------------|-----------------|

## Returns

None.

5.35.2.13 `public void pl.edu.agh.zpi.admintools.connection.packets.PacketStatsRequest.setPoints ( short points )`  
[inline]

Set stats points.

## Parameters

|               |               |
|---------------|---------------|
| <i>points</i> | Stats points. |
|---------------|---------------|

## Returns

None.

5.35.2.14 `public void pl.edu.agh.zpi.admintools.connection.packets.PacketStatsRequest.setStartDate ( int startDate )`  
[inline]

Set stats start date.

## Parameters

|                  |                   |
|------------------|-------------------|
| <i>startDate</i> | Stats start date. |
|------------------|-------------------|

## Returns

None.

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

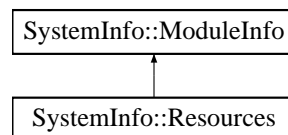
- client/AdminTools/src/pl/edu/agh/zpi/admintools/connection/packets/PacketStatsRequest.java

## 5.36 SystemInfo::Resources Class Reference

Contains current resources status and its limits.

```
#include <Resources.h>
```

Inheritance diagram for SystemInfo::Resources:



### Public Member Functions

- [Resources](#) ()  
*Default constructor, zeroes resource variables.*
- void [displayCombinedInfo](#) ()  
*Display all informations about resources using standard output (std::cout).*

### Public Attributes

- uint64 [cpuCurrent](#)  
*Current cpu resource.*
- uint64 [cpuMax](#)  
*Limit of cpu resource.*
- uint64 [fileSizeCurrent](#)  
*Current file size.*
- uint64 [fileSizeMax](#)  
*Limit of file size.*
- uint64 [pipeSizeCurrent](#)  
*Current pipe buffer size.*
- uint64 [pipeSizeMax](#)  
*Limit of pipe buffer size.*
- uint64 [dataCurrent](#)  
*Current data size.*
- uint64 [dataMax](#)  
*Limit of data size.*
- uint64 [stackCurrent](#)

- Current stack use.*
- uint64 [stackMax](#)
  - Limit of use of stack.*
- uint64 [coreCurrent](#)
  - Current core resource.*
- uint64 [coreMax](#)
  - Limit of core resource.*
- uint64 [memoryCurrent](#)
  - Current memory use.*
- uint64 [memoryMax](#)
  - Limit of memory use.*
- uint64 [processesCurrent](#)
  - Current processes resource.*
- uint64 [processesMax](#)
  - Limit of processes resource.*
- uint64 [openFilesCurrent](#)
  - Current opened files resource.*
- uint64 [openFilesMax](#)
  - Limit of opened files resource at once.*
- uint64 [virtualMemoryCurrent](#)
  - Current virtual memory resource.*
- uint64 [virtualMemoryMax](#)
  - Limit of virtual memory resource.*

### 5.36.1 Detailed Description

Contains current resources status and its limits.

### 5.36.2 Member Function Documentation

#### 5.36.2.1 void SystemInfo::Resources::displayCombinedInfo ( ) [inline],[virtual]

Dispaly all informations about resources using standard output (std::cout).

Returns

None

Implements [SystemInfo::ModuleInfo](#).

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

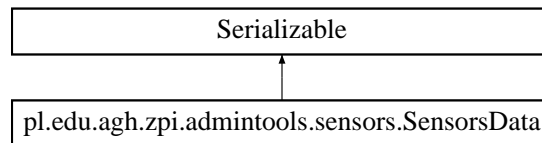
- agent\_win/src/SystemInfo/Resources.h

## 5.37 pl.edu.agh.zpi.admintools.sensors.SensorsData Class Reference

Sensors data structure as serializable POJO.

Inheritance diagram for pl.edu.agh.zpi.admintools.sensors.SensorsData:





## Public Member Functions

- float [getTemp](#) ()  
*Get current CPU temperature.*
- boolean [isTempValid](#) ()  
*Check if CPU temperature measurement is valid.*
- float [getCpuUsage](#) ()  
*Get currently CPU usage.*
- long [getTotalRam](#) ()  
*Get total size of RAM memory.*
- long [getFreeRam](#) ()  
*Get size of currently free RAM memory.*
- int [getUptime](#) ()  
*Get system uptime from last restart.*
- ArrayList< [DiskUsageData](#) > [getDiskUsages](#) ()  
*Get all discs usage.*
- ArrayList< [ServiceData](#) > [getServices](#) ()  
*Get services basic data.*
- String [toString](#) ()  
*Convert [SensorsData](#) to string representation.*

## Static Public Member Functions

- static [SensorsData fromByteBuffer](#) (ByteBuffer buffer)  
*Fill sensors data with given byte buffer.*

### 5.37.1 Detailed Description

Sensors data structure as serializable POJO.

### 5.37.2 Member Function Documentation

5.37.2.1 `public static SensorsData pl.edu.agh.zpi.admintools.sensors.SensorsData.fromByteBuffer ( ByteBuffer buffer )`  
`[inline], [static]`

Fill sensors data with given byte buffer.

#### Parameters

|               |                                |
|---------------|--------------------------------|
| <i>buffer</i> | Byte buffer with sensors data. |
|---------------|--------------------------------|

#### Returns

Converted [ServiceData](#) object.

5.37.2.2 `public float pl.edu.agh.zpi.admintools.sensors.SensorsData.getCpuUsage ( ) [inline]`

Get currently CPU usage.

Returns

Percent CPU usage.

5.37.2.3 `public ArrayList< DiskUsageData > pl.edu.agh.zpi.admintools.sensors.SensorsData.getDiskUsages ( ) [inline]`

Get all discs usage.

Returns

List of discs usage.

5.37.2.4 `public long pl.edu.agh.zpi.admintools.sensors.SensorsData.getFreeRam ( ) [inline]`

Get size of currently free RAM memory.

Returns

Free RAM.

5.37.2.5 `public ArrayList< ServiceData > pl.edu.agh.zpi.admintools.sensors.SensorsData.getServices ( ) [inline]`

Get services basic data.

Returns

List of services data.

5.37.2.6 `public float pl.edu.agh.zpi.admintools.sensors.SensorsData.getTemp ( ) [inline]`

Get current CPU temperature.

Returns

CPU temperature.

5.37.2.7 `public long pl.edu.agh.zpi.admintools.sensors.SensorsData.getTotalRam ( ) [inline]`

Get total size of RAM memory.

Returns

Total RAM.

5.37.2.8 `public int pl.edu.agh.zpi.admintools.sensors.SensorsData.getUptime ( ) [inline]`

Get system uptime from last restart.

Returns

System uptime.

5.37.2.9 `public boolean pl.edu.agh.zpi.admintools.sensors.SensorsData.isTempValid ( ) [inline]`

Check if CPU temperature measurement is valid.

Returns

Is CPU temperature valid.

5.37.2.10 `public String pl.edu.agh.zpi.admintools.sensors.SensorsData.toString ( ) [inline]`

Convert [SensorsData](#) to string representation.

Returns

String representation.

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

- `client/AdminTools/src/pl/edu/agh/zpi/admintools/sensors/SensorsData.java`

## 5.38 WinAgent::Server Class Reference

Represents server connected to.

```
#include <serverWin.h>
```

### Public Member Functions

- [Server](#) ()  
*Constructor, zeroes data.*
- [~Server](#) ()  
*Destructor, do nothing.*
- void [setup](#) (const string &host, int port, const string &key)  
*Set server connection data and authentication key.*
- void [process](#) ()  
*Process connection events.*
- bool [isValid](#) ()  
*Check if connection is valid (agent connected to server).*
- bool [configChanged](#) ()  
*Check if configuration change is needed.*
- void [configApplied](#) ()  
*Set configuration change flag if new config applied.*
- bool [sendPacket](#) ([IPacket](#) &packet)  
*Send given packet to server.*

- void `connectServer` ()  
*Connect to server.*
- `TPacketConfig` & `getConfig` ()  
*Get current agent-server configuration.*

### 5.38.1 Detailed Description

Represents server connected to.

### 5.38.2 Member Function Documentation

#### 5.38.2.1 void `Server::configApplied` ( ) [`inline`]

Set configuration change flag if new config applied.

Returns

None.

#### 5.38.2.2 bool `Server::configChanged` ( ) [`inline`]

Check if configuration change is needed.

Returns

If change needed.

#### 5.38.2.3 void `Server::connectServer` ( )

Connect to server.

Returns

None.

#### 5.38.2.4 `TPacketConfig` & `Server::getConfig` ( ) [`inline`]

Get current agent-server configuration.

Returns

Current configuration.

#### 5.38.2.5 bool `Server::isValid` ( ) [`inline`]

Check if connection is valid (agent connected to server).

Returns

If connected.

## 5.38.2.6 void Server::process ( )

Process connection events.

## Returns

None.

## 5.38.2.7 bool Server::sendPacket ( IPacket &amp; packet )

Send given packet to server.

## Parameters

|               |                 |
|---------------|-----------------|
| <i>packet</i> | Packet to send. |
|---------------|-----------------|

## Returns

If succeeded.

## 5.38.2.8 void Server::setup ( const string &amp; host, int port, const string &amp; key )

Set server connection data and authentication key.

## Parameters

|             |                     |
|-------------|---------------------|
| <i>host</i> | Host address.       |
| <i>port</i> | Host port.          |
| <i>key</i>  | Authentication key. |

## Returns

None.

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

- agent\_win/src/serverWin.h
- agent\_win/src/serverWin.cpp

## 5.39 Server Class Reference

Represents server connected to.

```
#include <server.h>
```

### Public Member Functions

- [Server](#) ()  
*Constructor, zeroes data.*
- [~Server](#) ()  
*Destructor, do nothing.*
- void [setup](#) (const string &host, int port, const string &key)  
*Set server connection data and authentication key.*
- void [process](#) ()

- Process connection events.*
- bool `isValid ()`  
*Check if connection is valid (agent connected to server).*
- bool `configChanged ()`  
*Check if configuration change is needed.*
- void `configApplied ()`  
*Set configuration change flag if new config applied.*
- bool `sendPacket (IPacket &packet)`  
*Send given packet to server.*
- `TPacketConfig & getConfig ()`  
*Get current agent-server configuration.*
- bool `readPacket (int replyType, IPacket &p, int timeout)`

### 5.39.1 Detailed Description

Represents server connected to.

### 5.39.2 Member Function Documentation

#### 5.39.2.1 void Server::configApplied ( ) [inline]

Set configuration change flag if new config applied.

##### Returns

None.

#### 5.39.2.2 bool Server::configChanged ( ) [inline]

Check if configuration change is needed.

##### Returns

If change needed.

#### 5.39.2.3 TPacketConfig & Server::getConfig ( ) [inline]

Get current agent-server configuration.

##### Returns

Current configuration.

#### 5.39.2.4 bool Server::isValid ( ) [inline]

Check if connection is valid (agent connected to server).

##### Returns

If connected.

## 5.39.2.5 void Server::process ( )

Process connection events.

## Returns

None.

## 5.39.2.6 bool Server::sendPacket ( IPacket &amp; packet )

Send given packet to server.

## Parameters

|               |                 |
|---------------|-----------------|
| <i>packet</i> | Packet to send. |
|---------------|-----------------|

## Returns

If succeeded.

## 5.39.2.7 void Server::setup ( const string &amp; host, int port, const string &amp; key )

Set server connection data and authentication key.

## Parameters

|             |                     |
|-------------|---------------------|
| <i>host</i> | Host address.       |
| <i>port</i> | Host port.          |
| <i>key</i>  | Authentication key. |

## Returns

None.

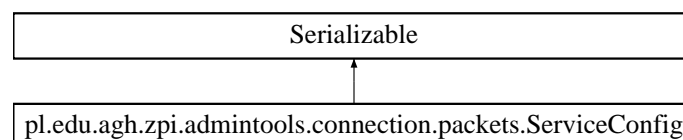
The documentation for this class was generated from the following files:

- agent\_lin/server.h
- agent\_lin/server.cpp

## 5.40 pl.edu.agh.zpi.admintools.connection.packets.ServiceConfig Class Reference

Service simple configuration.

Inheritance diagram for pl.edu.agh.zpi.admintools.connection.packets.ServiceConfig:



## Public Member Functions

- [ServiceConfig](#) (String name, boolean isTCP, short port)

*Constructor, sets configurations variables.*

- byte[] **toByteArray** ()
- String **getName** ()

*Get service name.*

- boolean **isTCP** ()
- short **getPort** ()

*Get service port.*

- short **getSize** ()

*Get service configuration data size.*

- String **toString** ()

*Human readable string representation of packet.*

## Static Public Member Functions

- static **ServiceConfig fromByteBuffer** (ByteBuffer bArray)

### 5.40.1 Detailed Description

Service simple configuration.

### 5.40.2 Constructor & Destructor Documentation

5.40.2.1 **public pl.edu.agh.zpi.admintools.connection.packets.ServiceConfig.ServiceConfig ( String name, boolean isTCP, short port ) [inline]**

Constructor, sets configurations variables.

Parameters

|              |                         |
|--------------|-------------------------|
| <i>name</i>  | Service name.           |
| <i>isTCP</i> | Service type (TCP/UDP). |
| <i>port</i>  | Service running port.   |

### 5.40.3 Member Function Documentation

5.40.3.1 **public String pl.edu.agh.zpi.admintools.connection.packets.ServiceConfig.getName ( ) [inline]**

Get service name.

Returns

Service name.

5.40.3.2 **public short pl.edu.agh.zpi.admintools.connection.packets.ServiceConfig.getPort ( ) [inline]**

Get service port.

Returns

Service port.



5.40.3.3 `public short pl.edu.agh.zpi.admintools.connection.packets.ServiceConfig.getSize ( ) [inline]`

Get service configuration data size.

Returns

Service conf size.

5.40.3.4 `public String pl.edu.agh.zpi.admintools.connection.packets.ServiceConfig.toString ( ) [inline]`

Human readable string representation of packet.

Returns

Packet as string.

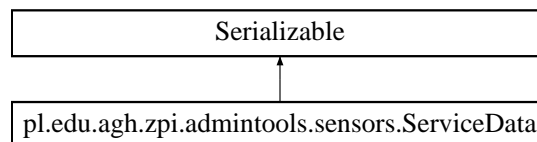
The documentation for this class was generated from the following file:

- client/AdminTools/src/pl/edu/agh/zpi/admintools/connection/packets/ServiceConfig.java

## 5.41 pl.edu.agh.zpi.admintools.sensors.ServiceData Class Reference

Service data structure as serializable POJO.

Inheritance diagram for pl.edu.agh.zpi.admintools.sensors.ServiceData:



### Public Member Functions

- String [getName](#) ()  
*Get service name.*
- boolean [isAvailable](#) ()  
*Check service availability.*
- String [toString](#) ()  
*Convert [ServiceData](#) to string representation.*

### Static Public Member Functions

- static [ServiceData fromByteBuffer](#) (ByteBuffer buffer)  
*Fill service data with given byte buffer.*

### 5.41.1 Detailed Description

Service data structure as serializable POJO.

## 5.41.2 Member Function Documentation

5.41.2.1 `public static ServiceData pl.edu.agh.zpi.admintools.sensors.ServiceData.fromByteBuffer ( ByteBuffer buffer )`  
`[inline], [static]`

Fill service data with given byte buffer.

## Parameters

|               |                           |
|---------------|---------------------------|
| <i>buffer</i> | Byte buffer with service. |
|---------------|---------------------------|

## Returns

Converted [ServiceData](#) object.

5.41.2.2 `public String pl.edu.agh.zpi.admintools.sensors.ServiceData.getName ( ) [inline]`

Get service name.

## Returns

Service name.

5.41.2.3 `public boolean pl.edu.agh.zpi.admintools.sensors.ServiceData.isAvailable ( ) [inline]`

Check service availability.

## Returns

If available.

5.41.2.4 `public String pl.edu.agh.zpi.admintools.sensors.ServiceData.toString ( ) [inline]`

Convert [ServiceData](#) to string representation.

## Returns

String representation.

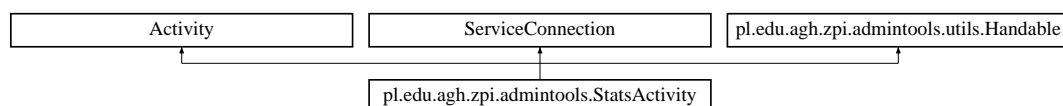
The documentation for this class was generated from the following file:

- client/AdminTools/src/pl/edu/agh/zpi/admintools/sensors/ServiceData.java

## 5.42 pl.edu.agh.zpi.admintools.StatsActivity Class Reference

Activity for interacting and handling agents stats data.

Inheritance diagram for pl.edu.agh.zpi.admintools.StatsActivity:



### Public Member Functions

- void [onCreate](#) (Bundle savedInstanceState)
- void [onServiceConnected](#) (ComponentName name, IBinder service)  
*Execute on service connection.*

- void [onServiceDisconnected](#) (ComponentName name)
- void [handleMessage](#) (Message msg)
- void [manageAgentListButtons](#) (View view)
- boolean [onCreateOptionsMenu](#) (Menu menu)
- boolean [onOptionsItemSelected](#) (MenuItem item)
- void [toggleTable](#) (View view)
- void [onDialogConfigButtonClicked](#) (View view)
- void [findAgentByAlert](#) (final View view)

### Static Public Attributes

- static double [tempAlertLevel](#) = 85  
*Temperature alert threshold.*
- static double [HDDAlertLevel](#) = 0.95  
*HDD usage alert percent threshold.*

### Protected Member Functions

- void [onDestroy](#) ()
- void [onStop](#) ()
- void [onResume](#) ()
- void [onActivityResult](#) (int requestCode, int resultCode, Intent data)

#### 5.42.1 Detailed Description

Activity for interacting and handling agents stats data.

#### 5.42.2 Member Function Documentation

5.42.2.1 `public void pl.edu.agh.zpi.admintools.StatsActivity.findAgentByAlert ( final View view ) [inline]`

active alert.

Parameters

|             |               |
|-------------|---------------|
| <i>view</i> | Current View. |
|-------------|---------------|

Returns

None.

5.42.2.2 `public void pl.edu.agh.zpi.admintools.StatsActivity.handleMessage ( Message msg ) [inline]`

Parameters

|            |                    |
|------------|--------------------|
| <i>msg</i> | Message to handle. |
|------------|--------------------|

Returns

None.

Implements [pl.edu.agh.zpi.admintools.utils.Handable](#).

5.42.2.3 public void pl.edu.agh.zpi.admintools.StatsActivity.manageAgentListButtons ( View *view* ) [inline]

list buttons.

## Parameters

|             |                  |
|-------------|------------------|
| <i>view</i> | Agent data view. |
|-------------|------------------|

## Returns

None.

5.42.2.4 `protected void pl.edu.agh.zpi.admintools.StatsActivity.onActivityResult ( int requestCode, int resultCode, Intent data )` `[inline]`, `[protected]`

*requestCode* Request code.

## Parameters

|                   |              |
|-------------------|--------------|
| <i>resultCode</i> | Result code. |
| <i>data</i>       | Result data. |

## Returns

None.

5.42.2.5 `public void pl.edu.agh.zpi.admintools.StatsActivity.onCreate ( Bundle savedInstanceState )` `[inline]`

activity creation.

## Parameters

|                           |              |
|---------------------------|--------------|
| <i>savedInstanceState</i> | Saved state. |
|---------------------------|--------------|

## Returns

None.

5.42.2.6 `public boolean pl.edu.agh.zpi.admintools.StatsActivity.onCreateOptionsMenu ( Menu menu )` `[inline]`

creation of options menu.

## Parameters

|             |            |
|-------------|------------|
| <i>menu</i> | Menu data. |
|-------------|------------|

## Returns

true.

5.42.2.7 `protected void pl.edu.agh.zpi.admintools.StatsActivity.onDestroy ( )` `[inline]`, `[protected]`

## Returns

None.

5.42.2.8 `public void pl.edu.agh.zpi.admintools.StatsActivity.onDialogConfigButtonClicked ( View view )` `[inline]`

dialog configuration button was clicked.

## Parameters

|             |               |
|-------------|---------------|
| <i>view</i> | Current View. |
|-------------|---------------|

## Returns

None.

5.42.2.9 `public boolean pl.edu.agh.zpi.admintools.StatsActivity.onOptionsItemSelected ( MenuItem item ) [inline]`

menu options item selection.

## Parameters

|             |                     |
|-------------|---------------------|
| <i>item</i> | Selected menu item. |
|-------------|---------------------|

## Returns

If selected.

5.42.2.10 `protected void pl.edu.agh.zpi.admintools.StatsActivity.onResume ( ) [inline], [protected]`

None.

5.42.2.11 `public void pl.edu.agh.zpi.admintools.StatsActivity.onServiceConnected ( ComponentName name, IBinder service ) [inline]`

Execute on service connection.

## Parameters

|                |                 |
|----------------|-----------------|
| <i>name</i>    | Component name. |
| <i>service</i> | Msg binder.     |

## Returns

None.

5.42.2.12 `public void pl.edu.agh.zpi.admintools.StatsActivity.onServiceDisconnected ( ComponentName name ) [inline]`

on service disconnection.

## Parameters

|             |                 |
|-------------|-----------------|
| <i>name</i> | Component name. |
|-------------|-----------------|

## Returns

None.

5.42.2.13 `protected void pl.edu.agh.zpi.admintools.StatsActivity.onStop ( ) [inline], [protected]`

None.

5.42.2.14 `public void pl.edu.agh.zpi.admintools.StatsActivity.toggleTable ( View view ) [inline]`

## Parameters

|             |               |
|-------------|---------------|
| <i>view</i> | Current View. |
|-------------|---------------|

## Returns

None.

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

- client/AdminTools/src/pl/edu/agh/zpi/admintools/StatsActivity.java

## 5.43 TAgentData Class Reference

Agent data from one moment.

```
#include <agents.h>
```

## Public Attributes

- uint32\_t [time](#)  
*Data time.*
- TPacketAgentData [packet](#)  
*Agent data packet.*

### 5.43.1 Detailed Description

Agent data from one moment.

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

- server/agents.h

## 5.44 TDBAgent Class Reference

Client-agent DTO for database use.

```
#include <db.h>
```

## Public Attributes

- int [id](#)  
*Agent id.*
- string [name](#)  
*Agent name.*
- vector< [TDBService](#) > [services](#)  
*List of agent services.*
- string [tempPath](#)  
*Temperature path.*
- int [tempDivider](#)  
*Temperature divider.*
- int [interval](#)  
*Time interval.*



### 5.44.1 Detailed Description

Client-agent DTO for database use.

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

- server/db.h

## 5.45 TDBService Class Reference

Service DTO for database use.

```
#include <db.h>
```

### Public Attributes

- string [name](#)  
*Service name.*
- bool [tcp](#)  
*Service transport type (TCP/UDP).*
- int [port](#)  
*Service port number.*

### 5.45.1 Detailed Description

Service DTO for database use.

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

- server/db.h

## 5.46 TSensorsRecord::TDisk Struct Reference

Simple disc data.

```
#include <db.h>
```

### Public Attributes

- string [name](#)  
*Disc name.*
- double [usage](#)  
*Percent disc usage.*

### 5.46.1 Detailed Description

Simple disc data.

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

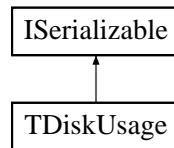
- server/db.h

## 5.47 TDiskUsage Class Reference

Information about disc usage.

```
#include <sensors.h>
```

Inheritance diagram for TDiskUsage:



### Public Member Functions

- virtual void [toBuffer](#) ([buffer\\_t](#) &buf)  
*Get byte buffer representation.*
- virtual bool [fromBuffer](#) ([buffer\\_t](#) &buf)  
*Fill object with buffer data.*

### Public Attributes

- string [name](#)  
*Disc name.*
- uint64\_t [totalSpace](#)  
*Total available space on disc.*
- uint64\_t [usedSpace](#)  
*Used space on disc.*

### Additional Inherited Members

#### 5.47.1 Detailed Description

Information about disc usage.

#### 5.47.2 Member Function Documentation

5.47.2.1 bool TDiskUsage::fromBuffer ( [buffer\\_t](#) & *buf* ) `[inline], [virtual]`

Fill object with buffer data.

##### Parameters

|           |            |              |
|-----------|------------|--------------|
| <i>in</i> | <i>buf</i> | Buffer data. |
|-----------|------------|--------------|

##### Returns

If succeeded.

Implements [ISerializable](#).

5.47.2.2 void TDiskUsage::toBuffer ( *buffer\_t* & *buf* ) [inline], [virtual]

Get byte buffer representation.

**Parameters**

|                  |                  |                |
|------------------|------------------|----------------|
| <code>out</code> | <code>buf</code> | Target buffer. |
|------------------|------------------|----------------|

**Returns**

None.

Implements [ISerializable](#).

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

- `common/sensors.h`

## 5.48 THeader Struct Reference

Packet header.

```
#include <packets.h>
```

**Public Attributes**

- `uint8_t type`  
*Packet type.*
- `uint16_t size`  
*Packet size.*

### 5.48.1 Detailed Description

Packet header.

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

- `common/packets.h`

## 5.49 Timer Class Reference

Counts steps between the time interval.

```
#include <kutils.h>
```

**Public Member Functions**

- `Timer ()`  
*Default constructor, zeroes time interval.*
- `void setInterval (uint32_t interval)`  
*Set interval to count to given value.*
- `bool process ()`  
*Check if interval passed.*

### 5.49.1 Detailed Description

Counts steps between the time interval.

## 5.49.2 Member Function Documentation

### 5.49.2.1 bool Timer::process ( ) [inline]

Check if interval passed.

#### Returns

If passed.

### 5.49.2.2 void Timer::setInterval ( uint32\_t interval ) [inline]

Set interval to count to given value.

#### Parameters

|                 |                |
|-----------------|----------------|
| <i>interval</i> | Time interval. |
|-----------------|----------------|

#### Returns

None.

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

- common/kutils.h

## 5.50 SystemInfo::Cpu::Times Struct Reference

Represents times that [Cpu](#) used on various operations and states.

```
#include <Cpu.h>
```

### Public Member Functions

- [Times](#) ()  
*Default constructor, zeroes times variables.*

### Public Attributes

- uint64 [user](#)  
*Time spent outside kernel.*
- uint64 [sys](#)  
*Time spent inside kernel.*
- uint64 [nice](#)  
*Nice time.*
- uint64 [idle](#)  
*Time spent idleing, without jobs.*
- uint64 [wait](#)  
*Time spent waiting for other tasks.*
- uint64 [irq](#)  
*Time spent on handling hardware irq (interrupt).*
- uint64 [soft\\_irq](#)  
*Time spent on handling software irq (interrupt).*

- uint64 [stolen](#)  
*Time stolen.*
- uint64 [total](#)  
*Total time spent on every tasks.*

### 5.50.1 Detailed Description

Represents times that [Cpu](#) used on various operations and states.

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

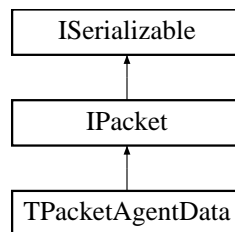
- `agent_win/src/SystemInfo/Cpu.h`

## 5.51 TPacketAgentData Class Reference

Data from agent.

```
#include <packets.h>
```

Inheritance diagram for TPacketAgentData:



### Public Member Functions

- virtual int [getType](#) ()  
*Get packet type.*
- virtual void [toBuffer](#) ([buffer\\_t](#) &buf)  
*Get byte buffer representation.*
- virtual bool [fromBuffer](#) ([buffer\\_t](#) &buf)  
*Fill object with buffer data.*

### Public Attributes

- uint16\_t [id](#)  
*Packet id.*
- uint8\_t [oldData](#)  
*Old data.*
- string [name](#)  
*Agent name.*
- [TSensorsData](#) [data](#)  
*Sensors data.*

## Additional Inherited Members

### 5.51.1 Detailed Description

Data from agent.

### 5.51.2 Member Function Documentation

#### 5.51.2.1 `bool TPacketAgentData::fromBuffer ( buffer_t & buf )` `[inline]`, `[virtual]`

Fill object with buffer data.

##### Parameters

|           |            |              |
|-----------|------------|--------------|
| <i>in</i> | <i>buf</i> | Buffer data. |
|-----------|------------|--------------|

##### Returns

If succeeded.

Implements [ISerializable](#).

#### 5.51.2.2 `int TPacketAgentData::getType ( )` `[inline]`, `[virtual]`

Get packet type.

##### Returns

PACKET\_AGENTDATA.

Implements [IPacket](#).

#### 5.51.2.3 `void TPacketAgentData::toBuffer ( buffer_t & buf )` `[inline]`, `[virtual]`

Get byte buffer representation.

##### Parameters

|            |            |                |
|------------|------------|----------------|
| <i>out</i> | <i>buf</i> | Target buffer. |
|------------|------------|----------------|

##### Returns

None.

Implements [ISerializable](#).

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

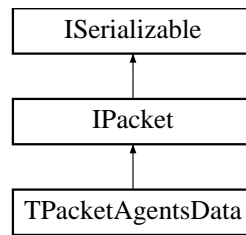
- common/packets.h

## 5.52 TPacketAgentsData Class Reference

Combined agents data.

```
#include <packets.h>
```

Inheritance diagram for TPacketAgentsData:



## Public Member Functions

- virtual int [getType](#) ()  
*Get packet type.*
- virtual void [toBuffer](#) ([buffer\\_t](#) &buf)  
*Get byte buffer representation.*
- virtual bool [fromBuffer](#) ([buffer\\_t](#) &buf)  
*Fill object with buffer data.*

## Public Attributes

- vector< [TPacketAgentData](#) > [agents](#)  
*Agents data.*

## Additional Inherited Members

### 5.52.1 Detailed Description

Combined agents data.

### 5.52.2 Member Function Documentation

#### 5.52.2.1 bool TPacketAgentsData::fromBuffer ( [buffer\\_t](#) & *buf* ) [inline],[virtual]

Fill object with buffer data.

#### Parameters

|                    |                     |              |
|--------------------|---------------------|--------------|
| <a href="#">in</a> | <a href="#">buf</a> | Buffer data. |
|--------------------|---------------------|--------------|

#### Returns

If succeeded.

Implements [ISerializable](#).

#### 5.52.2.2 int TPacketAgentsData::getType ( ) [inline],[virtual]

Get packet type.

#### Returns

PACKET\_AGENTS\_DATA.

Implements [IPacket](#).



5.52.2.3 void TPacketAgentsData::toBuffer ( *buffer\_t* & *buf* ) [inline], [virtual]

Get byte buffer representation.

**Parameters**

|                  |                  |                |
|------------------|------------------|----------------|
| <code>out</code> | <code>buf</code> | Target buffer. |
|------------------|------------------|----------------|

**Returns**

None.

Implements [ISerializable](#).

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

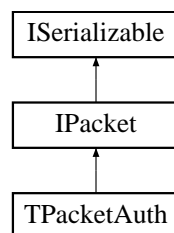
- `common/packets.h`

## 5.53 TPacketAuth Class Reference

Authentication packet.

```
#include <packets.h>
```

Inheritance diagram for TPacketAuth:

**Public Member Functions**

- virtual int [getType](#) ()  
*Get packet type.*
- virtual void [toBuffer](#) ([buffer\\_t](#) &buf)  
*Get byte buffer representation.*
- virtual bool [fromBuffer](#) ([buffer\\_t](#) &buf)  
*Fill object with buffer data.*

**Public Attributes**

- char [key](#) [16]  
*Key.*
- uint8\_t [sendConfig](#)  
*[Config](#) data.*

**Additional Inherited Members**

### 5.53.1 Detailed Description

Authentication packet.

## 5.53.2 Member Function Documentation

5.53.2.1 `bool TPacketAuth::fromBuffer ( buffer_t & buf )` `[inline]`, `[virtual]`

Fill object with buffer data.

**Parameters**

|           |            |              |
|-----------|------------|--------------|
| <i>in</i> | <i>buf</i> | Buffer data. |
|-----------|------------|--------------|

**Returns**

If succeeded.

Implements [ISerializable](#).

**5.53.2.2** `int TPacketAuth::getType ( )` `[inline],[virtual]`

Get packet type.

**Returns**

PACKET\_AUTH.

Implements [IPacket](#).

**5.53.2.3** `void TPacketAuth::toBuffer ( buffer_t & buf )` `[inline],[virtual]`

Get byte buffer representation.

**Parameters**

|            |            |                |
|------------|------------|----------------|
| <i>out</i> | <i>buf</i> | Target buffer. |
|------------|------------|----------------|

**Returns**

None.

Implements [ISerializable](#).

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

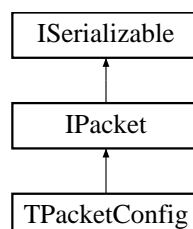
- common/packets.h

## 5.54 TPacketConfig Class Reference

Agent configuration.

```
#include <packets.h>
```

Inheritance diagram for TPacketConfig:

**Classes**

- struct [TService](#)  
*Networ service data.*

## Public Member Functions

- virtual int [getType](#) ()  
*Get packet type.*
- virtual void [toBuffer](#) ([buffer\\_t](#) &buf)  
*Get byte buffer representation.*
- virtual bool [fromBuffer](#) ([buffer\\_t](#) &buf)  
*Fill object with buffer data.*

## Public Attributes

- uint16\_t [agentId](#)  
*Agent id.*
- string [tempPath](#)  
*Temperature path.*
- uint16\_t [tempDivider](#)  
*Temperature divider.*
- vector< [TPacketConfig::TService](#) > [services](#)  
*Agent services.*
- uint16\_t [interval](#)  
*Time interval.*
- string [name](#)  
*Agent name.*

## Additional Inherited Members

### 5.54.1 Detailed Description

Agent configuration.

### 5.54.2 Member Function Documentation

#### 5.54.2.1 bool TPacketConfig::fromBuffer ( [buffer\\_t](#) & *buf* ) [inline],[virtual]

Fill object with buffer data.

##### Parameters

|           |            |              |
|-----------|------------|--------------|
| <i>in</i> | <i>buf</i> | Buffer data. |
|-----------|------------|--------------|

##### Returns

If succeeded.

Implements [ISerializable](#).

#### 5.54.2.2 int TPacketConfig::getType ( ) [inline],[virtual]

Get packet type.

##### Returns

PACKET\_CONFIG.

Implements [IPacket](#).

5.54.2.3 void TPacketConfig::toBuffer ( buffer\_t & buf ) [inline],[virtual]

Get byte buffer representation.

Parameters

|     |     |                |
|-----|-----|----------------|
| out | buf | Target buffer. |
|-----|-----|----------------|

Returns

None.

Implements [ISerializable](#).

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

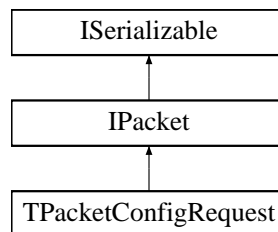
- common/packets.h

## 5.55 TPacketConfigRequest Class Reference

Requet for agent configuration.

```
#include <packets.h>
```

Inheritance diagram for TPacketConfigRequest:



### Public Member Functions

- virtual int [getType](#) ()  
*Get packet type.*
- virtual void [toBuffer](#) (buffer\_t &buf)  
*Get byte buffer representation.*
- virtual bool [fromBuffer](#) (buffer\_t &buf)  
*Fill object with buffer data.*

### Public Attributes

- uint16\_t [agentId](#)  
*Requested agent id.*

### Additional Inherited Members

#### 5.55.1 Detailed Description

Requet for agent configuration.

### 5.55.2 Member Function Documentation

#### 5.55.2.1 bool TPacketConfigRequest::fromBuffer ( *buffer\_t* & *buf* ) [inline],[virtual]

Fill object with buffer data.

##### Parameters

|           |            |              |
|-----------|------------|--------------|
| <i>in</i> | <i>buf</i> | Buffer data. |
|-----------|------------|--------------|

##### Returns

If succeeded.

Implements [ISerializable](#).

#### 5.55.2.2 int TPacketConfigRequest::getType ( ) [inline],[virtual]

Get packet type.

##### Returns

PACKET\_CONFIG\_REQUEST.

Implements [IPacket](#).

#### 5.55.2.3 void TPacketConfigRequest::toBuffer ( *buffer\_t* & *buf* ) [inline],[virtual]

Get byte buffer representation.

##### Parameters

|            |            |                |
|------------|------------|----------------|
| <i>out</i> | <i>buf</i> | Target buffer. |
|------------|------------|----------------|

##### Returns

None.

Implements [ISerializable](#).

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

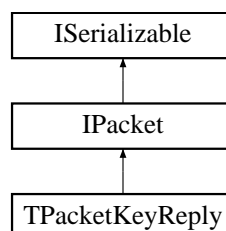
- common/packets.h

## 5.56 TPacketKeyReply Class Reference

Packet with authentication key.

```
#include <packets.h>
```

Inheritance diagram for TPacketKeyReply:



## Public Member Functions

- virtual int [getType](#) ()  
*Get packet type.*
- virtual void [toBuffer](#) ([buffer\\_t](#) &buf)  
*Get byte buffer representation.*
- virtual bool [fromBuffer](#) ([buffer\\_t](#) &buf)  
*Fill object with buffer data.*

## Public Attributes

- char [key](#) [16]  
*Key.*

## Additional Inherited Members

### 5.56.1 Detailed Description

Packet with authentication key.

### 5.56.2 Member Function Documentation

#### 5.56.2.1 bool TPacketKeyReply::fromBuffer ( [buffer\\_t](#) & *buf* ) [inline],[virtual]

Fill object with buffer data.

##### Parameters

|           |            |              |
|-----------|------------|--------------|
| <i>in</i> | <i>buf</i> | Buffer data. |
|-----------|------------|--------------|

##### Returns

If succeeded.

Implements [ISerializable](#).

#### 5.56.2.2 int TPacketKeyReply::getType ( ) [inline],[virtual]

Get packet type.

##### Returns

PACKET\_KEY\_REPLY.

Implements [IPacket](#).

#### 5.56.2.3 void TPacketKeyReply::toBuffer ( [buffer\\_t](#) & *buf* ) [inline],[virtual]

Get byte buffer representation.



## Parameters

|                  |                  |                |
|------------------|------------------|----------------|
| <code>out</code> | <code>buf</code> | Target buffer. |
|------------------|------------------|----------------|

## Returns

None.

Implements [ISerializable](#).

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

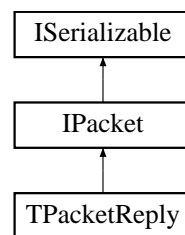
- `common/packets.h`

## 5.57 TPacketReply Class Reference

Reply packet.

```
#include <packets.h>
```

Inheritance diagram for TPacketReply:



### Public Member Functions

- virtual int [getType](#) ()  
*Get packet type.*
- virtual void [toBuffer](#) ([buffer\\_t](#) &buf)  
*Get byte buffer representation.*
- virtual bool [fromBuffer](#) ([buffer\\_t](#) &buf)  
*Fill object with buffer data.*

### Public Attributes

- int [value](#)  
*Reply value.*

### Additional Inherited Members

#### 5.57.1 Detailed Description

Reply packet.

## 5.57.2 Member Function Documentation

### 5.57.2.1 `bool TPacketReply::fromBuffer ( buffer_t & buf )` `[inline]`, `[virtual]`

Fill object with buffer data.

## Parameters

|           |            |              |
|-----------|------------|--------------|
| <i>in</i> | <i>buf</i> | Buffer data. |
|-----------|------------|--------------|

## Returns

If succeeded.

Implements [ISerializable](#).

5.57.2.2 `int TPacketReply::getType ( ) [inline],[virtual]`

Get packet type.

## Returns

PACKET\_REPLY.

Implements [IPacket](#).

5.57.2.3 `void TPacketReply::toBuffer ( buffer_t & buf ) [inline],[virtual]`

Get byte buffer representation.

## Parameters

|            |            |                |
|------------|------------|----------------|
| <i>out</i> | <i>buf</i> | Target buffer. |
|------------|------------|----------------|

## Returns

None.

Implements [ISerializable](#).

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

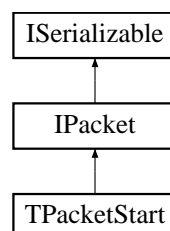
- common/packets.h

## 5.58 TPacketStart Class Reference

Starting packet.

```
#include <packets.h>
```

Inheritance diagram for TPacketStart:



## Public Member Functions

- virtual int [getType](#) ()  
*Get packet type.*
- virtual void [toBuffer](#) ([buffer\\_t](#) &buf)  
*Get byte buffer representation.*
- virtual bool [fromBuffer](#) ([buffer\\_t](#) &buf)  
*Fill object with buffer data.*

## Public Attributes

- uint16\_t [interval](#)  
*Time interval.*

## Additional Inherited Members

### 5.58.1 Detailed Description

Starting packet.

### 5.58.2 Member Function Documentation

#### 5.58.2.1 bool TPacketStart::fromBuffer ( [buffer\\_t](#) & *buf* ) [inline],[virtual]

Fill object with buffer data.

##### Parameters

|                    |                     |              |
|--------------------|---------------------|--------------|
| <a href="#">in</a> | <a href="#">buf</a> | Buffer data. |
|--------------------|---------------------|--------------|

##### Returns

If succeeded.

Implements [ISerializable](#).

#### 5.58.2.2 int TPacketStart::getType ( ) [inline],[virtual]

Get packet type.

##### Returns

PACKET\_START.

Implements [IPacket](#).

#### 5.58.2.3 void TPacketStart::toBuffer ( [buffer\\_t](#) & *buf* ) [inline],[virtual]

Get byte buffer representation.

## Parameters

|                  |                  |                |
|------------------|------------------|----------------|
| <code>out</code> | <code>buf</code> | Target buffer. |
|------------------|------------------|----------------|

## Returns

None.

Implements [ISerializable](#).

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

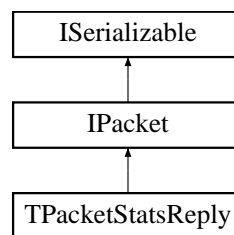
- `common/packets.h`

## 5.59 TPacketStatsReply Class Reference

Reply for stats request.

```
#include <packets.h>
```

Inheritance diagram for TPacketStatsReply:



### Public Member Functions

- virtual int [getType](#) ()  
*Get packet type.*
- virtual void [toBuffer](#) ([buffer\\_t](#) &buf)  
*Get byte buffer representation.*
- virtual bool [fromBuffer](#) ([buffer\\_t](#) &buf)  
*Fill object with buffer data.*

### Public Attributes

- `vector< float >` [points](#)  
*Given points.*

### Additional Inherited Members

#### 5.59.1 Detailed Description

Reply for stats request.

## 5.59.2 Member Function Documentation

5.59.2.1 `bool TPacketStatsReply::fromBuffer ( buffer_t & buf )` `[inline], [virtual]`

Fill object with buffer data.

## Parameters

|           |            |              |
|-----------|------------|--------------|
| <i>in</i> | <i>buf</i> | Buffer data. |
|-----------|------------|--------------|

## Returns

If succeeded.

Implements [ISerializable](#).

5.59.2.2 `int TPacketStatsReply::getType ( ) [inline],[virtual]`

Get packet type.

## Returns

PACKET\_STATS\_REPLY.

Implements [IPacket](#).

5.59.2.3 `void TPacketStatsReply::toBuffer ( buffer_t & buf ) [inline],[virtual]`

Get byte buffer representation.

## Parameters

|            |            |                |
|------------|------------|----------------|
| <i>out</i> | <i>buf</i> | Target buffer. |
|------------|------------|----------------|

## Returns

None.

Implements [ISerializable](#).

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

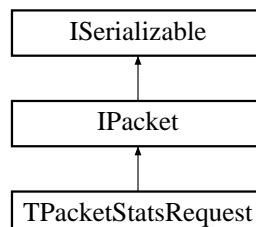
- common/packets.h

## 5.60 TPacketStatsRequest Class Reference

Stats request from agent.

```
#include <packets.h>
```

Inheritance diagram for TPacketStatsRequest:



## Public Types

- enum [EType](#) { **CPU** = 0, **RAM**, **TEMP**, **DISK** }  
*Statistic types based on origin.*

## Public Member Functions

- virtual int [getType](#) ()  
*Get packet type.*
- virtual void [toBuffer](#) ([buffer\\_t](#) &buf)  
*Get byte buffer representation.*
- virtual bool [fromBuffer](#) ([buffer\\_t](#) &buf)  
*Fill object with buffer data.*

## Public Attributes

- uint16\_t [agentId](#)  
*Agent id.*
- uint32\_t [startDate](#)  
*Start date.*
- uint32\_t [endDate](#)  
*End date.*
- uint16\_t [points](#)  
*Number of points.*
- [EType](#) [type](#)  
*Stats type.*
- string [diskName](#)  
*Disc name.*

## Additional Inherited Members

### 5.60.1 Detailed Description

Stats request from agent.

### 5.60.2 Member Function Documentation

#### 5.60.2.1 bool TPacketStatsRequest::fromBuffer ( [buffer\\_t](#) & *buf* ) [inline], [virtual]

Fill object with buffer data.

##### Parameters

|           |            |              |
|-----------|------------|--------------|
| <i>in</i> | <i>buf</i> | Buffer data. |
|-----------|------------|--------------|

##### Returns

If succeeded.

Implements [ISerializable](#).

#### 5.60.2.2 int TPacketStatsRequest::getType ( ) [inline], [virtual]

Get packet type.

##### Returns

PACKET\_STATS\_REQUEST.

Implements [IPacket](#).



5.60.2.3 void TPacketStatsRequest::toBuffer ( **buffer\_t** & *buf* ) [inline],[virtual]

Get byte buffer representation.

Parameters

|            |            |                |
|------------|------------|----------------|
| <i>out</i> | <i>buf</i> | Target buffer. |
|------------|------------|----------------|

Returns

None.

Implements [ISerializable](#).

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

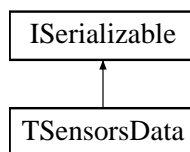
- common/packets.h

## 5.61 TSensorsData Class Reference

Data from agent sensors.

```
#include <sensors.h>
```

Inheritance diagram for TSensorsData:



### Public Member Functions

- virtual void [toBuffer](#) (**buffer\_t** &buf)  
*Get byte buffer representation.*
- virtual bool [fromBuffer](#) (**buffer\_t** &buf)  
*Fill object with buffer data.*

### Public Attributes

- uint32\_t [timestamp](#)  
*Time of data acquisition.*
- float [temp](#)  
*Cpu temperature.*
- bool [tempValid](#)  
*Cpu temperature correctness.*
- float [cpuUsage](#)  
*Cpu percent usage.*
- uint64\_t [totalRam](#)  
*Available RAM.*
- uint64\_t [freeRam](#)  
*Not used RAM.*
- uint32\_t [uptime](#)

- *System uptime.*
- vector< [TDiskUsage](#) > [disksUsage](#)  
*List of discs usage.*
- vector< [TService](#) > [services](#)  
*List of running services.*

## Additional Inherited Members

### 5.61.1 Detailed Description

Data from agent sensors.

### 5.61.2 Member Function Documentation

#### 5.61.2.1 bool TSensorsData::fromBuffer ( [buffer\\_t](#) & *buf* ) `[inline], [virtual]`

Fill object with buffer data.

##### Parameters

|           |            |              |
|-----------|------------|--------------|
| <i>in</i> | <i>buf</i> | Buffer data. |
|-----------|------------|--------------|

##### Returns

If succeeded.

Implements [ISerializable](#).

#### 5.61.2.2 void TSensorsData::toBuffer ( [buffer\\_t](#) & *buf* ) `[inline], [virtual]`

Get byte buffer representation.

##### Parameters

|            |            |                |
|------------|------------|----------------|
| <i>out</i> | <i>buf</i> | Target buffer. |
|------------|------------|----------------|

##### Returns

None.

Implements [ISerializable](#).

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

- common/sensors.h

## 5.62 TSensorsRecord Class Reference

Client-agent sensors DTO for database use.

```
#include <db.h>
```

### Classes

- struct [TDisk](#)  
*Simple disc data.*

## Public Attributes

- int `id`  
*Agent id.*
- uint32\_t `timestamp`  
*Time of sensors read.*
- double `temp`  
*Temperature value.*
- double `cpuUsage`  
*Cpu percent usage.*
- double `ramUsage`  
*RAM percent usage.*
- vector< `TDisk` > `disks`  
*List of discs data.*

### 5.62.1 Detailed Description

Client-agent sensors DTO for database use.

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

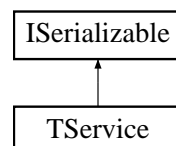
- server/db.h

## 5.63 TService Class Reference

Information about service.

```
#include <sensors.h>
```

Inheritance diagram for TService:



## Public Member Functions

- virtual void `toBuffer` (`buffer_t` &buf)  
*Get byte buffer representation.*
- virtual bool `fromBuffer` (`buffer_t` &buf)  
*Fill object with buffer data.*

## Public Attributes

- string `name`  
*Service name.*
- bool `available`  
*Service availability.*

## Additional Inherited Members

### 5.63.1 Detailed Description

Information about service.

### 5.63.2 Member Function Documentation

#### 5.63.2.1 `bool TService::fromBuffer ( buffer_t & buf ) [inline],[virtual]`

Fill object with buffer data.

##### Parameters

|           |            |              |
|-----------|------------|--------------|
| <i>in</i> | <i>buf</i> | Buffer data. |
|-----------|------------|--------------|

##### Returns

If succeeded.

Implements [ISerializable](#).

#### 5.63.2.2 `void TService::toBuffer ( buffer_t & buf ) [inline],[virtual]`

Get byte buffer representation.

##### Parameters

|            |            |                |
|------------|------------|----------------|
| <i>out</i> | <i>buf</i> | Target buffer. |
|------------|------------|----------------|

##### Returns

None.

Implements [ISerializable](#).

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

- `common/sensors.h`

## 5.64 TPacketConfig::TService Struct Reference

Networ service data.

```
#include <packets.h>
```

### Public Attributes

- string [name](#)  
*Service name.*
- bool [tcp](#)  
*Service transport type (TCP/UDP)*
- uint16\_t [port](#)  
*Service port.*

### 5.64.1 Detailed Description

Networ service data.

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

- common/packets.h

## 5.65 SystemInfo::FileSystem::Usage Struct Reference

Informations about usage of directory/devie.

```
#include <FileSystem.h>
```

### Public Member Functions

- [Usage](#) ()  
*Default constructor, zeroing usage informations.*

### Public Attributes

- `std::string` [dir](#)  
*Directory/disc name for usage informations.*
- `double` [percent\\_use](#)  
*Percent use of directory/disc.*
- `uint64` [total](#)  
*Total memory assigned to disc.*
- `uint64` [free](#)  
*Free memory on disc.*
- `uint64` [used](#)  
*Memory used on disc.*
- `uint64` [avail](#)  
*Memory available on disc.*
- `uint64` [files](#)  
*Memory used by files.*
- `uint64` [free\\_files](#)  
*Memory not used by files.*
- `uint64` [disc\\_reads](#)  
*Number of disc reads operation.*
- `uint64` [disc\\_writes](#)  
*Number of disc writes operation.*
- `uint64` [disc\\_write\\_bytes](#)  
*Number of bytes writed.*
- `uint64` [disc\\_read\\_bytes](#)  
*Number of bytes readed.*
- `uint64` [disc\\_rtime](#)  
*Time spent on read.*
- `uint64` [disc\\_wtime](#)  
*Time spent on write.*
- `uint64` [disc\\_qtime](#)  
*Time spent in queue.*

- uint64 [disc\\_time](#)  
*Total time.*
- uint64 [disc\\_snaptime](#)  
*Snap time.*
- double [disc\\_service\\_time](#)  
*Disc service time.*
- double [disc\\_queue](#)  
*Number of disc queues.*

### 5.65.1 Detailed Description

Informations about usage of directory/devie.

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

- agent\_win/src/SystemInfo/FileSystem.h

## 5.66 pl.edu.agh.zpi.admintools.utils.Vector2D Class Reference

Represents two-dimensional vector as point.

### Public Member Functions

- [Vector2D](#) ()  
*Default constructor. Zeroes coordinates.*
- [Vector2D](#) (float x, float y)  
*Constructor, sets coordinates.*
- void [mul](#) (float val)  
*Multiply vector by scalar.*
- void [add](#) ([Vector2D](#) vec)  
*Add vector to current vector.*
- void [sub](#) ([Vector2D](#) vec)  
*Subtract vector from current vector.*
- float [length](#) ()  
*Calculate length (magnitued) of current vector.*
- void [norm](#) ()  
*Normalize current vector.*
- [PointF](#) [getPointF](#) ()  
*Create PointF instance from current vector coordinates.*

### Static Public Member Functions

- static [Vector2D](#) [mul](#) ([Vector2D](#) a, float b)  
*Create new vector as result of multiplication of vector and scalar.*

### Public Attributes

- float x  
*X coordinate.*
- float y  
*Y coordinate.*

### 5.66.1 Detailed Description

Represents two-dimensional vector as point.

### 5.66.2 Constructor & Destructor Documentation

5.66.2.1 `public pl.edu.agh.zpi.admintools.utils.Vector2D.Vector2D ( float x, float y )` `[inline]`

Constructor, sets coordinates.

Parameters

|          |               |
|----------|---------------|
| <i>x</i> | X coordinate. |
| <i>y</i> | Y coordinate. |

### 5.66.3 Member Function Documentation

5.66.3.1 `public void pl.edu.agh.zpi.admintools.utils.Vector2D.add ( Vector2D vec )` `[inline]`

Add vector to current vector.

Parameters

|            |                                  |
|------------|----------------------------------|
| <i>vec</i> | <a href="#">Vector2D</a> to add. |
|------------|----------------------------------|

Returns

None.

5.66.3.2 `public PointF pl.edu.agh.zpi.admintools.utils.Vector2D.getPointF ( )` `[inline]`

Create PointF instance from current vector coordinates.

Returns

Instance of PointF filled with vector coordinates.

5.66.3.3 `public float pl.edu.agh.zpi.admintools.utils.Vector2D.length ( )` `[inline]`

Calculate length (magnitued) of current vector.

Returns

Length of vector.

5.66.3.4 `public void pl.edu.agh.zpi.admintools.utils.Vector2D.mul ( float val )` `[inline]`

Multiply vector by scalar.

Parameters

|            |                        |
|------------|------------------------|
| <i>val</i> | Scalar to multiply by. |
|------------|------------------------|

**Returns**

None.

5.66.3.5 `public static Vector2D pl.edu.agh.zpi.admintools.utils.Vector2D.mul ( Vector2D a, float b ) [inline], [static]`

Create new vector as result of multiplication of vector and scalar.

**Parameters**

|          |                         |
|----------|-------------------------|
| <i>a</i> | Vector to multiply.     |
| <i>b</i> | Scalar to multiplay by. |

**Returns**

Instance of [Vector2D](#) as result of multiplication.

5.66.3.6 `public void pl.edu.agh.zpi.admintools.utils.Vector2D.norm ( ) [inline]`

Normalize current vector.

**Returns**

None.

5.66.3.7 `public void pl.edu.agh.zpi.admintools.utils.Vector2D.sub ( Vector2D vec ) [inline]`

Subtract vector from current vector.

**Parameters**

|            |                                       |
|------------|---------------------------------------|
| <i>vec</i> | <a href="#">Vector2D</a> to subtract. |
|------------|---------------------------------------|

**Returns**

None.

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

- `client/AdminTools/src/pl/edu/agh/zpi/admintools/utils/Vector2D.java`



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