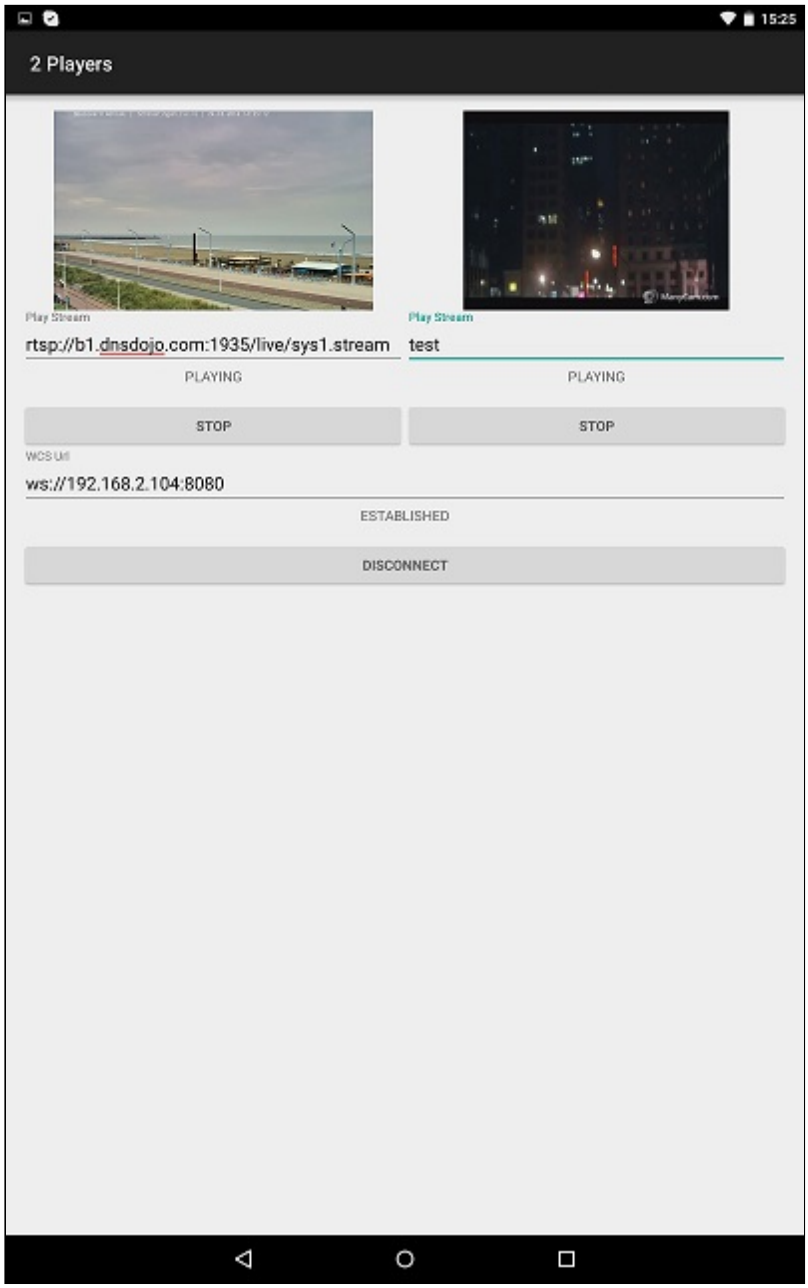
Android 2 Players

Example of Android application with two players

This example demonstrates how two or more players can be displayed in one application. Each of the players can be used to play a different stream.



Analyzing the example code

To analyze the code, let's take class TwoPlayersActivity.java of the `2players` example, which can be downloaded with corresponding build 1.0.1.38.

1. API initialization

`Flashphoner.init()` code

For initialization, `Context` object is passed to the `init()` method.

```
Flashphoner.init(this);
```

2. Session creation

`Flashphoner.createSession()` code

`SessionOptions` object with the URL of WCS server is passed to `createSession()` metod:

```
SessionOptions sessionOptions = new
SessionOptions(mWcsUrlView.getText().toString());
sessionOptions.setRemoteRenderer(remote2Render);

/**
  * Session for connection to WCS server is created with method
createSession().
  */
session = Flashphoner.createSession(sessionOptions);
```

3. Connection to the server

`Session.connect()` code

```
session.connect(new Connection());
```

4. Receiving the event confirming successful connection

`session.onConnected()` code

```
@Override
public void onConnected(final Connection connection) {
    runOnUiThread(new Runnable() {
        @Override
        public void run() {
            mConnectButton.setText(R.string.action_disconnect);
            mConnectButton.setTag(R.string.action_disconnect);
            mConnectButton.setEnabled(true);
            mConnectStatus.setText(connection.getStatus());
            mPlay1Button.setEnabled(true);
            mPlay2Button.setEnabled(true);
```

```
        }
    });
}
```

5. Playback of video stream 1

`Session.createStream()`, `Stream.play()` code

`StreamOptions` object with the following parameters is passed to the `createStream()` method:

- name of the stream to playback
- `SurfaceViewRenderer remote1Renderer` to display the stream 1

```
StreamOptions streamOptions = new
StreamOptions(mPlay1StreamView.getText().toString());
streamOptions.setRenderer(remote1Render);

/**
  * Stream is created with method Session.createStream().
  */
play1Stream = session.createStream(streamOptions);

/**
  * Callback function for stream status change is added to make appropriate
changes in controls of the interface when stream is being played.
  */
play1Stream.on(new StreamStatusEvent() {
    ...
});

/**
  * Method Stream.play() is called to start playback of the stream.
  */
play1Stream.play();
```

6. Playback of video stream 2

`Session.createStream()`, `Stream.play()` code

`StreamOptions` object with the following parameters is passed to the `createStream()` method:

- name of the stream to playback
- `SurfaceViewRenderer remote2Renderer` to display the stream 1

```
StreamOptions streamOptions = new
StreamOptions(mPlay2StreamView.getText().toString());
streamOptions.setRenderer(remote2Render);
```

```
/**
  * Stream is created with method Session.createStream().
  */
play2Stream = session.createStream(streamOptions);

/**
  * Callback function for stream status change is added to make appropriate
changes in controls of the interface when stream is being played.
  */
play2Stream.on(new StreamStatusEvent() {
    ...
});

/**
  * Method Stream.play() is called to start playback of the stream.
  */
play2Stream.play();
```

7. Stream 1 playback stop

`Stream.stop()` code

```
play1Stream.stop();
play1Stream = null;
```

8. Stream 2 playback stop

`Stream.stop()` code

```
play2Stream.stop();
play2Stream = null;
```

9. Session disconnection

`Session.disconnect()` code

```
session.disconnect();
```

10. Receiving the event confirming successful disconnection

`session.onDisconnection()` code

```
@Override
public void onDisconnection(final Connection connection) {
    runOnUiThread(new Runnable() {
        @Override
        public void run() {
            mConnectButton.setText(R.string.action_connect);
```

```
            mConnectButton.setTag(R.string.action_connect);
            mConnectButton.setEnabled(true);
            mPlay1Button.setText(R.string.action_play);
            mPlay1Button.setTag(R.string.action_play);
            mPlay1Button.setEnabled(false);
            mPlay2Button.setText(R.string.action_play);
            mPlay2Button.setTag(R.string.action_play);
            mPlay2Button.setEnabled(false);
            mConnectStatus.setText(connection.getStatus());
            mPlay1Status.setText("");
            mPlay2Status.setText("");
        }
    });
}
```