## Checking Streaming Statistics

The Statistics panel of Windows Media Player is a useful tool for determining the strength of a streaming media presentation. It relays information on the following:

1. Bandwidth Capability
2. Streaming Bit Rate
3. Streaming Protocol
4. Frame Rate
5. Package Transfer
6. Average Streaming Quality

### Accessing Statistics

With Windows Media Player open and currently streaming a media file, right click on the window and select Statistics.
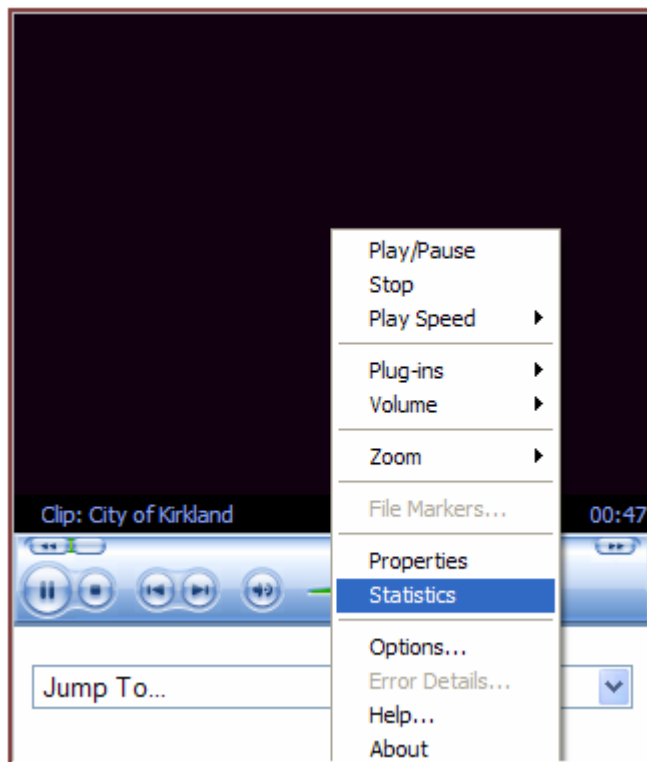
## Statistics Basic Tab

The Statistics window opens with the Basic tab active. It displays the following information:

1. Ideal connection bit rate
2. The current Network/Internet availability
3. Current Stream Rate
4. Current Stream Quality (15 second average quality)
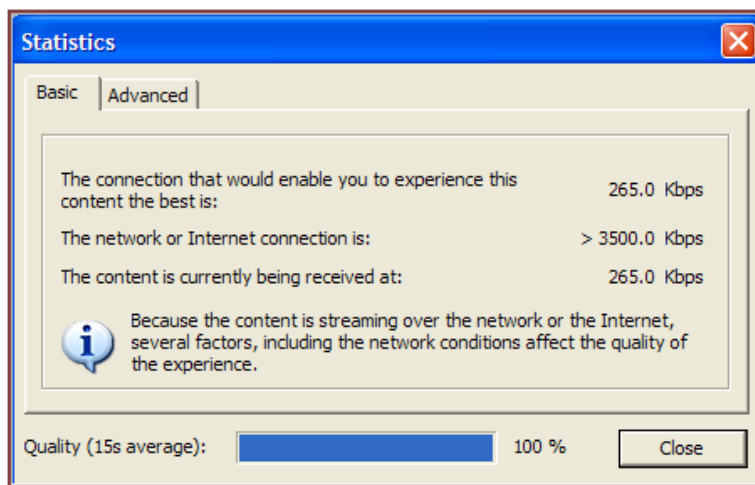


## Statistics Advanced Tab

The Advanced Tab of Statistics displays much more information. It has fields that update frequently to show the most current statistics for the stream.
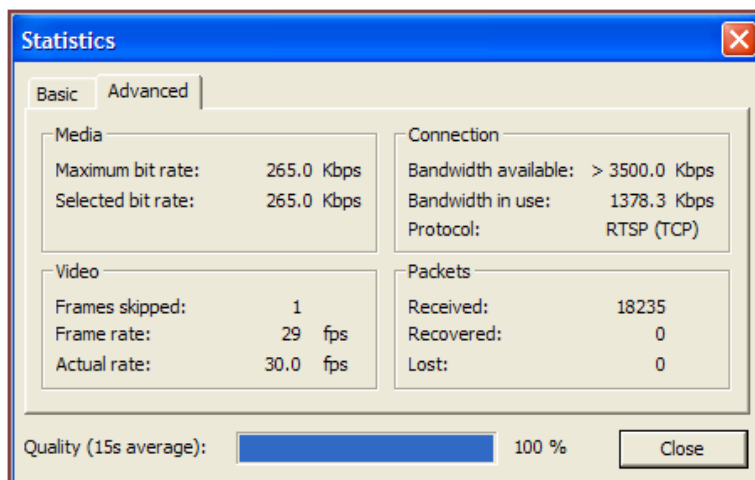
## Media Section

This section displays information about Bit Rates for this Streaming session.



**Maximum Bit Rate:** This section displays how high the possible Bit Rate could go during this session. It is generally the same as the Selected Bit Rate.

**Selected Bit Rate:** All media content is created with a Bit Rate as part of the digital encoding process. This is the level set by the media creator. Generally, the higher the Bit Rate is set, the higher the Bandwidth will need to be to secure a successful stream.

## Connection Section

This section displays the Available Bandwidth, the Bandwidth in use, and the streaming Protocol in use.



**Available Bandwidth:** This is a measure of how much bandwidth is available to the viewer's computer. It must be higher than the Selected Bit Rate value for Streaming to be successful.

**Bandwidth in Use:** This number describes how much Bandwidth is being used by the user's computer. As a general rule, the Bandwidth in use will always match or exceed the Selected Bit Rate.

**Protocol:** RTSP is the standard Protocol for Internet Streaming.

## Video Section

This section details the actual video frames being sent by the stream. Streaming video works by sending individual pictures in rapid succession from the streaming server to the viewer. If there is disruption in the Stream quality (due to bandwidth issues, for example), there will be significant loss of Frames.



**Frames Skipped:** Counts the number of frames skipped since the Streaming session began

**Frame Rate:** This is the current rate of frames streaming

**Actual Frame Rate:** This field shows the frame rate that the content was created with. For standard Granicus Videos, the Frame Rate is set at 30. If the Frame Rate and Actual Frame Rate match, then the stream should work as intended. .

## Packets Section

Packets are bits of data grouped together and streamed from the streaming server to the viewer. They include all Frames and other information required for a successful connection.



**Received:** This is the total number of packets transferred from the beginning of the session.

**Recovered:** If there is an issue transferring a packet, there is a chance that the system will automatically recover the packet or that it will arrive

late. This has a minor affect on the stream quality but would generally be unnoticed.

**Lost:** These packets were sent but never arrived. Problems with Bandwidth, Protocol, or other local factors can contribute to this.