# （解码）2.avformat_find_stream_info()

该函数可以读取一部分视音频数据并且获得一些相关的信息。

```
/**
 * Read packets of a media file to get stream information. This
 * is useful for file formats with no headers such as MPEG. This
 * function also computes the real framerate in case of MPEG-2 repeat
 * frame mode.
 * The logical file position is not changed by this function;
 * examined packets may be buffered for later processing.
 *
 * @param ic media file handle
 * @param options  If non-NULL, an ic.nb_streams long array of pointers to
 *                 dictionaries, where i-th member contains options for
 *                 codec corresponding to i-th stream.
 *                 On return each dictionary will be filled with options that were not fo
 * @return >=0 if OK, AVERROR_xxx on error
 *
 * @note this function isn't guaranteed to open all the codecs, so
 *       options being non-empty at return is a perfectly normal behavior.
 *
 * @todo Let the user decide somehow what information is needed so that
 *       we do not waste time getting stuff the user does not need.
 */
int avformat_find_stream_info(AVFormatContext *ic, AVDictionary **options);
```

简单介绍一下它参数的含义

```
ic：输入的AVFormatContext。
另外的一个参数的含义：格外的选项
```

记录一下这个函数的要点：

该函数实际上已经“走通”的解码的整个流程。如下是几个关键流程

```
1.查找解码器：find_decoder()
2.打开解码器：avcodec_open2()
3.读取完整的一帧压缩编码的数据：read_frame_internal()
注：av_read_frame()内部实际上就是调用的read_frame_internal()。
4.解码一些压缩编码数据：try_decode_frame()
```

- has_codec_parameters用来检查AVstream中的成员变量是否设置完毕