

A Multi Context Chewing Data Set¹

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1. Introduction

In this document, we describe video data sets that are used in the creation of algorithms for chewing recognition. Each video data set has the following properties:

Length	36 seconds
Number of Frames	540 frames
Video Size	740x480 pixels
Aspect Ratio	4:3
Audio Codec	MPEG Layer-3 Decoder
Video Codec	DV Video Decoder

Depending on the future requirements of this study, we will increase or decrease the number of frames in each video. In addition, we plan to include sub-sampled video with or without smoothing to reduce possible computational requirements.

The data sets described in this document refer to five different categories:

- 1.1. Face of a person chewing with mouth closed.
- 1.2. Face of a person chewing with mouth open.
- 1.3. Face of a person talking.
- 1.4. Face of a person making facial expressions.
- 1.5. Face of a person without facial expressions.

The first two can be seen as a class of people chewing, and the last three as a class of people no-chewing.

2. File Description

In this section we describe the initial notation used for the initial files in the study. We aware that this notation will be updated and changed as new requirements are necessary.

Each file name consists of three parts:

Name_tf_Noframes_subs_Number.avi

For example:

chewing-closed-frontal_tf_540_subs_1.avi

Each part has the following description:

2.1. Name, a name describing the action on video:

chewing-closed-frontal	A person chewing with mouth closed.
chewing-open-frontal	A person chewing with mouth open.
clutter-faces-frontal	A person making facial expressions.
clutter-talking-frontal	A person talking
control-faces-frontal	A person without facial expressions

2.2. tf_Noframes , total number of frames.

2.3. subs_Number , the subsampling used in the video, where 1 represent no subsampling at all.