

# MARY TTS Tutorial

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## 1. Installing MARY TTS

0. If needed, install a java runtime environment JRE 5.0 or newer
1. Start `openmary-standalone-installer-4.0.0.jar` (usually double-click, else `java -jar openmary-standalone-installer-4.0.0.jar`)
  - (a) In the installer, select only the runtime component, accept license, install.
  - (b) Close the voice installer for now, click “Quit”.
2. To avoid having to download languages and voices, replace the folder `MARY TTS/download` with the contents of `download.zip`:
  - (a) Delete `MARY TTS/download`;
  - (b) copy `download.zip` to `MARY TTS` and “unzip here”.
3. Now start the MARY component installer, `MARY TTS/bin/mary-component-installer`, and select the languages and voices you wish to install.

## 2. Running MARY TTS

1. Start `MARY TTS/bin/maryserver` (will need a few seconds, depending on how many voices you have installed)
2. Start a client: <http://localhost:59125/> or `MARY TTS/bin/maryclient`

## 3. Interactive exploration

Start MARY TTS server and web client.

1. Experiment with different voices, different input text.
2. Click “Show audio effects”, and experiment with audio effects.
3. Select different output formats, to follow the progressive processing of TTS:  
`RAWMARYXML`, `TOKENS`, `WORDS`, `PARTSOFSPEECH`, `PHONEMES`, `INTONATION`,  
`ALLOPHONES`, `ACOUSTPARAMS`, `AUDIO`, `REALISED_ACOUSTPARAMS`,  
`REALISED_DURATIONS`
4. Go to interactive documentation of the HTTP interface at  
<http://localhost:59125/documentation.html>
  - (a) Investigate the meta information requests, to list voices, locales, audio formats, data types, etc.
  - (b) use the examples to understand the syntax of a GET request to synthesize an utterance
  - (c) modify the examples to trigger a different voice, a different text, an audio effect

## **4. Using TTS from your own software**

Start MARY TTS server.

There are two options for accessing the MARY server:

1. Using a Java API. See sample code in MARY TTS/examples/MaryClientUser.java.
  - (a) Compile this and run it.
  - (b) Modify the request to match the language, voice and text of your choice.
  - (c) Look at the API documentation at <http://mary.dfki.de/javadoc/4.0.0/> to find another process() method of marytts.client.MaryClient which allows you to specify effects.
2. Using any programming language or shell tool (e.g., wget, curl). Determine the exact URL for your request, e.g. using the interactive HTTP documentation, then perform the request. Find a way to play a wav file in your environment.

## **5. Under the surface of the MARY TTS server**

There are some key places that you should know if you want to work more with the MARY server.

1. The server log file. This contains information on the processing steps performed, how long they took, and detailed error messages when something goes wrong. To get more detailed error messages, call as  
    MARY TTS/bin/maryserver -Dlog.level=DEBUG  
or  
    MARY TTS\bin\maryserver.bat "-Dlog.level=DEBUG"
2. The config files in MARY TTS/conf. The most important one is  
    MARY TTS/conf/marybase.config  
which contains global settings.
3. If performance is an issue, and you are likely to require the same sentences repeatedly, try turning on the cache: In MARY TTS/conf/marybase.config, edit the line  
    cache = true  
to turn on the cache. You should see substantial performance improvements. To turn off the cache again, set it back to  
    cache = false