

### STIX-D Use Case L1: Import ACE Lexicon

- **Objective:** Seed the `stixd_corpus.lexicon` table with lexical entries from the ACE Common Lexicon ([Clex](#)) or other ACE lexicon files.
- **Actor(s):** Administrator
- **Input:** A URI to the `clex_lexicon.pl` file or another ACE lexicon file.
- **Output:** Summary information about the import or an error message.
- **Process:**
  1. The administrator provides the URI to a ACE lexicon file. Default URI is:  
“[https://github.com/Attempto/Clex/blob/master/clex\\_lexicon.pl](https://github.com/Attempto/Clex/blob/master/clex_lexicon.pl)”
  2. The system opens a connection to the `stixd_corpus` database on the localhost through the `src/mysql_repository.py` module.
  3. For each line in the Clex file, the system performs the following steps:
    - Extracts the characters from the start of the line to the last character before the open parenthesis character ( ` ` ) and stores the string in the local `word_tag` variable.
    - Extracts the characters after the open parenthesis character ( ` ` ) and before the first comma ( ` , ` ). If this resulting string of characters is enclosed in single quotes, the system drops the enclosing single quotes. The system then stores the string in the local `word_form` variable.
    - Generates a SHA256 hash for the combination of the `word_tag` and `word_form` variables and stores it in a local `tag_form_hash` variable.

- Checks if the `tag_form_hash` value exists in the `stixd_corpus.lexicon` table by comparing it with values in the `lexicon.tag_form_hash` field.
    - If the `tag_form_hash` value exists, the system adds a new link between the existing `lexicon.lex_id` and the source `lexicon.obj_id` in the `lexicon.obj_lex_jt` junction table.
    - If the `tag_form_hash` value does not exist, the system creates a new entry in the `lexicon` table and imports `word_tag`, `word_form`, and `tag_form_hash` into the table.
  - Extracts the 2nd argument and imports it into `lexicon.logical_symbol`.
  - If the Clex line includes a 3rd argument, extracts it into `lexicon.third_arg` field. Otherwise, sets the `third_arg` field to `NULL` in the `stixd_corpus.lexicon`
4. The system displays summary information about the extracted text(s) or an error message.