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Blocking Unwanted UMLS Concepts

Certain UMLS concepts might be undesirable for specific applications. For example, running MetaMap on the input `bed plan` will generate mappings based on the following five candidate concepts:

```
Meta Candidates (Total=5; Excluded=0; Pruned=0; Remaining=5)
   1.  861   C0270724:PLAN (Infantile Neuroaxonal Dystrophy) [Disease or Syndrome]
   2.  861   C0599880:Plan (Treatment Plan) [Intellectual Product]
   3.  861   C1301732:Plan (Planned) [Functional Concept]
   4.  694   C0004916:Bed (Beds) [Manufactured Object]
   5.  694   C0596170:BED (Binge eating disorder) [Mental or Behavioral Dysfunction]
```

Many users would not want candidates #1 and #5 displayed in the above output. But how can these undesirables be blocked?

Excluding concepts on the basis of UMLS Sources or UMLS Semantic Types would certainly work, but these techniques would almost certainly exclude far more concepts than would be desirable, thereby probably making the solution worse than the original problem.

To block such one-off exclusion of concepts:

1. Create a file called, say, `NoMapFile`, containing lines of the form `CUI|ConceptString`, e.g.,

   ```
   C0270724|PLAN
   C0596170|BED
   ```

   The last line of `NoMapFile` must end with a newline character!

2. Call MetaMap with `--nomap NoMapFile` as part of the command-line arguments.

The undesirable concepts will be blocked:

```
Meta Candidates (Total=3; Excluded=0; Pruned=0; Remaining=3)
   1.  861   C0599880:Plan (Treatment Plan) [Intellectual Product]
   2.  861   C1301732:Plan (Planned) [Functional Concept]
   3.  694   C0004916:Bed (Beds) [Manufactured Object]
```

Note that the contents of the `NewMapFile` are case sensitive.