**Bare Minimum**

A phoneme inventory will be generated. The generation process will include patterns from real language’s inventories. There will be separate consonant and vowel system generators.

This phoneme inventory will be referenced by the list of phonological rules that will be generated next. The phonological rules will outline which phones are connected to which phoneme. Certain phonemes will change sound under certain conditions.

Phonotactics rules will also be generated. Positions of phonemes in syllables and words will be restricted as well as what consonant clusters or diphthongs may appear.

A grammar system will be generated. The generation process will select grammatical categories and decides how they will be expressed. Inflection systems – declensions and conjugations – will be one way for grammatical categories to be expressed. Inflection systems will have a agglutination variation. Determiners/articles/particles will be another way for grammatical categories to be expressed.

The phoneme inventory along with the phonotactics rules will be used to generate syllables. The syllables will be used to fill out the inflection, agglutination, or particle systems.

The syllable generator will then be used to generate root words. Root words will include nouns, verbs, and adjectives.

All of the above structures will then be parsed by a output function into a text output. This output will include a consonant inventory table, vowel system chart, list of phonemes (with examples), list of phonological and phonotactics rules (with examples), [inflection tables/list of affixes/list of particles], and a dictionary.

**Writing System**

A writing system will be selected: either alphabetical, abugida, syllabic, or logographic. Directionality will be selected (LTR, RTL, Boustrophedon, etc.). A punctuation system will be selected.

Once a writing system is decided on, graphemes will be generated as necessary.

For alphabets, letters will be assigned to phonemes or phoneme combinations. Abugidas will have letters assigned to either vowels or consonants and then diacritics to the other. A list of valid syllables will be generated for syllabaries. The morphemes and root words will each have a separate character for logographic writing systems.

**Syntax**

A syntax system will be generated starting with deciding SVO word order. CoLag will probably be helpful with this.

**Language Change**

All of the above structures will be compiled into a single structure called a “language”. The language structure will then be able to be morphed. The relationship between the pre and postmorph language will be recorded in a tree structure.

The language morphing will include: lexical, phonetic, phonological, semantic, and syntactic changes.

The final output will be a tree diagram showing a language family.

**Poetry and Song**

Simple poetry or songs will be generated. Number of syllables as well as phonetic makeup will be used when selecting words. The poetry will probably be pretty nonsensical.

**Text Example**

Example texts will be prepared in a neutral glossing language – if that even exists. They will be translated to the output language automatically.