Word Count Specification:

1. Definition:

document ::= import <doc\_name>

char ::= "all characters"

separator ::= space,

|line break

|tab

text ::= seq char

word ::= seq1 (char \ blank)

target ?: word

new ?: word

s == separator

w == word

l,r == text\_string

tgt == target

new == new

2. Schema:

Function Word Split

text -> words

if words = <> then ∅

if words = s then ∅

if words = w then { w }

if words = sr then Word Split (r)

if words = ls then Word Split (l)

if words = lsr then Word Split (l) U Word Split (r)

Function Word Count

text -> num

num = ♯ Set (words text)

Function Character Count

text -> num

num = ♯ (characters text)

Function Line Count

text -> num

num = ♯ (lines text)

Function Text Break

text -> words

if words = <> then ∅

if words = s then {s}

if words = w then { w }

if words = sr then Word Split (r)

if words = ls then Word Split (l)

if words = lsr then Word Split (l) U Word Split (r)

Function Word to String

words -> text

text = String(word)

Function Word Replacement

text \* word \* word -> text

replace <> tgt new = <>

if w == tgt then replace <w> tgt new = <new>

if w != tgt then replace <w> tgt new = <w>

replace wr tgt new = replace w + replace r