DirSync Agent Development Effort

COCOMO'81 models depends on the two main equations
1. *development effort* : $MM = a * KDSI^b$

   based on MM - man-month / person month / staff-month is one month of effort by one person. In COCOMO'81, there are 152 hours per Person month. According to organization this values may differ from the standard by 10% to 20%.
2. *effort and development time* (TDEV) : $TDEV = 2.5 * MM^c$

The coefficents a, b and c depend on the *mode of the development*. There are three modes of development:

Development Mode	Project Characteristics			
	Size	Innovation	Deadline/constraints	Dev. Environment
Organic	Small	Little	Not tight	Stable
Semi-detached	Medium	Medium	Medium	Medium
Embedded	Large	Greater	Tight	Complex hardware/ customer interfaces

Table 1: development modes

1.1 BASIC COCOMO

The basic COCOMO applies the parameterised equation without much detailed consideration of project characteristics.

$$MM = a * KDSI^b$$

$$TDEV = 2.5 * MM^c$$

Basic COCOMO	a	b	c
Organic	2.4	1.05	0.38
Semi-detached	3.0	1.12	0.35
Embedded	3.6	1.20	0.32

Overview 1: COCOMO I; equations and parameters of the basic COCOMO I

KDSI = 3 K lines C code + 1K line Perl code = 4 K lines
MM = 2.4 * (4 ** 1.05) = 10.28
TDEV = 2.5 * (10.28 **0.38) = 6.06

Pilot project in 2 months
Actual development time with 50% employee time was 1 year 2 months which was complaint with COCOMO model.