Matrix of Systems
System Architecture

Industry	Simple System
Aero	Model balsa glider with propeller
Electrical	Simple crystal radio http://www.techlib.com/electronics/crystal.html
Software	Prime number search code (see pseudocode below)
Optical	Telescope (simple refraction)
Civil	Room 26-152
Judicial	Jury in US court
Naval	Canoe (simply fiberglass canoe) http://www.clippercanoes.com/

/* Comment – Pseudocode Function to test if a number is a prime number */
/* Comment – The number to test is the variable TestPrime   */
/* Comment – The function returns a True or a False */

```
Function IsPrime(TestPrime)
    Initialize variable IsPrime = False
    Initialize variable TestNum = 0
    Initialize variable TestLimit = 0

    /* Comment - Eliminate even numbers  /
    If TestPrime Mod 2 = 0 Then
        IsPrime = False
        Exit Function
    End If

    /* Comment - Loop through ODD numbers starting with 3 */
    Assign TestNum = 3
    Assign TestLimit = TestPrime

  Do While TestLimit > TestNum
        If TestPrime Mod TestNum = 0 Then
            IsPrime = False
            Exit Function
        End If

        TestLimit = TestPrime \ TestNum

        /* Comment - we only bother to check odd numbers */
        TestNum = TestNum + 2

  Loop
```

/* Comment -   If we made it through the loop, the number is a prime. */
IsPrime = True

End Function