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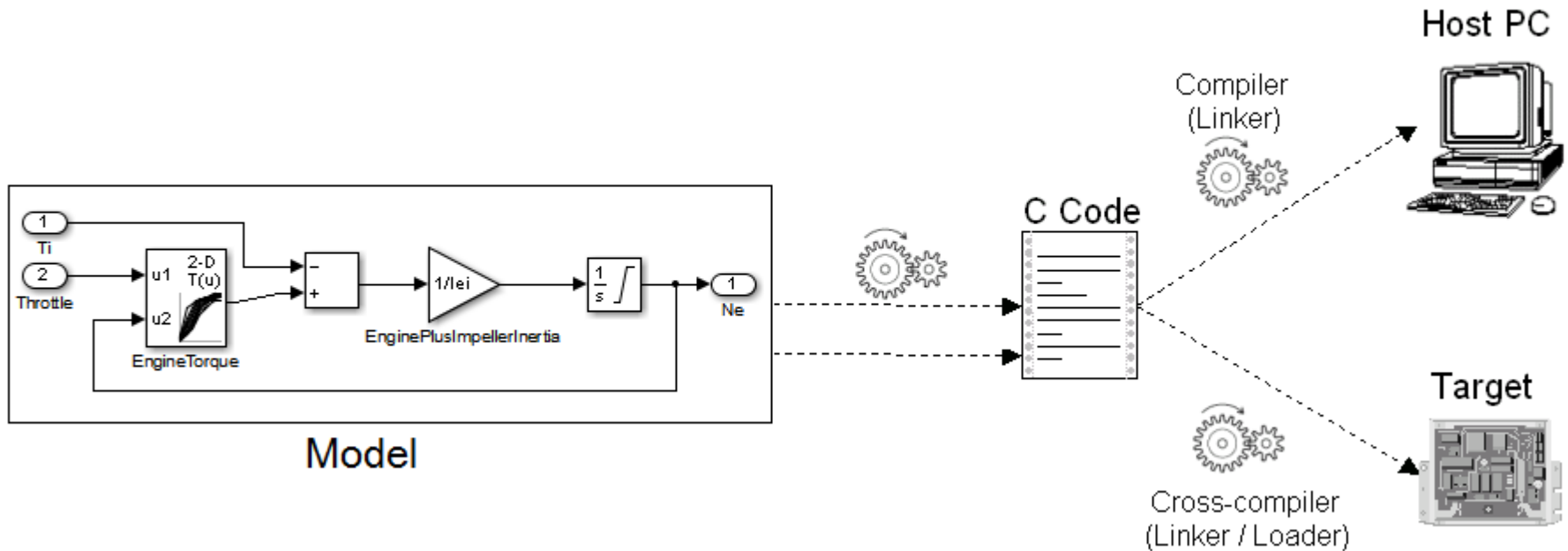
Centrum Wiskunde & Informatica

# **Modernizing Big Legacy Software**

Yanja Dajsuren, CWI

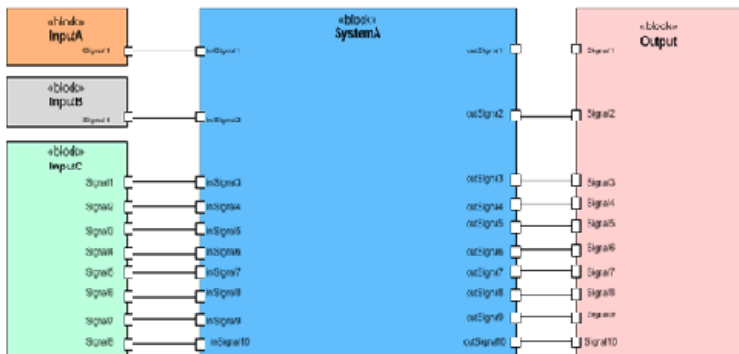
NWO Big Software Matchmaking Event  
01-07-2015 Utrecht

# Legacy software



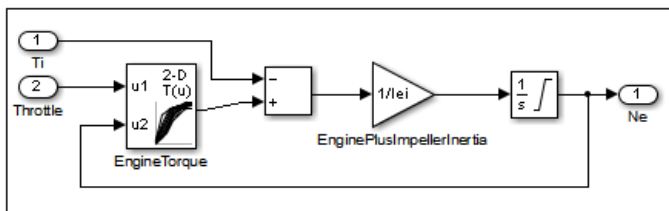
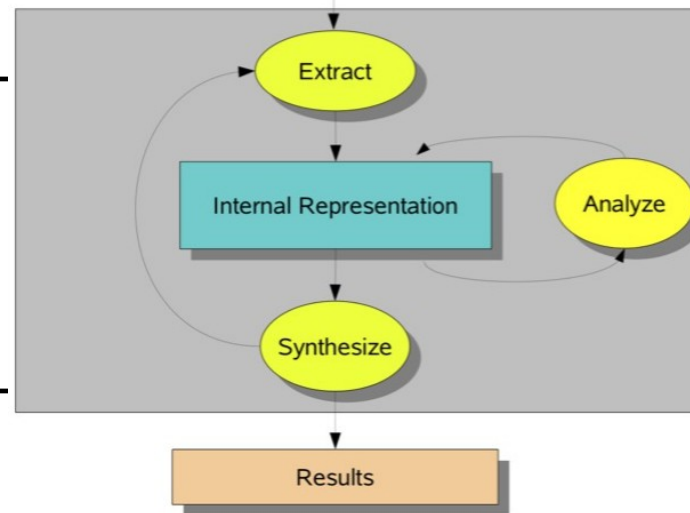
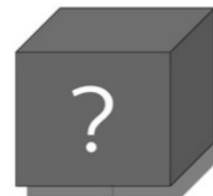
- Different modeling language
- Different platform
- More powerful hardware
- Maintenance cost (engineer 50-100 KLOC)

# Modernizing legacy software



Architecture Model

System Under Investigation (SUI)



Design Model

```

int LongestCommonSubsequenceLength(const std::string &first,
                                   const std::string &second) {
    const std::string @longer = first.size() > second.size() ? first : second;
    const std::string @shorter = first.size() > second.size() ? second : first;

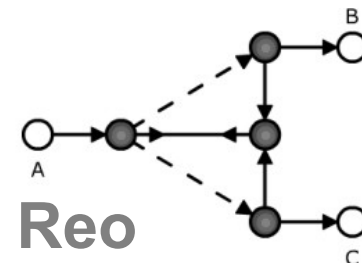
    int longer_len = longer.size();
    int shorter_len = shorter.size();

    std::vector<int> previous( shorter_len + 1, 0 );
    std::vector<int> current( shorter_len + 1, 0 );
    int foo = 1;

    for ( int i = 0; i < longer_len; ++i ) {
        for ( int j = 0; j < shorter_len; ++j ) {
            if ( toupper( longer[ i ] ) == toupper( shorter[ j ] ) )
                current[ j + 1 ] = previous[ j ] + 1;
            else
                current[ j + 1 ] = std::max( current[ j ], previous[ j + 1 ] );
        }
        previous = current;
    }

    return current[ shorter_len ];
}
    
```

Source Code



Reo



## **Contact for comments and collaboration:**

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