

| Phase  | Amount of Work (Size) | Productivity     |
|--|-----------------------|------------------|
| <b>Project Plan</b>                                      |                       |                  |
| Write Plan   | 225 Pages             | 4.5 Pages/Hour   |
| Review Plan  |                       |                  |
| Preparation for Review                                   |                       | 5 Pages/Hour     |
| Review Meeting   |                       | 8 Pages/Hour     |
| Rework   | 225 Defects           | 7.5 Defects/hour |
|  |                       |                  |
| <b>Documented Software Development Process Updates</b>   |                       |                  |
| Process Changes  | 113 Changes           | 5 Changes/hour   |
| Review Changes   |                       |                  |
| Preparation for review                                   |                       | 5 Changes/hour   |
| Review Meeting   |                       | 10 Changes/hour  |
| Rework   | 45 Defects            | 4 Defects/hour   |
|  |                       |                  |
| <b>Requirement</b>                                       |                       |                  |
| Write requirements                                       | 219 Req               | 4 Req/hour       |
| Review requirements                                      |                       |                  |
| Preparation for review                                   |                       | 15 Req/hour      |
| Review meeting   |                       | 20 Req/hour      |
| Rework   | 438 Defects           | 5 Defects/hour   |
|  |                       |                  |
| <b>Build the Development and Testing Lab Environment</b> |                       |                  |
| Hardware Environment                                     |                       |                  |

|                                   |             |                |
|-----------------------------------|-------------|----------------|
| Servers                           | 8           | 1 Server/Day   |
| Clients                           | 36          | 6 Clients/Day  |
| Software Development Tools        |             |                |
| Build/Compile Tools               | 12          | 1 Tools/Hour   |
| Software Testing Tools            |             |                |
| Test Case Execution Tools         | 10          | 2 Tools/Day    |
| Simulation Tools                  | 8           | 2 Tools/Day    |
|                                   |             |                |
| <b>Analysis</b>                   |             |                |
| Write Analysis Document           | 210 Pages   | 3.5 Pages/Hour |
| Review Analysis Document          |             |                |
| Preparation for Analysis Document |             | 5 Pages/Hour   |
| Review Meeting                    |             | 10 Pages/Hour  |
| Rework                            | 420 Defects | 6 Defects/Hour |
|                                   |             |                |
| <b>Design</b>                     |             |                |
| Write DD                          | 145 Pages   | 2.5 Pages/Hour |
| Review DD                         |             |                |
| Preparation for DD                |             | 5 Pages/Hour   |
| Review Meeting                    |             | 9 Pages/Hour   |
| Rework                            | 290 Defects | 5 Defects/Hour |
|                                   |             |                |

|                                   |                |                   |
|-----------------------------------|----------------|-------------------|
| <b>Coding</b>                     |                |                   |
| Write Code                        | 4570 SLOC      | 5 SLOC/Hour       |
| Unit Testing                      |                |                   |
| Prepare/Execute Test Case         | 489 Test Cases | 24 Test Cases/Day |
| Fix Found Defects                 | 330 Defects    | 16.5 Defects/Day  |
| Test Fixed Defects                | 330 Defects    | 27 Defects/Day    |
| Code Inspection                   |                |                   |
| Preparation for Code Inspection   | 4570 SLOC      | 150 SLOC/Hour     |
| Code Inspection Meeting           | 4570 SLOC      | 200 SLOC/Hour     |
| Rework                            | 320 Defects    | 5 Defects /Hour   |
|                                   |                |                   |
| <b>Testing</b>                    |                |                   |
| Write Test Plan (TP)              | 188 Pages      | 10 Pages/Day      |
| Review TP                         |                |                   |
| Preparation for TP                |                | 4 Pages/Hour      |
| Review TP Meeting                 |                | 10 Pages/Hour     |
| Rework                            | 123 Defects    | 5 Defects/Hour    |
| Execute TP (Test Cases)           | 210 Test Cases | 19 Test Cases/Day |
| Fix Found Defects                 | 95 Defects     | 10 Defects/Day    |
| Test Fixed Defects                | 95 Defects     | 15 Defects/Day    |
|                                   |                |                   |
| <b>Documentation</b>              |                |                   |
| User Documentation                | 230 Pages      | 4 Pages/Hour      |
| Review UD                         |                |                   |
| Preparation for UD Review Meeting |                | 6.5 Pages/Hour    |

|                   |             |                   |
|-------------------|-------------|-------------------|
| Review UD Meeting |             | 9 pages/hour      |
| Rework            | 460 defects | 12.5 defects/hour |