**Volunteer Management System**

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| --- | --- |
| ***Function Point Counter*** |  |
|  |  |
|  |  |
| **FPC for VMS** |  |
|  |  |
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| Volunteer Management System  Function Point Counter |

Version: 0.1

Prepared by: Dio Phung

Date: 26rd March 2011

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**Document History**

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**Distribution List**

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| Name | Department | Organization |
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1. **Data functions**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Internal Logical File/External Interface File** | | | | **Element of complexity** | |  |
| # | Type | Reference | Description | DET | RET | Complexity |
| 1 | ILF | URS 2.3.1 | **Volunteer Account:**   * Title( Mr. , Mrs. , Ms, Dr, Other) * First Name * Last Name * Address * Country * Email Address (Read Only Field) * Phone(Home) * Phone(Mobile) * Date of Birth * Hobbies/ Interests * Special Skills * Qualifications attained (Education) * Qualifications attained (Others) * Languages * Volunteer Interests (Admin, Befriending, Events (organizing), General Services, IT, Research, Marketing/Publicity, Skilled Services, Others) * Join Date(Read Only) | 16 | 1 | L |
| 2 | ILF | URS 2.3.19 | **Project**:   * Name * Location * Project introduction * Start date * End date * Status (Finished/in progress/ Coming) | 7 | 1 | L |
| 3 | ILF | URS 2.3.6 | **Feedback**:   * Author * Content * Created Time * Status (approved/not approved) | 4 | 1 | L |
| 4 | ILF | URS 2.3.7 | **Story/Experience**   * Author * Topic * Content * Created Date * Status ( approved/not approved) | 5 | 1 | L |
| 5 | ILF | URS 2.3.8 | **Project Preference (of volunteer):**   * Volunteer Name * Preference details. | 2 | 1 | L |
| 6 | ILF | URS 2.3.32 | **Request for certificate:**   * Requestor (Volunteer name) * Project name * Authorizer (the authority to approved this request) * Created Date. | 4 | 1 | L |
| 7 | ILF | URS 2.3.11 | **Staff account:**   * Title( Mr. , Mrs. , Ms, Dr, Other) * First Name * Last Name * Address * Country * Email Address (Read Only Field) * Phone(Home) * Phone(Mobile) * Date of Birth * Job Title * Role(Read Only Field) * Join Date | 12 | 1 | L |
| 8 | ILF | URS 2.3.18 | **Project Proposal:**   * Author / Proposer * The approving authority * Proposal details * Created date * Status of proposal. | 5 | 1 | L |
| 9 | ILF | URS 2.3.25 | **Itinerary:**   * Project ID * Start date * End date * Itinerary details (when do what, by whom) * Status (approved/not approved). | 5 | 1 | L |
| 10 | ILF | URS 2.3.24 | **Project Progress:**   * Expected Start date * Expected End date * Actual Start date * Actual End date * Status. | 5 | 1 | L |
| 11 | ILF | URS 2.3.23 | **Project Calendar:**   * Project name * Calendar details. | 2 | 1 | L |
| 12 | ILF | URS 2.3.32 | **Certificate:**   * Certificate name * Volunteer name * Project name * Certificate content. | 4 | 1 | L |
| 13 | ILF | URS 2.3.35 | **System parameter:**   * Parameter name * Parameter value | 2 | 1 | L |

1. **Transactional Functions**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **External Input (EI)/ External Output (EO)/External Enquiry (EQ)** | | | | **Element of complexity** | |  |
| # | Type | Reference | Description | DET | FTR | Complexity |
|  | EI |  | **Register Volunteer Account:**   * User name * Password * DOB * Email * Phone | 5 | 1 | L |
|  | EI |  | **Update Volunteer Profile:** | 5 | 1 | L |
|  | EI |  | **Retrieve Forgotten Password** | 2 | 1 | L |
|  | EI |  | **Change Password** | 2 | 1 | L |
|  | EI |  | **Post Feedback to Project**:   * Created By * For which project * Content * Created Time * Status (approved/not approved). | 5 | 1 | L |
|  | EI |  | **Share Experience and Inspiring stories:**   * Author * Topic * Content * Created Date * Status ( approved/not approved) | 5 | 1 | L |
|  | EI |  | **Raise Interest to Project**   * Volunteer Name * Preference details | 2 | 1 | L |
|  | EI |  | **Send Request for Certificate**   * Requestor (Volunteer name) * Indicated project * Authorizer (the authority to approved this request) * Created Date | 4 | 1 | L |
|  | EI |  | **Delete/Deactivate Volunteer Account** | 5 | 1 | L |
|  | EI |  | **Register Staff Account By Admin**   * Staff name * Password * Department * Position / Role (Project director, PM, lead…etc.) * DOB * Mobile phone * Email | 7 | 1 | L |
|  | EI |  | **Update Profile By Staff** | 7 | 1 | L |
|  | EI |  | **Retrieve Forgotten Password** | 2 | 1 | L |
|  | EI |  | **Change password** | 2 | 1 | L |
|  | EI |  | **Manage Staff Role** | 2 | 1 | L |
|  | EI |  | **Delete/ Deactivate Staff Account** | 7 | 1 | L |
|  | EI |  | **Propose Project**   * Author / Proposer * The approving authority * Proposal details * Created date * Status of proposal | 5 | 1 | L |
|  | EI |  | **Approve/Reject project proposal** | 5 | 1 | L |
|  | EI |  | **Setup project details**   * Name * Location * Start date * End date * Status | 5 | 1 | L |
|  | EI |  | **Invite Volunteer By Email** | 10 | 2 | A |
|  | EI |  | **Assign project member and roles** | 6 | 2 | A |
|  | EI |  | **Setup itinerary plan** | 5 | 1 | L |
|  | EI |  | **Setup project calendar**   * Project name * Calendar details | 2 | 1 | L |
|  | EI |  | **Update project progress**   * Expected Start date * Expected End date * Actual Start date * Actual End date * Status | 5 | 1 | L |
|  | EI |  | **Prepare Itinerary Plan**   * Project ID * Start date * End date * Itinerary details (when do what, by whom) * Status (approved/not approved) | 5 | 1 | L |
|  | EI |  | **Submit Itinerary Plan** | 5 | 1 | L |
|  | EI |  | **Approve/Reject Itinerary Plan** | 5 | 1 | L |
|  | EI |  | **Upload Certificate Template**   * Certificate name * Volunteer name * Certificate content * Project name | 4 | 1 | L |
|  | EI |  | **Request certificate by volunteer** | 4 | 1 | L |
|  | EI |  | **Configure System Parameter**   * Parameter name * Parameter value | 2 | 1 | L |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **External Input (EI)/ External Output (EO)/External Enquiry (EQ)** | | | | **Element of complexity** | |  |
| # | Type | Reference | Description | DET | FTR | Complexity |
|  | EQ |  | **Logon**  **Input:**   * ID * Password   **Output:**   * Security level | 2  1 | 1  1 | L |
|  | EQ |  | **Browse for project**  **Input:**   * Start date * Location   **Output:**   * Name * Location * Start date * End date * Status | 2  5 | 1  1 | L |
|  | EQ |  | **Display Volunteer Account**  **Input:**   * Volunteer name   **Output:**   * User name * DOB * Role (Team lead/member) * Address * Email * Phone | 1  7 | 1  1 | L |
|  | EQ |  | **Display Staff Account**  **Input:**   * Staff name   **Output:**   * Staff name * Department * Position / Role (Project director, PM, lead…etc.) * DOB * Mobile phone * Email | 1  7 | 1  1 | L |
|  | EQ |  | **Project Tracking Report**  **Input:**   * Project ID   **Output:**   * Project calendar * Project itinerary * Project progress | 1  3 | 1  1 | L |
|  | EQ |  | **Volunteer Specific Report**  **Input:**   * Volunteer name   **Output:**   * No of Projects participated in * No of days spend in each project * Position in each project * Project preference | 1  5 | 1  1 | L |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **External Input (EI)/ External Output (EO)/External Enquiry (EQ)** | | | | **Element of complexity** | |  |
| # | Type | Reference | Description | DET | FTR | Complexity |
|  | EO |  | **New password email**   * User name * New password * Hyperlink to activate new password | 3 | 1 | L |
|  | EO |  | **Volunteer Email invitation**   * Project name * Project details * Hyperlink to join project | 3 | 1 | L |
|  | EO |  | **Generated Certificate**   * Certificate name * Volunteer name * Project name * Certificate content | 4 | 1 | L |

1. **Unadjusted Function Point Count Summary**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ITEM** | **LOW** | **AVERAGE** | **HIGH** | **TOTAL** |
| External Input | 27x3=81 | 2x4=8 | 0x6=0 | 89 |
| External Output | 3x4=12 | 0x5=0 | 0x7=0 | 12 |
| Internal File | 13x7=91 | 0x10=0 | 0x15=0 | 91 |
| Interface File | 0x5=0 | 0x7=0 | 0x10=0 | 0 |
| External Inquiry | 6x3=18 | 0x4=0 | 0x6=0 | 18 |
| Unadjusted Function Points | | | | 210 |

1. **Calculate Value Adjustment Factor**

|  |  |  |
| --- | --- | --- |
| **CHARACTERISTIC** | **DI** | **Reasons** |
| Data Communications | **2.5** | VMS is an online system with moderate number of users |
| Distributed Functions | **4** | The system will be built with multi-tier architecture where system components will be on different boxes |
| Performance | **1** | There is no special requirements for performance |
| Heavily Used Configuration | **0** | Configuration not mentioned in the URS |
| Transaction Rate | **1** | There are only moderate number of end users |
| On-Line Data Entry | **4** | System is an online system which deal moderately with data input |
| End User efficiency | **2** | There are no special requirements of end user efficiency except for some browsers support |
| On-line Update | **2** | System is an online system which deal moderately with data update |
| Complex Processing | **1** | There is no complicated processing of data in VMS |
| Re-usability | **2** | The code should be moderately reusable |
| Installation Ease | **0** | It is not mentioned in the URS |
| Operational Ease | **0** | It is not mentioned in the URS |
| Multiple Sites | **2.5** | It is not mentioned in the URS |
| Facilitate Change | **1** | There is just few requirements for further growth |
| **Total Degree of Influence** | **23** |  |

1. **ADJUSTED FUNCTION POINT COUNT SUMMARY**

|  |  |
| --- | --- |
| Adjusted Factor = 0.65 + 0.01 \* 17 | 0.88 |
| **Adjusted FPC = Unadjusted FPC \* Adjusted Factor** | **185** |