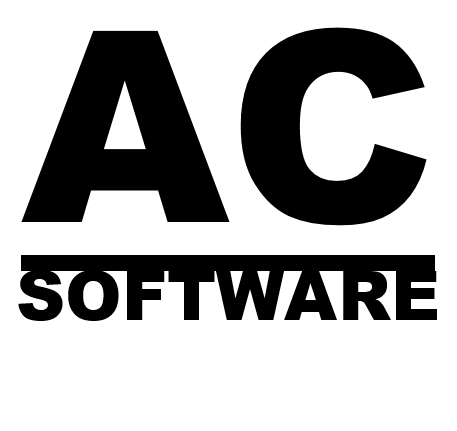
**Diablo III BuildMark**



Release #1

v1.0

November 9, 2015

**Alex Carlson**

[alexander.carlson@oit.edu](mailto:alexander.carlson@oit.edu)

**Signature Page**

This document accepted by:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature (Alex Carlson) Date

This document submitted by:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature (Calvin Caldwell) Date

**Revision History**

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| --- | --- | --- | --- | --- | --- |
| **Author** | **Company** | **Date** | **Version** | **File Name** | **Comments** |
| Alex Carlson | AC software | 10/18/2015 | v1.0 | Diablo III BuildMark – Object Model 1.0.docx | Created initial document with title page. |

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**Executive Class Diagram**



**Detailed Class Diagram**



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| --- |
| **Class Information** |
| **Class Name: ApiManager**  Abstract Type: no Persistence: no |

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| **Trace-ability Information** | | |
| **Use Case ID** | **Use Case Name** | **Steps** |
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| **Public Methods** | | |
| **Signature** | **Preconditions** | **Post Conditions** |
| CreateUser | User must not exist in the database | New User is added to the database |
| ReadUser | User must exist in the database | User is read from the database |
| UpdateUser | User must exist in the database | User is updated in the database |
| DeleteUser | User must exist in the database | User is removed from the database |
| CreateProfile | Profile must not exist in the database | New Profile is added to the database |
| ReadProfile | Profile must exist in the database | Profile is read from the database |
| UpdateProfile | Profile must exist in the database | Profile is updated in the database |
| DeleteProfile | Profile must exist in the database | Profile is removed from the database |
| CreateHero | Hero must not exist in the database | New Hero is added to the database |
| ReadHero | Hero must exist in the database | Hero is read from the database |
| UpdateHero | Hero must exist in the database | Hero is updated in the database |
| DeleteHero | Hero must exist in the database | Hero is removed from the database |
| CreateBuildSnapshot | BuildSnapshot must not exist in the database | New BuildSnapshot is added to the database |
| ReadBuildSnapshot | BuildSnapshot must exist in the database | BuildSnapshot is read from the database |
| UpdateBuildSnapshot | BuildSnapshot must exist in the database | BuildSnapshot is updated in the database |
| DeleteBuildSnapshot | BuildSnapshot must exist in the database | BuildSnapshot is removed from the database |

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| **Protected Methods** | | |
| **Signature** | **Preconditions** | **Post Conditions** |
| N/A |  |  |
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| **Private Methods** | | |
| **Signature** | **Preconditions** | **Post Conditions** |
| N/A |  |  |
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| **Attributes** | | | | | |
| **Name** | **Type** | **Object (Y/N)** | **Instance/Static** | **Visibility** | **Description** |
| m\_connection | IDbConnection | Y | I | private | Connection to the SQL database |
| m\_command | IDbCommand | Y | I | private | Command variable for SQL queries |
| m\_params | List<IDataParameter> | Y | I | private | Parameters for SQL queries |
| m\_reader | IDataReader | Y | I | private | Reader for data from SQL database |
| m\_api | ApiManager | y | I | private | Manager for Blizzard API to retrieve user data |

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| **Concurrency** | |
| **Threading Issue** | **Description** |
| N/A |  |
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| **Major Exceptions** | | |
| **Name** | **Trigger** | **Action** |
| DatabaseNotFound | Connection error | Notify the system & attempt recovery |
| DataNotFound | Data being read doesn’t exist | Notify the system & attempt recovery |
| SQLException | Misc. SQL Errors | Notify the system & attempt recovery |

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| **Instance Information** | | | |
| **Minimum** | **Maximum** | **Mean** | **Fixed** |
| N/A | N/A | N/A | 1 |
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| **General Comments** | | |
| **Author** | **Date** | **Comment** |
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| **Class Information** |
| **Class Name: DBManager**  Abstract Type: no Persistence: no |

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| **Trace-ability Information** | | |
| **Use Case ID** | **Use Case Name** | **Steps** |
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| **Public Methods** | | |
| **Signature** | **Preconditions** | **Post Conditions** |
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| **Protected Methods** | | |
| **Signature** | **Preconditions** | **Post Conditions** |
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| **Private Methods** | | |
| **Signature** | **Preconditions** | **Post Conditions** |
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| **Attributes** | | | | | |
| **Name** | **Type** | **Object (Y/N)** | **Instance/Static** | **Visibility** | **Description** |
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| **Concurrency** | |
| **Threading Issue** | **Description** |
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| **Major Exceptions** | | |
| **Name** | **Trigger** | **Action** |
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| **Instance Information** | | | |
| **Minimum** | **Maximum** | **Mean** | **Fixed** |
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| **General Comments** | | |
| **Author** | **Date** | **Comment** |
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| **Class Information** |
| **Class Name: BuildMarkManager**  Abstract Type: no Persistence: no |

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| **Trace-ability Information** | | |
| **Use Case ID** | **Use Case Name** | **Steps** |
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| **Public Methods** | | |
| **Signature** | **Preconditions** | **Post Conditions** |
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| **Protected Methods** | | |
| **Signature** | **Preconditions** | **Post Conditions** |
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| **Private Methods** | | |
| **Signature** | **Preconditions** | **Post Conditions** |
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| **Attributes** | | | | | |
| **Name** | **Type** | **Object (Y/N)** | **Instance/Static** | **Visibility** | **Description** |
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| **Concurrency** | |
| **Threading Issue** | **Description** |
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| **Major Exceptions** | | |
| **Name** | **Trigger** | **Action** |
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| **Instance Information** | | | |
| **Minimum** | **Maximum** | **Mean** | **Fixed** |
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| **General Comments** | | |
| **Author** | **Date** | **Comment** |
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| **Class Information** |
| **Class Name: BuildMark**  Abstract Type: no Persistence: yes |

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| **Trace-ability Information** | | |
| **Use Case ID** | **Use Case Name** | **Steps** |
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| **Public Methods** | | |
| **Signature** | **Preconditions** | **Post Conditions** |
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| **Protected Methods** | | |
| **Signature** | **Preconditions** | **Post Conditions** |
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| **Private Methods** | | |
| **Signature** | **Preconditions** | **Post Conditions** |
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| **Attributes** | | | | | |
| **Name** | **Type** | **Object (Y/N)** | **Instance/Static** | **Visibility** | **Description** |
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| **Concurrency** | |
| **Threading Issue** | **Description** |
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| **Major Exceptions** | | |
| **Name** | **Trigger** | **Action** |
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| **Instance Information** | | | |
| **Minimum** | **Maximum** | **Mean** | **Fixed** |
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| **General Comments** | | |
| **Author** | **Date** | **Comment** |
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| **Class Information** |
| **Class Name: BuildSnapshot**  Abstract Type: no Persistence: yes |

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| **Trace-ability Information** | | |
| **Use Case ID** | **Use Case Name** | **Steps** |
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| **Public Methods** | | |
| **Signature** | **Preconditions** | **Post Conditions** |
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| **Protected Methods** | | |
| **Signature** | **Preconditions** | **Post Conditions** |
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| **Private Methods** | | |
| **Signature** | **Preconditions** | **Post Conditions** |
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| **Attributes** | | | | | |
| **Name** | **Type** | **Object (Y/N)** | **Instance/Static** | **Visibility** | **Description** |
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| **Concurrency** | |
| **Threading Issue** | **Description** |
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| **Major Exceptions** | | |
| **Name** | **Trigger** | **Action** |
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| **Instance Information** | | | |
| **Minimum** | **Maximum** | **Mean** | **Fixed** |
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| **General Comments** | | |
| **Author** | **Date** | **Comment** |
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| **Class Information** |
| **Class Name: Profile**  Abstract Type: no Persistence: yes |

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| **Trace-ability Information** | | |
| **Use Case ID** | **Use Case Name** | **Steps** |
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| **Public Methods** | | |
| **Signature** | **Preconditions** | **Post Conditions** |
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| **Protected Methods** | | |
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| **Private Methods** | | |
| **Signature** | **Preconditions** | **Post Conditions** |
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| **Attributes** | | | | | |
| **Name** | **Type** | **Object (Y/N)** | **Instance/Static** | **Visibility** | **Description** |
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| **Concurrency** | |
| **Threading Issue** | **Description** |
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| **Major Exceptions** | | |
| **Name** | **Trigger** | **Action** |
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| **Instance Information** | | | |
| **Minimum** | **Maximum** | **Mean** | **Fixed** |
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| **General Comments** | | |
| **Author** | **Date** | **Comment** |
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| **Class Information** |
| **Class Name: Hero**  Abstract Type: no Persistence: yes |

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| **Trace-ability Information** | | |
| **Use Case ID** | **Use Case Name** | **Steps** |
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| **Public Methods** | | |
| **Signature** | **Preconditions** | **Post Conditions** |
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| **Protected Methods** | | |
| **Signature** | **Preconditions** | **Post Conditions** |
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| **Private Methods** | | |
| **Signature** | **Preconditions** | **Post Conditions** |
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| **Attributes** | | | | | |
| **Name** | **Type** | **Object (Y/N)** | **Instance/Static** | **Visibility** | **Description** |
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| **Concurrency** | |
| **Threading Issue** | **Description** |
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| **Major Exceptions** | | |
| **Name** | **Trigger** | **Action** |
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| **Instance Information** | | | |
| **Minimum** | **Maximum** | **Mean** | **Fixed** |
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| **General Comments** | | |
| **Author** | **Date** | **Comment** |
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| **Class Information** |
| **Class Name: BuildSnapshot**  Abstract Type: no Persistence: yes |

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| **Trace-ability Information** | | |
| **Use Case ID** | **Use Case Name** | **Steps** |
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| **Public Methods** | | |
| **Signature** | **Preconditions** | **Post Conditions** |
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| **Protected Methods** | | |
| **Signature** | **Preconditions** | **Post Conditions** |
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| **Private Methods** | | |
| **Signature** | **Preconditions** | **Post Conditions** |
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| **Attributes** | | | | | |
| **Name** | **Type** | **Object (Y/N)** | **Instance/Static** | **Visibility** | **Description** |
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| **Concurrency** | |
| **Threading Issue** | **Description** |
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| **Major Exceptions** | | |
| **Name** | **Trigger** | **Action** |
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| **Instance Information** | | | |
| **Minimum** | **Maximum** | **Mean** | **Fixed** |
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| **General Comments** | | |
| **Author** | **Date** | **Comment** |
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| **Class Information** |
| **Class Name: Item**  Abstract Type: no Persistence: yes |

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| **Trace-ability Information** | | |
| **Use Case ID** | **Use Case Name** | **Steps** |
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| **Public Methods** | | |
| **Signature** | **Preconditions** | **Post Conditions** |
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| **Protected Methods** | | |
| **Signature** | **Preconditions** | **Post Conditions** |
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| **Private Methods** | | |
| **Signature** | **Preconditions** | **Post Conditions** |
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| **Attributes** | | | | | |
| **Name** | **Type** | **Object (Y/N)** | **Instance/Static** | **Visibility** | **Description** |
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| **Concurrency** | |
| **Threading Issue** | **Description** |
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| **Major Exceptions** | | |
| **Name** | **Trigger** | **Action** |
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| **Instance Information** | | | |
| **Minimum** | **Maximum** | **Mean** | **Fixed** |
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| **General Comments** | | |
| **Author** | **Date** | **Comment** |
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| **Class Information** |
| **Class Name: Skill**  Abstract Type: no Persistence: yes |

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| **Trace-ability Information** | | |
| **Use Case ID** | **Use Case Name** | **Steps** |
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| **Public Methods** | | |
| **Signature** | **Preconditions** | **Post Conditions** |
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| **Protected Methods** | | |
| **Signature** | **Preconditions** | **Post Conditions** |
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| **Private Methods** | | |
| **Signature** | **Preconditions** | **Post Conditions** |
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| **Attributes** | | | | | |
| **Name** | **Type** | **Object (Y/N)** | **Instance/Static** | **Visibility** | **Description** |
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| **Concurrency** | |
| **Threading Issue** | **Description** |
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| **Major Exceptions** | | |
| **Name** | **Trigger** | **Action** |
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| **Instance Information** | | | |
| **Minimum** | **Maximum** | **Mean** | **Fixed** |
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| **General Comments** | | |
| **Author** | **Date** | **Comment** |
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