Backup mechanism and procedures

**Workmatec**

Backup is one strategic component of data protection; others include mirrors, snapshots and replication. As a strategic element, backup planning is a fundamental part of the overall storage plan.

Workmatec has taken up following measures in regard to the basics of backup operations for source code and other product related items.

# Backup Life Cycle

An effective backup operation requires certain tasks to be completed successfully every day. There are also weekly, monthly and on demand backup plans that are as important as daily tasks. Short-term tasks are highly tactical, long-term tasks tend to be more strategic.

Following table explains source code backup intervals:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Interval** | **Backup Item** | **Action** | **Storage/Location** | **Responsible** | **Mode** | **Retention Time** |
| Daily | Source Safe Database | Check-In  Backup | Source Safe DB  Internal Network Drive | Developer  System Admin | Auto Manual | Days week month yearly |
| Weekly | Source Code  Database | Archive with password | External Backup Drive | System Admin  Manager |  |  |
| Monthly | Source Code  Database | Archive with password | External Backup Drive  External Cloud Drive | System Admin  Manager |  |  |
| Major Release | Source Code  Database | Archive with password | External Backup Drive  External Cloud Drive | System Admin  Manager |  |  |
| On Demand | Source Code  Database | Archive with password | External Backup Drive | System Admin  Manager |  |  |

Following table explains Workmatec database backup intervals:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Backup Interval** | **Backup Item** | **Action** | **Storage/Location** | **Responsible** | **Mode** | **Retention Time** |
| Daily | Online Database | Database backup | Cloud | Auto | Auto manual | Days week month yearly |
| Weekly | Internal Database | Database backup | Network Drive  External Backup Drive | Auto  System Admin  Manager |  |  |
| Weekly | Database | Download online backups | External Backup Drive | Manager |  |  |

Following table explains server and workstation machine backup intervals:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Backup Interval** | **Backup Item** | **Action** | **Storage/Location** | **Responsible** | **Mode** | **Retention Time** |
| Monthly | Development Server | Create Restore Point | Network Drive | System Admin | Auto manual | Days week month yearly |
| Monthly | Workstation machines | Create Restore Point | Network Drive | System Admin |  |  |
| - | Online Cloud Server | Auto backup | Cloud | Service Provider |  |  |

Following table explains backups of purchased software and documents:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Backup Interval** | **Backup Item** | **Action** | **Storage/Location** | **Responsible** | **Mode** | **Retention Time** |
| Once | License Software | Copy | External Backup Drive | System Admin | Auto manual | Days week month yearly |
| Daily | Official Documents | Check-in Source Safe | Source Safe DB | Owner |  |  |
| Weekly | Official Documents | Archived with password | External Backup Drive | System Admin |  |  |
| Weekly | Local Emails Storage Folders | Archived with password | External Backup Drive | System Admin |  |  |

# Backup Media

Management is responsible for External backup media. It is provided as per the schedule and taken back to store at safe place. Cloud storage is has also been maintained.

Backups are taken in following media devices:

|  |  |  |
| --- | --- | --- |
| **Media** | **Specs** | **Owner/ Responsible** |
| Source Safe | Microsoft Visual Studio Source Safe | Developer |
| External Backup Drive | 1 TB USB HDD | Management |
| Cloud Storage | Google Drive Account | Management |

# Backup Retention policy

Backups are retained at each storage location as per the following policy:

|  |  |
| --- | --- |
| **Media** | **Retain Period** |
| Internal Network Drive | Till Release |
| External Backup Drive | Period of last three internal audits or minimum three months.  Cloud storage updated after each audit. |
| Cloud Storage | Forever |

# Backup log

Responsible person updates backup log app after performing required action. It has been reviewed and checked by the management/auditor once in a month.

Following items filled by the responsible person:

* Date
* Action (Check-In, Archive)
* Backup Item (Source Code/Database/Document/System)
* Action By
* Description
* Scheduled (Yes/No)
* Audit Date
* Audit By
* Audit Remarks