Backup mechanism and procedures

**Workmatec**

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# Working Items

Backups are taken for the following working items:

|  |  |  |
| --- | --- | --- |
| **Item** | **Detail** | **Working Location** |
| Source Code | Source Code contains all source files of Workmatec application. These files are kept under Microsoft Visual Studio Source Safe for version control. | [\\work\_server\SS](file:///\\work_server\SS) |
| Internal Database | SQL Server 2012 Database(s) used for development of Workmatec Application | [\\work\_server\Databases](file:///\\\\work_server\\Databases) |
| Online Database | SQL Azure Database connected with online instance of Workmatec |  |
| Emails | Users emails folder are kept on network drive for safely and easy backups. | [\\work\_server\emails](file:///\\\\work_server\\emails) |
| Official Documents | 1 TB USB HDD | Local Computer Drive |

# Backup Media

Backups are taken in following media devices:

|  |  |  |  |
| --- | --- | --- | --- |
| **Item** | **Specification/ Size** | **Path or Backup Location** | **Responsible** |
| Internal Network Drive | 500 GB HDD | [\\work\_server\Backups](file:///\\work_server\Backups) | System Admin |
| External Backup Drive | 1 TB USB HDD | Management responsible to keep it at safe place and provides it whenever require. | Project Manager |

# Roles and Responsibilities

Following roles are involved for backup procedure

|  |  |
| --- | --- |
| **Role** | **Responsibilities** |
| Developers | Check-in code in source control |
| System Admin | Responsible to perform backups and log management |
| Project Manager | Responsible to take copy of backups on external mediums |
| Management | Inspection |
| Auditors | Nominated by management to audit backup procedures once in a month. |

# 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.

## Source Code

Following table explains source code backup intervals:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Interval** | **Backup Item** | **Backup Media** | **Responsible** | **Mode** | **Retention Time** |
| Daily | Source Code | Internal Network Drive | System Admin | Manual | One month |
| Weekly | Source Code | External Backup Drive | System Admin or  Project Manager | Manual | Last 3 internal audits. |
| Monthly | Source Code | External Backup Drive and | System Admin or  Project Manager | Manual | Last 3 internal audits. |
| Major Release | Source Code | External Backup Drive and | System Admin or  Project Manager | Manual | Up to 2 releases |
| On Demand | [Backup Item] | External Backup Drive | System Admin or  Project Manager | Manual | Last 3 internal audits. |

Previous backups will be overwritten??? (Kindly mention somewhere)

## Database

Following table explains Workmatec database backup intervals:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Interval** | **Backup Item** | **Backup Media** | **Responsible** | **Mode** | **Retention Time** |
| Daily | Online Database | Azure Blob Storage | System Admin | Auto | Next Release |
| Weekly | Internal Database | Internal Network Drive  External Backup Drive | System Admin or Project Manager | Manual | Last 3 internal audits. |
| Weekly | Online Database | Network Drive  External Backup Drive | System Admin or Project Manager | Manual | Last 3 internal audits. |

## Server / Workstation Machines

Following table explains server and workstation machine backup intervals:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Interval** | **Backup Item** | **Action** | **Backup Media** | **Responsible** | **Mode** | **Retention Time** |
| Monthly | Development Server | Create Restore Point | Internal Network Drive | System Admin | Manual | One Quarter |
| Monthly | Workstation machines | Create Restore Point | Internal Network Drive | System Admin | Manual | One Quarter |

## Software / Documents / Emails

Following table explains backups of purchased software, documents and emails:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Interval** | **Backup Item** | **Backup Media** | **Responsible** | **Mode** | **Retention Time** |
| Once | License Software\* | External Backup Drive | System Admin | Manual | Software Life |
| Daily | New/Updated Official Documents | Internal Network Drive | Owner | Auto sync | Last 2 years |
| Daily | Emails | Internal Network Drive | System Admin | Auto Batch File | Weekly |
| Weekly | New/Updated Official Documents | External Backup Drive | System Admin | Manual | All documents will remain save |
| Weekly | Emails | Internal Backup Drive | System Admin | Manual | All email will remain save |

*\* All MSDN subscribed software already on cloud and can be downloaded on demand with installation product key.*

# Check list for System Admin

## Once

|  |  |
| --- | --- |
|  | **Item** |
|  | License Software |

## Daily Checklist

|  |  |
| --- | --- |
|  | **Item** |
|  | Source Control |
|  | Online Database |
|  | Emails |
|  | New/Updated Official Documents |

## Weekly Checklist

Last working day of every week

|  |  |
| --- | --- |
|  | **Item** |
|  | Source Control |
|  | Internal Database |
|  | Online Database |
|  | Emails |
|  | New/Updated Official Documents |

## Monthly Checklist

Last working day of every month

|  |  |
| --- | --- |
|  | **Item** |
|  | Source Control |
|  | Internal Database |
|  | Online Database |
|  | Development Server |
|  | Workstation machines |

## Release Checklist

After Release

|  |  |
| --- | --- |
|  | **Item** |
|  | Source Control |
|  | Internal Database |
|  | Online Database |
|  | Server and Workstation machine backups |

# Response time for backup restore

Following is the restore time of backups if needed:

|  |  |  |  |
| --- | --- | --- | --- |
| **Item type** | **From Media** | **Responsible** | **Restore Time** |
| Databases | Internal Network Drive | System Admin | Max 1 hour |
| Source Control | Internal Network Drive | System Admin | Max 1 hour |
| Official Documents | Internal Network Drive | System Admin | Max 1 hour |
| Databases | External Drive | System Admin | Within 24 hours |
| System Image | External Drive | System Admin | Within 24 hours |
| Emails | External Drive | System Admin | Within 24 hours |
| Official Documents | External Drive | System Admin | Within 24 hours |

# Backup log

System Admin 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)
* Backup Program (Daily, Weekly, Monthly, Release, On Demand)
* Description
* Scheduled (Yes/No)
* Action By