**Touchstone – Database Scripts DocumentAtion, Released JUNE 2021**For Touchstone release Version 9.0, using SQL Server 2017 and SQL Server 2019

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# Synopsis

While certain features, assumptions and functionality of the scripts provided are based on the unique requests received from the customer, customer will take full responsibility in using the scripts in all possible ways they are planning to. While the scripts will allow the customer to achieve certain functionality or ways to achieve the results that the customer is expecting through our software and third-party tools, it is imperative that the complete responsibility of the script and its data changes or any of its failures, lies on the customer including to execute the scripts through their tools in a manner they wish to.

AIR recommends a full backup of the database that the scripts are being executed against for any/all of the customized scripts provided in this document in order for a full restoration. AIR recommends that any scripts provided here in this document be tested on the suggested Touchstone version in a test platform, before releasing these into production and repeat this process for each new Touchstone versions if AIR supplies the modified version of these scripts.

# Prerequisites

Apply these changes to an environment that has our **Touchstone Version 9.0** installed. The scripts are pre-designed and packaged for this specific version of the Touchstone software and any changes in the release version will have adverse effects.

# In-depth Analysis Not Covered in scripts

The scripts provided will not cover all the functional parameters and details of the Touchstone product’s features. For example, a detach database script provided in this document will not check if the database in detach process is being used by some other process at present or is in a pending process that will involve the database in future time. It is up to the customer to make sure that the automated process is aware of such situations.

# Creating (and registering) a new exposure database using a SQL Script

|  |  |
| --- | --- |
| Assumptions | AIR Comments |
| 1. The database to be created does not exist in the server already. 2. This will be used to create a new exposure database. Other database types cannot be created using these scripts. | Please execute this for creating a new exposure database.  Required Parameters:   * Database Name * Business Unit SID (1=Default)   Note: You may safely ignore warning of the form, “The module… depends on the missing object…” |
| USE [AIRProject]  GO  DECLARE @DBName NVARCHAR(392)  ,@ServerName NVARCHAR(392)  ,@MDFFilePath VARCHAR(1024)  ,@LDFFilePath VARCHAR(1024)  ,@DataSourceTypeCode VARCHAR(10)  ,@MDFOptions VARCHAR(255)  ,@LDFOptions VARCHAR(255)  ,@Description VARCHAR(4000)  ,@Register BIT  ,@Version VARCHAR(10)  ,@CodeVersion VARCHAR(10)  ,@ReleasedDate DATETIME  ,@BusinessUnitSID INT  ,@ActiveScript BIT  ,@Debug BIT  SELECT @DBName = ''  -- Required, Provide the DB Name here  ,@BusinessUnitSID = 1  -- Required, Provide the Business Unit SID for the equivalent business units from the table [AIRSecurity].[dbo].[tBusinessUnit] column BusinessUnitSID  ,@DataSourceTypeCode = 'EXP'  -- Required, Provide the three letter Data source Type Code here, RES for Result EXP for Exposure  ,@Register = 1  -- Required, Provide a 1 for TRUE or 0 for FALSE for a flag indicating whether the newly created DB should be registered as a datasource  ,@ActiveScript = 1  -- Required, flag indicating to create the database with the Latest Version of the software.  ,@MDFFilePath = NULL  -- Optional, Provide the MDF Path of the file name here  ,@LDFFilePath = NULL  -- Optional, Provide the LDF Path of the file name here  ,@MDFOptions = NULL  -- Optional, MDF file options like 'SIZE = 5120KB , MAXSIZE = UNLIMITED, FILEGROWTH = 1048576KB'. Leave empty for default DB settings.  ,@LDFOptions = NULL  -- Optional, LDF file options as in MDF options  ,@Description = NULL  -- Optional, Provide a detailed Database description  ,@Version = NULL  -- Optional, Internal Version # used  ,@CodeVersion = NULL  -- Optional, Internal Code Version # used  ,@ReleasedDate = NULL  -- Optional, Release Date used  ,@Debug = NULL  -- Optional, Internal use only  EXECUTE @ServerName = fCOMMON\_GetServerName;  EXECUTE [dbo].[pDS\_CreateDatabase] @DBName  ,@ServerName  ,@MDFFilePath  ,@LDFFilePath  ,@DataSourceTypeCode  ,@MDFOptions  ,@LDFOptions  ,@Description  ,@Register  ,@Version  ,@CodeVersion  ,@ReleasedDate  ,@BusinessUnitSID  ,@ActiveScript  ,@Debug | |

# Creating (and registering) a new result database using a SQL Script

|  |  |
| --- | --- |
| Assumptions | AIR Comments |
| 1. The database to be created does not exist in the server already. 2. Will be used to create a new result database. Other database types cannot be created using these scripts. | Please execute this for creating a new result database.  Required Parameters:   * Database Name   Note: You may safely ignore warning of the form, “The module… depends on the missing object…” |
| USE [AIRProject]  GO  DECLARE @DBName NVARCHAR(392)  ,@ServerName NVARCHAR(392)  ,@MDFFilePath VARCHAR(1024)  ,@LDFFilePath VARCHAR(1024)  ,@DataSourceTypeCode VARCHAR(10)  ,@MDFOptions VARCHAR(255)  ,@LDFOptions VARCHAR(255)  ,@Description VARCHAR(4000)  ,@Register BIT  ,@Version VARCHAR(10)  ,@CodeVersion VARCHAR(10)  ,@ReleasedDate DATETIME  ,@BusinessUnitSID INT  ,@ActiveScript BIT  ,@Debug BIT  SELECT @DBName = ''  -- Required: the DB Name here  ,@BusinessUnitSID = 1  --Provide the Business Unit SID for the equivalent business units from the table [AIRSecurity].[dbo].[tBusinessUnit] column BusinessUnitSID  ,@DataSourceTypeCode = 'RES'  -- Provide the three letter Data source Type Code here, RES for Result EXP for Exposure  ,@Register = 1  -- Provide a 1 for TRUE or 0 for FALSE for a flag indicating whether the newly created DB should be registered as a datasource  ,@ActiveScript = 1  -- Required, flag indicating to create the database with the Latest Version of the software.  ,@MDFFilePath = NULL  -- Optional, Provide the MDF Path of the file name here  ,@LDFFilePath = NULL  -- Optional, Provide the LDF Path of the file name here  ,@MDFOptions = NULL  -- Optional, MDF file options like 'SIZE = 5120KB , MAXSIZE = UNLIMITED, FILEGROWTH = 1048576KB'. Leave empty for default DB settings.  ,@LDFOptions = NULL  -- Optional, LDF file options as in MDF options  ,@Description = NULL  -- Optional, Provide a detailed Database description  ,@Version = NULL  -- Optional, Internal Version # used  ,@CodeVersion = NULL  -- Optional, Internal Code Version # used  ,@ReleasedDate = NULL  -- Optional, Release Date used  ,@Debug = NULL  -- Optional, Internal use only  EXECUTE @ServerName = fCOMMON\_GetServerName;  EXECUTE [dbo].[pDS\_CreateDatabase] @DBName  ,@ServerName  ,@MDFFilePath  ,@LDFFilePath  ,@DataSourceTypeCode  ,@MDFOptions  ,@LDFOptions  ,@Description  ,@Register  ,@Version  ,@CodeVersion  ,@ReleasedDate  ,@BusinessUnitSID  ,@ActiveScript  ,@Debug | |

# Register an Exposure database that is already created or attached.

|  |  |
| --- | --- |
| Assumptions | AIR Comments |
| 1. The exposure database is not yet registered in Touchstone. 2. The exposure Database is already created or attached in the database server. | Please execute this query with the requested parameters to register an exposure database.  Required Parameters:   * Database Name * ‘1’ for @Register |
| USE [AIRProject]  GO  DECLARE @ServerName NVARCHAR(392)  ,@DBName NVARCHAR(392)  ,@BusinessUnitSID INT  ,@Description VARCHAR(MAX)  ,@Register BIT  ,@Debug BIT  SELECT @BusinessUnitSID = 1  --Provide the Business Unit SID for the equivalent business units from the table  ,@DBName = ''  -- Required: the DB Name here  ,@Description = ''  ,@Register = 1  -- Provide 1 for Registering and 0 for Un-Registering  ,@Debug = 0  EXECUTE @ServerName = fCOMMON\_GetServerName;  EXECUTE [dbo].[pDS\_RegisterDatabase] @DBName  ,@ServerName  ,@Description  ,@Register  ,@BusinessUnitSID  ,@Debug | |

# Register a Result database that is already created or attached.

|  |  |
| --- | --- |
| Assumptions | AIR Comments |
| 1. The result database is not yet registered in Touchstone. 2. The result database is already attached in the database server. | Please execute this query with the requested parameters to register a result database.  Required Parameters:   * Database Name * ‘1’ for @Register |
| USE [AIRProject]  GO  DECLARE @ServerName NVARCHAR(392)  ,@DBName NVARCHAR(392)  ,@BusinessUnitSID INT  ,@Description VARCHAR(MAX)  ,@Register BIT  ,@Debug BIT  SELECT @BusinessUnitSID = 1  --Provide the Business Unit SID for the equivalent business units from the table  ,@DBName = ''  -- Required: the DB Name here  ,@Description = ''  ,@Register = 1  -- Provide 1 for Registering and 0 for Un-Registering  ,@Debug = 0  EXECUTE @ServerName = fCOMMON\_GetServerName;  EXECUTE [dbo].[pDS\_RegisterDatabase] @DBName  ,@ServerName  ,@Description  ,@Register  ,@BusinessUnitSID  ,@Debug | |

# 

# Attaching and Registering an existing exposure or result database

|  |  |
| --- | --- |
| Assumptions | AIR Comments |
| 1. The database is not already attached in the SQL Server. 2. The database is not already registered in Touchstone. 3. Will be used to attach an existing new Exposure or Result database at a time of execution. Other database types cannot be attached using these scripts. 4. If @Register is provided with a 1 value, the attached database will be registered in the Touchstone software as well, if zero, the database has to be registered separately. 5. The database has only one MDF and One LDF file. | Please execute this for attaching a new Result or Exposure and register it  Required Parameters:   * Database name * Business unit. * MDF and LDF full path filename   Database Type will be identified by the Touchstone software automatically. |
| USE [AIRProject]  GO  DECLARE @DBName NVARCHAR(392)  ,@ServerName NVARCHAR(392)  ,@MDFFileName VARCHAR(1024)  ,@LDFFileName VARCHAR(1024)  ,@Description VARCHAR(4000)  ,@Register BIT  ,@BusinessUnitSID INT  ,@Debug BIT  SELECT @DBName = '' -- Required the DB Name here  ,@BusinessUnitSID = 1 -- Required the Business Unit SID for the equivalent business units from the table [AIRSecurity].[dbo].[tBusinessUnit] column BusinessUnitSID  ,@MDFFileName = '' -- Required the MDF Path of the file name here  ,@LDFFileName = '' -- Required the LDF Path of the file name here  ,@Description = NULL -- Optional, Provide a detailed Database description  ,@Register = 1 --- Provide a 1 for TRUE or 0 for FALSE value for a flag indicating whether the newly attached DB should be registered as a datasource  ,@Debug = 0 -- Optional, Internal use only  EXECUTE @ServerName = fCOMMON\_GetServerName;  EXECUTE [dbo].[pDS\_AttachDatabase] @DBName  ,@ServerName  ,@MDFFileName  ,@LDFFileName  ,@Description  ,@Register  ,@BusinessUnitSID  ,@Debug | |

# 

# Unregister an exposure database from Touchstone

|  |  |
| --- | --- |
| Assumptions | AIR Comments |
| 1. Database is registered in Touchstone | Unregistering and re-registering an exposure database will allow users to continue to interact with exposure data and exposure views.  Required Parameters:   * Database Name * ‘0’ for @Register |
| USE [AIRProject]  GO  DECLARE @ServerName NVARCHAR(392)  ,@DBName NVARCHAR(392)  ,@BusinessUnitSID INT  ,@Description VARCHAR(MAX)  ,@Register BIT  ,@Debug BIT  SELECT @BusinessUnitSID = 1  --Provide the Business Unit SID for the equivalent business units from the table  ,@DBName = ''  -- Required: the DB Name here  ,@Description = ''  ,@Register = 0  -- Provide 1 for Registering and 0 for Un-Registering  ,@Debug = 0  EXECUTE @ServerName = fCOMMON\_GetServerName;  EXECUTE [dbo].[pDS\_RegisterDatabase] @DBName  ,@ServerName  ,@Description  ,@Register  ,@BusinessUnitSID  ,@Debug  GO | |

# Unregister a result database from Touchstone

|  |  |
| --- | --- |
| Assumptions | AIR Comments |
| 1. Database is registered in Touchstone | Unregistering and re-registering a result database will allow users to continue to use and interact with loss results and hazard results  Required Parameters:   * Database Name * ‘0’ for @Register |
| USE [AIRProject]  GO  DECLARE @ServerName NVARCHAR(392)  ,@DBName NVARCHAR(392)  ,@BusinessUnitSID INT  ,@Description VARCHAR(MAX)  ,@Register BIT  ,@Debug BIT  SELECT @BusinessUnitSID = 1  --Provide the Business Unit SID for the equivalent business units from the table  ,@DBName = ''  -- Required: the DB Name here  ,@Description = ''  ,@Register = 0  -- Provide 1 for Registering and 0 for Un-Registering  ,@Debug = 0  EXECUTE @ServerName = fCOMMON\_GetServerName;  EXECUTE [dbo].[pDS\_RegisterDatabase] @DBName  ,@ServerName  ,@Description  ,@Register  ,@BusinessUnitSID  ,@Debug  GO | |

# Detach a database from Touchstone after unregistering

|  |  |
| --- | --- |
| Assumptions | AIR Comments |
| 1. Database is unregistered in Touchstone | Required Parameters:   * Database Name * BusinessUnitSID [It is important to provide the correct value for this script.] |
| USE [AIRProject]  GO  DECLARE @DBName NVARCHAR(392)  ,@ServerName NVARCHAR(392)  ,@MDFFilePath VARCHAR(1024)  ,@DropIndexes BIT  ,@BusinessUnitSID INT  ,@Debug BIT  SELECT @DBName = ''  -- Required Provide the database name here  ,@MDFFilePath = NULL  ,@DropIndexes = 0  ,@BusinessUnitSID = 1  ,@Debug = 0  EXECUTE @ServerName = fCOMMON\_GetServerName;  EXECUTE pDS\_detachdatabase @DBName  ,@ServerName  ,@MDFFilePath  ,@DropIndexes  ,@BusinessUnitSID  ,@Debug | |

# Upgrade a database in Touchstone

|  |  |
| --- | --- |
| Assumptions | AIR Comments |
| 1. Database is registered and incompatible [INC] | Required Parameters:   * DataSourceName * BusinessUnitSID * UpdateWorkersCompData [Exposure Database]   0 = Preserve current Workers' Compensation values.  1 = Resets the Workers' Compensation values to the current defaults.   * DeleteGeospatialResults, DeleteHazardResults [Results Database]   0 = The upgrade marks the results as invalid while preserving all data.  The results are listed in the database, but are not viewable in the user interface.  1 = Deletes all data in the AIRProject and Result databases |
| USE [AIRProject]  GO  /\*  Exposure and Result Upgrade Script for Touchstone 9.0  Supports upgrade from 7.x and 8.x.  Needs a datasource name as well as any 9.0 upgrade options that are desired.  Target datasource must be registered [IsRegistered = 1] and incompatible [StatusCode = 'INC'].  \*/  --Target datasource name goes here.  DECLARE @DataSourceName SYSNAME = 'DataSourceName'  --Business Unit SID goes here.  DECLARE @BusinessUnitSID INT = 1  /\*  Database Upgrade Options  Exposure Database options  0 = Preserve current Workers' Compensation values.  1 = Resets the Workers' Compensation values to the current defaults.  \*/  DECLARE @UpdateWorkersCompData BIT = 0    /\*  Results Databases  Delete on upgrade options  0 = The upgrade marks the results as invalid while preserving all data.  The results are listed in the database but are not viewable in the user interface.  1 = Deletes all data in the AIRProject and Result databases.  \*/  DECLARE @DeleteGeospatialResults BIT = 0  DECLARE @DeleteHazardResults BIT = 0  -- DO NOT ALTER BELOW THIS LINES  DECLARE @DataSourceTypeCode VARCHAR(10)  DECLARE @DataSourceSID INT  SELECT @DataSourceSID = DataSourceSID  ,@DataSourceTypeCode = DataSourceTypeCode  FROM AIRProject..tDataSource WHERE DataSourceName = @DataSourceName  DECLARE @ActivitySID INT  DECLARE @AdditionalOption XML = '  <!--  This is for a dummy activity to enable the upgrade process.  No HPC job is actually run.  The only important part of the XML is the UpgradeOptions section.  -->  <StartUpgradeDatabaseJobRequest xmlns="http://schemas.air-worldwide.com/Services/BatchDataSource" xmlns:i="http://www.w3.org/2001/XMLSchema-instance">  <BusinessUnitSid xmlns="AIR.Services.Common.Api">1</BusinessUnitSid>  <LicenseUid xmlns="AIR.Services.Common.Api">00000000-0000-0000-0000-000000000000</LicenseUid>  <Product xmlns="AIR.Services.Common.Api" i:nil="true" />  <RequestUid xmlns="AIR.Services.Common.Api">00000000-0000-0000-0000-000000000000</RequestUid>  <SqlInstanceSid xmlns="AIR.Services.Common.Api">1</SqlInstanceSid>  <Databases xmlns:a="AIR.Services.DataSourceManagement.Data">  <a:Database>  <a:Created>0001-01-01T00:00:00</a:Created>  <a:DataServerName>DUMMY</a:DataServerName>  <a:DataServerSid i:nil="true" />  <a:Description i:nil="true" />  <a:Growth i:nil="true" />  <a:GrowthUnit i:nil="true" />  <a:LdfFilePath i:nil="true" />  <a:MdfFilePath i:nil="true" />  <a:Name>DUMMY</a:Name>  <a:Registered i:nil="true" />  <a:Sid>0</a:Sid>  <a:Size i:nil="true" />  <a:Status i:nil="true" />  <a:StatusValue i:nil="true" />  <a:Type>RES</a:Type>  <a:Version i:nil="true" />  </a:Database>  </Databases>  <ProjectConnection>Data Source=DataServer;Initial Catalog=AIRProject;User ID=airadmin;Password="DUMMY";MultipleActiveResultSets=True;Connect Timeout=30</ProjectConnection>  <Options xmlns:a="http://schemas.datacontract.org/2004/07/AIR.Services.BatchDataSourceService.DataContracts">  <a:DataSourceSID>0</a:DataSourceSID>  <a:DoPhysicalProperty>true</a:DoPhysicalProperty>  <a:FailureThresoldCount>0</a:FailureThresoldCount>  <a:LocRange i:nil="true" />  <a:NumberAssignedCores>0</a:NumberAssignedCores>  <a:UserOptions>  <a:UserOption>  <a:Name>UpdateWorkersCompData</a:Name>  <a:Value>' + IIF(@UpdateWorkersCompData = 0, 'False','True') + '</a:Value>  </a:UserOption>  <a:UserOption>  <a:Name>DeleteGeospatialResults</a:Name>  <a:Value>' + IIF(@DeleteGeospatialResults = 0, 'False','True') + '</a:Value>  </a:UserOption>  <a:UserOption>  <a:Name>DeleteHazardResults</a:Name>  <a:Value>' + IIF(@DeleteHazardResults = 0, 'False','True') + '</a:Value>  </a:UserOption>  </a:UserOptions>  <a:StartTime>0001-01-01T00:00:00</a:StartTime>  <a:SystemSettings>  <a:ActivitySID>0</a:ActivitySID>  <a:ActivityUID>e3b15797-e943-4210-aaf4-93a8b3af2170</a:ActivityUID>  <a:BulkThreshold>500</a:BulkThreshold>  <a:CommandTimeout>0</a:CommandTimeout>  <a:CompositionType>Preprocess</a:CompositionType>  <a:ConnectionString>Data Source=DataServer;Initial Catalog=AIRProject;User ID=airadmin;Password="DUMMY";MultipleActiveResultSets=True;Connect Timeout=30</a:ConnectionString>  <a:ContractType i:nil="true" />  <a:GeocodeInstances>0</a:GeocodeInstances>  <a:HeadNode i:nil="true" />  <a:MaxComputeCores>2</a:MaxComputeCores>  <a:MinComputeCores>1</a:MinComputeCores>  <a:ModelsRepository>$\Models</a:ModelsRepository>  <a:SplittingCount>0</a:SplittingCount>  </a:SystemSettings>  </Options>  </StartUpgradeDatabaseJobRequest>  '  EXEC AIRPRoject.dbo.pGetSIDRange @TableName = 'tActivity', @Amount = 1, @NextSID = @ActivitySID OUT  INSERT INTO AIRProject..tActivity (  ActivitySID ,  ActivityTypeCode ,  ActivityStageID ,  ActivityName ,  ActivityStatusCode ,  ActivityResultStatusCode ,  BusinessUnitSID ,  StatusCode ,  EnteredDate ,  IsFinalAggregationPerformed ,  ActivityUID ,  HPCJobPriorityTypeCode ,  ActivityResourceTypeCode ,  ModifiedDate  ) VALUES (  @ActivitySID  ,'DS\_UPG'  ,0  ,'Backend Upgrade Activity (' + @DataSourceName + ')'  ,'COM'  ,0  ,@BusinessUnitSID  ,'A'  ,GETDATE()  ,0  ,NEWID()  ,'Normal'  ,'OnPremises'  ,GETDATE()  )  INSERT INTO AIRProject.dbo.tDataSourceActivityOption (  ActivitySID  ,DataServerSID  ,DataSourceSID  ,DataSourceName  ,DataSourceTypeCode  ,AdditionalOption  ) VALUES (  @ActivitySID  ,1  ,@DataSourceSID  ,@DataSourceName  ,@DataSourceTypeCode  ,@AdditionalOption  )  EXECUTE AIRProject.dbo.pDS\_UPG\_Generate @ActivitySID=@ActivitySID,@StepTypeCode='PREPROC',@Debug=1  EXECUTE AIRProject.dbo.pDS\_UPG\_Generate @ActivitySID=@ActivitySID,@StepTypeCode='PROCESS',@Debug=1  EXECUTE AIRProject.dbo.pDS\_UPG\_Generate @ActivitySID=@ActivitySID,@StepTypeCode='POSTPROC',@Debug=1  GO | |