

---

# SSISTProbe – A Data Extraction Test Automation Framework

## SSIS – XML Test Case Manual

---

<b>Filename:</b>	Test Case Manual.doc
<b>Revision:</b>	V1.02
<b>Last Save Date:</b>	Sunday, March 02, 2008
<b>Author(s):</b>	Sathyan S Nair
<b>Author Email:</b>	<a href="mailto:satnair@thoughtworks.com">satnair@thoughtworks.com</a> (OR) <a href="mailto:Sathyan.s.nair@gmail.com">Sathyan.s.nair@gmail.com</a>
<b>Read Only (public)</b>	
<b>Link:</b>	

# Table of Contents

<b>SSISTProbe – A Data Extraction Test Automation .....</b>	<b>1</b>
<b>Framework.....</b>	<b>1</b>
<b>1. XML Test Case - Usage Manual.....</b>	<b>1</b>
1.1. Source DB - Database Connection .....	1
1.2. SQLFile - Execute Source.....	2
1.3. Target DB - Database Connection .....	3
1.4 SQL File - Execute Target.....	3
1.4 Verify Table Existence.....	4
1.5 Generate id's for DTS Package Contains Task, Sequence Container.....	5
1.6 Execute DTS package.....	5
1.7 Execute Sequence Container.....	6
1.8 Execute Task.....	6
1.9 Delete File.....	7
1.10 Log File.....	8
1.11 XML File Comparison – Using Node names.....	9
1.12 Table Comparison.....	9
1.13 Copy Tables.....	10
1.14 Table Row Count.....	12
1.15 Column – Null Verification.....	12
1.16 Column – Duplicate Row Verification.....	13
1.17 Column – Verify Index.....	14
1.18 Creating Table Data into XML File.....	14
1.19 Comparing two XML File Data .....	15

## 1. XML Test Case - Usage Manual

Input XML test cases acts as a key driver for this test automation. Input XML test cases will be created by a tester, having XML knowledge and application knowledge. XML test cases need to be created, by following a list of mandatory guidelines:

- General guidelines of XML file creation
- Each XML Test case will contain a parent tag. For example  
`<SDS_Validation></SDS_Validation>`
- Test methods will be created under the parent tag. For example  
`<SDS_Validation><InsertAccount>.....</InsertAccount></SDS_Validation>`
- Each test method must contain a log file path. For example `<Log>C:\log.xml</Log>`
- Appropriate tags relevant to test actions, must be listed. To see a listed of valid XML tags, please refer to the below attached document

Example Test Method:

```

    <Transfer_tblSDSAccount_Diff>
    <SrcDBConnection>
    <ServerName>sgprbuitsql04</ServerName>
    <DataBaseName>workarea12</DataBaseName>
    </SrcDBConnection>
    <SrcMake>Query-SDS-ExtractData\SDSAccountDiff\ComQue_SDSAccount.sql</SrcMake>
    <SrcMake>Query-SDS-ExtractData\SDSAccountDiff\srcSDSAccountFinal.sql</SrcMake>
    <ExecuteTask>

<DTSFilePath>C:\CSSTesting\Package\RGSSIS_SDS\ARG_CRMPUB\RGSSIS_SDS\RGSSIS_SDS\RG
SSISCRMPart1.dtsx</DTSFilePath>
    <TaskId>2.45</TaskId>
    <XmlFilePath>IDGen_SDS_Part1.xml</XmlFilePath>
    </ExecuteTask>
    <TgtDBConnection>
    <ServerName>sgprbuitsql03\test</ServerName>
    <DataBaseName>ReportGeneratorT</DataBaseName>
    </TgtDBConnection>
    <TgtExecQuery>Query-SDS-ExtractData\SDSAccountDiff\tgtSDSAccountFinal.sql</TgtExecQuery>
    <CompareTables>
    <cSrcServerName>sgprbuitsql04</cSrcServerName>
    <cSrcDBName>workarea12</cSrcDBName>
    <cSrcTableName>src_Final_SDSAccount</cSrcTableName>
    <cDestServerName>sgprbuitsql03\test</cDestServerName>
    <cDestDBName>ReportGeneratorT</cDestDBName>
    <cDBDestTable>tgt_Final_SDSAccount</cDBDestTable>
    <cOutputFilePath>C:\CSSTesting\Log\Vog.txt</cOutputFilePath>
    </CompareTables>
    <LogFile>C:\CSSTesting\Log\Vog.xml</LogFile>
    </Transfer_tblSDSAccount_Diff>

```

### 1.1. Source DB - Database Connection

#### Pre-Requisite

-NA-	
------	--

--	--

**Mandatory**

-NA-	

**Non-Mandatory**

<UID>	

**Prototype**

```

<SrcDBConnection>
  <ServerName>
  <DataBaseName>
  <UID>
  <Password>
</SrcDBConnection>

```

**Example**

```

<TestCases>
<TestMethod>
<SrcDBConnection>
  <ServerName>sgprbuitsql03\test</ServerName>
  <DataBaseName>ReportGeneratorT</DataBaseName>
</SrcDBConnection>
<LogFile>c:\csstesting\log\msslog.xml</LogFile>
</TestMethod>
</TestCases>

```

**1.2. SQLFile - Execute Source****Pre-Requisite**

-NA-	

**Mandatory**

SrcExecQuery	

**Non-Mandatory**

-NA-	

**Prototype**

```

<SrcExecQuery>filepath </SrcExecQuery>

```

**Example**

```

<SrcExecQuery>Query-SDS-Preparation\Transfer tblRGSubsidiary\src_RGSubsidiaryfinal.sql
</SrcExecQuery>

```

### 1.3. Target DB - Database Connection

#### Pre-Requisite

-NA-	

#### Mandatory

<ServerName>	<DataBaseName>

#### Non-Mandatory

<UID>	<Password>

#### Prototype

```

<TgtDBConnection>
  <ServerName>
  <DataBaseName>
  <UID>
  <Password>
</TgtDBConnection>

```

#### Example

```

<TestCases>
  <TestMethod>
    <TgtDBConnection>
      <ServerName>sgprbuitsql04</ServerName>
      <DataBaseName>WorkArea12</DataBaseName>
    </TgtDBConnection>
    <LogFile>c:\csstesting\log\msslog.xml</LogFile>
  </TestMethod>
</TestCases>

```

### 1.4 SQL File - Execute Target

#### Pre-Requisite

-NA-	

#### Mandatory

<TgtExecQuery>	

#### Non-Mandatory

-NA-	
------	--

--	--

### Prototype

<TgtExecQuery>SQL filepath </TgtExecQuery>

### Example

```
<TgtExecQuery>Query-SDS-Preparation\Transfer
tblRGSubsidiary\tgt_RGSubsidiaryfinal.sql
</TgtExecQuery>
```

## 1.4 Verify Table Existence

### Pre-Requisite

-NA-	

### Mandatory

All tags are Mandatory	

### Non-Mandatory

-NA-	

### Prototype

```
<VerifyTable>
  <ServerName>
  <DBName>
  <UserName>
  <TableName>
</VerifyTable>
```

### Example

```
<TestCases>
  <TestMethod>
    <VerifyTable ExpRes="0">
      <ServerName>sgprbuitsql04</ServerName>
      <DBName>WorkArea12</DBName>
      <TableName>tblRGSubsidiary</TableName>
    </VerifyTable>
    <LogFile>c:\csstesting\log\msslog.xml</LogFile>
  </TestMethod>
</TestCases>
```

## 1.5 Generate id's for DTS Package Contains Task, Sequence Container

### Pre-Requisite

-NA-	

### Mandatory

All tags are Mandatory	

### Non-Mandatory

-NA-	

### Prototype

```
<ConnectPackage>
  <DtsFilePath>
  <OutPutFileName>
</ConnectPackage>
```

### Example

```
<TestCases>
  <TestMethod>
<ConnectPackage>
  <DtsFilePath>c:\csstesting\mss_package\mssdownload.dtsx<DtsFilePath>
  <OutPutFileName>c:\csstesting\gen_xml\mssdownload.xml</OutPutFileName>
</ConnectPackage>
  <LogFile>c:\csstesting\log\msslog.xml</LogFile>
</TestMethod>
</TestCases>
```

## 1.6 Execute DTS package

### Pre-Requisite

-NA-	

### Mandatory

All tags are Mandatory	

### Non-Mandatory

-NA-	

**Prototype**

```
<ExecutePackage> dts file path</ExecutePackage>
```

**Example**

```
<ExecutePackage> c:\csstesting\mss_package\mssdownload.dtsx</ExecutePackage>
```

**1.7 Execute Sequence Container****Pre-Requisite**

-NA-	

**Mandatory**

All tags are Mandatory	

**Non-Mandatory**

-NA-	

**Prototype**

```
<ExecuteSequence>
  <DTSFilePath>
  <SequenceID>
  <XmlFilePath>
</ExecuteSequence>
```

**Example**

```
<TestCases>
  <TestMethod>
    <ExecuteSequence>
      <DTSFilePath>c:\csstesting\dtsfiles\mssdownload.dtsx</DTSFilePath>
      <SequenceID> 17.0</SequenceID>
      <XmlFilePath>c:\csstesting\gen_xml\mssdownload.xml</XmlFilePath>
    </ExecuteSequence>
    <LogFile>c:\csstesting\log\msslog.xml</LogFile>
  </TestMethod>
</TestCases>
```

**1.8 Execute Task****Pre-Requisite**

-NA-	

**Mandatory**

All tags are Mandatory	
------------------------	--



--	--

### Non-Mandatory

-NA-	

## Prototype

```
<ExecuteTask>
  <DTSFilePath>
  <TaskId>
  <XmlFilePath>
</ExecuteTask>
```

### Example

```
<TestCases>
  <TestMethod>
    <ExecuteTask>
      <DTSFilePath>C:\CSSTesting\Package\RGSSIS_SDS\ARG_CRMPUB\RGSSIS_SDS\R
GSSIS_SDS\RGSSISCRMPart1.dtsx</DTSFilePath>
      <TaskId>3.19</TaskId>
      <XmlFilePath>IDGen_SDS_Part1.xml</XmlFilePath>
    </ExecuteTask>
    <LogFile>c:\csstesting\log\msslog.xml</LogFile>
  </TestMethod>
</TestCases>
```

## 1.9 Delete File

### Pre-Requisite

-NA-	

## Mandatory

All tags are Mandatory	

## Non-Mandatory

-NA-	

## Prototype

<DeleteFile> file path</DeleteFile>

## Example

```
<TestCases>
  <TestMethod>
    <DeleteFile>c:\csstesting\log\mssdownload.xml </DeleteFile>
    <LogFile>c:\csstesting\log\msslog.xml</LogFile>
  </TestMethod>
</TestCases>
```

## 1.10 Log File

**Pre-Requisite**

-NA-	

**Mandatory**

-NA-	

**Non-Mandatory**

-NA-	

**Prototype**

```
<LogFile>file path</LogFile>
```

**Example**

```
<LogFile>C:\csstestinf\log\msscreatefinaltables.xml</LogFile>
```

**1.11 XML File Comparison – Using Node names****Pre-Requisite**

-NA-	

**Mandatory**

All tags are Mandatory	

**Non-Mandatory**

-NA-	

**Prototype**

```
<VerifyData>
  <VParentFile>
  <VChildColumn>
  <VChildFile>
  <VParentColumn>
</VerifyData>
```

**Example**

```
<TestCases>
  <TestMethod>
    <VerifyData>
      <VParentFile>c:\csstesting\xmlfiles\first.xml </VParentFile>
      <VParentColumn>accountid </VParentColumn>
      <VChildFile> c:\csstesting\xmlfiles\second.xml</VChildFile>
      <VChildColumn>accountid</VChildColumn>
    </VerifyData>
    <LogFile>c:\csstesting\log\msslog.xml</LogFile>
  </TestMethod>
</TestCases>
```

**1.12 Table Comparison****Pre-Requisite**

-NA-	

**Mandatory**

All tags are Mandatory	

**Non-Mandatory**

-NA-	

**Prototype**

```

<CompareTables>
  <cSrcServerName>
  <cSrcDBName>
  <cSrcTableName>
  <cDestServerName>
  <cDestDBName>
  <cDBDestTable>
  <cOutputFilePath>
  <cColumns>
</CompareTables>

```

**Example**

```

<TestCases>
<TestMethod>
<CompareTables>
  <cSrcServerName>sgprbuitsql03\test</cSrcServerName>
  <cSrcDBName>ReportGeneratorT</cSrcDBName>
  <cSrcTableName>src_Final_SDSRgsubsidiary</cSrcTableName>
  <cDestServerName>sgprbuitsql04</cDestServerName>
  <cDestDBName>WorkArea12</cDestDBName>
  <cDBDestTable>tgt_Final_SDSRgsubsidiary</cDBDestTable>
  <cOutputFilePath>C:\CSSTesting\Log\log.txt</cOutputFilePath>
</CompareTables>
<LogFile>c:\csstesting\Log\msslog.xml</LogFile>
</TestMethod>
</TestCases>

```

**1.13 Copy Tables****Pre-Requisite**

-NA-	

**Mandatory**

All tags are Mandatory	

**Non-Mandatory**

-NA-	

**Prototype**

```
<CopyTable>
  <SrcServerName>
  <SrcDatabaseName>
  <SrcTableName>
  <DestServerName>
  <DestDatabaseName>
  <DestTableName>
</CopyTable>
```

**Example**

```
<TestCases>
<TestMethod>
<CopyTable>
  <SrcServerName>sgprbuitsql03\test</SrcServerName>
  <SrcDatabaseName>ReportGeneratorT</SrcDatabaseName>
  <SrcTableName>src_Final_SDSRgsubsidiary</SrcTableName>
  <DestServerName>sgprbuitsql04</DestServerName>
  <DestDatabaseName>WorkArea12</DestDatabaseName>
  <DestTableName>src_Final_SDSRgsubsidiary</DestTableName>
</CopyTable>
<LogFile>c:\csstesting\log\msslog.xml</LogFile>
</TestMethod>
</TestCases>
```

## 1.14 Table Row Count

### Pre-Requisite

-NA-	

### Mandatory

All Tags are Mandatory	

### Non-Mandatory

-NA-	

### Prototype

```
<TableRowCount>
  <SrcServerName>
  <SrcDatabaseName>
  <SrcTableName>
</TableRowCount>
```

### Example

```
<TestCases>
  <TestMethod>
    <TableRowCount>
      <SrcServerName>sgprbuitsql03\test</SrcServerName>
      <SrcDatabaseName>reportgenerator</SrcDatabaseName>
      <SrcTableName>src_account</SrcTableName>
    </TableRowCount>
    <LogFile>c:\csstesting\log\msslog.xml</LogFile>
  </TestMethod>
</TestCases>
```

## 1.15 Column – Null Verification

### Pre-Requisite

-NA-	

### Mandatory

All Tags are Mandatory	

### Non-Mandatory

-NA-	

**Prototype**

```

<ColumnNullandEmpty>
  <SrcServerName>
  <SrcDatabaseName>
  <SrcTableName>
  <ColumnNames>
</ColumnNullandEmpty>

```

**Example**

```

<TestCases>
  <TestMethod>
    <ColumnNullandEmpty>
      <SrcServerName>sgprbuitsql03\test</SrcServerName>
      <SrcDatabaseName> reportgeneratort</SrcDatabaseName>
      <SrcTableName> src_account</SrcTableName>
      <ColumnNames>accountId,budgetid </ColumnNames>
    </ColumnNullandEmpty>
    <LogFile>c:\csstesting\log\msslog.xml</LogFile>
  </TestMethod>
</TestCases>

```

**1.16 Column – Duplicate Row Verification****Pre-Requisite**

-NA-	

**Mandatory**

All Tags are Mandatory	

**Non-Mandatory**

-NA-	

**Prototype**

```

<DupColumnData>
  <SrcServerName>
  <SrcDatabaseName>
  <SrcTableName>
  <ColumnNames>
</DupColumnData>

```

**Example**

```

<TestCases>
  <TestMethod>
    <DupColumnData>
      <SrcServerName> sgprbuitsql03\test </SrcServerName>
      <SrcDatabaseName> reportgeneratort </SrcDatabaseName>
      <SrcTableName> src_account </SrcTableName>
      <ColumnNames> accountId,budgetid </ColumnNames>
    </DupColumnData>
  </TestMethod>
</TestCases>

```

```

        </DupColumnData>
        <LogFile>c:\csstesting\log\msslog.xml</LogFile>
    </TestMethod>
</TestCases>

```

## 1.17 Column – Verify Index

### Pre-Requisite

-NA-	

### Mandatory

All Tags are Mandatory	

### Non-Mandatory

-NA-	

### Prototype

```

<VerifyColumnIndex>
  <SrcServerName>
  <SrcDatabaseName>
  <SrcTableName>
  <ColumnNames>
</VerifyColumnIndex>

```

### Example

```

<TestCases>
  <TestMethod>
    <VerifyColumnIndex>
      <SrcServerName> sgprbuitsql03\test </SrcServerName>
      <SrcDatabaseName> reportgeneratort </SrcDatabaseName>
      <SrcTableName>src_account</SrcTableName>
      <ColumnNames> accountId,budgetid </ColumnNames>
    </VerifyColumnIndex>
    <LogFile>c:\csstesting\log\msslog.xml</LogFile>
  </TestMethod>
</TestCases>

```

## 1.18 Creating Table Data into XML File

### Pre-Requisite

-NA-	

### Mandatory

All Tags are Mandatory	



**Non-Mandatory**

-NA-	

**Prototype**

```

<TableDataIntoXmlFile>
  <SrcServerName>
  <SrcDatabaseName>
  <TableName>
  <XmlFileSave>
</TableDataIntoXmlFile>

```

**Example**

```

<TestCases>
  <TestMethod>
    <TableDataIntoXmlFile>
      <SrcServerName> sgprbuitsql03\test</SrcServerName>
      <SrcDatabaseName> reportgeneratort</SrcDatabaseName>
      <TableName> src_account</TableName>
      <XmlFileSave>c:\csstesting\sqlxmlfiles\src_account.xml </XmlFileSave>
    </TableDataIntoXmlFile>
    <LogFile>c:\csstesting\log\msslog.xml</LogFile>
  </TestMethod>
</TestCases>

```

**1.19 Comparing two XML File Data****Pre-Requisite**

-NA-	

**Mandatory**

All Tags are Mandatory	

**Non-Mandatory**

-NA-	

**Prototype**

```

<VerifyXmlFiles>
  <SrcXmlFilePath>
  <DestXmlFilePath>
  <DiffOutXmlFilePath>
</VerifyXmlFiles>

```

**Example**

```

<TestCases>
  <TestMethod>
    <VerifyXmlFiles>

```

```
<SrcXmlFilePath> c:\csstesting\xmlfiles\first.xml </SrcXmlFilePath>  
<DestXmlFilePath> c:\csstesting\xmlfiles\second.xml  
</DestXmlFilePath>  
<DiffOutXmlFilePath> c:\csstesting\log\diff.xml</DiffOutXmlFilePath>  
</VerifyXmlFiles>  
<LogFile>c:\csstesting\log\msslog.xml</LogFile>  
</TestMethod>  
</TestCases>
```

SS/STProbe - Sathyan S Nair