

Fortify Audit Workbench

# SANS Top 25 2011

Signal Performance Metrics



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<u>Description of Key Terminology</u>

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# **Executive Summary**

Project Name: Signal Performance Meti

**Project Version:** 

SCA: Results Present

WebInspect: Results Not Present
WebInspect Agent: Results Not Present

Other: Results Not Present

SANS Top 25 2011 groups	<u>Total</u>	<u>Status</u>
Insecure Interaction	40	FAIL
Porous Defenses	3	FAIL
Risky Resource Management	16	FAIL



<sup>\*</sup> The detailed sections following the Executive Summary contain specifics.

# **Project Description**

This section provides an overview of the Fortify scan engines used for this project, as well as the project meta-information.

#### **SCA**

Date of Last Analysis: Aug 1, 2018, 12:57 PM Engine Version: 18.10.0187

Host Name: SEDTS-L0G2-17I0 Certification: VALID

Number of Files: 1,674 Lines of Code: 72,709



# **Issue BreakDown**

The following table summarizes the number of issues identified across the different SANS Top 25 2011 categories and broken down by Fortify Priority Order.

Risky Resource Management	Folder	Issues	Audited
Risky Resource Management - CWE ID 0	22	16	0
	Critical	10	0
	High	6	0
	Medium	0	0
	Low	0	0
Risky Resource Management - CWE ID 0	73	0	0
	Critical	0	0
	High	0	0
	Medium	0	0
	Low	0	0
Insecure Interaction	Folder	Issues	Audited
Insecure Interaction - CWE ID 078		0	0
	Critical	0	0
	High	0	0
	Medium	0	0
	Low	0	0
Insecure Interaction - CWE ID 079		0	0
	Critical	0	0
	High	0	0
	Medium	0	0
	Low	0	0
Insecure Interaction - CWE ID 089		1	0
	Critical	1	0
	High	0	0
	Medium	0	0
	Low	0	0
Risky Resource Management	Folder	Issues	Audited
Risky Resource Management - CWE ID 13	20	0	0
	Critical	0	0
	High	0	0
	Medium	0	0
	Low	0	0
Risky Resource Management - CWE ID 131		0	0
	Critical	0	0
	High	0	0
	Medium	0	0
	Low	0	0
Risky Resource Management - CWE ID 1	34	0	0
	Critical	0	0
	High	0	0



Risky Resource Management	Folder	Issues	Audited
Risky Resource Management - CWE ID 7	134	0	0
	Medium	0	0
	Low	0	0
Risky Resource Management - CWE ID 7		0	0
	Critical	0	0
	High	0	0
	Medium	0	0
	Low	0	0
Porous Defenses	Folder	Issues	Audited
Porous Defenses - CWE ID 250		0	0
	Critical	0	0
	High	0	0
	Medium	0	0
	Low	0	0
Porous Defenses - CWE ID 306		0	0
	Critical	0	0
	High	0	0
	Medium	0	0
	Low	0	0
Porous Defenses - CWE ID 307	0.00	0	0
	Critical	0	0
	High	0	0
	Medium	0 0	0
Damana Dafamana CIME ID 244	Low	-	
Porous Defenses - CWE ID 311	Critical	0	0
	Critical	0	0
	High Madiums	0	0
	Medium Low	0	0
Porous Defenses - CWE ID 327	LOW	0	0
1 01003 Deletises - GWL ID 321	Critical	0	0
	High	0	0
	Medium	0	0
	Low	0	0
Insecure Interaction	Folder	Issues	Audited
Insecure Interaction - CWE ID 352		35	0
	Critical	0	0
	High	35	0
	Medium	0	0
	Low	0	0
Insecure Interaction - CWE ID 434		0	0
	Critical	0	0
	High	0	0



Insecure Interaction	Folder	Issues	Audited
Insecure Interaction - CWE ID 434	1, 5,000	0	0
	Medium	0	0
	Low	0	0
Risky Resource Management	Folder	Issues	Audited
Risky Resource Management - CWE ID 4	94	0	0
	Critical	0	0
	High	0	0
	Medium	0	0
	Low	0	0
Insecure Interaction	Folder	Issues	Audited
Insecure Interaction - CWE ID 601		4	0
	Critical	4	0
	High	0	0
	Medium	0	0
	Low	0	0
Risky Resource Management	Folder	Issues	Audited
Risky Resource Management - CWE ID 6		0	0
	Critical	0	0
	High	0	0
	Medium	0	0
D	Low	0	0
Porous Defenses  CWE ID 722	Folder	Issues	Audited
Porous Defenses Porous Defenses - CWE ID 732	Folder	Issues 0	Audited 0
	Folder Critical	Issues 0 0	Audited 0 0
	Folder Critical High	0 0 0	Audited 0 0 0
	Folder  Critical  High  Medium	Issues 0 0	Audited 0 0
Porous Defenses - CWE ID 732	Folder Critical High	0 0 0 0 0	Audited 0 0 0 0 0 0 0
	Folder  Critical  High  Medium  Low	0 0 0 0	<b>Audited</b> 0 0 0 0 0
Porous Defenses - CWE ID 732	Folder  Critical  High  Medium  Low  Critical	Issues	Audited 0 0 0 0 0 0 0 0 0
Porous Defenses - CWE ID 732	Folder  Critical  High  Medium  Low	Issues	Audited 0 0 0 0 0 0 0 0 0 0
Porous Defenses - CWE ID 732	Folder  Critical  High  Medium  Low  Critical  High	Issues	Audited 0 0 0 0 0 0 0 0 0 0 0
Porous Defenses - CWE ID 732	Folder  Critical  High  Medium  Low  Critical  High  Medium	Issues	Audited 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Porous Defenses - CWE ID 732  Porous Defenses - CWE ID 759	Folder  Critical  High  Medium  Low  Critical  High  Medium	Issues	Audited 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Porous Defenses - CWE ID 732  Porous Defenses - CWE ID 759	Folder  Critical High Medium Low  Critical High Medium Low	Issues	Audited 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Porous Defenses - CWE ID 732  Porous Defenses - CWE ID 759	Critical High Medium Low  Critical High Medium Low  Critical Critical Critical Critical Critical	Issues	Audited 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Porous Defenses - CWE ID 759  Porous Defenses - CWE ID 759  Porous Defenses - CWE ID 798	Critical High Medium Low  Critical High Medium Low  Critical High Medium Low  Critical High	Issues	Audited 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Porous Defenses - CWE ID 732  Porous Defenses - CWE ID 759	Folder  Critical High Medium Low  Critical High Medium Low  Critical High Medium Low  Critical High Medium Low	Issues	Audited 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Porous Defenses - CWE ID 759  Porous Defenses - CWE ID 759  Porous Defenses - CWE ID 798	Folder  Critical High Medium Low  Critical High Medium Low  Critical High Medium Low  Critical	Issues	Audited 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Porous Defenses - CWE ID 759  Porous Defenses - CWE ID 759  Porous Defenses - CWE ID 798	Folder  Critical High Medium Low	Issues	Audited 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Porous Defenses - CWE ID 759  Porous Defenses - CWE ID 759  Porous Defenses - CWE ID 798	Folder  Critical High Medium Low  Critical High Medium Low  Critical High Medium Low  Critical	Issues	Audited 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0



Risky Resource Management	Folder	Issues	Audited
Risky Resource Management - CWE ID	829	0	0
	Critical	0	0
	High	0	0
	Medium	0	0
	Low	0	0
Porous Defenses	Folder	Issues	Audited
Porous Defenses - CWE ID 862		0	0
	Critical	0	0
	High	0	0
	Medium	0	0
	Low	0	0
Porous Defenses - CWE ID 863		0	0
	Critical	0	0
	High	0	0
	Medium	0	0
	Low	0	0
Insecure Interaction	Folder	Issues	Audited
Insecure Interaction - CWE ID 918		0	0
	Critical	0	0
	High	0	0
	Medium	0	0
	Low	0	0

#### NOTE



<sup>1.</sup> Reported issues in the above table may violate more than one SANS Top 25 2011 category. As such, the same issue may appear in more than one row. The total number of unique vulnerabilities are reported in the Executive Summary table.

# **Issue Details**

Below is an enumeration of all issues found in the project. The issues are organized by SANS Top 25 2011, Folder, and vulnerability category. The issues are then further broken down by the package, namespace, or location in which they occur. Issues reported at the same line number with the same category originate from different taint sources.



Improper Limitation of a Pathname to a Restricted Directory ('Path Traversal'). CWE-22 states: "The software uses external input to construct a pathname that is intended to identify a file or directory that is located underneath a restricted parent directory, but the software does not properly neutralize special elements within the pathname that can cause the pathname to resolve to a location that is outside of the restricted directory".

Path Manipulation		Critical
Package: AlexPilotti.FTPS.Client		
Location	Analysis Info	Analyzer
Projects/GitHub/ATSPM/FTPSCI ient/FTPSClient/FTPSClient.cs: 737 Analysis: Bad Practice	<pre>Sink: System.IO.FileStream.FileStream() Enclosing Method: GetFile() Source: System.IO.Stream.Read() from AlexPilotti. FTPS.Client.FTPSClient.GetDataString() In Projec ts/GitHub/ATSPM/FTPSClient/FTPSClient/FTPSClient. cs:1547</pre>	SCA
Projects/GitHub/ATSPM/FTPSCI ient/FTPSClient/FTPSClient.cs: 737  Analysis: Bad Practice	<pre>Sink: System.IO.FileStream.FileStream() Enclosing Method: GetFile() Source: System.Net.Sockets.TcpClient.GetStream() from AlexPilotti.FTPS.Client.FTPSClient.GetDataStream() In Projects/GitHub/ATSPM/FTPSClient/FTPSC lient/FTPSClient.cs:1530</pre>	SCA
Projects/GitHub/ATSPM/FTPSCI ient/FTPSClient/FTPSClient.cs: 737  Analysis: Bad Practice	<pre>Sink: System.IO.FileStream.FileStream() Enclosing Method: GetFile() Source: System.Net.Sockets.TcpClient.GetStream() from AlexPilotti.FTPS.Client.FTPSClient.GetDataStream() In Projects/GitHub/ATSPM/FTPSClient/FTPSC lient/FTPSClient.cs:1526</pre>	SCA
Projects/GitHub/ATSPM/FTPSCI ient/FTPSClient/FTPSClient.cs: 797 Analysis: Suspicious	<pre>Sink: System.IO.Directory.CreateDirectory() Enclosing Method: GetFiles() Source: System.IO.Stream.Read() from AlexPilotti. FTPS.Client.FTPSClient.GetDataString() In Projec ts/GitHub/ATSPM/FTPSClient/FTPSClient/FTPSClient. cs:1547</pre>	SCA
Projects/GitHub/ATSPM/FTPSCI ient/FTPSClient/FTPSClient.cs: 797 Analysis: Suspicious	<pre>Sink: System.IO.Directory.CreateDirectory() Enclosing Method: GetFiles() Source: System.Net.Sockets.TcpClient.GetStream() from AlexPilotti.FTPS.Client.FTPSClient.GetDataStream() In Projects/GitHub/ATSPM/FTPSClient/FTPSC lient/FTPSClient.cs:1526</pre>	SCA
Projects/GitHub/ATSPM/FTPSCI ient/FTPSClient/FTPSClient.cs: 797 Analysis: Suspicious	<pre>Sink: System.IO.Directory.CreateDirectory() Enclosing Method: GetFiles() Source: System.Net.Sockets.TcpClient.GetStream() from AlexPilotti.FTPS.Client.FTPSClient.GetDataStream() In Projects/GitHub/ATSPM/FTPSClient/FTPSC lient/FTPSClient.cs:1530</pre>	SCA



Improper Limitation of a Pathname to a Restricted Directory ('Path Traversal'). CWE-22 states: "The software uses external input to construct a pathname that is intended to identify a file or directory that is located underneath a restricted parent directory, but the software does not properly neutralize special elements within the pathname that can cause the pathname to resolve to a location that is outside of the restricted directory".

Path Manipulation		Critical
Package: MOE.Common.Business.WCFServiceLibrary		
Location	Analysis Info	Analyzer
Projects/GitHub/ATSPM/ MOE.Co mmon/Business/ WCFServiceLibrary/ MetricOptions.cs:193	<pre>Sink: System.IO.DirectoryInfo.DirectoryInfo() Enclosing Method: DriveAvailable() Source: CreateTMCChart(0) from MOEWcfServiceLibra ry.MetricGenerator.CreateTMCChart() In Projects/ GitHub/ATSPM/MOEWcfServiceLibrary/MetricGenerator .cs:97</pre>	SCA
Analysis: Not an Issue  Projects/GitHub/ATSPM/	Sink: System.IO.DirectoryInfo.DirectoryInfo()	SCA
MOE.Co mmon/Business/ WCFServiceLibrary/ MetricOptions.cs:193 Analysis: Not an Issue	Enclosing Method: DriveAvailable() Source: CreateMetricWithDataTable(0) from MOEWcfS erviceLibrary.MetricGenerator.CreateMetricWithDat aTable() In Projects/GitHub/ATSPM/MOEWcfServiceL ibrary/MetricGenerator.cs:69	SCA
Projects/GitHub/ATSPM/ MOE.Co mmon/Business/ WCFServiceLibrary/ MetricOptions.cs:197	<pre>Sink: System.IO.Directory.CreateDirectory() Enclosing Method: DriveAvailable() Source: CreateTMCChart(0) from MOEWcfServiceLibra ry.MetricGenerator.CreateTMCChart() In Projects/ GitHub/ATSPM/MOEWcfServiceLibrary/MetricGenerator .cs:97</pre>	SCA
Analysis: Not an Issue	.CS:97	
Projects/GitHub/ATSPM/ MOE.Co mmon/Business/ WCFServiceLibrary/ MetricOptions.cs:197	<pre>Sink: System.IO.Directory.CreateDirectory() Enclosing Method: DriveAvailable() Source: CreateMetricWithDataTable(0) from MOEWcfS erviceLibrary.MetricGenerator.CreateMetricWithDat aTable() In Projects/GitHub/ATSPM/MOEWcfServiceL ibrary/MetricGenerator.cs:69</pre>	SCA
Analysis: Not an Issue	iblary/Metricoenerator.cs.us	
Path Manipulation		High
Package: AlexPilotti.FTPS.	Client	
Location	Analysis Info	Analyzer
Projects/GitHub/ATSPM/FTPSCI ient/FTPSClient/FTPSClient.cs: 737 Analysis: Not an Issue	<pre>Sink: System.IO.FileStream.FileStream() Enclosing Method: GetFile() Source: System.IO.Stream.Read() from AlexPilotti. FTPS.Common.FTPStream.Read() In Projects/GitHub/ ATSPM/FTPSClient/FTPSClient/FTPStream.cs:85</pre>	SCA
Projects/GitHub/ATSPM/FTPSCI ient/FTPSCIient/FTPSClient.cs: 797 Analysis: Suspicious	<pre>Enclosing Method: GetFiles() Source: System.IO.Stream.Read() from AlexPilotti. FTPS.Common.FTPStream.Read() In Projects/GitHub/</pre>	SCA
, and, clor Guopiologo	ATSPM/FTPSClient/FTPSClient/FTPStream.cs:85	



Improper Limitation of a Pathname to a Restricted Directory ('Path Traversal'). CWE-22 states: "The software uses external input to construct a pathname that is intended to identify a file or directory that is located underneath a restricted parent directory, but the software does not properly neutralize special elements within the pathname that can cause the pathname to resolve to a location that is outside of the restricted directory".

Path Manipulation		High
Package: MOE.Common.Business.WCFServiceLibrary		
Location	Analysis Info	Analyzer
Projects/GitHub/ATSPM/ MOE.Co mmon/Business/ WCFServiceLibrary/ MetricOptions.cs:193 Analysis: Not an Issue	<pre>Sink: System.IO.DirectoryInfo.DirectoryInfo() Enclosing Method: DriveAvailable() Source: CreateMetric(0) from MOEWcfServiceLibrary .MetricGenerator.CreateMetric() In Projects/GitH ub/ATSPM/MOEWcfServiceLibrary/MetricGenerator.cs: 14</pre>	SCA
Projects/GitHub/ATSPM/ MOE.Co mmon/Business/ WCFServiceLibrary/ MetricOptions.cs:193 Analysis: Not an Issue	<pre>Sink: System.IO.DirectoryInfo.DirectoryInfo() Enclosing Method: DriveAvailable() Source: GetChartAndXmlFileLocations(0) from MOEWc fServiceLibrary.MetricGenerator.GetChartAndXmlFil eLocations() In Projects/GitHub/ATSPM/MOEWcfServ iceLibrary/MetricGenerator.cs:41</pre>	SCA
Projects/GitHub/ATSPM/ MOE.Co mmon/Business/ WCFServiceLibrary/ MetricOptions.cs:197  Analysis: Not an Issue	<pre>Sink: System.IO.Directory.CreateDirectory() Enclosing Method: DriveAvailable() Source: CreateMetric(0) from MOEWcfServiceLibrary .MetricGenerator.CreateMetric() In Projects/GitH ub/ATSPM/MOEWcfServiceLibrary/MetricGenerator.cs: 14</pre>	SCA
Projects/GitHub/ATSPM/ MOE.Co mmon/Business/ WCFServiceLibrary/ MetricOptions.cs:197  Analysis: Not an Issue	<pre>Sink: System.IO.Directory.CreateDirectory() Enclosing Method: DriveAvailable() Source: GetChartAndXmlFileLocations(0) from MOEWc fServiceLibrary.MetricGenerator.GetChartAndXmlFil eLocations() In Projects/GitHub/ATSPM/MOEWcfServ iceLibrary/MetricGenerator.cs:41</pre>	SCA

# Risky Resource Management - CWE ID 073

CWE-073 is used to identify an "External Control of File Name or Path" weakness.

These weaknesses occur because "The software allows user input to control or influence paths or file names that are used in filesystem operations."



Improper Neutralization of Special Elements used in an OS Command ('OS Command Injection'). CWE-78 states: "The software constructs all or part of an OS command using externally-influenced input from an upstream component, but it does not neutralize or incorrectly neutralizes special elements that could modify the intended OS command when it is sent to a downstream component".

No Issues

#### Insecure Interaction - CWE ID 079

Improper Neutralization of Input During Web Page Generation ('Cross-site Scripting'). CWE-79 states: "The software does not neutralize or incorrectly neutralizes user-controllable input before it is placed in output that is used as a web page that is served to other users".

No Issues

#### Insecure Interaction - CWE ID 089

Improper Neutralization of Special Elements used in an SQL Command ('SQL Injection'). CWE-89 states: "The software constructs all or part of an SQL command using externally-influenced input from an upstream component, but it does not neutralize or incorrectly neutralizes special elements that could modify the intended SQL command when it is sent to a downstream component".

SQL Injection		Critical
Package: ConvertDBForHis	storicalConfigurations	
Location	Analysis Info	Analyzer
Projects/GitHub/ATSPM/Conver tDBForHistoricalConfigurations/ Program.cs:148	<pre>Enclosing Method: UpdateMigrationsTable()</pre>	SCA
Analysis: Not an Issue	Source: System.Data.SqlClient.SqlCommand.ExecuteR eader() from ConvertDBForHistoricalConfigurations .Program.UpdateMigrationsTable() In Projects/Git Hub/ATSPM/ConvertDBForHistoricalConfigurations/Program.cs:124	

## Risky Resource Management - CWE ID 120

Buffer Copy without Checking Size of Input ('Classic Buffer Overflow'). CWE-120 states: "The program copies an input buffer to an output buffer without verifying that the size of the input buffer is less than the size of the output buffer, leading to a buffer overflow".



Incorrect Calculation of Buffer Size. CWE-131 states: "The software does not correctly calculate the size to be used when allocating a buffer, which could lead to a buffer overflow".

No Issues

#### Risky Resource Management - CWE ID 134

Uncontrolled Format String. CWE-134 states: "The software uses externally-controlled format strings in printf-style functions, which can lead to buffer overflows or data representation problems".

No Issues

#### Risky Resource Management - CWE ID 190

Integer Overflow or Wraparound. CWE-190 states: "The software performs a calculation that can produce an integer overflow or wraparound, when the logic assumes that the resulting value will always be larger than the original value. This can introduce other weaknesses when the calculation is used for resource management or execution control".

No Issues

#### Porous Defenses - CWE ID 250

Execution with Unnecessary Privileges. CWE-250 states: "The software performs an operation at a privilege level that is higher than the minimum level required, which creates new weaknesses or amplifies the consequences of other weaknesses".

No Issues

#### Porous Defenses - CWE ID 306

Missing Authentication for Critical Function. CWE-306 states: "The software does not perform any authentication for functionality that requires a provable user identity or consumes a significant amount of resources".

No Issues

#### Porous Defenses - CWE ID 307

Improper Restriction of Excessive Authentication Attempts. CWE-307 states: "The software does not implement sufficient measures to prevent multiple failed authentication attempts within in a short time frame, making it more susceptible to brute force attacks".



#### Porous Defenses - CWE ID 311

Missing Encryption of Sensitive Data. CWE-311 states: "The software does not encrypt sensitive or critical information before storage or transmission".

No Issues

#### Porous Defenses - CWE ID 327

Use of a Broken or Risky Cryptographic Algorithm. CWE-327 states: "The use of a broken or risky cryptographic algorithm is an unnecessary risk that may result in the exposure of sensitive information".



ASP.NET MVC Bad Practice	es: Controller Action Not Restricted to POST	High
Package: SPM.Controllers		
Location	Analysis Info	Analyzer
Projects/GitHub/ATSPM/SPM/ Co ntrollers/ DataExportController.cs:154	<pre>Sink: Function: GetRecordCount Enclosing Method: GetRecordCount() Source:</pre>	SCA
Analysis: Not an Issue		
Projects/GitHub/ATSPM/SPM/ Co ntrollers/ DefaultChartsController.cs:36	<pre>Sink: Function: SignalSearch Enclosing Method: SignalSearch() Source:</pre>	SCA
Analysis: Not an Issue		
Projects/GitHub/ATSPM/SPM/ Co ntrollers/ DefaultChartsController.cs:90	<pre>Sink: Function: GetMap Enclosing Method: GetMap() Source:</pre>	SCA
Analysis: Not an Issue		
Projects/GitHub/ATSPM/SPM/ Co ntrollers/ DefaultChartsController.cs:174	<pre>Sink: Function: GetPhaseTerminationMetricByUrl Enclosing Method: GetPhaseTerminationMetricByUrl( ) Source:</pre>	SCA
Analysis: Not an Issue		
Projects/GitHub/ATSPM/SPM/ Co ntrollers/ DefaultChartsController.cs:186	<pre>Sink: Function: GetSplitMonitorMetricByUrl Enclosing Method: GetSplitMonitorMetricByUrl() Source:</pre>	SCA
Analysis: Not an Issue	Cials Forsting Cat Passant Materia Police	004
Projects/GitHub/ATSPM/SPM/ Co ntrollers/ DefaultChartsController.cs:213	<pre>Sink: Function: GetPreemptMetricByUrl Enclosing Method: GetPreemptMetricByUrl() Source:</pre>	SCA
Analysis: Not an Issue		004
Projects/GitHub/ATSPM/SPM/ Co ntrollers/ DefaultChartsController.cs:224	<pre>Sink: Function: GetTMCMetricByUrl Enclosing Method: GetTMCMetricByUrl() Source:</pre>	SCA
Analysis: Not an Issue		
Projects/GitHub/ATSPM/SPM/ Co ntrollers/ DefaultChartsController.cs:238	<pre>Sink: Function: GetPCDMetricByUrl Enclosing Method: GetPCDMetricByUrl() Source:</pre>	SCA
Analysis: Not an Issue		0.5
Projects/GitHub/ATSPM/SPM/ Co ntrollers/ DefaultChartsController.cs:255	<pre>Sink: Function: GetApproachVolumeMetricByUrl Enclosing Method: GetApproachVolumeMetricByUrl() Source:</pre>	SCA
Analysis: Not an Issue		



<b>ASP.NET MVC Bad Practice</b>	es: Controller Action Not Restricted to POST	High	
Package: SPM.Controllers			
Location	Analysis Info	Analyzer	
Projects/GitHub/ATSPM/SPM/ Co ntrollers/ DefaultChartsController.cs:275	<pre>Sink: Function: GetApproachDelayMetricByUrl Enclosing Method: GetApproachDelayMetricByUrl() Source:</pre>	SCA	
Analysis: Not an Issue			
Projects/GitHub/ATSPM/SPM/ Co ntrollers/ DefaultChartsController.cs:288	<pre>Sink: Function: GetAoRMetricByUrl Enclosing Method: GetAoRMetricByUrl() Source:</pre>	SCA	
Analysis: Not an Issue			
Projects/GitHub/ATSPM/SPM/ Co ntrollers/ DefaultChartsController.cs:299	<pre>Sink: Function: GetApproachSpeedMetricByUrl Enclosing Method: GetApproachSpeedMetricByUrl() Source:</pre>	SCA	
Analysis: Not an Issue		004	
Projects/GitHub/ATSPM/SPM/ Co ntrollers/ DefaultChartsController.cs:314	<pre>Sink: Function: GetYRAMetricByUrl Enclosing Method: GetYRAMetricByUrl() Source:</pre>	SCA	
Analysis: Not an Issue			
Projects/GitHub/ATSPM/SPM/Controllers/DefaultChartsController.cs:332	<pre>Sink: Function: GetSplitFailMetricByUrl Enclosing Method: GetSplitFailMetricByUrl() Source:</pre>	SCA	
Analysis: Not an Issue	Sink: Function: GetYellowAndRedMetric	SCA	
Projects/GitHub/ATSPM/SPM/ Co ntrollers/ DefaultChartsController.cs:369	Enclosing Method: GetYellowAndRedMetric() Source:	SUA	
Analysis: Not an Issue			
Projects/GitHub/ATSPM/SPM/ Co ntrollers/ DefaultChartsController.cs:448	<pre>Sink: Function: GetSplitFailMetric Enclosing Method: GetSplitFailMetric() Source:</pre>	SCA	
Analysis: Not an Issue			
Projects/GitHub/ATSPM/SPM/ Co ntrollers/ DefaultChartsController.cs:512	<pre>Sink: Function: GetApproachSpeedMetric Enclosing Method: GetApproachSpeedMetric() Source:</pre>	SCA	
Analysis: Not an Issue			
Projects/GitHub/ATSPM/SPM/ Co ntrollers/ DefaultChartsController.cs:576	<pre>Sink: Function: GetAoRMetric Enclosing Method: GetAoRMetric() Source:</pre>	SCA	
Analysis: Not an Issue			



<b>ASP.NET MVC Bad Practice</b>	es: Controller Action Not Restricted to POST	High
Package: SPM.Controllers		
Location	Analysis Info	Analyzer
Projects/GitHub/ATSPM/SPM/ Co ntrollers/ DefaultChartsController.cs:636	<pre>Sink: Function: GetApproachDelayMetric Enclosing Method: GetApproachDelayMetric() Source:</pre>	SCA
Analysis: Not an Issue		
Projects/GitHub/ATSPM/SPM/ Co ntrollers/ DefaultChartsController.cs:699	<pre>Sink: Function: GetPhaseTerminationMetric Enclosing Method: GetPhaseTerminationMetric() Source:</pre>	SCA
Analysis: Not an Issue		
Projects/GitHub/ATSPM/SPM/ Co ntrollers/ DefaultChartsController.cs:754	<pre>Sink: Function: GetPreemptMetric Enclosing Method: GetPreemptMetric() Source:</pre>	SCA
Analysis: Not an Issue		
Projects/GitHub/ATSPM/SPM/ Co ntrollers/ DefaultChartsController.cs:826	<pre>Sink: Function: GetTMCMetric Enclosing Method: GetTMCMetric() Source:</pre>	SCA
Analysis: Not an Issue		
Projects/GitHub/ATSPM/SPM/Controllers/DefaultChartsController.cs:894 Analysis: Not an Issue	<pre>Sink: Function: GetApproachVolumeMetric Enclosing Method: GetApproachVolumeMetric() Source:</pre>	SCA
Projects/GitHub/ATSPM/SPM/	Sink: Function: GetSplitMonitorMetric	SCA
Co ntrollers/ DefaultChartsController.cs:953	<pre>Enclosing Method: GetSplitMonitorMetric() Source:</pre>	
Analysis: Not an Issue		
Projects/GitHub/ATSPM/SPM/ Co ntrollers/ DefaultChartsController.cs:1062	<pre>Sink: Function: GetPCDMetric Enclosing Method: GetPCDMetric() Source:</pre>	SCA
Analysis: Not an Issue		
Projects/GitHub/ATSPM/SPM/ Co ntrollers/FAQsController.cs:100	<pre>Sink: Function: Delete Enclosing Method: Delete() Source:</pre>	SCA
Analysis: Not an Issue		
Projects/GitHub/ATSPM/SPM/	Sink: Function: LinkPivotResult	SCA
Co ntrollers/LinkPivotController.cs: 51	<pre>Enclosing Method: LinkPivotResult() Source:</pre>	
Analysis: Not an Issue		



ASP.NET MVC Bad Practice	es: Controller Action Not Restricted to POST	High		
Package: SPM.Controllers	Package: SPM.Controllers			
Location	Analysis Info	Analyzer		
Projects/GitHub/ATSPM/SPM/ Co ntrollers/LinkPivotController.cs: 185	<pre>Sink: Function: PCDs Enclosing Method: PCDs() Source:</pre>	SCA		
Analysis: Not an Issue				
Projects/GitHub/ATSPM/SPM/ Co ntrollers/MenusController.cs: 111	<pre>Sink: Function: Delete Enclosing Method: Delete() Source:</pre>	SCA		
Analysis: Not an Issue				
Projects/GitHub/ATSPM/SPM/ Co ntrollers/ MetricCommentsController.cs: 84	<pre>Sink: Function: Delete Enclosing Method: Delete() Source:</pre>	SCA		
Analysis: Not an Issue				
Projects/GitHub/ATSPM/SPM/ Co ntrollers/ RouteSignalsController.cs:59	<pre>Sink: Function: RouteMap Enclosing Method: RouteMap() Source:</pre>	SCA		
Analysis: Not an Issue				
Projects/GitHub/ATSPM/SPM/ Co ntrollers/ RouteSignalsController.cs:212	<pre>Sink: Function: Delete Enclosing Method: Delete() Source:</pre>	SCA		
Analysis: Not an Issue				
Projects/GitHub/ATSPM/SPM/ Co ntrollers/RoutesController.cs:94	<pre>Sink: Function: Delete Enclosing Method: Delete() Source:</pre>	SCA		
Analysis: Not an Issue				
Projects/GitHub/ATSPM/SPM/ Co ntrollers/ SPMUsersController.cs:187	<pre>Sink: Function: Delete Enclosing Method: Delete() Source:</pre>	SCA		
Analysis: Not an Issue				
Projects/GitHub/ATSPM/SPM/ Co ntrollers/SignalsController.cs: 625	<pre>Sink: Function: Delete Enclosing Method: Delete() Source:</pre>	SCA		
Analysis: Not an Issue				



Unrestricted Upload of File with Dangerous Type. CWE-434 states: "The software allows the attacker to upload or transfer files of dangerous types that can be automatically processed within the product's environment".

No Issues

### Risky Resource Management - CWE ID 494

Download of Code Without Integrity Check. CWE-494 states: "The product downloads source code or an executable from a remote location and executes the code without sufficiently verifying the origin and integrity of the code".

No Issues

#### **Insecure Interaction - CWE ID 601**

URL Redirection to Untrusted Site ('Open Redirect'). CWE-601 states: "A web application accepts a user-controlled input that specifies a link to an external site, and uses that link in a Redirect. This simplifies phishing attacks".

Open Redirect		Critical	
Package: SPM.Controllers			
Location	Analysis Info	Analyzer	
Projects/GitHub/ATSPM/SPM/Controllers/AccountController.cs: 697 Analysis: Not an Issue	<pre>Sink: System.Web.Mvc.Controller.Redirect() Enclosing Method: RedirectToLocal() Source: ExternalLoginCallback(0) from SPM.Control lers.AccountController.ExternalLoginCallback() In Projects/GitHub/ATSPM/SPM/Controllers/AccountCont roller.cs:563</pre>	SCA	
Projects/GitHub/ATSPM/SPM/ Co ntrollers/AccountController.cs: 697 Analysis: Not an Issue	<pre>Sink: System.Web.Mvc.Controller.Redirect() Enclosing Method: RedirectToLocal() Source: ExternalLoginConfirmation(1) from SPM.Con trollers.AccountController.ExternalLoginConfirmat ion() In Projects/GitHub/ATSPM/SPM/Controllers/A ccountController.cs:598</pre>	SCA	
Projects/GitHub/ATSPM/SPM/Controllers/AccountController.cs: 697 Analysis: Not an Issue	<pre>Sink: System.Web.Mvc.Controller.Redirect() Enclosing Method: RedirectToLocal() Source: VerifyCode(0) from SPM.Controllers.Accoun tController.VerifyCode() In Projects/GitHub/ATSP M/SPM/Controllers/AccountController.cs:352</pre>	SCA	
Projects/GitHub/ATSPM/SPM/ Co ntrollers/AccountController.cs: 697 Analysis: Not an Issue	<pre>Sink: System.Web.Mvc.Controller.Redirect() Enclosing Method: RedirectToLocal() Source: Login(1) from SPM.Controllers.AccountCont roller.Login() In Projects/GitHub/ATSPM/SPM/Cont rollers/AccountController.cs:292</pre>	SCA	



Use of Potentially Dangerous Function. CWE-676 states: "The program invokes a potentially dangerous function that could introduce a vulnerability if it is used incorrectly, but the function can also be used safely".

No Issues

#### Porous Defenses - CWE ID 732

Incorrect Permission Assignment for Critical Resource. CWE-732 states: "The software specifies permissions for a security-critical resource in a way that allows that resource to be read or modified by unintended actors".

No Issues

#### Porous Defenses - CWE ID 759

Use of a One-Way Hash without a Salt. CWE-759 states: "The software uses a one-way cryptographic hash against an input that should not be reversible, such as a password, but the software does not also use a salt as part of the input".



#### Porous Defenses - CWE ID 798

Use of Hard-coded Credentials. CWE-798 states: "The software contains hard-coded credentials, such as a password or cryptographic key, which it uses for its own inbound authentication, outbound communication to external components, or encryption of internal data".

Password Management: Hardcoded Password		High
Package: AlexPilotti.FTPS.	Client	
Location	Analysis Info	Analyzer
Projects/GitHub/ATSPM/FTPSCI ient/FTPSClient/FTPSClient.cs: 503	<pre>Sink: NetworkCredential() Enclosing Method: Connect() Source:</pre>	SCA
Analysis: Not an Issue		
Package: GenerateControll	erEventLogObjectText	
Location	Analysis Info	Analyzer
Projects/GitHub/ATSPM/Genera teControllerEventLogObjectText Program.cs:21		SCA
Analysis: Not an Issue		
Package: MOE.CommonTe	sts.Helpers	
Location	Analysis Info	Analyzer
Projects/GitHub/ATSPM/ MOE.Co mmonTests/Helpers/ XMLtoListImporter.cs:58	<pre>Sink: set_Item() Enclosing Method: LoadControllerEventLogsFromMOED B() Source:</pre>	SCA
Analysis: Not an Issue		

#### Porous Defenses - CWE ID 807

Reliance on Untrusted Inputs in a Security Decision. CWE-807 states: "The application uses a protection mechanism that relies on the existence or values of an input, but the input can be modified by an untrusted actor in a way that bypasses the protection mechanism".

No Issues

# Risky Resource Management - CWE ID 829

Inclusion of Functionality from Untrusted Control Sphere. CWE-829 states: "The software imports, requires, or includes executable functionality (such as a library) from a source that is outside of the intended control sphere".



#### Porous Defenses - CWE ID 862

Missing Authorization. CWE-862 states: "The software does not perform an authorization check when an actor attempts to access a resource or perform an action".

No Issues

#### Porous Defenses - CWE ID 863

Incorrect Authorization. CWE-863 states: "The software performs an authorization check when an actor attempts to access a resource or perform an action, but it does not correctly perform the check. This allows attackers to bypass intended access restrictions".

No Issues

#### **Insecure Interaction - CWE ID 918**

Server-Side Request Forgery (SSRF). CWE-918 states: "The web server receives a URL or similar request from an upstream component and retrieves the contents of this URL, but it does not sufficiently ensure that the request is being sent to the expected destination".

