Quadrotech Archive Shuttle 11.0
Release Notes

September 2022

These release notes provide information about the latest Quadrotech Archive Shuttle release.

- New Features

- Resolved Issues

- System Requirements

- Product Licensing

- Third Party Contributions

- About Us

New Features

Version 11.0 of Quadrotech Archive Shuttle introduces the following features:

Feature	Description	Work Item(s)
Deprecate .lic license files	*.lic licenses are no longer supported. Gold key *.lic license support was added to Archive Shuttle 10.7.	102007, 110922
Synchronization of SMTP archives	A new command has been created to sync SMTP archives for SourceOne.	109832
Workflows for SMTP archives	Added support to migrate SMTP items archived by SourceOne.	109831, 109833
Module installation update	Module updates can only be made via the Updater module.	110147
Enhance user archive RouteMask queries (SourceOne)	SourceOne RouteMask query used to collect user archives and items has been enhanced to include new items. **!** **CAUTION:** Using this query may impact item size figures on existing migrations that upgrade.	110148

Feature	Description	Work Item(s)
.NET Framework 4.8 update	Archive Shuttle core and modules have been updated to .NET Framework 4.8. ❗ CAUTION: Updating Archive Shuttle core and modules to .NET Framework 4.8 may lead to breaking changes.	110436, 110523
TLS 1.2	Archive Shuttle core and modules support TLS 1.2 protocol.	110664
Basic authentication	Basic authentication has been deprecated as an authentication method.	110665
Exchange Online V1 PowerShell module	The Exchange Online V1 PowerShell module has been replaced with the Exchange Online V2 PowerShell module.	110666
MSOL/Azure Active Directory modules	The Microsoft Online (MSOL) and Azure Active Directory modules have been replaced by Microsoft Graph to run PowerShell scripts.	110667
Metalogix 8.5	Archive Shuttle supports Metalogix 8.5 as a source.	110773
Configure https protocol for Metalogix	The Metalogix environment configuration page includes an option to configure the https usage protocol.	110193
Collection of retention labels enhancement	Added setting to sync inactive retention labels.	110213

Resolved Issues

The following is a list of issues addressed in this release.

Description	Work Item(s)	Case No.
The issue 'Deletion of QAM shortcuts fails on "Value cannot be null." error for messages without CheckSum property' has been resolved.	110100	--
The issue 'StoragePathId is not updated for existing Items during Enterprise Vault Item collection' has been resolved.	110060	--

Description	Work Item(s)	Case No.
The issue 'Item export fails for QAM with error "Specified cast is not valid."' has been resolved.	110128	5042705
The issue 'Logs did not show info on configuration and information on Exchange Online v2 module' has been resolved.	110132	--
The issue 'Compliance labels are not collected from Office 365' has been resolved.	110185	--
The issue 'Office 365 module - import fails after update module via UI' has been resolved.	110190	--
The issue 'Javascript security vulnerability in Archive Shuttle' has been resolved.	110384	--
The issue 'Stage 2: Delete shortcuts failing on cannot insert duplicate key exception' has been resolved.	110654	5084178
The issue 'Not all shortcuts are collected in case of higher parallelism usage' has been resolved.	110729	5092664
The issue 'AS Directory update fails on "The DELETE statement conflicted with the REFERENCE constraint "FK_CommandQueue_Command"' exception' has been resolved.	110806	--
The issue 'Shortcut collection executed manually to Office 365 targets is not marked as started in ContainerContentOperations table' has been resolved.	110877	5092664
The issue 'SourceOne: export for virtual journal not running continuously' has been resolved.	110880	5103078
The issue 'Enterprise Vault archive collection is stuck' has been resolved.	111039	5117251
The issue 'Shortcut process - when duplicate of shortcut exists in mailbox, command Office 365 delete shortcut fails on "Cannot insert duplicate key in object 'dbo.#STG_35f3b516cae94e24982886a404b94f2e'. The duplicate key value" has been resolved.	111176	5125734

Resolved Issues post-release of Archive Shuttle 11.0

Build	Commit	Description
Core: 11.0.42257.1 Modules: 11.0.42257.1		Original release of Archive Shuttle 11.0
11.0.42257.1	de6dfc02	EV Collection: Update StoragePathId only in case it was previously null.
11.0.42262.1	03597a6f	Added system.text.encoding to Office 365 module project.
11.0.42279.1	09a9dce3	Adjusted ExchangeMailbox deletion code to remove ContainerTag assignment if exists.
11.0.42293.1	3b336ffa	Remove a major version check from .dlv license.
11.0.42293.1	edb44576	Add retry mechanism to Mailbox provisioning task.

System Requirements

Complete hardware, software, and permissions requirements for installing and using Quadrotech Archive Shuttle can be found in the *Quadrotech Archive Shuttle Installation Guide.*

Product Licensing

Licensing information can be found in the *Quadrotech Archive Shuttle Administration Guide* and the *Quadrotech Archive Shuttle Installation Guide.*

Third Party Contributions

©This product contains the following third-party components. For more third-party license information, see https://www.quest.com/legal/third-party-licenses.aspx.

Component	License or Acknowledgment
ADODB 7.10.3077	Use of this component is governed by the BSD-3 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
ANTLR 3.5.0.2	Use of this component is governed by the ANTLR 3.5.0.2, which can be found at

Component	License or Acknowledgment
	https://www.quest.com/legal/third-party-licenses.aspx.
	Copyright © 2010 Terence Parr. All rights reserved
AWSSDK.Core 3.7.12.5	See Third Party License Information.
AWSSDK.S3 3.5.0	See Third Party License Information.
AWSSDK.S3 3.5.10	See Third Party License Information.
AWSSDK.S3 3.5.3.8	See Third Party License Information.
AWSSDK.S3 3.7.9.21	See Third Party License Information.
AWSSDK.S3.CodeAnalysis 3.5.0.0	See Third Party License Information.
AWSSDK.S3.CodeAnalysis 3.5.3.1	See Third Party License Information.
Azure.Core 1.21.0	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Azure.Core 1.25.0	Use of this component is governed by the MIT license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Azure.Identity 1.5.0	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Azure.Identity 1.6.0	Use of this component is governed by the MIT license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Bootstrap 4.5.2	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.

Component	License or Acknowledgment
Bootstrap 4.5.0	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Bootstrap 4.6.0	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
bootswatchv3.1.0+1 v3.1.0+1	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Castle.Core 4.4.0	Copyright © 2004-2019 Castle Project - http://www.castleproject.org/ See Third Party License Information.
Castle.Core 4.4.1	Copyright © 2004-2019 Castle Project - http://www.castleproject.org/ See Third Party License Information.
Castle.Core 5.0.0	Copyright © 2004-2019 Castle Project - http://www.castleproject.org/ See Third Party License Information.
CodeMirror 5.41.0	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
CodeMirror 5.59.4	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
JQuery 3.2.1	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.

Component	License or Acknowledgment
jquery 3.5.1	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
jquery 3.6.0	Use of this component is governed by the MIT license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
JQuery UI 1.12.1	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © 2007, 2014 jQuery Foundation and other contributors, https://jquery.org/
jquery-tooltipster 4.1.6	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft Unity 4.0.1	Copyright © Microsoft Corporation. All rights reserved. See Third Party License Information.
Microsoft.ApplicationInsights.Agent.Intercept 2.4.0	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © Microsoft Corporation
Microsoft.ApplicationInsights.DependencyCollector 2.4.0	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © Microsoft Corporation
Microsoft.ApplicationInsights.DependencyCollector 2.4.1	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.

Component	License or Acknowledgment
	Copyright © Microsoft Corporation
Microsoft.ApplicationInsights.PerfCounterCollector 2.4.0	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © Microsoft Corporation
Microsoft.ApplicationInsights.PerfCounterCollector 2.4.1	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © Microsoft Corporation
Microsoft.ApplicationInsights.Web 2.4.0	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © Microsoft Corporation
Microsoft.ApplicationInsights.Web 2.4.1	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © Microsoft Corporation
Microsoft.ApplicationInsights.Windows Server 2.4.0	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © Microsoft Corporation
Microsoft.ApplicationInsights.Windows Server 2.4.1	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © Microsoft Corporation
Microsoft.ApplicationInsights.Windows Server.TelemetryChannel 2.4.0	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.

Component	License or Acknowledgment
	Copyright © Microsoft Corporation
Microsoft.AspNet.WebApi.Client 5.2.7	Copyright © .NET Foundation. All rights reserved. See Third Party License Information.
Microsoft.Azure.KeyVault.Core 1.0.0	See Third Party License Information.
Microsoft.Azure.KeyVault.Core 3.0.5	See Third Party License Information.
Microsoft.Bcl.AsyncInterfaces 6.0.0	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.CSharp 4.0.30319.34211	Use of this component is governed by the MIT 1.0 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.CSharp 4.8.0	Use of this component is governed by the MIT license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.Data.Edm 5.8.4	Use of this component is governed by the OData .NET Libraries - ODataLib 2018 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © 2018 Microsoft. All rights reserved.
Microsoft.Data.Edm 5.8.5	Use of this component is governed by the OData .NET Libraries - ODataLib 2018 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © 2018 Microsoft. All rights reserved.
Microsoft.Data.Edm.resources 5.8.4.63386	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.Data.OData 5.8.4	Use of this component is governed by the OData .NET Libraries - ODataLib 2018 license, which can be found

Component	License or Acknowledgment
	at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © 2018 Microsoft. All rights reserved.
Microsoft.Data.OData 5.8.5	Use of this component is governed by the OData .NET Libraries - ODataLib 2018 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © 2018 Microsoft. All rights reserved.
Microsoft.Data.OData.resources 5.8.4.63386	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.Data.Services 5.8.4	Use of this component is governed by the OData .NET Libraries - ODataLib 2018 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © 2018 Microsoft. All rights reserved.
Microsoft.Data.Services 5.8.5	Use of this component is governed by the OData .NET Libraries - ODataLib 2018 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © 2018 Microsoft. All rights reserved.
Microsoft.Data.Services.Client 5.8.4	Use of this component is governed by the MIT 1.0 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © 2018 Microsoft. All rights reserved.
Microsoft.Data.Services.Client 5.8.5	Use of this component is governed by the MIT 1.0 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © 2018 Microsoft. All rights reserved.
Microsoft.Data.Services.Client.resources 5.8.4.63386	Use of this component is governed by the MIT Template 2020 license, which can be found at

Component	License or Acknowledgment
	https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.Data.Services.resources 5.8.4.63386	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.Deployment.WindowsInstaller 3.11.2.4516	Use of this component is governed by the Microsoft Reciprocal License (MS-RL) N/A license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.Exchange.WebServices 3.0.4	Use of this component is governed by the MIT 1.0 license, wich can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.Graph 4.15	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.Graph 4.34.0	Use of this component is governed by the MIT license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.Graph.Core.dll 2.0.7.0	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.Graph.Core.dll 2.0.9.0	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.Identity.Client 4.28.0	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.

Component	License or Acknowledgment
Microsoft.Identity.Client 4.45.0	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.Identity.Client.Extensions.Msal 2.18.4	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.Identity.Client.Extensions.Msal 2.22.0	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.IdentityModel.Abstraction 6.21.0	Use of this component is governed by the MIT N/A license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.IdentityModel.JsonWebTokens 6.15.0	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.IdentityModel.JsonWebTokens 6.21.0	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.IdentityModel.Logging 6.15.0	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.IdentityModel.Logging 6.21.0	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.IdentityModel.Protocols 6.15.0	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Component	License or Acknowledgment

Component	License or Acknowledgment
Microsoft.IdentityModel.Protocols 6.21.0	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.IdentityModel.Protocols.OpenIdConnect 6.15.0	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.IdentityModel.Protocols.OpenIdConnect 6.21.1	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.IdentityModel.Tokens 6.15.0	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.IdentityModel.Tokens 6.21.0	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.Net.Compilers 3.1.1	See Third Party License Information.
Microsoft.NETCore.Platforms 3.1.1	Use of this component is governed by the MIT 1.0 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © .NET Foundation and Contributors
Microsoft.Practices.Unity 4.0.1	See Third Party License Information.
Microsoft.Practices.Unity.Configuration 4.0.1	See Third Party License Information.
Microsoft.Practices.Unity.RegistrationByConvention 4.0.1	See Third Party License Information.
Microsoft.Practices.Unity.WebApi 4.0.1	See Third Party License Information.

Component	License or Acknowledgment
Microsoft.Rest.ClientRuntime 2.3.20	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.Rest.ClientRuntime.Azure 3.3.18	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.WindowsAzure.ConfigurationManager 1.7.0.3	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.WindowsAzure.ConfigurationManager 3.2.3.0	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.WindowsAzure.Storage 7.2.1.0	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Microsoft.WindowsAzure.Storage 9.3.2.0	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Modernizr 2.8.3	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © 2013 Modernizer
morelinq 2.10.0	See Third Party License Information.
morelinq 3.0.0	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © Microsoft Corporation

Component	License or Acknowledgment
morelinq.dll 3.3.2	See Third Party License Information.
murmurhash-signed 1.0.3	Copyright © Microsoft Corporation. All rights reserved. See Third Party License Information.
NETStandard.Library 2.0.3	Use of this component is governed by the MIT 1.0 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © Microsoft Corporation. All rights reserved.
Newtonsoft.Json 12.0.3	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © James Newton-King
Newtonsoft.Json 13.0.1	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © James Newton-King
Ninject 3.2.x	Copyright © 2007-2012 Enkari, Ltd and the Ninject project contributors See Third Party License Information.
Ninject 3.3.6	Copyright © 2007-2012 Enkari, Ltd and the Ninject project contributors See Third Party License Information.
Ninject.Extensions.Conventions 3.2.2	See Third Party License Information.
NLog 4.7.8	Use of this component is governed by the BSD 3-Clause license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.

Component	License or Acknowledgment
NLog 4.7.15	Use of this component is governed by the BSD 3-Clause license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
NLog.Config 4.7.2	Use of this component is governed by the BSD 3-Clause NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
NLog.Schema 4.7.2	Use of this component is governed by the BSD 3-Clause NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Nsubstitute 4.2.2	Use of this component is governed by the BSD 3-Clause NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Nsubstitute 4.3.0	Use of this component is governed by the BSD 3-Clause NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
NUnit 3.12.0	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. • Copyright © 2002-2004 James W • Copyright © 2000-2002 Philip A • Copyright © 2002-2014 Charlie Poole • Copyright © 2019 Charlie Poole, Rob Prouse
PDFsharp-MigraDoc-wpf 1.50.5147	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © 2005-2019 empira Software GmbH, Troisdorf (Germany)

Component	License or Acknowledgment
popper.js 1.16.1.0	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Respond 1.4.2	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
RestSharp 105.2.3	See Third Party License Information.
SharpSerializer 2.20.0	Use of this component is governed by the New BSD NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
SharpSerializer 3.0.2.0	Use of this component is governed by the New BSD NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
SSH.Net 2016.1.0 2016.1.0	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx Copyright © 2012-2017, RENCI
SSH.NET 2020.0.1	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
SSH.NET 2020.0.2	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
stdole.dll 7.00.9466	Portions utilize Microsoft Windows Media Technologies. Copyright (c) 2006 Microsoft Corporation. All Rights Reserved
System.Buffers 4.5.0	Use of this component is governed by the MIT NA license, which can be found at

Component	License or Acknowledgment
	https://www.quest.com/legal/third-party-licenses.aspx © Microsoft Corporation. All rights reserved.
System.Data.SqlClient 4.8.1	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx Copyright © Microsoft Corporation
System.Data.SqlClient 4.8.3	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx Copyright © Microsoft Corporation
System.Diagnostics.DiagnosticSource 4.4.1	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx Copyright © .NET Foundation and Contributors
System.Diagnostics.DiagnosticSource 6.0.0	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx Copyright © .NET Foundation and Contributors
System.DirectoryServices.Protocols 4.7.0	Use of this component is governed by the MIT 1.0 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx Copyright © .NET Foundation and Contributors
System.Drawing.Common 4.6.29719.01	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
System.Drawing.Common 4.7.0	Use of this component is governed by the MIT Template 2020 license, which can be found at

Component	License or Acknowledgment
	https://www.quest.com/legal/third-party-licenses.aspx.
System.Drawing.Common 6.0.0	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
System.IdentityModel.Tokens.Jwt 6.21.0	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
System.IO.FileSystem.AccessControl 5.0.0	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
System.Management.Automation 6.1.7601.17514	See Third Party License Information.
System.Management.Automation 6.3.9600.17400	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
System.Management.Automation 7.2.5	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
System.Management.Automation_PowerShell_3.0 6.3.9600.17400	Microsoft Corporation See Third Party License Information.
System.Memory 4.5.3	Use of this component is governed by the MIT 1.0 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx
System.Memory 4.5.5	Use of this component is governed by the MIT 1.0 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx

Component	License or Acknowledgment
System.Memory.Data 1.0.2	Use of this component is governed by the MIT 1.0 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx
System.Memory.Data 6.0.0	Use of this component is governed by the MIT 1.0 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx
System.Net.Http.WinHttpHandler 6.0.1	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
System.Numerics.Vectors 4.5.0	Use of this component is governed by the MIT 1.0 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx Copyright © .NET Foundation and Contributors
System.Numerics.Vectors 4.6.26515.06	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
System.Reflection.TypeExtensions 4.7.0	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
System.Reflection.TypeExtensions 4.700.19.56404	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
System.Runtime.CompilerServices.Unsafe 5.0.0	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © .NET Foundation and Contributors
System.Runtime.CompilerServices.Unsafe 6.0.0	Use of this component is governed by the MIT Template 2020 license, which can be found at

Component	License or Acknowledgment
	https://www.quest.com/legal/third-party-licenses.aspx. Copyright © .NET Foundation and Contributors
System.Runtime.Serialization.Xml 4.6.26011.01	See Third Party License Information.
System.Security.AccessControl 5.0.0	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © .NET Foundation and Contributors
System.Security.AccessControl 6.0.0	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © .NET Foundation and Contributors
System.Security.Cryptography.Xml 5.0.20.51904	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
System.Security.Cryptography.Xml 6.0.0	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
System.Security.Cryptography.ProtectedData 6.0.0	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
System.Security.Permissions 4.5.0	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. • Copyright © Microsoft Corporation • Copyright © .NET Foundation and Contributors

Component	License or Acknowledgment
System.Security.Permissions 5.0.20.51904	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. • Copyright © Microsoft Corporation • Copyright © .NET Foundation and Contributors
System.Security.Permissions 6.0.0	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. • Copyright © Microsoft Corporation • Copyright © .NET Foundation and Contributors
System.Security.Principal.Windows 5.0.0	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. • Copyright © Microsoft Corporation • Copyright © .NET Foundation and Contributors
System.Spatial 5.8.4.63386	Use of this component is governed by the OData .NET Libraries - ODataLib 2018 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © 2018 Microsoft. All rights reserved.
System.Spatial 5.8.5	Use of this component is governed by the OData .NET Libraries - ODataLib 2018 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © 2018 Microsoft. All rights reserved.
System.Spatial.resources 5.8.4.63386	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
System.Text.Encodings.Web 6.0.0	Use of this component is governed by the MIT Template 2020 license, which can be found at

Component	License or Acknowledgment
	https://www.quest.com/legal/third-party-licenses.aspx.
System.Text.Json 6.0.1	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
System.Text.Json 6.0.5	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
System.Text.RegularExpressions 4.3.1	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © .NET Foundation. All rights reserved.
System.Threading.Tasks.Extensions 4.5.4	Use of this component is governed by the MIT 1.0 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx
System.Threading.Tasks.Extensions 4.6.28619.01	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Microsoft Corporation
System.ValueTuple 4.5.0	Use of this component is governed by the MIT 1.0 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx
System.ValueTuple 4.6.26515.06	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx. Copyright © .NET Foundation and Contributors
System.Web.Razor.dll 3.0.61128.0	See Third Party License Information.

Component	License or Acknowledgment
toastr 2.1.1	Use of this component is governed by the MIT NA license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Unity.Abstractions 5.11.7	See Third Party License Information
Unity.AspNet.WebApi 5.11.2	See Third Party License Information.
Unity.Container 5.11.11	See Third Party License Information
WebActivatorEx 2.2.0	Copyright © Microsoft 2010 See Third Party License Information.
WebGrease 1.6.x	Copyright © Microsoft 2012 See Third Party License Information.
Windows Installer XML Toolset (aka WiX) 3.11.2	Use of this component is governed by the Microsoft Reciprocal License (MS-RL) N/A license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
Windows Installer XML Toolset (aka WiX) 3.11.2	Use of this component is governed by the Microsoft Reciprocal License (MS-RL) N/A license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
WindowsAzure.Storage 1.7.0	See Third Party License Information.
WindowsAzure.Storage 7.2.1	Copyright © 2013 Microsoft Corp See Third Party License Information.
xunit 2.4.1	Copyright © 2018, James Newkirk, Brad Wilson See Third Party License Information.
xunit.abstractions 2.0.0.0	See Third Party License Information.
xunit.analyzers 0.10.0	See Third Party License Information.
xunit.assert 2.4.1	See Third Party License Information.
xunit.core 2.4.1	See Third Party License Information.

Component	License or Acknowledgment
xunit.extensibility.core 2.4.1	See Third Party License Information.
xunit.extensibility.execution 2.4.1	See Third Party License Information.
xunit.runner.console 2.4.1	See Third Party License Information.
xunit.runner.visualstudio 2.4.1	See Third Party License Information.
YamlDotNet 9.1.4.0	Use of this component is governed by the MIT Template 2020 license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.
YamlDotNet 11.2.1	Use of this component is governed by the MIT N/A license, which can be found at https://www.quest.com/legal/third-party-licenses.aspx.

Third Party License Information

The following third-party license applies to:

- AWSSDK.Core 3.5.1.23
- AWSSDK.Core 3.5.3.8
- AWSSDK.S3 3.5.0
- AWSSDK.S3 3.5.10
- AWSSDK.S3 3.5.3.1
- AWSSDK.S3.CodeAnalysis 3.5.0.0
- AWSSDK.S3.CodeAnalysis 3.5.3.1
- Castle.Core 4.4.0
- Castle.Core 4.4.1
- Microsoft Unity 4.0.1
- Microsoft.AspNet.WebApi.Client 5.2.7
- Microsoft.Azure.KeyVault.Core 1.0.0
- Microsoft.Net.Compilers 3.1.1
- morelinq 2.10.0

- Microsoft.Practices.Unity 4.0.1
- Microsoft.Practices.Unity.Configuration 4.0.1
- Microsoft.Practices.Unity.WebApi 4.0.1
- murmurhash-signed 1.0.3
- Ninject 3.2.x
- Ninject 3.3.6
- Ninject.Extensions.Conventions 3.2.2
- RestSharp 105.2.3
- System.Management.Automation 6.1.7601.17514
- System.Management.Automation 6.1.7601.17515
- System.Management.Automation_PowerShell_ 3.0 6.3.9600.17400
- System.Runtime.Serialization.Xml 4.6.26011.01

- Unity.AspNet.WebApi 4.0.1
- Unity.AspNet.WebApi 5.11.2
- Unity.Container 5.11.11
- WebActivatorEx 2.2.0
- WebGrease 1.6.x
- WindowsAzure.Storage 1.7.0
- xunit 2.4.1
- xunit.abstractions 2.0.3
- xunit.analyzers 0.10.0
- xunit.assert 2.4.1
- xunit.assert 2.4.1
- xunit.core 2.4.1
- xunit.extensibility.core 2.4.1
- xunit.extensibility.execution 2.4.1

- System.Web.Razor.dll 3.0.61128.0
- Unity.Abstractions 5.11.7
- xunit.runner.console 2.4.1
- xunit.runner.visualstudio 2.4.1

For more third-party license information, see https://www.quest.com/legal/third-partylicenses.aspx.

Apache License
Version 2.0, January 2004
http://www.apache.org/licenses/

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this

definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution." "Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable. copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

(a) You must give any other recipients of the Work or Derivative Works a copy of this License; and

(b) You must cause any modified files to carry prominent notices stating that You changed the files; and

(c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and

(d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your

modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify,defend, and hold each Contributor harmless for any liabilityincurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

Quest creates software solutions that make the benefits of new technology real in an increasingly complex IT landscape. From database and systems management, to Active Directory and Office 365 management, and cyber security resilience, Quest helps customers solve their next IT challenge now. Around the globe, more than 130,000 companies and 95% of the Fortune 500 count on Quest to deliver proactive management and monitoring for the next enterprise initiative, find the next solution for complex Microsoft challenges and stay ahead of the next threat. Quest Software. Where next meets now. For more information, visit www.quest.com.

For sales or other inquiries, visit www.quest.com/contact.

Technical Support Resources

Technical support is available to Quest customers with a valid maintenance contract and customers who have trial versions. You can access the Quest Support Portal at https://support.quest.com. The Support Portal provides self-help tools you can use to solve problems quickly and independently, 24 hours a day, 365 days a year. The Support Portal enables you to:

- Submit and manage a Service Request

- View Knowledge Base articles

- Sign up for product notifications

- Download software and technical documentation

- View how-to videos

- Engage in community discussions

- Chat with support engineers online

- View services to assist you with your product