AccessData Forensic Toolkit 7.0 Release Notes

Document Date: 11/20/2018

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Introduction

This document lists the new features, fixed issues, and known issues for this version of Forensic Toolkit® (FTK®). All known issues published under previous release notes still apply until they are listed under "Fixed Issues."

- See What is New in 7.0 on page 1.
- See Fixed Issues in 7.0 on page 15.
- See Important Information on page 17.
- See AccessData Legal Information on page 25.

What is New in 7.0

The following items are new and improved for this release:

System and Architecture

Microsoft SQL Server support

- Added support for using Forensic Toolkit® (FTK®) with SQL Server 2016.
 (SQL Server 2012 and 2014 are still supported)
- SQL Server 2008 is no longer supported

Cloud Based Relational Database Services (RDS) Support

The AccessData Suite can now be run on Amazon Web Services (AWS) using the new Cloud Based option. Users will log in using a link to the web service and all services and processing will be located online. Users have the option to use the AWS™ provided PostgreSQL engine or the AWS Aurora™ service. AWS PostgreSQL RDS is wire-compatible with PostgreSQL 9.6.x.

See Cloud Based Relational Database Services (RDS) Support on page 19.

Product Virtualization Support

AccessData will support its products in a virtual environment running on supported operating systems and environments by both the Vendor/manufacturer and AccessData.

See AD Product Virtualization and Cloud Guidelines on page 20.

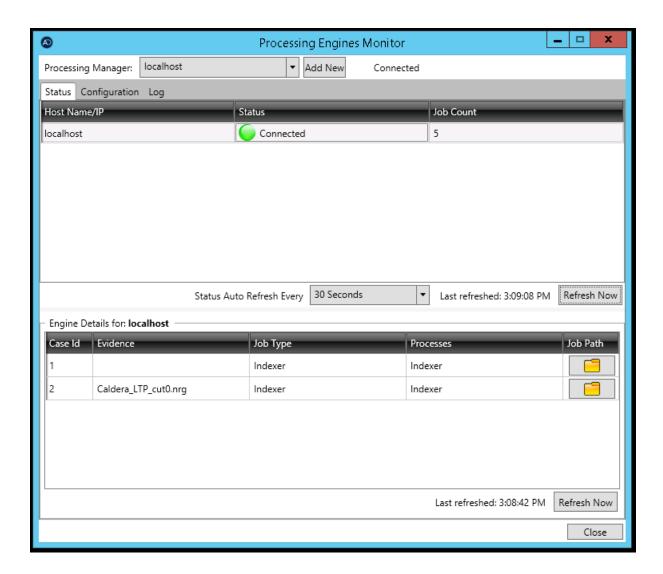
Job Management

DPE monitoring and administration application

This enhancement allows users to manage the distributed processing engines more dynamically; allowing for instant clarity on what each engine is working on. (15120)

The following actions can be made:

- Select the desired processing manager, if multiple managers exist
- View a list of all processing engines at a single glance
- Select an individual engine to make changes to the settings and to see what it's working on; including Case, Evidence, Job Type, and Processes
- Dynamically configure individual engines, including Add, Remove, Enable/Disable, and Refresh



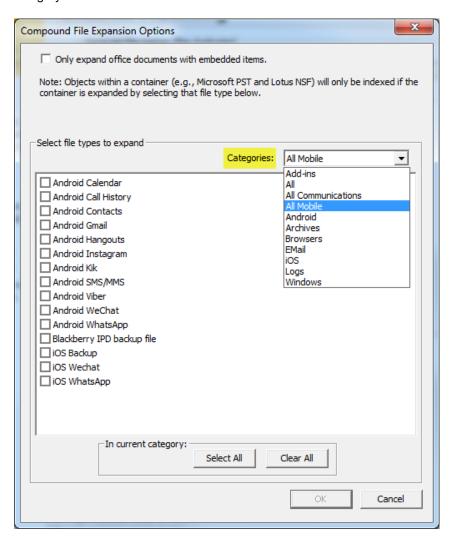
Dynamically add and remove distributed processing engines

It is now possible to add and remove distributed processing engines with the touch of a button.

Processing

Compound File Expansion Options

The Compound File Expansion Options list can now be filtered by category. When you select a category, all related options are displayed. You can select one or more file types or click Select All or Clear All within the category. Click Cancel to restore default selections.



Additional Expansion Options

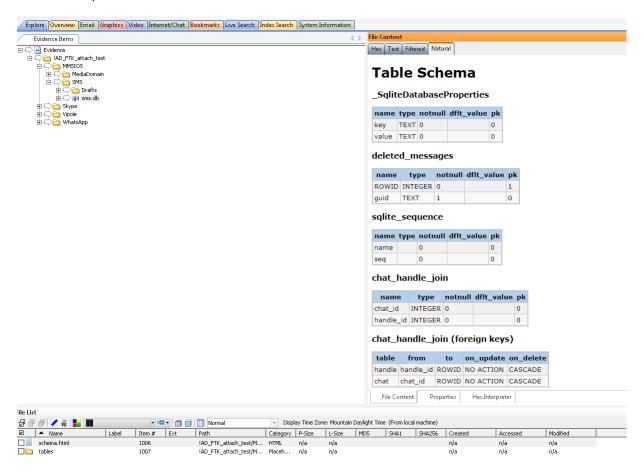
The following parsers have been added:

- Windows Firewall Log
- McAfee Log
- Registry Policy
- OpenSSH Known Hosts

SQLite Schema Output

Updated SQLite Schema information, useful information

There is an enhanced SQL databases expansion option. When applied, this option will display the schema HTML file. When viewed in the File Content panel, tables showing which data is contained within the selected database will be visible. This provides insight into whether a particular Python script should be applied in order to locate more specific data of interest.

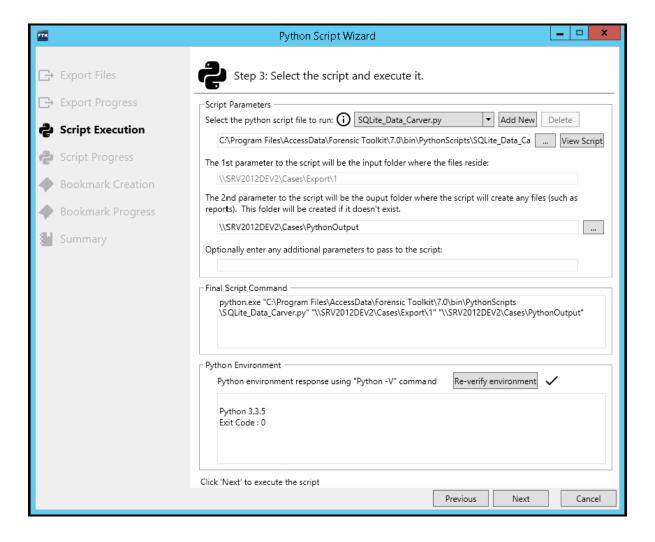


Python Scripting

Python scripting user interface

This feature allows users to run any Python script on selected evidence files within a case. Users are able to parse SQLite databases not yet supported by FTK. Users can run their own custom Python scripts to produce any kind of desired results. The wizard allows results to be attached to case reports by using bookmarks. Multiple scripts can be run consecutively within the wizard. Use of Python 3.0 and newer is recommended for full functionality. (16143)

Important: The Python scripts that come with the application need Python 3.0; however, users can add their own Python 2 scripts and still use a Python environment for those scripts.



Decryption

Dell Encryption Decryption

Credant Decryption is now Dell Encryption Decryption.

The following are now supported:

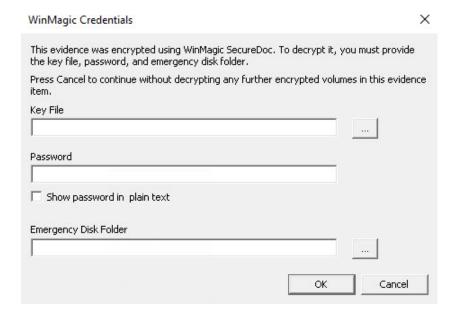
- Dell Encryption Full Disk Encryption (data at rest)
- Dell Encryption File Folder Encryption (data at rest)

SecureDoc WinMagic AES

Added support for SecureDoc WinMagic AES Encryption. When you process data that is encrypted with WinMagic, you are prompted to enter the WinMagic credentials.

Supported versions:

- Secure Doc Enterprise Server Version 8.2
- Standalone Installer Version 7.5

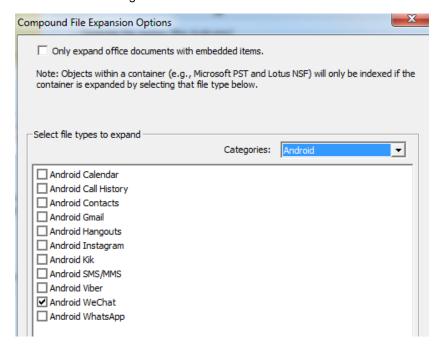


Mobile Phone Support

Mobile Parsers

The following parsers have been added:

- Android SMS/MMS
- Android Gmail
- Android Calendar
- Android Call Log
- Android Kik
- Android Google Hangouts
- Android Viber
- Android Instagram



Redesigned Chat Conversations

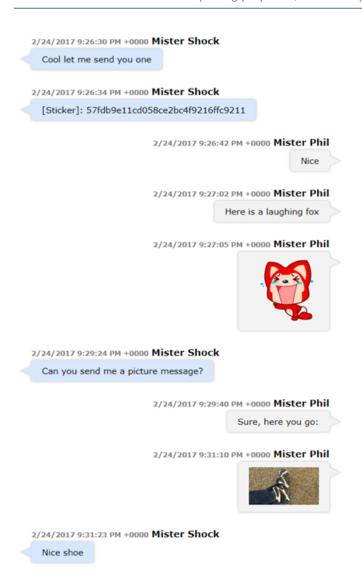
The following conversations are now shown in a standard messaging format. This makes it easier to view and to export information to third parties without having to append an explanation for the data.

- Android SMS/MMS
- Celebrite Chat
- FB Messenger (Android)
- Hangouts
- Instagram (Android)
- Kik (Android)
- Pidgin
- Skype
- Viber (Android)
- WeChat (Android)
- WeChat (iOS)
- What's App (Android)
- Whats App (iOS)
- XRY Chat

You can apply the Chat Conversations column setting in the File List to see the most relevant data for these files. The type of chat will be listed in the Src (Source) column.

Important: If a non-text item from a chat was not captured in the evidence file, the unavailable item will be listed along with any relevant information. These could include items such as images, videos, voice recordings, locations, stickers, emojis, or other attachments.

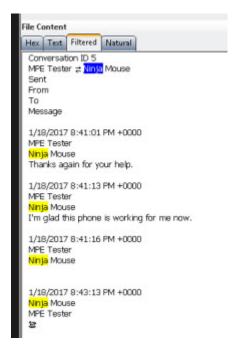
Note: In some cases the Standard Messaging Format will not be available. This includes reporting and Viber chat. **Workaround:** For reporting purposes, use the export feature.



Chat Filtered View

The chat Filtered view has changed.

Previously, the name of the recipient was displayed for each comment in the conversation. In the following example, when performing an index search on the name Ninja, this conversation would have resulted in five search hits.



In 7.x, the name of the recipient is not shown for each comment in the conversation. This not only changes the view, but also reduces the count of index search hits for the name Ninja, in this example, from five to two.

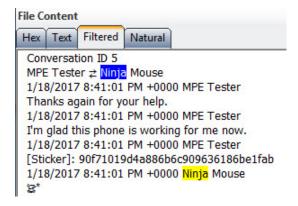


Image and Video Review Optimization

Thumbnail large case review optimization

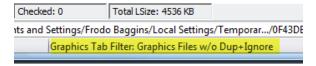
Users can now load over 10 million images for review.

Easily Remove Duplicate and Non-Relevant Graphics

New Filter: Graphics Files w/o Dup+Ignore

There is a new filter named *Graphics Files w/o Dup+Ignore*. When applied as the Tab Filter for the Graphics tab, this filter will hide any graphics files flagged as the following:

- Duplicate Items
- Flagged Ignore
- KFF Ignorable

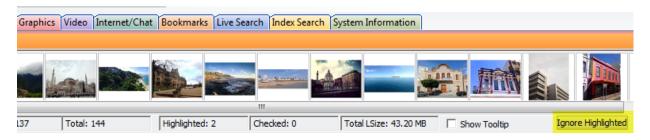


For example, when processing graphics data, you can enable the *Flag Duplicate Files* processing option. In the *Graphics* tab, when this filter is applied, it will automatically hide any graphic files that were flagged as Duplicate Items. You can review the files that are flagged as duplicates by viewing *Overview > Files Status > Duplicate Items*.

On a new installation, this new filter is the default Tab Filter for the Graphics tab. In an upgrade environment, you can apply this new filter as the default Graphics Tab Filter.

New Button: Ignore Highlighted

In conjunction with the *Graphics Files w/o Dup+Ignore filter*, a new *Ignore Highlighted* button has been added to the *Thumbnails* pane on the *Graphics* tab. You can select one or more files and click **Ignore Highlighted**. This then gives the files a *Flagged Ignore* status, and with the *Graphics Files w/o Dup+Ignore filter* applied, the files are no longer shown. This allows users to quickly filter out graphics files that are not applicable to their case. You can review the files that you have ignored by viewing *Overview > Files Status > Flagged Ignore*.



Export

Exporting Native Emails to PST

When exporting native email messages, you have the option to "Output message in a PST/NSF". However, for that option to work, Outlook must be installed on the computer running the Evidence Processing Engine.

The following enhancements have been made when using that option and especially when creating a new PST:

- You can now have Outlook version 2016 installed. Outlook 2013 is still supported.
 - Previously, to determine if Outlook was installed, the "MAPIX" value under the following registry key was queried:
 - HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows Messaging Subsystem
 - To support "Click To Run" installers for Outlook, the following keys are now also queried for the MAPIX value:
 - "HKEY_LOCAL_MACHINE\SOFTWARE\\Microsoft\\Office\\ClickToRun\\REGISTRY\\MACHINE\\ Software\\Microsoft\\Windows Messaging Subsystem
 - "HKEY_LOCAL_MACHINE\SOFTWARE\\Microsoft\\Office\\ClickToRun\\REGISTRY\\MACHINE\\ Software\\Wow6432Node\\Microsoft\\Windows Messaging Subsystem.
- Emails contained in OST files are now automatically exported to a new PST archive.

Upgrade Script for Previous OST Files to Export to PST

As additional support for exporting OST to PST, if you have OST email data that was processed in a previous release, you have the option to run an upgrade script against those OST files.

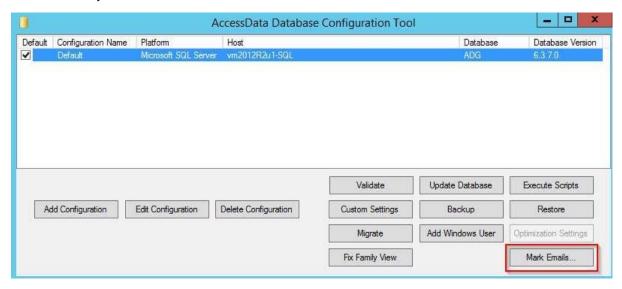
This script marks the emails within OST files so that when you export emails, it will behave the same as data that was processed with 7.0—they will get exported to PST. Otherwise, when you generate an export, the legacy OST will get exported as individual items.

You do not need to run this script for any data that is processed after installing 7.0.

To run the upgrade script

- 1. Install 7.0.
- 2. Run the AccessData Database Configuration Tool by doing the following:
 - 2a. Browse to the path of DBConfig.exe.

 The default path is C:\Program Files\AccessData\DBConfigTool.
 - 2b. Right-click DBConfig.exe and click Run as Administrator.
- 3. Select your database and click Mark Emails.



4. Click **OK** in the confirmation dialog.

Removal of Agent Functionality

All agent and remote data functionality has been removed from Forensic Toolkit® (FTK®) and is only available in AD Enterprise.

This include the following features:

- Adding Remote Live Evidence
- · Volatile Memory tab
- Configure, push, connect to, and disconnect Agent

Fixed Issues in 7.0

Admin

 A user with the Project/Case Administrator role can now restore and attach cases from one version to another. The Application Administrator role is no longer required. (15596)

Note: Be aware that a user with the Project/Case Administrator role can restore/attach any case, not just the cases that the user has rights to. However, if the user does not have rights to a case that is restored/attached, they still cannot see it in the Case List. (15804)

- Loading times for copy previous case for MSSQL has been improved (13090)
- Enhancements for absolute paths (12832)

Processing

- When adding evidence, lx01 is new displayed as an image format. (15649)
- The Data Processing Status properly displays of the Processing Engine Monitor is already open. (16175)
- The Data Processing Status properly displays after clicking the top item in the evidence list. (15337)
- Improved the handling of evidence processing jobs that become interrupted. (13990)

Imports

• The import utility server address no longer reverts back to localhost every time it closes (13163)

Image and Video

- Generate Common Video File option is now functional for all cases (13815)
- Proper focus is given to graphic thumbnails when selected. (15918, 17147)
- Navigating the Graphics tab with a large number of graphics has been improved. (14989)
- When shift-click or control-click are used to select multiple files in the thumbnail pane, the File Content pane is cleared if nothing, or multiple things, are selected. (17148)

KFF

- Adding hashes to the KFF from the volatile screen no longer fails (13951)
- The ability to add large JSON files and VIC cases has been improved. (15906)
- Viewing large JSON files in KFF no longer gives a server busy error. (16215)

Tasks

Tasks with an Alert status set to True are now colored red in the Task List. (15007)

Export

- When using the Export to Image option, the image is once again processed back into the case. (15835)
- When specifying a new path for exports, you can no longer begin the folder name with a space. (14292)

Mobile

- The Company column now populates for Mobile Phone Contacts. (13054)
- The SRC (source) column now populates correctly when processing XRY, MMS, and SMS files. (13123, 12319)
- The names of Android and IOS parsers in processing profiles have been standardized. (16293)
- When viewing Android phone Contact information in the *Overview* tab, on the *File Content > Natural* tab, the *Display Name* is no longer displayed twice. (14946)

Filters

• When creating a new filter, its criteria properties are saved. (13714).

Important Information

Supported Platforms

Windows Operating Systems Support

You can install AccessData® Forensic Toolkit® (FTK®) on the following operating systems:

- Windows 7
- Windows 10 Version 1709 (OS Build 16299.309)
- Windows Server 2012
- Windows Server 2016

See the Forensic Toolkit® (FTK®) System Implementation Guide at

https://support.accessdata.com/hc/en-us/sections/200667399-System-Specification-Guides

Microsoft SQL Server Support

The following SQL databases are supported:

- SQL Server 2012
- SQL Server 2014
- SQL Server 2016

PostgreSQL Support

The following versions of PostgreSQL are supported:

- 9.0.x, 9.1.6, 9.1.11, or 9.1.13
- 9.6.3.5 (this is the version provided with the FTK installation files)

For Additional Information

Latest Documentation

The documentation is sometimes updated. For the latest documentation, see the product download page:

http://accessdata.com/product-download

or download the zip file from

www.accessdata.com/productdocs/ftk/ftk.zip.

Installation and Upgrade

- The FTK Suite (FTK, AD Lab, AD Enterprise) no longer supports multiple products of the same version running on the same machine at the same time. The user can only install one of the three products of a specific version on a single machine. (29786, 30927)
- For FTK installation and upgrade instructions, see the FTK Quick Install Guide and the detailed FTK Installation Guide see the product download page:
 http://accessdata.com/product-download
- FTK supports Distributed Processing Engines (DPEs).

 Before installing Distributed Processing, see the *Install Guide*.

Cloud Based Relational Database Services (RDS) Support

The AccessData Suite can now utilize the power and scale of Amazon Web Services™ managed relational database service (AWS RDS).

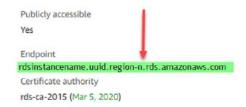
Users have the option to use the AWS[™] provided PostgreSQL engine or the AWS Aurora[™] service. AWS PostgreSQL RDS is wire-compatible with PostgreSQL 9.6.x.

AWS Aurora is an Amazon proprietary service that is PostgreSQL *compatible* offering up to 3x faster than a traditional PostgreSQL 9.6.x instance.

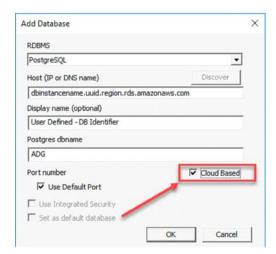
To use the amazon RDS Instance, you will need to set up your instance in your AWS console prior to installing the AccessData Suite. When selecting your RDS instance, make sure that the DB engine version for both Aurora and RDS is 9.6.x or higher. AccessData does not support PostgreSQL version 10 in this release.

You will also need to specify a "master" user. This is to work around the limitation that the RDS and Aurora PostgreSQL engine(s) will not allow users to have access to the "postgres" user within the DB engine. Please discuss this and all security implications with your network or database administrator(s).

Once you have selected and set up your database instance, you will use the "endpoint" on the status screen to connect your database



Once this endpoint is available, you will be able to select "Cloud Based" on the UI of the "Add Database" screen for the AccessData Suite.



When prompted, enter both the Username and Password you provided during the RDS set up in your AWS console. Once complete, the database(s) for your products will be in the AWS cloud, alleviating the need for an on-premises Database server and instance.

Note: AccessData recommends not making the Database "Publically accessible" for security reasons. If using a VPN to connect to your cloud provider, you will need to update the rules for your security group to allow connections over your VPN.

AD Product Virtualization and Cloud Guidelines

Overview

This document outlines the support boundaries and procedures for supporting virtualized environments with AccessData software.

Introduction

While virtual machines have not traditionally been supported with AD Products; the fact is that most customers – small/medium business as well as large enterprise have rapidly moved away from a 1:1 server configuration for their workloads. Running virtual machines and sharing the resources have long been a way to maximize the investment of computing resources.

A virtual machine / virtualized environment that is properly configured will work as reliably, and perform essentially the same as a physical server with dedicated resources.

Supported Virtual Environments

AccessData products are certified, and will work on the following Hypervisors and Cloud Based Environments:

Vendor/Service Provider	Version	Notes
VMware vSphere / ESXi	6.1 and higher	VMs must be Version 10 or higher
Microsoft Hyper-V	2012 R2 release and higher	VMs must be Generation 2
Amazon Web Services Elastic Compute Cloud (EC2)	AMIs running Windows Server 2016	AccessData recommends using c5/m5 compute fleets for AD Products.
Amazon Web Services Relational Database Services (RDS)	PostgreSQL Version 9.6.3 and higher. Aurora instances must not be version 10 or beyond.	AccessData recommends using db.m4 and db.r4 instances in your RDS deployment.
Microsoft Azure Compute Services	Azure Windows Virtual Machines running Windows Server 2016	AccessData recommends using Dsv2, Dsv3, Dv3 and Dv2 compute fleets for AD Products.

AccessData realizes there are other options for your cloud compute and virtualization infrastructure, however our products have not been tested on them for functionality and will not support providers and infrastructure outside of the guidance listed above.

Support Boundaries

AccessData will support its products in a virtual environment running on supported operating systems and environments by both the Vendor/manufacturer and AccessData.

Our software is designed and tested to work on various versions of Microsoft Windows, and our support strategy is based upon these being in compliance with vendor support and EOL Matrices.

AccessData does require that all of a customer(s) virtual resources are configured in alignment with our best practices and configuration work flow as outlined in our product documentation or as specified by our support team(s).

This includes ensuring that Virtual Machine resources are statically set and not dynamically set, nor controlled by the hypervisor – This applies specifically to the Processor Allocation, RAM, and Block Storage for a virtual machine to ensure they never go below a minimum threshold as outlined in our configuration guidelines.

Support Exclusions

- Underlying Network Performance problems on a Virtual switch
- Underlying disk performance problems on a virtual machine and/or host
- Connectivity to storage beyond ensuring AccessData's products can connect to their resource(s)
- Non AccessData software issues (e.g. Microsoft SQL Server)
- Clustering / High Availability / Resiliency software
- Protocol specific errors, including but not limited to
 - iSCSI Protocol Errors
 - VLAN Tagging
 - Virtual Machine Queue(s) (VMQ) on 10 GB Networks
 - Attempting to mount volumes over Network File System(s) (NFS)
- Under provisioning/configuration errors on a virtual machine.

Links and Resources

Microsoft Windows Server Product Lifecycle:

https://support.microsoft.com/en-us/lifecycle/search/1163

VMware Lifecycle Product Matrix:

https://www.vmware.com/content/dam/digitalmarketing/vmware/en/pdf/support/product-lifecycle-matrix.pdf

Note Not All products are guaranteed to work with all products from a specific vendor!

Running PostgreSQL on a Virtual Machine

If you run PostgreSQL on a virtual machine with a dynamically allocated virtual hard drive, you must manually stop the PostgreSQL service before rebooting the virtual machine. Otherwise, PostgreSQL will become corrupted.

If you run PostgreSQL on a virtual machine with a fixed size virtual hard drive, then PostgreSQL will not become corrupted when rebooting.

This does not apply to PostgreSQL instances hosted in a managed database service such as AWS Relational Database Service[™].

Upgrading CodeMeter

- FTK 5.6.1 and later include an updated version of CodeMeter Runtime Kit (5.21).
 - If this is a new installation of FTK you do not need to do anything and the latest version of CodeMeter is installed.
 - If you are upgrading to FTK 5.6.1, be aware that a security vulnerability has been detected in Codemeter 4.5. However, if you simply upgrade from CodeMeter 4.5 to 5.21, the vulnerability remains. To fix the vulnerability, you must manually uninstall 4.5 before installing 5.21. If you are upgrading to FTK 5.6.1, manually uninstall CodeMeter first and then install FTK 5.6.1 which will install a clean CodeMeter 5.21. Otherwise, after upgrading to FTK 5.6.1, manually uninstall CodeMeter 4.5 and then manually install CodeMeter 5.21.

KFF

- The KFF Server uses the Apache Cassandra database. The version of Cassandra being used requires 64-bit Java 8. No other version of Java (7 or 9) is currently supported.
 - To install Java, go to: https://java.com/en/download/windows-64bit.jsp
 - If you are using a 32-bit browser, your browser may automatically download the 32-bit version. You must use the 64-bit version.
- Make sure that you use the latest version of the KFF Server.
 See https://accessdata.com/product-download > Known File Filter 5.6 and up.
- When importing data using the KFF Import Utility, make sure that you get a confirmation that the import is complete before processing data using that KFF data. This is particularly important when importing NSRL data that takes several hours to import.
- Only the Project VIC and NSRL sets are locked/protected. All other sets in the KFF can be modified and archived.

Recommendations

- Cerberus writes binaries to the AD Temp folder momentarily in order to perform the malware analysis.
 Upon completion, it will quickly delete the binary. It is important to ensure that your antivirus is not scanning the AD Temp folder. If the antivirus deletes/quarantines the binary from the temp, Cerberus analysis will not be performed.
- If you choose to have a case's database files placed in the case folder, do not move your case folder without first archiving and detaching the case.
- When creating a Custom Data View, the available filter list should not include: Checked Files, Unchecked
 Files (checked status is not available across users), Bookmarked Files, Labeled Files (too broad and will
 include all bookmarks or labels). These filters have been removed from the list. (6533)
- Difference in file handling when using Belkasoft parsing:
 - If a SQLite database is encountered in the evidence that could have been handled by the Belkasoft parser but the Belkasoft All-in-One processing option was not checked, that SQLite database will get expanded using a generic SQLite expansion that shows tables and rows.
 - Any evidence processed in this manner that is later re-processed (using Additional Analysis) with the Belkasoft All-in-One expansion option will NOT be expanded using Belkasoft technology but will remain with the original expanded items.

To expand a SQLite database using Belkasoft technology that has already been expanded as a generic SQLite database, it must be added as a new, different piece of evidence, or a new case must be created.

New AD1 files and Imager 3.4.x

Any AD1 file created by FTK or Summation 6.0 or later can only be opened with Imager 3.4.0 or later.

Imager 3.4 can be freely download from the AD website:

http://accessdata.com/product-download

Using an older version of Imager will result in an "Image detection failed" error.

This happens because the AD1 format was enhanced to support forward compatibility between AccessData products. Newer AD1s have a version 4 in the header instead of 3. A hex editor can be used to quickly determine if your AD1 is v3 or v4.

Known Issues in 7.0

Distributed Processing Manager

When using a Distributed Processing Manager, and creating a project using a local path, you may receive
an error that it cannot find ProcessingHost.exe. (9104)

Workaround: Manually change the case path and/or evidence path to UNC.

Processing

- When attempting to process a disk image with a partition that has more that 31 restore points, that partition is listed as "Unrecognized File System". (16723)
- A user with the Project/Case Administrator role can restore/attach any case, not just the cases that the
 user has rights to. However, if the user does not have rights to a case that is restored/attached, they still
 cannot see it in the Case List. (15804)

Decryption

• When adding an image encrypted with FileVault2 on Mac 10.11 or later, you are not prompted for a password and as a result, the image data is not recognized. (17440)

Chats

 The Belkasoft option is for parsing chat messages and using AccessData's parsing, and when available, will result in additional extracted data.

If you use the *All Communications* processing profile and you have Belkasoft marked, Viber and Hangouts information is not parsed correctly. Only chat messages are returned. (17155)

Windows 10 Mail

 When viewing Windows 10 Mail (Unistore Database) evidence, Submit Date data is not available. (14165)

Viewers

• In Examiner and in the Web HTML 5 viewer, if you are viewing web content that has an Adobe SWF files in it, the SWF file will not be displayed. (17554)

Python Script Wizard

- If you open the Python Script Wizard, and you don't have a Python environment installed, in the *Python Environment* field, instead of a clear message, you will see a message the says "The system cannot find the specifiedExit Code: -98765". (17563)
- Python 2 environments will not have access to some features due to restrictions of the software.

Comments?

We value all feedback from our customers. Please contact us at *support@accessdata.com*, or send documentation issues to *documentation@accessdata.com*.

AccessData Legal Information

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