Precise Workload Analysis for SAP HANA Version 1.0

Table of Contents

1.	Welcome to Workload Analysis for SAP HANA	 	 3						
	1.1 About IDERA	 	 4						
	1.1.1 IDERA products	 	 5						
	1.1.2 Legal notice	 	 6						
	1.1.3 Contact IDERA	 	 10						
	1.2 Find answers	 	 11						
	1.2.1 Using Help	 	 12						
2.	Get Started	 	 13						
	2.1 Installation and deployment	 	 14						
	2.1.1 Software Requirements	 	 15						
	2.1.2 Hardware Requirements	 	 16						
	2.1.3 Required User Permissions	 	 17						
	2.1.4 Installation Instructions	 	 18						
3.	Workload Analysis for SAP HANA Dashboard .	 	 21						
4.	Administering Workload Analysis of SAP HANA		 	 	 	 	 	 	 23
	4.1 Apply License	 	 24						
	4.2 Add new Instance for monitoring	 	 25						
	4.3 Delete Existing Instance	 	 26						
	4.4 Product Uninstallation	 	 27						

Welcome to Workload Analysis for SAP HANA

This wiki helps you understand Precise Workload Analysis for SAP HANA characteristics and features.

IDERA Products Buy Support	rt Commun About Us	Resourc Legal es
----------------------------	--------------------	---------------------

About IDERA

IDERA is a leading provider of application and server management solutions. We have a wide variety of performance management products for Microsoft SQL Server, and award-winning server backup solutions for both managed service providers and enterprise customers. IDERA products install in minutes and start solving server problems immediately, giving administrators more time, reduced overhead and expenses, and increased server performance and reliability. We are a Microsoft Gold Certified partner, headquartered in Houston, Texas, with offices in Asia Pacific, Australia, New Zealand, Europe, Africa, and Latin America. So we're everywhere your IT needs are.

IDERA	Products	Purchas	Support	Commun	About	Resourc	Legal
Website		е		ity	Us	es	

IDERA products

Our tools are engineered to scale from managing a single server to enterprise deployments with thousands of servers. IDERA products combine ease of use with a design that installs in minutes, configures in hours, and deploys worldwide in days. To learn more about IDERA products, visit the IDERA Web site at www.idera.com.

IDERA	Products	Purchas	Support	Commun	About	Resourc	Legal
Website		е		ity	Us	es	

Legal notice

Idera, Inc. ("Idera") makes information and products available on this web site, subject to the following terms and conditions. By accessing this web site, you agree to these terms and conditions. Idera reserves the right to change these terms and conditions, and the products, services, prices, and programs mentioned in this web site at any time, at its sole discretion, without notice. Idera reserves the right to seek all remedies available by law and in equity for any violation of these terms and conditions. THIS WEB SITE MAY INCLUDE TECHNICAL OR OTHER INACCURACIES. CHANGES ARE PERIODICALLY MADE TO THE INFORMATION HEREIN. HOWEVER, IDERA MAKES NO COMMITMENT TO UPDATE MATERIALS ON THIS WEB SITE.

Trademark

Azure SQL Database Backup, Hyper-V VHD Explorer, Linux Hot Copy, PowerShellPlus, PowerShell Scripts for SQL Server, SQL admin toolset, SQL Backup Status Reporter, SQL check, SQL comparison toolset, SQL compliance manager, SQLcompliance, SQLcm, SQL defrag manager, SQL diagnostic manager, SQLdm, SQL doctor, SQL Elements, SQL Fragmentation Analyzer, SQL Integrity Check, SQL Job Manager, SQL mobile manager, SQL Permissions Extractor, SQLsafe, SQLsecure, SQLtool, SQL toolbox, SQL Traffic Accelerator, SQL virtual database, SQLvdb, SQL XEvent Profiler, virtual database, Idera, BBS Technologies and the Idera logo are trademarks or registered trademarks of Idera, Inc., or its subsidiaries in the United States and other jurisdictions. All other company and product names may be trademarks or registered trademarks of their respective companies. Elements of this web site are protected by trade dress or other laws and may not be imitated or reproduced in whole or in part.

Copyright

The information on this web site is protected by copyright. Except as specifically permitted, no portion of this web site may be distributed or reproduced by any means, or in any form, without Idera's prior written consent.

Use of the Software

The software and accompanying documentation available to download from this web site are the copyrighted work of Idera. Use of the software is governed by the terms of the License Agreement, which accompanies such software. If no license accompanies the download, the terms of the license, which accompanied the original product being updated, will govern. You will not be able to use, download, or install any software unless you agree to the terms of such License Agreement.

Use of web site information

Except as otherwise indicated on this web site, you may view, print, copy, and distribute documents on this web site subject to the following terms and conditions:

- The document may be used solely for informational, personal, non-commercial purposes;
- Any copy of the document or portion thereof must include all copyright and proprietary notices in the same form and manner as on the original;
- The document may not be modified in any way; and
- Idera reserves the right to revoke such authorization at any time, and any such use shall be discontinued immediately upon notice from Idera.

Documents specified above do not include logos, graphics, sounds or images on this web site or layout or design of this web site, which may be reproduced or distributed only when expressly permitted by Idera.

Warranties and Disclaimers; Liability Limitations

EXCEPT AS EXPRESSLY PROVIDED OTHERWISE IN A WRITTEN AGREEMENT BETWEEN YOU AND IDERA, ALL INFORMATION AND SOFTWARE ON THIS WEB SITE ARE PROVIDED "AS IS" WITHOUT WARRANTY OR CONDITIONS OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT.

IDERA ASSUMES NO RESPONSIBILITY FOR ERRORS OR OMISSIONS IN THE INFORMATION OR SOFTWARE OR OTHER DOCUMENTS WHICH ARE REFERENCED BY OR LINKED TO THIS WEB SITE.

IN NO EVENT SHALL IDERA BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY KIND, OR ANY DAMAGES WHATSOEVER (INCLUDING WITHOUT LIMITATION, THOSE RESULTING FROM: (1) RELIANCE ON THE MATERIALS PRESENTED, (2) COSTS OF REPLACEMENT GOODS, (3) LOSS OF USE, DATA OR PROFITS, (4) DELAYS OR BUSINESS INTERRUPTIONS, (5) AND ANY THEORY OF LIABILITY, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF INFORMATION) WHETHER OR NOT IDERA HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. SOME STATES DO NOT ALLOW THE LIMITATION OR EXCLUSION OF LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU.

Submissions

With the exception of credit card numbers for the purchase of products and services, Idera does not want to receive confidential or proprietary information through its web site.

Any information sent to Idera, with the exception of credit card numbers, will be deemed NOT CONFIDENTIAL. You grant Idera an unrestricted, irrevocable license to display, use, modify, perform, reproduce, transmit, and distribute any information you send Idera, for any and all commercial and non-commercial purposes.

You also agree that Idera is free to use any ideas, concepts, or techniques that you send Idera for any purpose, including, but not limited to, developing, manufacturing, and marketing products that incorporate such ideas, concepts, or techniques.

Idera may, but is not obligated to, review or monitor areas on its web site where users may transmit or post communications, including bulletin boards, chat rooms, and user forums. Idera is not responsible for the accuracy of any information, data, opinions, advice, or statements transmitted or posted on bulletin boards, chat rooms, and user forums.

You are prohibited from posting or transmitting to or from this web site any libelous, obscene, defamatory, pornographic, or other materials that would violate any laws. However, if such communications do occur, Idera will have no liability related to the content of any such communications.

Some companies, names, and data in this document are used for illustration purposes and may not represent real companies, individuals, or data.

Governing Law and Jurisdiction

You agree that all matters relating to your access to, or use of, this web site and these terms and conditions shall be governed by the laws of the state of Texas. You agree and hereby irrevocably submit to the exclusive personal jurisdiction and venue of the state courts of Texas located in Harris County, Texas, and the United States District Court for the Southern District of Texas, with respect to such matters.

Idera makes no representation that information on this web site are appropriate or available for use in all countries, and prohibits accessing materials from territories where contents are illegal. Those who access this site do so on their own initiative and are responsible for compliance with all applicable laws.

Export Control Laws

Certain Idera products, including software, documentation, services, and related technical data, available on the Idera and other web sites are subject to export controls administered by the United States (including, but not limited to, the U.S. Department of Commerce Export Administration Regulations ("EAR")) and other countries including, controls for re-export under European Union, the Singapore Strategic Goods Control Act, and the import regulations of other countries. Diversion contrary to U.S. or other applicable law of any Idera product or service is prohibited. Export, re-export or import of products and services may require action on your behalf prior to purchase and it is your responsibility to comply with all applicable international, national, state, regional and local laws, and regulations, including any import and use restrictions. Idera products and services are currently prohibited for export or re-export to Cuba, Iran, North Korea, Sudan, Syria, or to any country then subject to U.S. trade sanctions. Idera products and services are prohibited for export or re-export to any person or entity named on the U.S. Department of Commerce Denied Persons, Entities and Unverified Lists, the U.S. Department of State's Debarred List, or the U.S. Department of Treasury's lists of Specially Designated Nationals, Specially Designated Narcotics Traffickers, or Specially Designated Terrorists. Idera products and services are prohibited from use with chemical or biological weapons, sensitive nuclear end-users, or missiles, drones or space launch vehicles capable of delivering such weapons. By downloading or using any product from this web site, or purchasing any service, you are acknowledging that you have read and understood this notice and agree to comply with all applicable export control laws. You are also representing that you are not under the control of, located in, or a resident or national of any prohibited country, and are not a prohibited person or entity. This notice is not intended to be a comprehensive summary of the export laws that govern the products and services. It is your responsibility to consult with a legal adviser to ensure compliance with applicable laws.

United States Government Rights

All Idera products and publications are commercial in nature. The software, publications, and software documentation available on this web site are "Commercial Items", as that term is defined in 48 C.F.R.§2.101, consisting of "Commercial Computer Software" and "Commercial Computer Software Documentation", as such terms are defined in 48 C.F.R. §252.227-7014(a)(5) and 48 C.F.R. §252.227-7014(a)(1), and used in 48 C.F.R.?12.212 and 48 C.F.R. 227.7202, as applicable. Pursuant to 48 C.F.R. §12.212, 48 C.F.R.§252.227-7015, 48

C.F.R. §227.7202 through 227.7202-4, 48 C.F.R. §52.227-19, and other relevant sections of the Code of Federal Regulations, as applicable, Idera's publications, commercial computer software, and commercial computer software documentation are distributed and licensed to United States Government end users with only those rights as granted to all other end users, according to the terms and conditions contained in the license agreements that accompany the products and software documentation, and the terms and conditions herein.

© 2003-2015 Idera, Inc., all rights reserved.

IDERA	Products	Purchas	Support	Commun	About	Resourc	Legal
Website		е		ity	Us	es	

Contact IDERA

Please contact IDERA with your questions and comments. We look forward to hearing from you. For support around the world, please contact us or your local partner.

For a complete list of our partners, please visit our IDERA website at www.idera.com.

Sales	713.523.4433
	1.877.GO.IDERA (464.3372)
	(only in the United States and Canada)
Sales Email	sales@idera.com
Support	713.533.5144
	1.877.GO.IDERA (464.3372)
	(only in the United States and Canada)
	http://www.idera.com/support/productsupport
Website	www.idera.com

IDERA	Products	Purchas	Support	Commun	About	Resourc	Legal
Website		е		ity	Us	es	

Find answers

This documentation set includes a comprehensive online Help system as well as additional resources that support you as you install and use the product. You can also search the IDERA Solutions Knowledge Base, available at the IDERA Customer Support Portal.

IDERA	Products	Purchas	Support	Commun	About	Resourc	Legal
Website		е		ity	Us	es	

Using Help

The IDERA wiki includes a comprehensive online Help system as well as additional resources that support you as you install and use IDERA products. You can also search multiple IDERA support solutions, available at Customer Support Portal.

Additionally, IDERA helps you by providing:

- 24/7 technical support for critical issues.
- Availability to report cases and access a web-based customer portal for update status.
- Access to our Knowledge Center where you can find FAQs, How To's, Best Practices, and Webcasts.

This wiki includes the following Web browser minimum requirements:

- Internet Explorer 8.0
- Mozilla Firefox 4
- Google Chrome 6

You can access the IDERA Help system through the **Help** icon on the top right section of your window or by pressing F1 on the section where you need more information.

You can print a help topic from the wiki using the Print function in your browser.

IDERA	Products	Purchas	Support	Commun	About	Resourc	Legal
Website		е		ity	Us	es	

Get Started

Precise Workload Analysis for SAP HANA delivers valuable real-time and historical data to help tune queries as well as actionable recommendations to improve performance.

Use the following checklist to get started using Precise Workload Analysis for SAP HANA.

Follow these steps
Run the Setup.exe file from the root folder of the installation kit to install the Precise Workload Analysis for SAP HANA
Enter the installation path for the framework. The default path is C:\Program Files\Precise\Hanalyzer
Enter instance details and credentials
Precise Workload Analysis for SAP HANA is installed on same server where Setup.exe is executed

IDERA Products Buy Suppo Website	ort Commun About Us	Resourc Legal es
-------------------------------------	---------------------	---------------------

Installation and deployment

You can install and deploy Workload Analysis for SAP HANA in any environment size.

- Software Requirements
- Hardware Requirements
- Required User Permissions
- Installation Instructions

IDERA	Products	Buy	Support	Commun	About	Resourc	Legal
Website				ity	Us	es	

Software Requirements

You need to comply with the following requirements to install the Precise Workload Analysis for SAP HANA.

Workload Analysis of SAP HANA Installer Requirements

Туре	Requirement	Suggestions
Microsoft .NET Framework version	2.0 or later	For more information about the .NET Framework, see the MSDN article:
		NET Framework Versions and Dependencies.
Operating System (32-bit and 64-bit)	 Windows Vista SP2 or later Windows Server 2008 SP2 Windows Server 2008 R2 Windows 7 Windows Server 2012 Windows Server 2012 R2 Windows 8 Windows 8.1 Windows 10 	

Browser requirements

The Precise Workload Analysis for SAP HANA's web consoles are compatible with the following browsers:

- Internet Explorer 10.x+
- Google Chrome
- Mozilla Firefox

Port requirements

- Framework: 20700 (Tomcat GUI port) and 20705 (ActiveMQ port)
- PMDB: 20701 (PostgreSQL port)

IDERA Website	Products	Buy	Support	Commun ity	About Us	Resourc	Legal
website				ity	05	es	

Hardware Requirements

The following guidelines provide an estimation of the hardware resources required to deploy Workload Analysis for SAP HANA depending on the number of servers you want to monitor.

Installs under 15 monitored instances

Туре	Requirement
CPU Cores	2 - 4
Memory	4 - 10 GB
Disk Space	Approximately 3 GB - 5 GB per monitored instance

Installs 15 - 45 monitored instances

Туре	Requirement
CPU Cores	4 - 8
Memory	10 - 32 GB
Disk Space	Approximately 3 GB - 5 GB per monitored instance

IDERA	Products	Buy	Support	Commun	About	Resourc	Legal
Website				ity	Us	es	

Required User Permissions

The monitoring of SAP HANA in Precise Workload Analysis for SAP HANA works if the Database User has **CATALOG READ** permission.

IDERA	Products	Buy	Support	Commun	About	Resourc	Legal
Website				ity	Us	es	

Installation Instructions

You can install the Precise Workload Analysis for SAP HANA on any computer that meets or exceeds the product requirements.

To start installing the Precise Workload Analysis for SAP HANA:

- 1. Log on with an administrator account to the computer on which you want to install Workload Analysis for SAP HANA.
- 2. Run Setup.exe in the root of the installation kit.
- 3. Click **Next** on the Welcome window of the setup program.
- 4. Review the license agreement. To accept this license agreement, click **I accept the terms** and conditions of this License Agreement, and then click Next.

Select an installation location

You can use the default install location or specify a different path. For your first install, we recommend using the default location. Click **Next** to continue with the installation.

Precise Hanalyzer - Setup			_ 🗆 🗡
Precise Hanalyzer - Setup Framework Installation			
e Welcome			
Installation Properties	Specify the directory where you want Pred	cise Hanalyzer to be installed.	
O Database Properties	Installation Directory:	C:\Program Files\Precise\Hanalyzer	
O Preview			
O Installation			
O Finish			
precise.		< Back Next >	Cancel

Enter SAP HANA Instance details

SAP Hana Instance details consists of a Host Name and a two-digit Instance Number along with its logon credentials.

Precise Hanalyzer - Setup			_ 💷
SQL Server Instance Insta	lation		
Property Settings			
Welcome Installation Properties Database Properties Preview Installation Finish	Specify the HANA Instance you wish to n HANA System Host Name: HANA Instance Number: Login: Password:	Nonitor by entering the host and instance number, as indicated.	
precise [.]		< Back Next >	Cancel

Complete the install

The setup will grant the provided accounts access to Workload Analysis for SAP HANA.

Once the Workload Analysis for SAP HANA is installed, the Web GUI can be accessed on compatible web browser with the URL http://<machine_name>:20700.

Precise Hanalyzer - Setup		
inished		
Malaama		
Welcome	Precise Hanalyzer has been successfully installed.	
Installation Properties		
Database Properties		
Preview		
Installation		
Finish	Ourses fully Finished	
-	Successfully Finished	
	Click Finish to close this window.	
	Launch Precise Hanalyzer now!	
	To launch Precise Hanalyzer, open the URL http://localhost:20700	

Uninstallation of Precise Workload Analysis for SAP HANA - Product Uninstallation

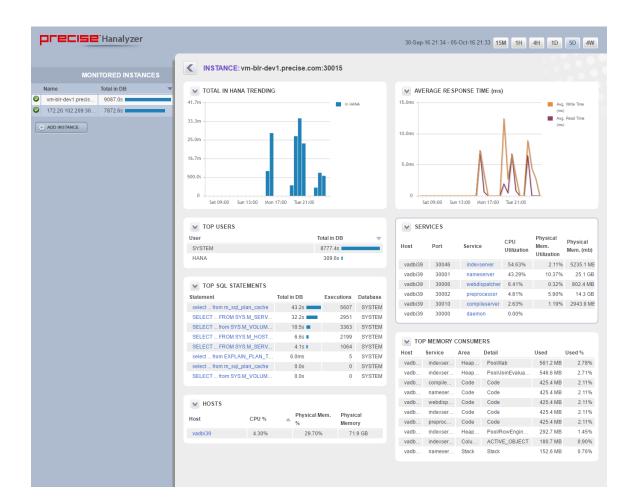
IDERA	Products	Buy	Support	Commun	About	Resourc	Legal
Website				ity	Us	es	

Workload Analysis for SAP HANA Dashboard

The left column displays a list of the monitored instances, allowing you to identify their status using specific icons for each possible status. Below is a description of each status:

ICON	STATUS
	Instance is active and there is data collected in the last 2 minutes
8	Instance is inactive or unreachable
۵	Instance has been removed
?	Unknown. No data collected in the last 2 minutes
Ο	Stopped

Select a time frame from the available options (15 minutes, 1 hour, 4 hours, 1 day, 5 days, and 4 weeks) to retrieve the information.



Dashboard Components

Total in HANA Trending

Displays information measured in seconds about In HANA.

Top Users

Provides a list of logins executed in the monitored instances. The list also defines the type of user, the total workload in the DB (measured in seconds), and the number of executions.

Top SQL Statements

Displays a list of the most frequently executed SQL statements, including queries and updates that have been performed on a specific monitored instance and/or a specific database. Each statement can be drilled down to obtain more detailed information. SQL Plan can also be seen on the drill down page.

Hosts

Displays a list of hosts involved in the monitored instances. Each host is shown with its average CPU and Physical Memory Usage in the selected time frame. Each host can be drilled down to obtain more detailed information.

Average Response Time

Shows a graph of Average Read time and Average Write time on the HANA Database.

Services

Shows a list of HANA services with their Host, Port, and Utilization of CPU and Physical Memory. Each service can be drilled down to obtain more detailed information.

Top Memory Consumers

Provides the list of top memory consumer services with their Area and Detail of memory consumption.

IDERA	Products	Buy	Support	Commun	About	Resourc	Legal
Website				ity	Us	es	

Administering Workload Analysis of SAP HANA

The Administration of Workload Analysis of SAP HANA can be done by executing the Setup.exe from the Installed Framework Directory. This installer allows you to Apply License and Add, Remove Configure HANA Instances for monitoring.

This section includes the following topics:

- Apply License
- Add new Instance for monitoring
- Delete Existing Instance
- Product Uninstallation

IDERA Pro Website	oducts Buy	Support	Commun ity	About Us	Resourc es	Legal
----------------------	------------	---------	---------------	-------------	---------------	-------

Apply License

The trial License for Workload Analysis of SAP HANA comes with monitoring of one HANA instance for 15 days.

The installer will have Apply New License button that will pop up a dialogue box for licence key input.

Workload Analysis fo	or SAP HANA - Setup	
Workload Analysis f	ior SAP HANA - Setup	
Finish	1 of 1 licensed instances - trial version (13 days remaining) Apply new license	е
	SAP HANA Instances vm-bir-dev1:30015	
	Apply license Apply license	
	License Key:	
	Apply Cancel	
	Add Configure Remove	.
precise	< Back Next > Cance	51

IDERA Website	Products	Buy	Support	Commun ity	About Us	Resourc es	Legal

Add new Instance for monitoring

To add a new instance:

- 1. Run Setup.exe from installed directory.
- 2. Click Add
- 3. Enter the HANA instance details.
- 4. Complete the installation.

Workload Analysis for SAP	HANA - Setup	_ [] ×
Workload Analysis for SAF	P HANA - Setup	
Instances		
-	1 of 1 licensed instances - trial version (13 days remaining)	Apply new license
Finish		
	SAP HANA Instances	<u> </u>
	vm-blr-dev1:30015	
		Add New Instance
		v
		Add Configure Remove
		Teenore
blecize,		< Back Next > Cancel

IDERA	Products	Buy	Support	Commun		Resourc	Legal
Website				ity	Us	es	

Delete Existing Instance

To delete an existing instance:

- 1. Run Setup.exe from the installed directory.
- 2. Click Remove
- 3. Confirm instance removal, and then click Uninstall.

Workload Analysis for §	SAP HANA - Setup
Instances	
) Finish	1 of 1 licensed instances - trial version (13 days remaining) Apply new license
	SAP HANA Instances
	vm-bir-dev1:30015
	Remove Selected Instance
	Add Configure Remove
precise [.]	

IDERA	Products	Buy	Support	Commun	About	Resourc	Legal
Website				ity	Us	es	

Product Uninstallation

Precise Workload Analysis for SAP HANA can be uninstalled using the following steps:

- 1. Go to **Add or Remove Programs** or **Programs and Features** on your Windows installation.
- 2. Select **Precise Hanalyzer**, and then click **Uninstall**.
- 3. Delete the installed directory manually from the installation path.

IDERA	Products	Buy	Support	Commun	About	Resourc	Legal
Website				ity	Us	es	