Unloading Master Data from SAP BI 7.0 using Open Hub Service

April 2008

Author

Hermann Daeubler, Senior Program Manager, Microsoft Juergen Daiberl, Technical Evangelist, Microsoft



This document is for informational purposes only. NEITHER OF THE CO-EDITORS MAKES ANY WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, AS TO THE INFORMATION IN THIS DOCUMENT.

Complying with all applicable copyright laws is the responsibility of the user. Without limiting the rights under copyright, no part of this document may be reproduced, stored in or introduced into a retrieval system, or transmitted in any form or by any means (electronic, mechanical, photocopying, recording, or otherwise), or for any purpose, without the express written permission of the Co-Editors.

Either Author may have patents, patent applications, trademarks, copyrights, or other intellectual property rights covering subject matter in this document. Except as expressly provided in any written license agreement from the respective Co-Editor(s), the furnishing of this document does not give you any license to these patents, trademarks, copyrights, or other intellectual property.

Unless otherwise noted, any example companies, organizations, products, domain names, e-mail addresses, logos, people, places and events depicted herein are fictitious, and no association with any real company, organization, product, domain name, e-mail address, logo, person, place or event is intended or should be inferred.

© 2007 Microsoft Corporation. All rights reserved. Microsoft, Outlook, PowerPoint, SharePoint, Visual Studio, Windows, and other Microsoft products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of Microsoft Corporation.

SAP, R/3, mySAP, mySAP.com, xApps, xApp, SAP NetWeaver, and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP AG in Germany and in several other countries all over the world. All other product and service names mentioned are the trademarks of their respective companies. Data contained in this document serves informational purposes only. National product specifications may vary.

The names of actual companies and products mentioned herein may be the trademarks of their respective owners.



Contents

Introduction	5
Sample	5
Walk-Through	7
Open Hub Service API	16
References	16



Summary

This paper describes how to use SAP Open Hub Service for unloading data from SAP NetWeaver BI for integrating with Microsoft Business Intelligence (Microsoft BI). The paper contains a detailed walk-through of how to configure SAP NetWeaver BI for unloading the master data and retrieving this data in Microsoft SQL Server by using SQL Server Integration Services (SSIS).

Applies to

- Microsoft .NET
- Microsoft Business Intelligence (Microsoft BI)
- Microsoft SQL Server Integration Services
- Microsoft SQL Server Reporting Services
- SAP NetWeaver 04s
- SAP NetWeaver BI
- SAP Open Hub Service

Keywords

SAP NetWeaver, SAP NetWeaver BI, OHS, Microsoft BI, Microsoft SQL Server, SSRS, SSIS

Audience

IT Management, Technical Architects, Technical Consultants, Developers



Introduction

In certain customer scenarios it's necessary to unload Master Data from SAP BI in order to integrate with a Microsoft BI solution. The key question is how could or should it be implemented?

Here is a list which shows five examples:

- Direct SAP BI database table access (not recommended)
- 'Misusing' one of the SAP BI reporting APIs (e.g. XML/A or Ole DB for OLAP)
- 3rd-party tool
- BizTalk adapter
- Upcoming SSIS 2008 certification for SAP BI 7.0

Our upcoming SSIS certification will use the so-called 'Open Hub Service API' in SAP BI. This paper will focus on how the Open Hub Service (OHS) works and how it can be used to unload SAP BI Master Data. Unloading other SAP BI objects (e.g. InfoCubes) works the same way. All other possibilities listed above will not be discussed in this paper. The last chapter of the paper will show which OHS API functions exist.

It's important to understand that the steps described in this paper always need to be done on the SAP side. Even with our upcoming SSIS certification it's necessary to define/configure all these steps within SAP BI. The reason for this is that the API which external programs can use doesn't offer the functionality to specify from the outside world what should be unloaded. You always have to do this within SAP BI first. An external program (e.g. SSIS) will finally 'trigger' the unload process which was defined before on the SAP side.

OHS doesn't provide any kind of 'pipeline'. It always unloads data into a database table or flat file first (using the API for external programs like SSIS only the database table is possible). Once the data is unloaded it basically doesn't matter how to get it from there. In case of a database table a simple ODBC connection would be fine. This differs from 'direct SAP BI database table access' as SAP BI did all the internal meta data processing before the unload.

IMPORTANT: Please keep in mind that 'UNLOADING' data from SAP BI requires additional SAP licensing. The customer has to be aware of this and we recommend that the customer checks this with SAP.

Sample

The sample gives an overview about what's necessary to use OHS on the SAP BI side. It consists of 16 screenshots from the SAP BI 7.0 GUI. The OHS 'feature' is part of SAP BI. No additional software needs to be installed. All of the following steps will be done within the 'Data Warehousing Workbench'. You can use the transaction code /nRSA1 as a shortcut to get there using the SAP GUI.



- Select the Master Data which should be unloaded (called 'characteristic'). Master Data can be shared between 'InfoCubes'. The dimension tables of an InfoCube include surrogate keys to join the Master Data (e.g. customer, material)
- Maybe look at the data. In this little artificial sample we talk about 24 test rows. It's artificial data just to show the functionality. It was loaded from a flat file before.
- Define the "characteristic' as an "InfoProvider' to allow unloading and reporting. Everything which can be used for reporting is called an 'InfoProvider' (InfoCube, DSO object, Master Data). The SAP BI reporting APIs (e.g. XML/A) allow access to the 'InfoProvider' level but not to database tables directly
- Look for the specific "characteristic in the object list
- Now the "characteristic' is added as an "InfoProvider' which allows unloading and reporting
- Next step is the creation of an OHS destination. You have to choose between 'attribute' and 'text'. So it might be necessary to create two destinations to unload also the additional text information. Master Data will be mapped to different relational tables which include three major different kinds of data: attributes, texts, and hierarchies. The OHS (API) doesn't allow to unload hierarchies at this point
- The target for OHS can be a flat file, a database table or an external program / 3rd-party tool like SSIS.
- The creation of a "transformation' which allows modifying the data on the way out is mandatory. It's exactly the same concept when loading data into an 'InfoCube'.
- A transformation can be pretty complex. In the sample the data will be just moved without any modification
- To be able to run / schedule the task a so-called "process chain' is required. The unload process can only be started via a process chain. Unfortunately the OHS API for external programs doesn't include a function to do this. Therefore a separate API has to be used in addition to OHS in order to start the process chain. Within the SAP GUI it can be done manually
- The process chain refers to a "Data Transfer Process' (DTP) which really moves the data from the master data table ('InfoObject') to the OHS destination. DTPs were introduced with SAP BI 7.0. It's a new generic concept to move data within SAP BI. You basically have to define a source, a target and the transformation rules mentioned above. DTPs will be also used to insert data into an InfoCube. And by using an OHS Destination as the target a DTP can be used to unload data from SAP BI.
- A DTP has again a lot of parameters. The sample just uses the minimum
- To complete the process chain a 'start process' has to be added. The scheduling of the whole task is done via the start process. The properties of the start process define if the process will be started immediately or at a certain time or if it will be triggered from the outside world
- SAP offers a monitoring tool to verify if the task finished successfully



- In case of using a database table the OHS will automatically create a table with the prefix '/BIC/OH'. In the sample this was just checked through Management Studio as the SAP BI system was running on SQL Server
- now you can use a simple ODBC connection or SQL through Management Studio to get the data from the table

The nice thing about this approach is that the SAP team of the customer could configure everything on the SAP side and no additional coding outside of SAP is necessary. As OHS is an official SAP BI feature no special certification or external tool is needed for the steps above. If it's acceptable in a customer scenario / project to extract the data from the OHS database table via ODBC nothing else is required. An official certification of SSIS will just use a connection to the OHS API (see last chapter) instead of ODBC. And as the OHS API is a SAP API its platform independent. So going through the OHS API will always work the same – doesn't matter if SAP BI runs on UNIX or Windows or on whatever database. Accessing the OHS database table directly will require the appropriate ODBC driver.

Walk-Through



Figure 1 Select the Master Data which should be unloaded (called 'characteristic')



8 4 🗒 6 6 9 📮 🖬 🖧 2 1 2 3 😨 🖉 🖷	
Characteristic TR6CH01 - maintain master data: List	
🕄 🗋 🦉 🛱 🛐 🖬 Data Records to be Edited	
	17
Characteristic for T Descript, Descript,	
CHARDI TESTROWOOT	
CHAROT TESTROWOUZ	
CHARMITESTROWOOT	
CHARDITESTROWOD	
CHARMITESTROWOOD	
CHARDITESTROWIN	
CHAR01 TESTROW011	
CHAR01 TESTROW012	
CHAR01 TESTROW013	
CHAR01 TESTROW014	
CHAR01 TESTROW015	
CHAR01 TESTROW016	
CHAR01 TESTROW017	
CHAR01 TESTROW018	
CHAR01 TESTROW019	
CHAR01 TESTROW020	•
	4

Figure 2 In this little artificial sample we talk about 24 rows

ট D <u>a</u> ta Warehousing W	orkbench <u>E</u> d	it <u>G</u> oto <u>T</u> ools	Environment	<u>S</u> ettings	System	Help		i i i i	5		SAF	>
0	1			120	80	<u>*</u>	🔞 🖪					Y
Data Warehou	sing Wor	kbench: N	lodeling									
	e 🍘 🖬 🖌	• • •	8 😫 😭	a								
	3 10 8 4	2 🛗 🔀 😹		* 🗵								
Modeling	@ InfoProvid	er					Tec	h. Name	M	Execute Fun	ction E	Display Tree
@ InfoProvider	🌑 🕸 Unass	signed Nodes					NO	DESNOTCONNE		Change		
	D 🌑 Techn	ical Content					0B\	WTCT		Change		
	V 🌑 Info Ar	Change					TRE	ôIFA	100001	Change		
	p 📦 in	Delete					TR	51001	-	Manage		
DataSources		Overete Infe fire										
Source Systems		Create moArea	ı									
🛞 Open Hub Destii		<u>C</u> reate InfoCub	е									
🛗 Find		<u>C</u> reate DataSto	ire Object									
🕱 Favorites		<u>C</u> reate MultiPro	vider									
		<u>C</u> reate VirtualP	rovider									
		<u>C</u> reate InfoSet										
		Insert Characte	ristic as InfoPro	wider								
Administration	4											
Transport Connection												
Documents												
BI Content												
Translation												
Metadata Repository							•	•				
												4

Figure 3 Define the 'characteristic' as an 'InfoProvider' to allow unloading and reporting



C D <u>a</u> ta Warehousing Workbench <u>E</u> dit <u>:</u>	<u>G</u> oto <u>T</u> ools En <u>v</u> iro	onment <u>S</u> etti	ngs System <u>H</u> elp	SAP
	📴 Selection of Info	Objects (1) 20	99 Entries found	
	Restrictions			
Data Warehousing Works			Σ	
	InfoObject V	ersi Stat	EA Long Description	
	ORSTT_UNML		Last Name	
Modeling @ InfoProvider	ORSTT_USER		Trace User	▼ isplay Tree
Le Assign initiarea to an initioobject	ORSTT_VSTAT		Verification Status	
InfoArea Info Area for TR6(TI	ORSTT_ZSTAT		Verification Status of Cell	
InfoObject	OSOURSYSTEM		Source system ID	
	OTCAACTVT		Activity in Analysis Authorizations	
 ✓ × 	OTCAIFAREA		InfoArea for Analysis Authorizations	
- iga oource oystems	OTCAKYFNM		Key Figure in Analysis Authorizations	
🏽 🛞 Open Hub Destii	OTCTCONTREL		Release Business Content	
🛗 Find	OTCTHIENM		Hierarchy Name	
Favorites	OTCTHIEVERS		Hierarchy Version	
	OTCTOBJVERS		Object Version	
	OTCTSYSID		BW System	
	OTCTTIMSTMP		UTC Time Stamp	
Administration	OTCTUSERNM		User	
	OTIME		Time	
Transport Connection	OTXTLG		X Long Description	
Documents			X Medium description	
BI Content	OTXTSH		X Short Description	
Translation	TR6CH01		Characteristic01 for TR6 demo	
	TR6CH02		Characteristic02 for TR6 demo	
Metadata Hepository	200 Entrine found			
	209 Entries IOUNO			

Figure 4 Look for the specific 'characteristic' in the object list

Data Warehousing Wo	arkbench <u>E</u> dit <u>G</u> oto <u>T</u> ools Environment <u>S</u> ettings System <u>H</u> elp		SAP
0	■ 4 日 ◆ 6 0 1 日 1 日 1 日 1 日 1 日 1 日 1 日 1 日 1 日 1	1	and the second s
Data Warehou	sing Workbench: Modeling		
	록 🎯 🖬 😰 🔺 📳 🕺 😂 🏈		
Modeling	InfoProvider	Tech. Name M .	Execute Function Display Tree
@ InfoProvider	🕸 Unassigned Nodes	NODESNOTCONNE	Change
/ Info⊖hiects	D 🍲 Technical Content	OBWTCT	Change
		TR6IFA	Change
Poto Courses	Characteristic01 for TR6 demo		Change
Source Systems			
😻 Open Hub Destii			
🛍 Find			
😹 Favorites			
Administration			
Transport Connection			
Documents			
BI Content			
Translation			
Metadata Repository		 	
			م <i>ا //</i>

Figure 5 Now the 'characteristic' is added as an 'InfoProvider' which allows unloading and reporting



C System Help			- × SAP
0	0 4 B I C	😧 🕲 I 🖨 🛗 I 🎝 🏷 슈 슈 I 🛒 🖉 🖷	se la companya de la comp
SAP			
	Create Open Hub Dec	tination	
	Create Open Hub Des		
	Description	OHS Master Data Demo	
	InfoArea	TR6IFA Info Area for TR6	
	Template		
	ObjectType Info	oObject 🔠	
	Name TR6	3CH01	
	Subobj. Type		
	Text	butes la	
	✓ ×		
			۹. //i.

Figure 6 Next step is the creation of an OHS destination. You have to choose between 'attribute' and 'text. So it might be necessary to create two destinations to unload also the additional text information

C Open Hub Destination	n Edit Goto Environment System Help	18777781 88	0 I	SAP
Open Hub Des	tination Change: Overview			
Modeling Modeling Modeling MinoProvider MinoDijects DataSources Source Systems Open Hub Destin Find Find Favorites Administration Transpot Connection Documents BI Content Translation Metadata Repository	Image: Solution Image: Solution Image: Open Hub Destination Image: Open Hub Destin Anting Destination <	Open Hub Destination Destination Field D Destination Type Database Table Deleting Data from Table Technical Key Semantic Key	OHSMD01 ef. Database Table Database Table File Third-Party Tool	OHS Master Data Demo
	· · · · · · · · · · · · · · · · · · ·			4///

Figure 7 The target can be a flat file, a database table or an external program / 3rd-party tool like SSIS



D <u>a</u> ta Warehousing W	forkbench Edit Goto Tools Environment Settings System Help
	Ⅰ 4 日 6 6 6 日 13 13 13 13 13 13 19 月
Data Warehou	sing Workbench: Modeling
Modeling	🛞 Open Hub Destination 🛛 👘 Tech. Name 🛛 M Execute Function Display Tree 🛛 O Object Informat C
InfoProvider	Wunassigned Nodes NODESNOTCONNE Change AlinfoProvider
🖉 InfoObjects	
InfoSources	Wind Area to TKG Change OHS Master Data Demo OHS Maste
🕼 DataSources	👂 🛞 TR6 Demo OHS Destination 🛛 ZTR6OHD 🥃 Change
Source Systems	Create Transformation
🛞 Open Hub Destii	
Find	
😹 Favorites	Name OHSM081 OHS Master Data Demo
	Source of the Transformation
Administration	Object Type InfoObject Subtype of Object Attributes
Transport Connection	Name TR6CH01 (2) Characteristic01 for TR6 demo
Documents	
BLContent	
Translation	
Metadata Repository	

Figure 8 The creation of a 'transformation' is required which allows to modify the data on the way

Iransformation Edit @oto Extras System Help
🖉 🔰 🖉 🖉 😫 🗋 🏭 総合合合 🖾 🖉 🖉 🚱 🖉 🖉 🖉
Transformation Change
A Routine C End Routine
Image: Second Secon
Translation Metadata Repository Image: Constraint of the successful in the succesofie in the successful in the successful in the successf

Figure 9 A transformation can be pretty complex. In the sample the data will be just moved without any modification



Settings System Help	
	Sil
Process Chain Display Planning View	
Image: Construct the second	
E New Process Chain	
Process Chain PCOHSMD01 Long description Process Chain to unload Master Data	
	4

Figure 10 To be able to run / schedule the task a so-called 'process chain' is required

Process Chain View Execution Go	to <u>S</u> ettings System <u>H</u> elp	SAP
] []]]]]]]]]]]]]]]]]]	y.
Process Chain Maintena	nce Modified Version: Process Chain to unload Ma	
← → □ 1: 1: 1: 2: 2: 0: 0:		
Constraint Constra		
Data Transfer Proc. Description	f Data Transfer Process	2
Close Requesto Colose Administ Co	er Proc. TR6CH01 -> OHSMD01 Standard (Can Be Scheduled) Open Hub Destination OHSMD01 OHS Master Data Demo	
Source of DT Object Type Name	P InfoObject InfoObject Attributes TR6CH01 @ List Characteristic01 for TR6 demo	

Figure 11 The process chain refers to a 'Data Transfer Process' (DTP) which really moves the data from the master data table ('InfoObject') to the OHS destination



Data Transfer Process Edit	t Goto Extras System Help	SAP
©	■ ◇ 🕒 ⓒ ⓒ ⓒ 🕄 協 않 20 20 20 📰 🗷 🔘 🚱	
Change Data Trans	sfer Process	
🏏 🖻 🖻 🖧 🚺 🚨		
Data Transfer Process	TR6CH01 -> OHSMD01	
ID	DTP_D2VZTY55E4RKB257TXX4I88V9	
Version	_ Active 🗈 Saved 🗈	
Extraction Update	Execute	
(m)		
Data Source	IntoObject: Attributes	
E des disco Marda	Characteristicul for IR6 demo	
Extraction Mode		
	20 Semanuc Groups	
Deskage Cite	50,000	
Fackage Size	30.000	
-		- 116

Figure 12 A DTP has again a lot of parameters. The sample just uses the minimum



Figure 13 To complete the process chain a 'start process' has to be added. The scheduling of the whole task is done via the start process



[ट Request <u>E</u> dit <u>O</u> oto Extr <u>a</u> s Environment System <u>H</u> elp			SAP					
4日1000111111111111111111111111111111111	81 🐹 🙇 🕲 📭		N.					
Data Transfer Process Monitor								
🛐 🕀 Debugging 🔋 🧭 🔂 Job Overview 🛢 Error Stack 😂 Process Cha	ain							
Request ID 38 Start Time 13.03.2008 Finish Time 13.03.2008 OOD Header Details								
Rev Date / Time © Current O Fixed 13.03.2008 11:23:2	28 0 😝 Run Curr	ent Run 🔳						
Request Processing I	M D Time Stamp	Duration						
🗢 🔲 Data Package 1 (24 Data Records)	13.03.2008 11:22:56	6 Sec.						
Reading attributes for InfoObject TR6CH01 : 24 Data Records	13.03.2008 11:22:56	3 Sec.						
Prepare Error Handling : 24 -> 24 Data Records	13.03.2008 11:22:59	1 Sec.						
🗢 🧧 IOBJ TR6CH01 -> DEST OHSMD01 : 24 -> 24 Data Records	13.03.2008 11:23:00	1 Sec.						
Transformation Start	13.03.2008 11:23:00	1 Sec.						
Rules	13.03.2008 11:23:00							
Transformation End	13.03.2008 11:23:00							
🗢 🔲 Update in Open Hub Destination OHSMD01 : 24 -> 24 Data Record:	13.03.2008 11:23:01	2 Sec.						
24 data records transferred to file	13.03.2008 11:23:01	2 Sec.						
Lindoto Endod	40.00.000.44-00-00							
Date Inme Description								
00:00:00								
	1.00							
			4 /					
			N ////.					

Figure 14 SAP offers a monitoring tool to verify if the task finished successfully

Nicrosoft SQL Server Managemen	t Studio)								
Eile Edit <u>View Q</u> uery Project	<u>T</u> ools	Window Community Help)							
😟 New Query 📑 📸 📸 🔓	8 🗃	약 약 🖬 🖉 📴 🍺	🚰 🖕							
:	-	🕴 Execute 🧹 🔳 🚼	5 🌳 🛃	4 2 3	1 📮 🖓		9 #			
Object Explorer 🛛 🚽 🗙	VSI	UHERMANN.BIDcheck.s	ql*							★ ×
Connect - 🛃 🛃 🔳 🍸		select * from sys.	objects w	here name	e like '/	BIC/OH%'	and ty	/pe = 'U'		
VSUHERMANN (SQL Server 10.0.1)										
Database Snapshots										
E ReportServer										
ReportServerTempDB										
E Crtt E Crtt2										
E Security										
Server Objects Replication										
🕀 🛅 Management										-
E SQL Server Agent	•									Þ
	F E	Results 📴 Messages								
		name	object_id	_principal_id	schema_id	parent_object	id type	type_desc	create_date	modify_date
	1	/BIC/OHOHSMD01	1277208296	NULL	5	0	U	USER_TABLE	2008-03-13 11:07:49.430	2008-03-13 11:07:49
	2	/BIC/UHZTREUHD	1952686700	NULL	5	U	U	USER_TABLE	2008-02-15 00:19:48.640	2008-02-15 00:19:50
										I
	1					4				
<u>▲</u>	Q	uery executed successfully.				VSUHE	RMANN (1	0.0 CTP) VSUHE	RMANN\bidadm (85) BID	00:00:00 2 rows
Ready								Ln 1	Col 1	INS //.

Figure 15 In case of using a database table the OHS will automatically create a table with the prefix '/BIC/OH'



Nicrosoft SQL Server Management	Studic)								
Eile Edit View Query Project I	ools	<u>W</u> indow <u>C</u> on	nmunity <u>H</u> elp							
😫 New Query 🕞 🜇 📸 🌇 💽	103	Q9 Q9 🔒	Ø 1 1 2 1	. -						
BID	-	Execute	/ = 18 0	3 🎰 🖌	🔨 📅 🖷 📷 🐻 🐻	 	÷E _			
Object Explorer - P X	VEI	IHED MANN RT	D - check s	a 7 1844 1(*)						- Y
Connect		select * :	from svs.c	biects	where name like '/	BIC/OHt' and ty	pe - '	U		- Â
						terrane and a				<u> </u>
E Databases	Ļ	select * :	from bid.	/BIC/OH	OHSMD01]					
🗄 🛅 System Databases										
🗉 🚞 Database Snapshots										
🗄 🔰 BID										
ReportServer										•
ReportServerTempDo	4									•
⊞ i crtt2	E F	Results 🗄 M	lessages							
🗄 🚞 Security		OHBEQUID		BECOBD	/BIC/TBSCH01					
🗉 🚞 Server Objects	1	38	1	1	CHAB01 TESTBOW001					
Replication	2	38	1	2	CHAB01 TESTB0W002					
Management Management Management	3	38	1	3	CHAR01 TESTROW002					
E D SQL SUIVU Aguit	1	38	4	1	CHAR01 TESTROW003					
	5	20	1	5	CHAROL TESTROW004					
	6	38	4	6	CHAROI TESTROWING					
	7	38	4	7	CHAR01 TESTROW007					
	8	38	1	8	CHAR01 TESTROW008					
	q	38	1	9	CHAROI TESTROW009					
	10	38	4	10	CHAR01 TESTROW000					
	11	38	1	11	CHAROI TESTROW010					
	12	38		12	CHAROI TESTROW012					
	13	38	4	13	CHAR01 TESTROW012					
	14	38	1	14	CHAR01 TESTROW014					
	15	38		15	CHAB01 TESTBOW015					
	16	38	1	16	CHAROI TESTROW016					
	17	38	1	17	CHAB01 TESTBOW017					
	18	38	1	18	CHAB01 TESTBOW018					
	19	38	1	19	CHAB01 TESTBOW019					
	20	38	1	20	CHAR01 TESTROW020					
	21	38	1	21	CHAR01 TESTROW021					
	22	38	1	22	CHAR01 TESTROW022					
	23	38	1	23	CHAR01 TESTROW023					
	24	38	1	24	CHAR01 TESTROW024					
	-	1.000M	1.52	1.523		1			-	
• <u>•</u>	Q	ery executed s	successfully.			VSUHERMANN (10.	0 CTP)	VSUHERMANN\bida	adm (85) BID	00:00:00 24 rows
Ready							Ln 2	Col 1	Ch 1	INS

Figure 16 Now you can use a simple ODBC connection or SQL through Management Studio to get the data from the table



Open Hub Service API

SAP Library - Enterprise Data Warehousing - Windows Inte	ernet Explorer	V Live Search					
Search web D + + - + + + + + + + + + + + + + + + +	ces 🔻 🖃 👻 🦓 👻 🕒 Blog It 👻 😽 👻	Maps 👻 Favorites 👻 📄 Form Fill 👻 🔂 👻 🗾	• • • •				
😭 🎲 🌈 SAP Library - Enterprise Data Warehousing		😭 🔻 🔝 👻 🖷 👻 Page 🔻	③ Tools ▼				
SAP Library BI Content Glossary Help on H	elp Feedback Discussion Search:	••	SAP				
		Клоч	wledge				
			Warehouse				
Expand All Close All			Â				
Back Forward Synchronize	Open Hub Destination AP	S 🖽					
	You can use the open hub service to extract data to	o non-SAP systems. Various APIs allow you to connect a third-party	y tool				
Enterprise Data Warehousing	(such as Ascential) to the BI system and then distr	ibute the data to other non-SAP systems.					
Getting Involved	API	Use					
Go and Create	RSB_API_OHS_DEST_SETPARAMS	You use this API to transfer the parameters of the					
Core Development rasks Ensuring Quality		third-party tool that are required to extract data to the BL system. These parameters are saved in a					
E Preference		parameter table within the BI system in the					
Interface Overview		metadata for the open hub destination.					
DB Connect	RSB_API_OHS_3RDPARTY_NOTIFY	This API sends a message to the third-party tool					
BI Service API		after extraction. It transfers the open hub destination, the request ID, the name of the					
File Interface		database table, the number of extracted data					
Web Service for Staging		records and the time stamp. In addition, you can					
XI Integration		parameters that are only relevant for the third-party					
Staging BAPIs		tool.					
Interface for Real-Time InfoCubes	RSB_API_OHS_REQUEST_SETSTATUS	This API sets the status of the extraction to the	=				
Export DataSource		third-party tool in the open hub monitor. Red					
APIs for Master Data		the status is green, the request is processed					
APIs for Hierarchies		further.					
D Open Hub Destination	RSB_API_OHS_DEST_GETLIST	This API delivers a list of all open hub destinations.					
Open Hub Destination APIs	RSB_API_OHS_DEST_GETDETAIL	This API identifies the details of an open hub					
Data Mart Interface		destination.					
Checklist for Developing BI Objects	RSB_API_OHS_DEST_READ_DATA	This API reads data from the database table in the					
		Di system.					
	Interface Properties:						
	BI read interface						
	Programming language is ABAP						
	Mass data is supported						
	Execution in background						
	Programming proticiency is required						
	Data has to be in an Into-Provider						
	For more information, see ^w <u>Ihird-Party Tools As I</u>	Jestinations.	-				
		Internet Protected Mode: Off	🔍 100% 🔻 💡				

Figure 17 Open Hub Service API documentation

As you can see on the screenshot from help.sap.com the Open Hub Service API provides only six functions. In order to 'trigger' the unload it's even necessary to use a different API which allows to start 'process chains' from an external program. The API offers a read function to get the data from the database table where SAP BI put the data. But it's obvious that there are no functions which would allow creating an Open Hub Service destination. That's why these steps have to be done on the SAP BI side by a SAP BI admin.

References

SAP Help Portal

http://help.sap.com

Microsoft SAP Customer Information Center

http://www.microsoft.com/sap

Microsoft SQL Server BI

http://www.microsoft.com/sql/solutions/bi/default.mspx

