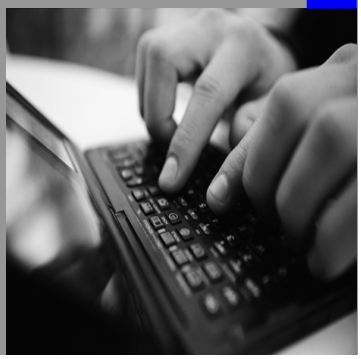


How-to Guide
SAP NetWeaver 7.0

How To... Extract Archived Data from SAP ERP

Version 1.00 – May 2006

Applicable Releases:
SAP NetWeaver 7.0
(BI capability)

THE BEST-RUN BUSINESSES RUN SAP

© Copyright 2008 SAP AG. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP AG. The information contained herein may be changed without prior notice.

Some software products marketed by SAP AG and its distributors contain proprietary software components of other software vendors.

Microsoft, Windows, Outlook, and PowerPoint are registered trademarks of Microsoft Corporation.

IBM, DB2, DB2 Universal Database, OS/2, Parallel Sysplex, MVS/ESA, AIX, S/390, AS/400, OS/390, OS/400, iSeries, pSeries, xSeries, zSeries, z/OS, AFP, Intelligent Miner, WebSphere, Netfinity, Tivoli, and Informix are trademarks or registered trademarks of IBM Corporation in the United States and/or other countries.

Oracle is a registered trademark of Oracle Corporation.

UNIX, X/Open, OSF/1, and Motif are registered trademarks of the Open Group.

Citrix, ICA, Program Neighborhood, MetaFrame, WinFrame, VideoFrame, and MultiWin are trademarks or registered trademarks of Citrix Systems, Inc.

HTML, XML, XHTML and W3C are trademarks or registered trademarks of W3C®, World Wide Web Consortium, Massachusetts Institute of Technology.

Java is a registered trademark of Sun Microsystems, Inc.

JavaScript is a registered trademark of Sun Microsystems, Inc., used under license for technology invented and implemented by Netscape.

MaxDB is a trademark of MySQL AB, Sweden.

SAP, ERP , mySAP.com, xApps, xApp, 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.

These materials are subject to change without notice. These materials are provided by SAP AG and its affiliated companies ("SAP Group") for informational purposes only, without representation or warranty of any kind, and SAP Group shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP Group products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

These materials are provided “as is” without a warranty of any kind, either express or implied, including but not limited to, the implied warranties of merchantability, fitness for a particular purpose, or non-infringement. SAP shall not be liable for damages of any kind including without limitation direct, special, indirect, or consequential damages that may result from the use of these materials.
SAP does not warrant the accuracy or completeness of the information, text, graphics, links or other items contained within these materials. SAP has no control over the information that you may access through the use of hot links contained in these materials and does not endorse your use of third party web pages nor provide any warranty whatsoever relating to third party web pages.
SAP NetWeaver “How-to” Guides are intended to simplify the product implementation. While specific product features and procedures typically are explained in a practical business context, it is not implied that those features and procedures are the only approach in solving a specific business problem using SAP NetWeaver. Should you wish to receive additional information, clarification or support, please refer to SAP Consulting.
Any software coding and/or code lines / strings (“Code”) included in this documentation are only examples and are not intended to be used in a productive system environment. The Code is only intended better explain and visualize the syntax and phrasing rules of certain coding. SAP does not warrant the correctness and completeness of the Code given herein, and SAP shall not be liable for errors or damages caused by the usage of the Code, except if such damages were caused by SAP intentionally or grossly negligent.

1 Business Scenario

You are working on a SAP NetWeaver BI system and want to extract archived data from a SAP ERP system. The business content extractor for your respective application does not support the extraction of archived data. This holds especially true for SAP BI releases 3.0 and higher, where the BI system is capable of receiving archived data information from an extractor.
Note: This paper describes only a workaround solution until the business content extractors provide the functionality to extract data also from archive files. The business content extractors are envisaged to provide a comprehensive solution to read application data from archives, including the derivation of data using application logic, from multiple tables, mapping of application dependant fields like 'Version' and 'Value Type', etc. Such business rules cannot be realized with the described workaround. The standard functionality of extending existing DataSources and populating the respective fields within the SAP enhancements might be used to enhance the DataSources created based on the description in this paper (please refer to the SAP NetWeaver documentation for further information on how to enhance DataSources).

2 Introduction

Although no SAP ERP application extractor provides archived data, it is possible to extract some or all of the archived data via a generic DataSource based on the information structures of the Archive Information System (AS). The availability of the Archive Information System in the SAP ERP system as well as the functionality of the generic extraction in the SAP ERP system are the sole prerequisites to use the method described in this paper.

The SAP Archive Information System is a retrieval tool that is fully integrated into the archiving environment, and assists the user with information retrieval in SAP ERP data archives. It also offers functions for the display of data. The AS is a part of SAP ERP's standard functions and can be installed on previous releases down.
Data retrieval takes place using **archive information structures**. These are transparent database tables that contain data from the archive. As with other SAP ERP information systems, such as the Logistics Information Structures (LIS) or the Sales Information System (VIS), these tables are referred to as *information structure*s.
The Archive Information System is a generic tool, that is, the available functions can be used for all existing archiving objects. To retrieve archived data for an archiving object, there must be at least one archive information structure. The information structure should contain all the fields that are required for the retrieval. The user can, if necessary, change the contents of the information structure by removing or adding fields from an existing SAP **field catalog**.
Before an information structure can be constructed, that is, filled with data from the archive, it must first be activated. This means that the system generates a transparent database table and the evaluation program in the background. There are two methods for filling an active information structure with archive contents:

- Automatically, when running the deletion program
- Manually by the user

When the deletion program is started for an archiving object, all the active information structures that belong to this archiving object are filled. The *Archive Development Kit (ADK)* transfers all the datasets that it finds in the archive to the SAP AG interface. Based on the defined information structure, the SAP

AG interface filters the data from the transferred data records and inserts them, together with an access key, in a transparent database table.
In addition to this automatic option, the user also has the option of constructing information structures using a special structure construction program. This is primarily required if evaluating existing archives, or if a new structure has to be created due changes in the field selection.

For more information on the SAP Archive Information System, refer to the SAP Library at help.sap.com *SAP NetWeaver 7.0 (2004s): SAP NetWeaver Library -> SAP NetWeaver by Key Capability -> Solution Life Cycle Management by Key Capability -> Data Archiving -> Introduction to Data Archiving -> Archive Information System.*
Based on the underlying table of an information structure, a generic DataSource can be defined which uses a table/view as extraction mechanism. This DataSource can be replicated in a connected SAP NetWeaver BI system and subsequently provide archived application data from a SAP ERP system.

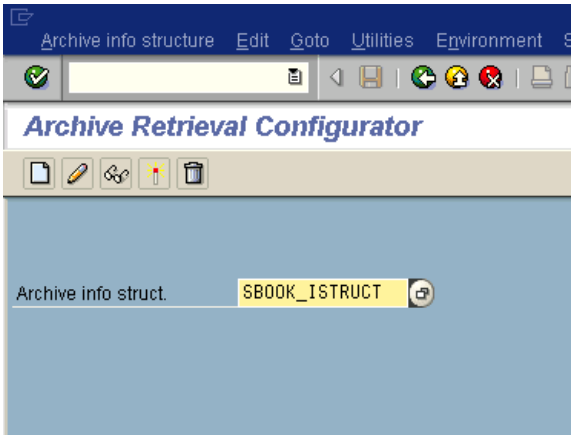
Note: It is important to keep the application data in the SAP NetWeaver BI system from archive files and from the original database tables disjunctive, in order to avoid duplicate and / or inconsistent data sets in the SAP NetWeaver BI system. It might be advisable to use the described method only for data that has been archived prior to the implementation of the SAP NetWeaver BI system. New accumulated data sets should be retrieved via the standard application extractors.

3 The Step By Step Solution

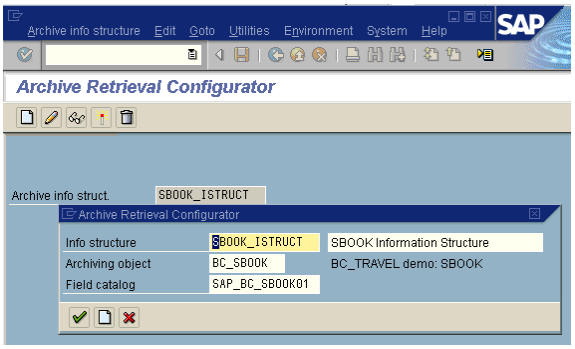
The scenario is based on the archiving object BC_SBOOK, which is delivered bySAP. The method described can be transferred to any other archiving object.

1. Creation of an information structure

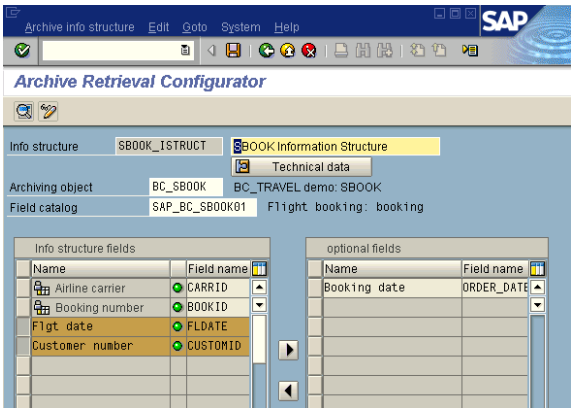
1. Call the transaction SARJ to create an information structure and specify a name for the information structure. Press the "Create" button ( ).



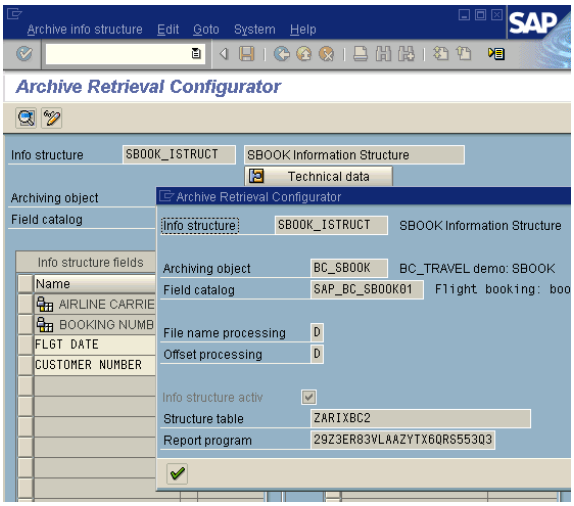
2. Specify a description for the information structure, archiving object and field catalog. Afterwards, press again the "Create" button.
   Field catalog: A set of fields that build the basis for the information structure. It is typically based on fields from tables that form the archiving object (we use standard field catalog SAP_BC_SBOOK01).



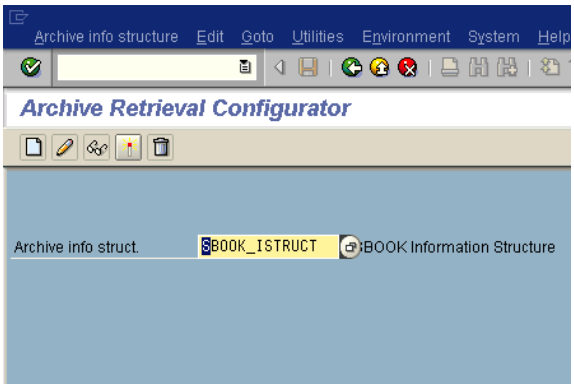
3. Pick the fields that you want to include in your information structures. All fields picked in this step will be available for extraction.
   The fields that are marked in the field catalog as key fields will be proposed by the system automatically. They cannot be removed from the information structure.



4. In order to figure out the technical name of the transparent table that will be created for the information structure, press the "Technical data" push button. Write down the name of the structure table or copy it to the Clipboard for later use. You will need this name for the creation of the generic DataSource, which will retrieve its' data from this transparent table.

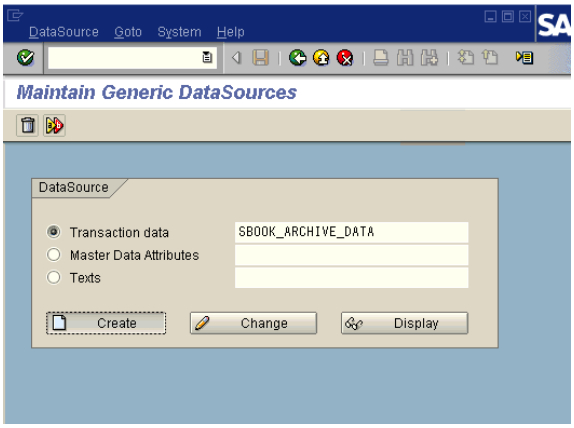


5. Save your information structure and return to the entry screen of the transaction SARJ. In order to populate an information structure, you have to activate it first. You do so by pressing the "Activate" button on the entry screen of the transaction SARJ ( ).

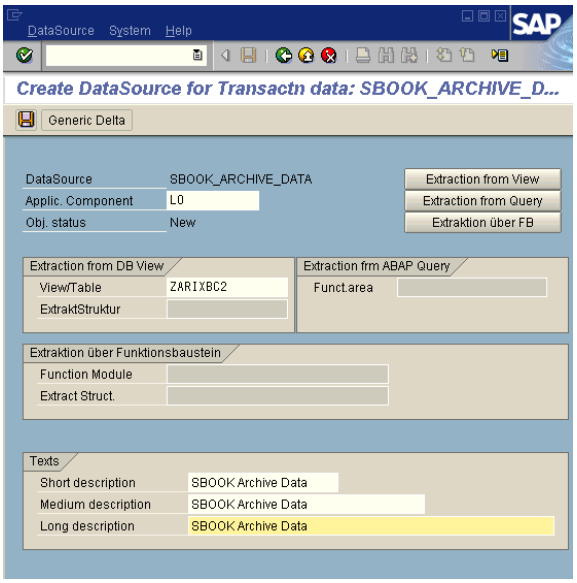


2. Creation of the generic DataSource

1. Call the transaction RSO2, specify a name for the generic DataSource and press the "Create" push button.
(*Customizing for Extractors (SBIW)* •*Generic DataSources* •*Maintain Generic DataSources)*



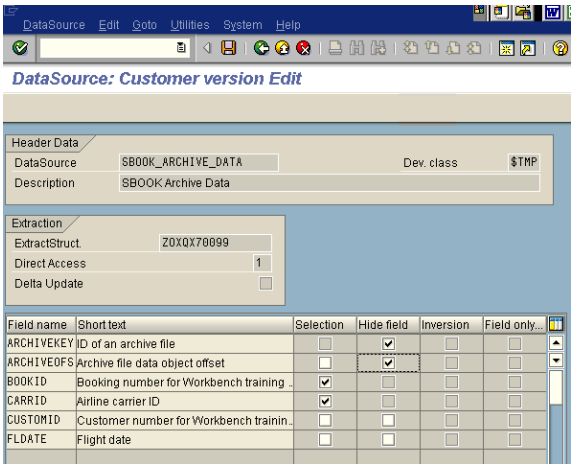
2. Specify the application components, the transparent table to be used for extraction, and the descriptions for the DataSource. The name of the transparent table is the Structure Table of the information structure of the archiving object. (See step above for the description how to determine the structure table name).



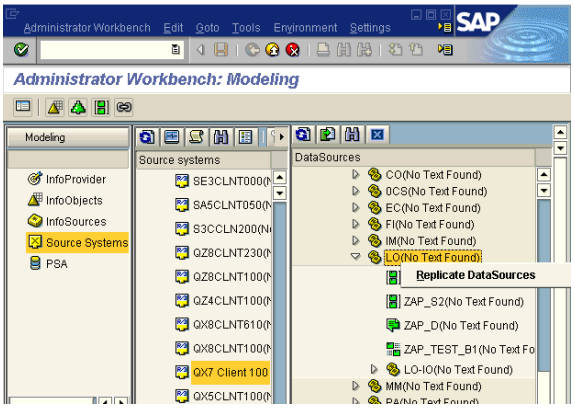
3. Save your DataSource. On the next screen, you are able to pick which fields of the DataSource should be available for selection in the InfoPackage or hidden, respectively.

The fields “Archivekey” and “Archiveofs” are technical fields of the structure table to locate the records selected in the archive files.

Complete the definition of your DataSource by pressing the “Save” button again ( ).



4. Replicate the DataSources for the respective application component in the SAP NetWeaver BI system and assign it to an InfoSource. Afterwards, you are able to schedule the extraction via an InfoPackage.



3. Population of the information structure

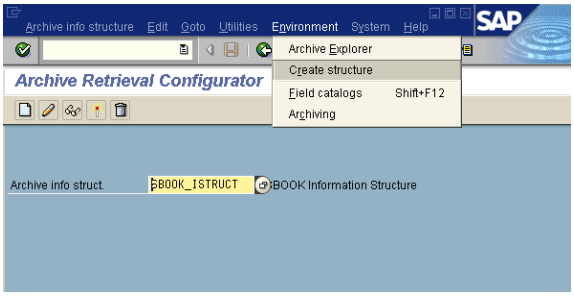
An active information structure can be filled by two methods:

1) Automatically, when running the deletion program (only applicable for archives filled by the applications – in this case it is advisable to extract the data prior to archiving)

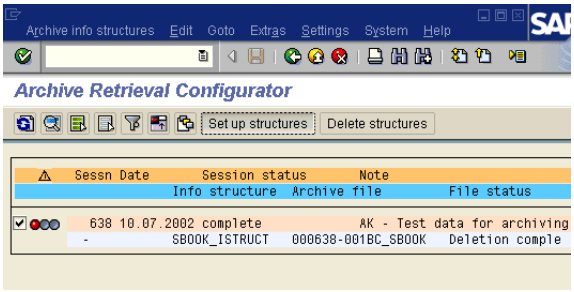
2) Manually by the user

In this chapter we describe the manual process of populating information structures, since the automatic process is hidden to the end user, and does not require any user interaction (except the scheduling of the deletion job for the archive object).

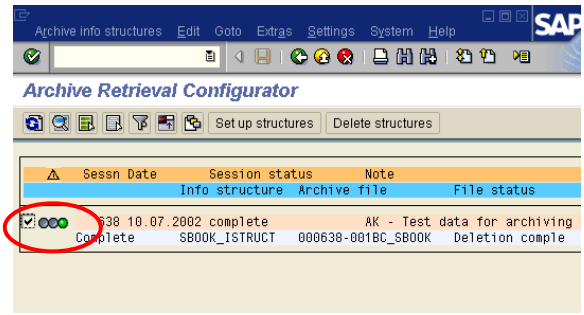
1. Call the transaction SARJ. Enter your information structure, and choose the option "Create structure" from the "Environment" menu.



2. Select the sessions from which you want to include data in the information structure. Press "Set up structure" push button to schedule the population of the information structures. You can perform the population either in "Dialog" or "Background" mode. The "Background" mode is recommended by SAP.



3. The successful population of the information structure is indicated by the system by the "Green" traffic light for the respective archiving sessions.
You can also check the content of the information structure by using the "Archive Explorer" (push button on the transaction SARI) or by using the "Data Browser" (SE16) for the structure table of the information structure.



www.sdn.sap.com/irj/sdn/howtoguides

THE BEST-RUN BUSINESSES RUN SAP