

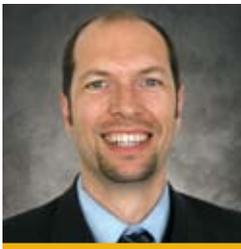


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Supporting Your ILM Needs from Start to Finish

A Holistic Look at the Information Lifecycle Management Solution from SAP



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Without the proper technological support, ensuring that you've covered all the bases when it comes to information lifecycle management (ILM) is a daunting task – and could become quite expensive. At best, you run the risk of not capitalizing on the full value of your information; at worst, it could cost you millions of dollars in fines.

ILM means striking a constant balance between risk, TCO, and legal compliance. On the one hand, you need to manage your information efficiently to keep storage costs down; on the other, you have to ensure that you meet all internal and external requirements regarding your data during its entire life cycle. This also includes data from decommissioned systems, because it often needs to be kept longer than the system in which it was created. This data continues to be a valuable asset, and it must still be available for tax audits or reporting purposes.

An Information Management Solution for Your Data's Complete Life Cycle

The new ILM solution from SAP is an end-to-end offering that provides automated support for your complete information management strategy. It addresses a full range of information management aspects including:

- Controlling data volumes
- Managing the retention and destruction of information in a legal compliance setting
- Handling data and retention management for legacy system decommissioning in a legal compliance setting, and ensuring that reporting and audits on the decommissioned data are still possible

The ILM solution from SAP is built on three main pillars.

- **Data archiving and management** – This pillar includes a combination of traditional, standard tools and processes used by most large SAP customers to manage database volume. Included here are standard archiving objects and programs, analysis tools, and indexing functions for accessing archived data.¹
- **Retention management** – This piece comprises a range of new functions such as the Information Retention Manager (IRM), a central tool for managing all your retention policies,² and Legal Case Management for legal hold and automated e-discovery support.³
- **Retention warehouse** – This is a standardized solution and method for decommissioning legacy systems and tax and other types of reporting on the decommissioned system data.⁴

In previous columns, we have described the first two pillars – data archiving and management and retention management – that are part of ILM from SAP. In this article we will focus on the third and last pillar, retention warehouse (RW), which is the standard method for decommissioning legacy systems.

With that said, it's important to be mindful of the ILM solution as a whole and understand the business

¹ For more on data archiving and management, see the Performance & Data Management Corner column "From Data Management to Information Lifecycle Management" by Dr. Bernhard Brinkmüller and Georg Fischer in the July-September 2007 issue of *SAP Insider* (www.SAPinsideronline.com).

² For an introduction to IRM, see "From Data Management to Information Lifecycle Management" in the July-September 2007 issue of *SAP Insider* (www.SAPinsideronline.com).

³ To learn about Legal Case Management, please visit www.service.sap.com/ilm to view the white paper "ILM in an SAP Environment."

⁴ For an introduction to the retention warehouse, see "Stop Maintaining Systems You Don't Use!" by Lothar Rieger in the April-June 2008 issue of *SAP Insider* (www.SAPinsideronline.com).

NOTE!

Some of the functions described in this article are part of the ILM roadmap and are currently planned for future releases of ILM from SAP.

scenarios it addresses (see **Figure 1**); decommissioning legacy systems is one use case we'll explore (see sidebar on page 62 for another).

ILM: Embracing Nondisruptive Innovation

The functions of the ILM solution build on tried and tested technologies that customers have been using for years. Because these new functions are so tightly integrated with the traditional data management tools, an ILM from SAP implementation aims to achieve maximum benefits with minimum disruption to your current data archiving practices.

For example, in ILM from SAP, standard data archiving tools are used to move data from closed business processes to WORM-like – or ILM-aware – storage, based on the retention policies you have entered in IRM. If a legal hold is placed on a certain object, that object is protected from destruction until

the legal hold is lifted. This is also true for data from decommissioned systems.⁵

Also, as **Figure 2** shows, each ILM pillar is tightly integrated with – and builds upon – the other, allowing you to maximize efficiency when using the new ILM solution from SAP. This tight integration allows end-to-end coverage of your information's life cycle in different scenarios.

Key Concepts and Technologies in Retention Warehouse

An ILM strategy is not complete without considering that a lot of data must be retained longer than the system in which it was created is available. System decommissioning is becoming increasingly important, especially for large companies. With mergers and acquisitions, the trend toward system landscape harmonization and consolidation, and constant efforts for cost cutting, many large SAP customers have several systems they are trying to decommission.

Until now, there has not been a standardized method for approaching such endeavors, which bring with them a whole new layer of complexity. Often customers can only interpret data in the context of its original system – and data stored in SAP archive files is no exception. Data from decommissioned systems, however, is not exempt from legal compliance issues or tax audits. To meet these challenges, customers have mostly had to create their own customized strategies.

With retention warehouse, SAP now offers a standardized method for system decommissioning in response to these pressing issues. This method allows you to reuse the archived data outside the original system in a central retention warehouse.

FIGURE 1 ▼ The three pillars of the ILM solution from SAP available to ILM customers

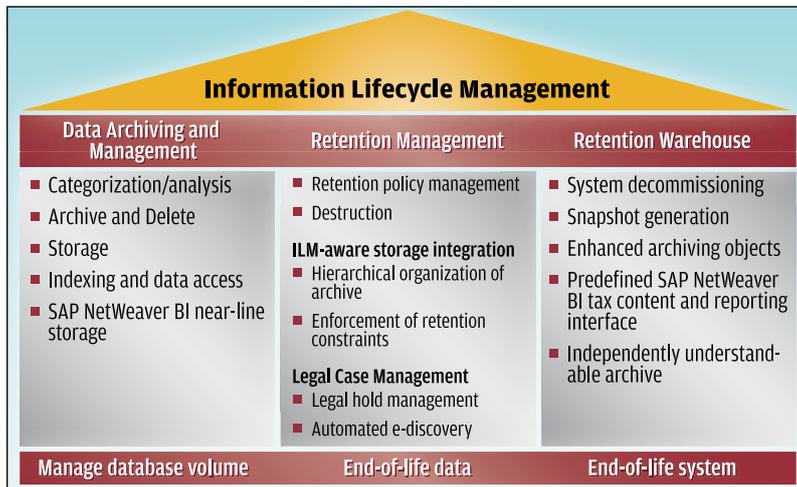
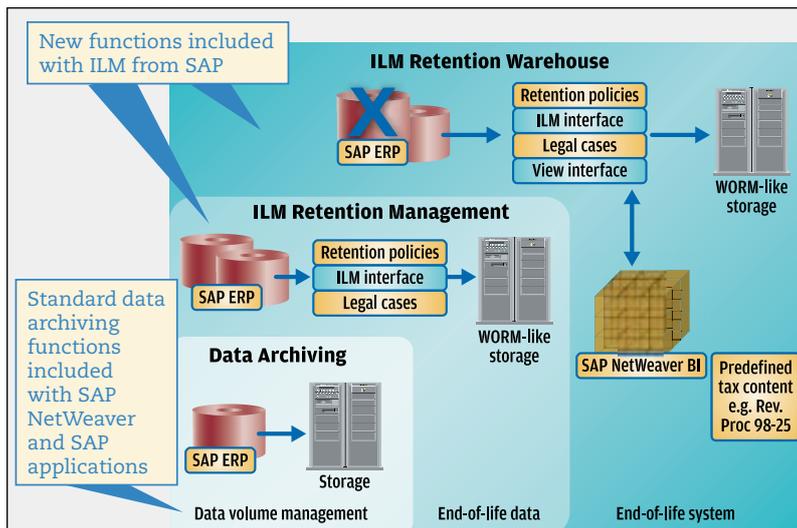


FIGURE 2 ▼ The technologies included in the ILM solution from SAP are an evolution of standard functions



System Decommissioning

With ILM from SAP, an SAP system that is to be shut down (say, an SAP ERP system) is first emptied of its data using standard and new ILM-enhanced archiving objects and programs. Here it is important to archive not only the data objects themselves, but also context and customizing information, such as currency information or country codes.

In a first step, you archive all the data from closed business processes (business-complete data). Next

⁵ To learn more about ILM-aware storage, see the Performance & Data Management Corner Column "SAP's Strategy for End-to-End ILM Success" by Dr. Axel Herbst and Tanja Kaufmann in the January-March 2008 issue of *SAP Insider* (www.SAPinsideronline.com).

you use a snapshot function to archive data from objects that are not yet business complete, as well as the context data we just mentioned (we'll cover the snapshot function in more detail later).

The retention warehouse is tightly integrated with the other pillars of ILM to ensure, for example, that the retention policies in IRM also cover data from decommissioned systems. This means that retention times – or even legal holds – apply to the data from the decommissioned system in the same way they would in a live SAP system.

Once you've shut down the original system and moved all the necessary information to RW, it may be years before you need to access that information again. For instance, if an audit is pending, you can then select specific data and load it into SAP NetWeaver BI for reporting purposes. This way, auditors can view the data even from decommissioned systems.

Transferring Context Data to the Archive

Figure 3 shows a standard selection screen of an archiving program within the context of ILM from SAP.⁶ The new ILM Actions area, outlined in red, gives users three different ILM options:

- The *Archiving* option is the standard option to move closed business process data from the database to the archive. The system first runs an archivability check to ensure that the object is really business complete, meaning that the business process has been closed.
- The *Snapshot* option is a step toward completing the data pool that is retained, even after a system has been shut down. This option allows you to copy data from open business processes (business-incomplete data) to the archive to be retained as well, because it archives data without running archivability checks. This data is kept separately from the archived data.
- The *Data Destruction* option is most frequently used for retention management cases; we won't discuss it in detail here.

Having moved all business-complete and business-incomplete transactional data out of the system to be decommissioned, it is also necessary to enrich the archive with context information. For this, ILM from

SAP offers special programs to move complete customizing or master data, or other information not covered by the archiving objects, to the archive. You can then decide on a table-by-table basis which information you want to retain. To facilitate the selection of relevant tables, SAP already delivers preconfigured programs to cover information defined as retention relevant for tax reasons. Note that, beyond additional data from database tables, you can also move knowledge about object relations and domain values to the archive in a standardized way.

After you have emptied out the system, you can shut it down. You can now locate the data in RW.

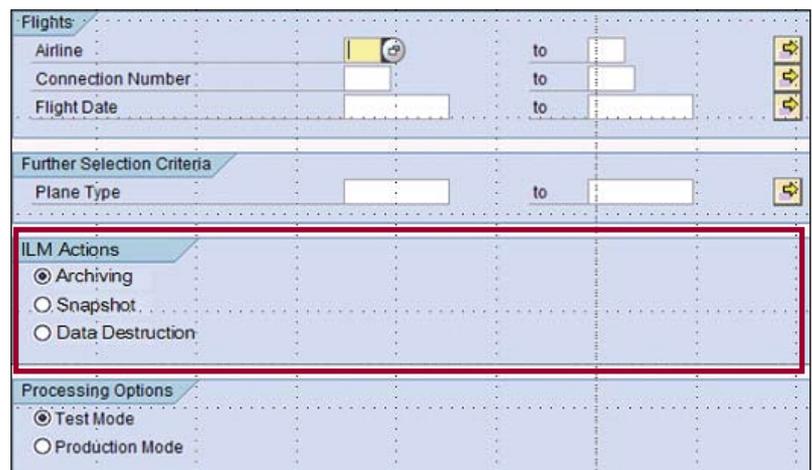
Building Work Packages for SAP NetWeaver BI Reporting Ease

In a system decommissioning scenario, it is important to provide sufficient reporting capabilities for the archived information without increasing the cost of storage for the archived data. Assuming that companies access the archived data rather seldomly, it is not economically feasible to permanently provide all indices on the data necessary for fast and comfortable analyses during an audit. For this reason, SAP has developed the *work package*, a simple way to generate a list of archive files – a bundling concept – that allows for easier handling of the data to be extracted for audits or analyses.

The starting point for each work package is to use the ILM Store Browser, a new component included in ILM from SAP, to create a list of archive files. The ILM Store Browser allows you to navigate along the hierarchy and pick the branches of the archive that contain the data you need for the analysis you want

✓ **NOTE!**
 Keeping information from decommissioned systems can be risky, as knowledge about data's retention requirements erodes over time. We therefore recommend that you implement a decommissioning scenario only in conjunction with retention management; this allows you to automatically store your data together with its corresponding retention information.

FIGURE 3 ▼ The new ILM actions of an ILM-enhanced archiving object; what users will see when they start an archiving session



⁶ The flight example shown in Figure 3 is simply a sample scenario; the new ILM actions will appear when you launch any archiving session of an ILM-enhanced archiving object.

(see **Figure 4**). It also allows you to restrict your selection to certain properties related to the origin of the data object, such as countries or fiscal years, assuming that those were used in defining the IRM rules.

The outcome of using the export function is a list of archive files (including format descriptions and business content information) containing data that may be relevant for the audit; *this* is the actual work package.

With the possibilities to further filter the data before transfer to SAP NetWeaver BI, you can make sure that the end user (the auditor, for example) only sees the information he or she is authorized to see.

The retention warehouse offers this simple two-step approach to combine cost-efficient storage with comfortable reporting:

1. To identify the relevant data in the archive, define a work package using the archive hierarchy built from the rules maintained in IRM.
2. The data defined in the work package will be temporarily copied from the archive into SAP NetWeaver BI for detailed analysis.

Flexible Reporting and Audits in SAP NetWeaver BI

To prepare for reporting, you can set up the infrastructures required for queries in SAP NetWeaver BI (based on the format description and business content information you also exported into the work package) and the requirements of the audit. The infrastructure also includes InfoProviders; once you have created these InfoProviders, you can temporarily fill them with data from the archive.

Current plans for future versions of ILM from SAP include more enhanced predefined queries for RW for frequently used reports and analyses. The queries are based on the generated data so that users can reuse analyses that they have already defined. It is also possible to define individual reports on the created InfoProviders.

Retention warehouse keeps track of the composition and transfer of a work package so that the data can be completely and automatically removed from SAP NetWeaver BI once the analysis on the transferred archive data is completed. Several work packages can be used in parallel in the retention warehouse and are considered to be completely independent data sets, which are protected through authorizations and name spaces.

In this way, it is possible for user departments to run their own analyses while an audit runs in parallel. The work packages for both areas can either partially or completely use the same archived data set.

Since retention warehouse is tightly integrated with SAP NetWeaver BI, you have the entire spectrum of analysis tools and reporting capabilities available.

A Look Ahead: Capitalizing on the ILM Solution's Open Integration

In the first version of ILM from SAP, ILM support is available for SAP systems. But the solution has been designed in such a way that later on, it can also be used as an infrastructure for ILM strategies for non-SAP systems (see **Figure 5** on page 64). Through open interfaces and the use of standards, the new

FIGURE 4 ▼ Selecting files for export in the new ILM Store Browser



An Additional Use Case for RW: Not Just a System Decommissioning Tool

While retention warehouse was primarily built to address system decommissioning, it can also be used to offer a comfortable audit environment that has little impact on the OLTP system. Assuming that you regularly archive data from your production system, you could use both the snapshot option of the archiving objects and the new program used to transfer context information to the archive on a regular basis. This snapshot data is not deleted from the production system and, equally important, it is not indexed – so it won't be included involuntarily in reports run in the production system.

When you set up a retention warehouse with access to the store used in the production system, you can use its complete functionality during the production system's lifetime. The only thing you need do is make the archive administration data from the production system available in retention warehouse.

Through the evolutionary design concept of ILM from SAP, where each component tightly integrates with the other, it will also be possible to leverage all the benefits of the solution in a non-SAP environment.

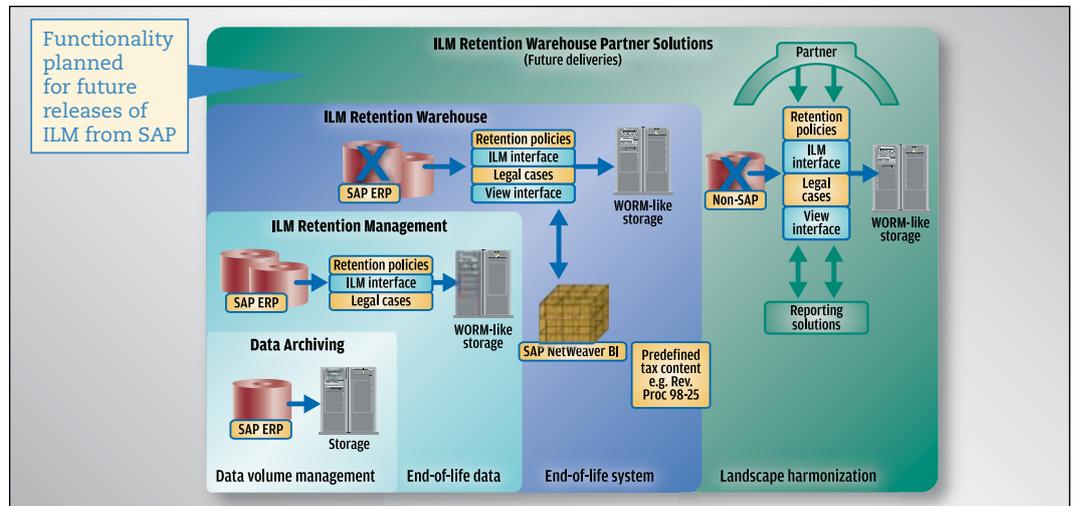


FIGURE 5 ▲ In planned future releases of the ILM solution from SAP, customers will be able to apply the benefits of the solution to non-SAP environments as well

Availability: When Can Customers Get Started with ILM from SAP?

The first version of the ILM solution from SAP is available to ramp-up customers as of July 2008 with SAP NetWeaver 7.0 enhancement package 1.⁷ Unrestricted shipment is planned for the beginning of 2009.

For more information on how to obtain the ILM solution from SAP, contact your account manager or write to ilm@sap.com.

ILM solution is open to technology partners and software solution providers; in the future, it can also be extended to serve non-SAP systems.

Summary

The new ILM solution from SAP has been designed in response to customers' real information management needs and with TCO in mind. Because the solution has evolved from tried and tested standard functions, users can leverage existing processes, infrastructures, know-how, and skills to create as little disruption as possible when implementing ILM.

The tight integration of the solution's three pillars provides further benefits by ensuring that internal and external policies can be applied to the information throughout its life cycle – from its creation in the application to its destruction in the archive, and in all the ILM scenarios mentioned here, including system decommissioning.

It also provides you with the flexibility to implement different components at different times. For example, you may have a greater need for retention management at the moment, but want to decommission several systems in the future. This would be no problem, as each component builds on the other – a true holistic approach to supporting your ILM needs.

For more information, please consult the "ILM in an SAP Environment" white paper and an ILM FAQ, both available at www.service.sap.com/ilm. ■

⁷ A limited number of ramp-up customers are being selected through a special readiness check process. To learn more about SAP's enhancement package strategy, see "Upgrading to the Latest Release of SAP NetWeaver? What You Need to Know About the Interoperability of Old and New SAP Systems" by Dr. Franz-Josef Fritz in the April-June 2008 issue of *SAP Insider* (www.SAPinsideronline.com).

Additional Resources...

...from **SAP** insider

- The **Managing your SAP Data 2008** conference in Las Vegas, November 17-19, 2008, for critical insights on improving your data management processes throughout the enterprise (www.sapdata2008.com)
- "From Data Management to Information Lifecycle Management: Why (and What) You Need to Fill the Gap" by Dr. Bernhard Brinkmöller and Georg Fischer (*SAP Insider*, July-September 2007, www.SAPinsideronline.com)
- "SAP's Strategy for End-to-End ILM Success: The Information Lifecycle Management Solution from SAP Bridges the Gap Between Applications and Storage Technology for Legal Compliance" by Dr. Axel Herbst and Tanja Kaufmann (*SAP Insider*, January-March 2008, www.SAPinsideronline.com)
- "Stop Maintaining Systems You Don't Use! Get the Most from Your Data, Even Beyond Your System's Lifetime" by Lothar Rieger (*SAP Insider*, April-June 2008, www.SAPinsideronline.com)