silwood

Common questions	Answers
What is required to install and run Safyr?	The Microsoft Windows PC on which Safyr is to be installed should have the following: • A minimum of 8 Gigabytes of RAM • 100 Megabytes of hard disk space for the Safyr Software • Disk space of about 2GB for each Metadata Repository (each repository stores the metadata from 1 instance of a source system) • The appropriate client connectivity software (e.g., Oracle Net) for connection to the Safyr Repository database and (unless ABAP extraction is to be used for SAP) the Enterprise Application database. • FOR SAP: If Safyr is to be used with SAP or SAP BW and the user wants to have control of running the extraction of metadata from the SAP system, the SAP GUI client software needs to be installed on the PC, if the metadata is to be extracted from SAP via RFC/ABAP. (Note: The ABAP functions provided with Safyr can be run independently of the product. In this case, SAP GUI would not be required on the PC.
What is a Safyr Repository and how much disk space is required?	Metadata extracted from a single instance of a source application is used to populate a Safyr Repository. This contains a set of tables in a relational database where the various extracted objects (e.g., tables, relationships, indexes…) are stored. The size of the repository will depend to some extent on the size of the source application. Therefore, an SAP S/4HANA or ECC source will require about 2GB of space. The other sources will need less.
What databases can Safyr repositories be stored in?	Safyr repositories can be stored in: • SQLite (ships with Safyr at no cost. Single user only) • Oracle • SQLServer

	Source application	Location of metadata with useful table and attribute descriptions, relationships	Connectivity and extraction method
Where is the metadata in the applications Safyr supports and what is the mechanism Safyr uses for connection and extraction?	SAP (ECC, Business Suite, S/4HANA)	Data dictionary tables	SAP Transport ABAP
	SAP BW, SAP BW4/HANA	Data dictionary tables	SAP Transport ABAP
	Oracle eBusiness Suite	Data dictionary tables	ODBC
	Siebel	Data dictionary tables	ODBC
	JD Edwards	Data dictionary tables	ODBC & XML files produced by JD Edwards program
	PeopleSoft	Data dictionary tables	ODBC
	Salesforce		API
	Microsoft Dynamics 365	Dataverse (CDS)	API
	Microsoft Dynamics AX		API
	Microsoft Dynamics CRM	Data dictionary tables	ODBC

How does Safyr connect and extract metadata from SAP?	The preferred process for connecting to SAP applications (SAP ECC (Business Suite), S/4HANA, SAP BW, SAP BW/4HANA) and extracting their metadata is as follows:

- Instal the Silwood supplied Safyr SAP Transport(s) on the target SAP system(s). These contain the ABAP programs and are slightly different for SAP ECC, SAP S/4HANA, SAP BW or SAP BW/4HANA. This is the standard approach for accessing and extracting SAP metadata.

- Install Safyr on a Windows PC which also has the SAP GUI installed. Use the Safyr connection wizard to an RFC program which initiates the ABAP and extracts the metadata from the SAP Data Dictionary tables into a Safyr Repository.

NOTE: Safyr's ABAP programs are certified by SAP.

How does Safyr connect and extract metadata from Salesforce?	Safyr extracts the metadata from Salesforce using the Salesforce Enterprise WSDL API. Details of how to connect to the Salesforce system are required in order to make the connection and extract the metadata when using the Safyr connection wizard.
How does Safyr connect and extract metadata from Microsoft Dynamics 365 (Microsoft Dataverse)	Safyr uses a third-party solution that utilises an API connection to the Microsoft Dataverse to extract the metadata. This metadata is automatically stored in a staging area before being loaded into a Safyr repository. Dataverse was formerly called Microsoft Common Data Service. Dataverse stores both the metadata and data for Dynamics 365 and PowerApps based applications in the cloud.
How does Safyr connect and extract metadata from Microsoft Dynamics AX 2012?	To use Microsoft Dynamics AX metadata in Safyr it is necessary to configure a connection to the Dynamics AX system where the required metadata is stored. Safyr extracts the metadata from a Dynamics using the Dynamics AX Metadata Service API. In order to connect to the AX Server, the Windows user for the workstation where Safyr is installed needs to be known to the AX Server Active Directory, and .NET framework 4.0 or higher needs to installed on the workstation.
How does Safyr connect and extract metadata from Microsoft Dynamics CRM?	If the source is an on-premise Dynamics CRM system, then it is necessary to configure a connection to the application database in order to extract its metadata from the data dictionary tables. This is achieved using Microsoft ADO (ActiveX Data Objects). Appropriate security access to the database is required.
How does Safyr connect and extract metadata from JD Edwards?	Extracting metadata from JD Edwards requires an extra step compared to the methods used for other Oracle applications. This is because of the way the JD Edwards metadata is located and structured. It is necessary to configure a connection to the EnterpriseOne database where the required metadata is stored. Safyr extracts the metadata from a small set of tables in this database and a group of XML files that are generated by a process in the EnterpriseOne application.

	These files must be generated before attempting the extraction of metadata from the EnterpriseOne system. The connection to the JD Edwards EnterpriseOne database is achieved using Microsoft ADO (ActiveX Data Objects).
How does Safyr connect and extract metadata from Siebel	If the metadata source application is Siebel, then it is necessary to configure a connection to the application database in order to extract its metadata from the data dictionary tables. This is achieved using Microsoft ADO (ActiveX Data Objects). Appropriate security access to the database is required.
How does Safyr connect and extract metadata from Oracle eBusiness Suite?	If the source is Oracle eBusiness Suite it is necessary to configure a connection to the application database in order to extract its metadata from the data dictionary tables. This is achieved using Microsoft ADO (ActiveX Data Objects). Appropriate security access to the database is required.
How does Safyr connect and extract metadata from PeopleSoft?	If the source application is a PeopleSoft system it is necessary to configure a connection to the PeopleSoft application database data dictionary tables where the required metadata is stored. This is achieved using Microsoft ADO (ActiveX Data Objects). Appropriate security access to the database is required.
Is it possible to automate Safyr processes?	It is possible to configure Safyr to achieve many of the day-to-day tasks required of the product without the user having to be present and (if desired) as a scheduled process. Three types of Tasks can be automated: 1. Extraction of metadata from the source application (SAP, Salesforce, PeopleSoft…) 2. Creation and Expansion of Subject Areas 3. Export of Subject Areas (not all export formats supported) More information is available here

What metadata does Safyr extract and discover from Source applications?	Safyr extracts: • Custom objects (Tables, fields etc). • Programs and components (SAP only) • Technical names for database tables and fields (attributes) • Descriptive names for database tables and fields (attributes) • Long descriptions for tables and fields (where available) • Table and field information • Views (where available) • Table row count (where available) • Names in multiple languages (Only supported by SAP) Safyr discovers: • Primary and Foreign Keys • Table relationships • Application module hierarchy (where available)
How does Safyr create application hierarchies from extracted metadata?	The Application Hierarchies shown in Safyr will vary depending on the Application Type. In each case, the Hierarchy is based upon the metadata extracted and is never a 'pre-configured' structure delivered by Silwood.
What is a Safyr Subject Area and how do I create them?	A Safyr Subject Area is any user defined collection of tables from an instance of the source application. This grouping usually contains some or all of the related tables. A Subject Area can contain as many tables as needed for the project which is being worked on. It is common for a Subject Area to contain the tables and related tables which relate to a specific business concept or artefact. For example, Customer Master, Account, Product Master, Bill of Materials, Accounts Payable etc. In addition, Safyr can be used to group together tables and attributes which represent Personal or PII data and are useful in the context of meeting CCPA, GDPR and other regulatory requirements.

	Finally, Subject Areas can be reused between different instances of the same application course. This makes it possible to compare complete or partial instances of a source application.
	Safyr Subject Areas are used to populate or provision other products and tools with metadata via Safyr's Subject Area Export facilities.
How can Safyr be used to find Personal Data or PII for GDPR or CCPA?	Safyr's Advanced functions can be used to search for Attributes (Columns) in Tables which contain the text strings which are relevant for Personal Data Discovery for GDPR, CCPA and other regulatory regimes.
	The results show which table or tables hold those Personal Data attributes.
	Results can be saved as Safyr Subject Areas and exported to other tools and in other formats. It is also possible to combine all the Personal Data Subject Areas into a single consolidated Subject Area.
	Silwood also provide some pre-configured GDPR/CCPA Subject Areas.
What are the Safyr export formats?	Safyr Subject Areas can be exported to: • Safyr's ER Diagrammer • Safyr Metadata Reporting (Microsoft Excel format) • Safyr Compare (Compares whole or partial sets of metadata from two instances of the same source application) • Comma Separated Variable (CSV) • Extensible Mark-up Language (XML) • Erwin Data Modeler • ER/Studio • SAP PowerDesigner • IBM Infosphere Data Architect • System Architect • Collibra DGC (Premium Export) • Informatica EDC (Premium Export) • JavaScript Object Notation (JSON) (Premium Export)
What are the advantages of using Safyr's export to JSON format?	Safyr's JSON export formats have two main advantages:

	1. Supports the loading of larger quantities of metadata (e.g., thousands of tables and attributes or even complete SAP BW systems) very quickly. This achieved through its multithreaded capabilities. 2. To provision the internal connectivity or data lineage between SAP BW objects into a data catalog, lineage or other application.
Is it possible to run Safyr in the Cloud?	Safyr needs to be installed in a Microsoft Windows environment. Normally this is a physical PC, but could equally be a Virtual Machine or a Citrix environment.
How is Safyr configured for multiple users?	To achieve this, we recommend that Safyr should be implemented in client / server configuration. This means that the RDBMS which will store the Safyr repositories should be installed on a separate server to which each Safyr user has a connection. Safyr needs a separate database or schema for each set of metadata to be stored. Each database will require a database user to be specified and this user must be the Table Owner for the database. Each Safyr user wishing to share the metadata in a Safyr repository must specify the same database (or schema) and database user when defining a new Safyr repository within their local Safyr environment. Both Safyr Extractor/Browser licences and Safyr Browser only licences can access the Safyr repositories if required.

What metadata does Safyr extract from SAP BW?

BW OBJECTS EXTRACTED BY SAFYR	SAP BW CLASSIC	SAP BW ON HANA	SAP BW/4HANA
InfoObjects	Yes	Yes	Yes
InfoCubes (& Multiproviders)	Yes	Yes	Not applicable
DSOs	Yes	Yes	Not applicable
DataSources	Yes	Yes	Yes
InfoSources	Yes	Yes	Yes
OpenHub Destinations	Yes	Yes	Yes
Aggregation Levels	Yes	Yes	Yes
BW Queries	Yes	Yes	Yes
ADSO's	Not applicable	Yes	Yes
OpenODS Views	Not applicable	Yes	Yes
HANA Composite Providers	Not applicable	Yes	Yes

How long does it take to extract metadata from application sources?	This depends on two main factors. Firstly, the number of tables and attributes that are contained in the source application. Secondly the speed of the network across which the metadata is to be transferred. Under normal circumstances Silwood anticipate that it will take between 60 and 90 minutes to populate a Safyr repository with the metadata from an SAP system. A Salesforce application would be much quicker, perhaps 5 to 10 minutes only.

Do Silwood offer a Safyr training course?	Silwood offer two training courses for Safyr. These are usually delivered over the internet using web conferencing facilities.
	
	1. **Fast track Safyr training – up to 2 delegates** This is a ½ day course designed to enable end users who do not need to know how to install and connect to source applications to get to know Safyr's browsing and export capabilities.
	
	2. **Web based training (Safyr) for up to 8 delegates** This is a one-day course normally delivered over 2 or 3 discreet sessions. It includes topics such as:
	  a. Product installation
	  b. Creating database schema for Safyr repositories
	  c. Connecting to the application source(s)
	  d. Extracting metadata
	  e. Repository management
	  f. Use of Safyr for metadata exploration, sub setting and export

What other technical or staff resources might to implement Safyr?	Most of the work to implement Safyr can be done by the end user (usually a data architect, analyst, scientist or modeler). It may be necessary to have some technical assistance with setting up a database server for the Safyr repositories or gaining access rights to the data dictionary tables in the source application. For SAP source applications it is common for the SAP BASIS team to install the Silwood Safyr SAP Transports. This is not a challenging or time-consuming task, it is merely something over which the SAP team often prefers to maintain control. All Safyr User documentation is available here