ActiveDiscover - Adminstration Guide

1.20 — Last update: 10 January 2024

Basis Technologies

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1. Introduction

Welcome to the ActiveDiscover1.0 Adminstators Guide

This guide is written as a simple guide to both the installation and operation of ActiveDiscover
It is split into 5 sections to reflect the key stages of both an implementation and the day-to-day use.

1. Preparation
2. Blueprint and Architecture
3. Implementation: Installation & Configuration
4. Operation
5. Support

When setting up ActiveDiscover for the first time you will typically have the support of a Basis
Technologies specialist. Remote support is available and the details are availabe at the end of this
guide.

1.1. Overview and Purpose

Overview

ActiveDiscover delivers powerful and automated SAP Change Impact Analysis which increases the value of your change delivery and enables the success of your digital transformation. Reduce costs by proactively managing risk, reigning application complexity, focusing your testing, and improving human resource utilization for all change initiatives.

Main Steps and Components

The tool guides the user through the analysis process with a clearly defined workflow that includes the following steps/components.

Impact Analysis

This would be the first step of the workflow where the set of changes (typically a set of transports or an object list) you want to analyze would be entered and the tool would identify a list of top-level objects/applications that are potentially affected by these changes. A top-level object could be defined as something that is on the architectural boundaries of the system, i.e., a transaction code, an RFC API, or a web service endpoint.

Object Prioritization

Since not all top-level objects are equally important, the tool will assign different priorities to these. There are potentially two main sources for this prioritization:
• Customer Library: You manually assign different priorities to certain top-level objects based on their business functions.
• Automatic prioritization based on usage statistics: Given a set of usage data obtained from production, the tool could automatically assign a higher priority to the most frequently used objects.

Failure Prediction

This step requires a system where the changes are already deployed (a development system, copy of production or a QA system) but can provide a more detailed analysis of the changes since instead of just working from an object list. It looks at what changed (screen definitions down to the field level, RFC interface definitions, etc.). This step has the potential to refine the testing scope and give it ability to reliably tell harmless and potentially breaking changes apart from each other.

2. Installation and Setup

2.1. Prerequisites

There are minimum NetWeaver versions which need to be met/exceeded for ActiveDiscover to be installed and operate are:

1. **Central** system – minimum NW 7.40 SP5+
2. **Source** and **Reference** systems – minimum NW 7.01+

There are no OS or DB specification requirements.

> ✳ As the ActiveDiscover Dashboard uses SAPUI5 technology, the SAPUI5 Index Calculation Job must be scheduled to avoid Dashboard issues. Refer to this article for details.

ActiveControl Customers

If you are an existing ActiveControl customer there are alternative requirements:

1. ActiveControl Kernel software installed – (minimum 7.2) license not needed for full product if not already an ActiveControl customer.
   ActiveControl elements are NOT part of the ActiveDiscover transports, and the ActiveControl transports have to be imported first
2. If you already have AC 7.2 or higher and Deep Impact / Test Impact Radar then Diffuser configuration is not needed and you will see a notification of "steps not required". This situation will be detected by the tool and the setup will be considered complete.
3. If ActiveControl is **not** installed – install ActiveControl_9.0.0_FULL.ZIP in central and source systems.

2.2. Architecture

There are 3 system types which are relevant to an ActiveDiscover solution:

Source – system that contains the proposed changes for analysis

Central – connections to Source and Target systems for comparisons. You can use any Netweaver ABAP system from which RFC connections to the Source and Target are configurable. A dedicated Central system such as Solution Manager or the ActiveControl Domain Controller, would suit this purpose.

Target – The system or systems in which proposed changes are to be installed. Would often be a Production environment, but could be any separate system which you want to compare against.
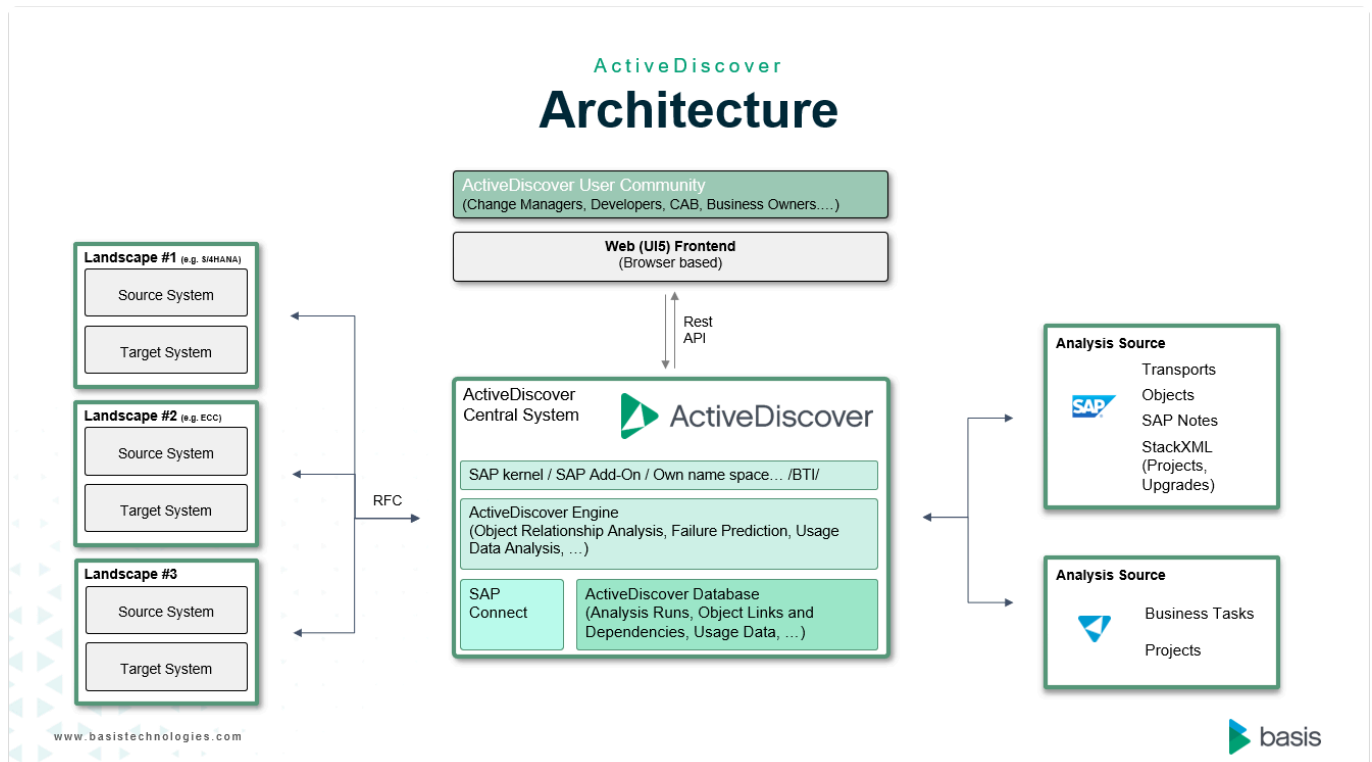
2.3. Transports

The ActiveDiscover transports are delivered to you for manual import and installation into the relevant systems.
It is best practice to deploy the transports throughout the development path.

You will have transports labelled for Central, Source and Target systems.

Refer to this article for transport details and download links.

Use your own procedure for upload, if you have one.
Or, use this procedure:
Transaction: /n/stms_import
and then use Menu options to proceed to —> extras —> Other Requests —> Add

2.4. Configuration

Once the transports have been imported, you can proceed here with the installation steps.

## SICF Activation

Activate Services

Within the system you have designated as Central, where the primary ActiveDiscover application will reside and be operated.
Transaction SICF:
Drill down to locate the following services:

- /bti/px
- /sap/bc/ui5_ui5/bti/px

Right-click – select 'Activate' and choose 'Activate Tree'
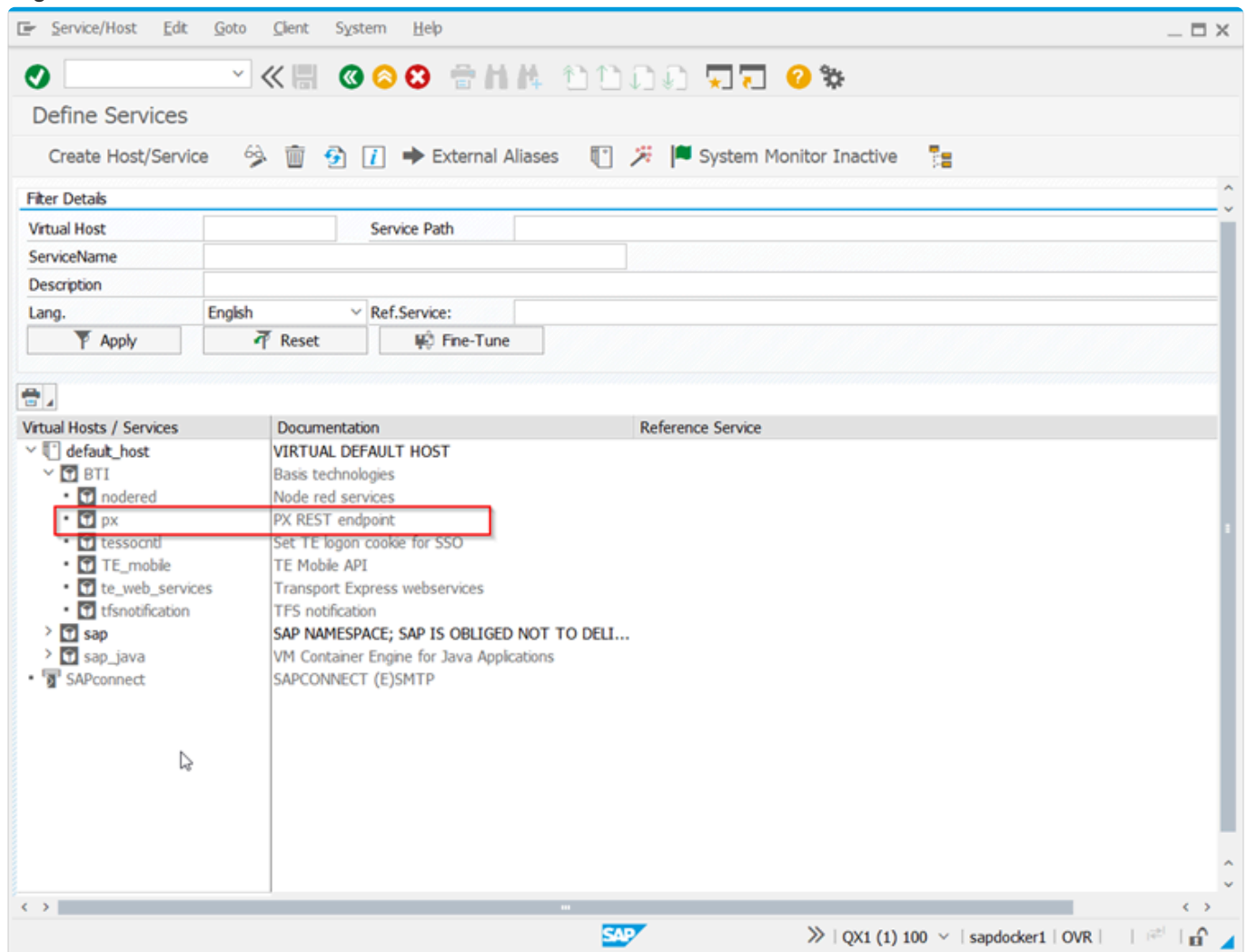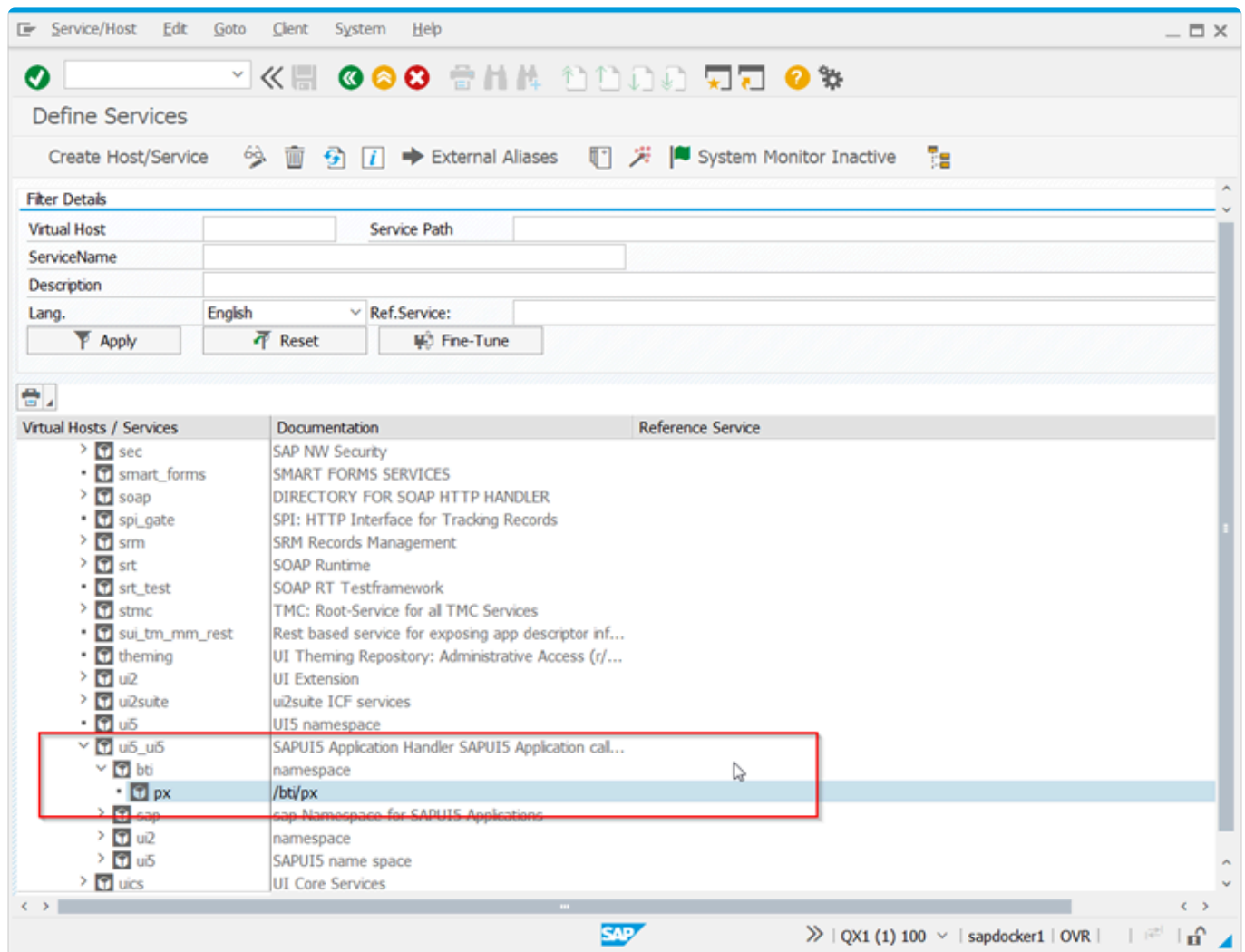
Webservice Test

You can conduct a test on the generated services by going to the generated address:
http://HOSTNAME/sap/bc/ui5_ui5/bti/px/index.html

(where HOSTNAME = the hostname or fqdn of the central system)

A login will be required, with a user-id which already exists.

2.5. Security and Authorization

The restriction of certain activities within ActiveDiscover is imperative to prevent misuse, proliferation of landscapes, and to properly manage the housekeeping,
Roles

Central System

The roles delivered with the ActiveDiscover transports are:

- /BTI/PX_ADMINISTRATOR: Admin role, can do everything. Assign /BTI/PX_ADMINISTRATOR role to all Administrators
- /BTI/PX_DISPLAY: Display only, cannot run an analysis.
- /BTI/PX_ANALYSIS_CONTROL: Can create, run, and abort analysis runs (+display)
- /BTI/PX_RFC: Technical RFC role for source and reference systems — you'll mainly need this one for the test, when setting up RFC destinations

Assign /BTI/PX_DISPLAY and /BTI/PX_ANALYSIS_CONTROL role to General Users

You may reuse these roles as reference if your internal policy requires.

Transaction PFCG will allow the generation and allocation of the roles.

Source and Reference Systems

- /BTI/PX_RFC: Technical RFC role for source and reference systems — you'll mainly need this one for the test, when setting up RFC destinations

2.6. Licences

Licenses will be provided by Basis Technologies typically prior to the installation. They are a file, and you should store somewhere safe, accessible and secure.
A reissue of a new ActiveDiscover license key to our customers is part of the annual renewals process.

If you already have Diffuser and ActiveControl licences then you do not need to reapply them. Your Basis Technologies contact will advise on your licencing procedure for ActiveDiscover only, following the steps below.

First Use

On first use of ActiveDiscover you will need to enter a license before the tool will operate. The screen will look like this:
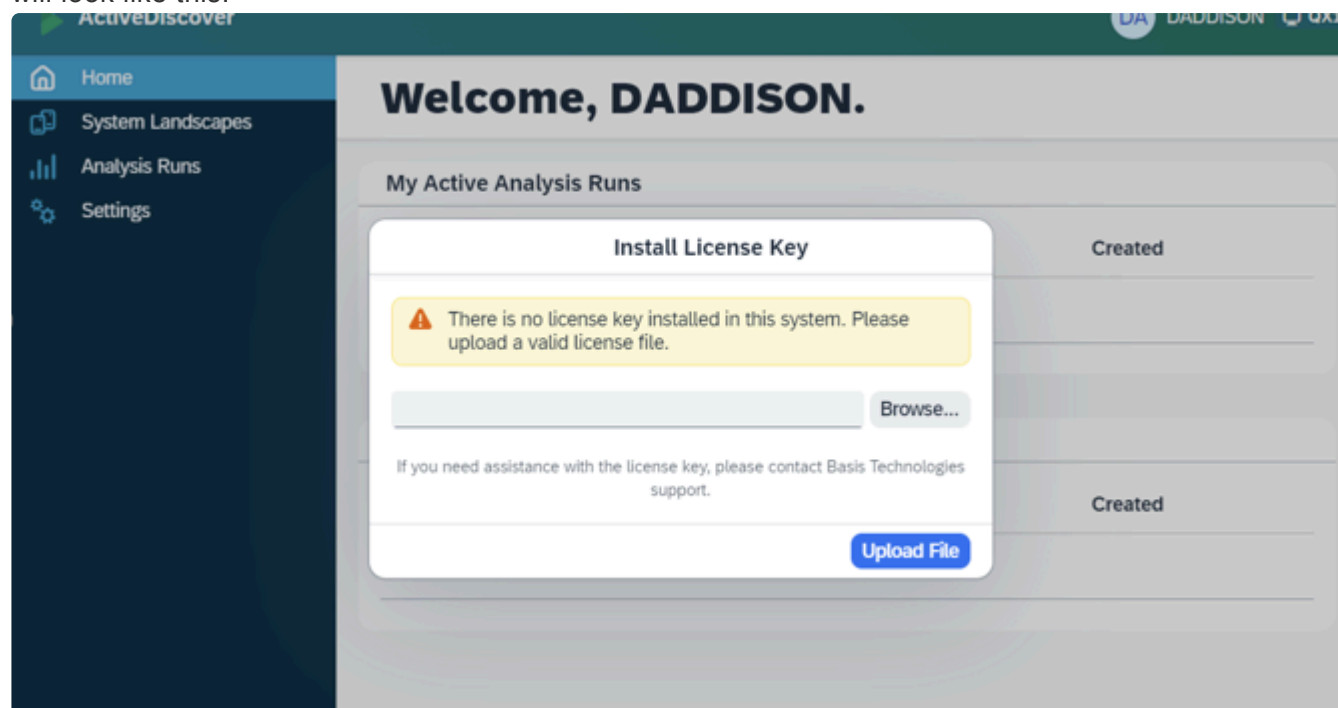

Checking and Updating the ActiveDiscover License

After ActiveDiscover is configured, the license key can be Viewed and a new key uploaded by ActiveDiscover Administrators via the button on the Settings screen:
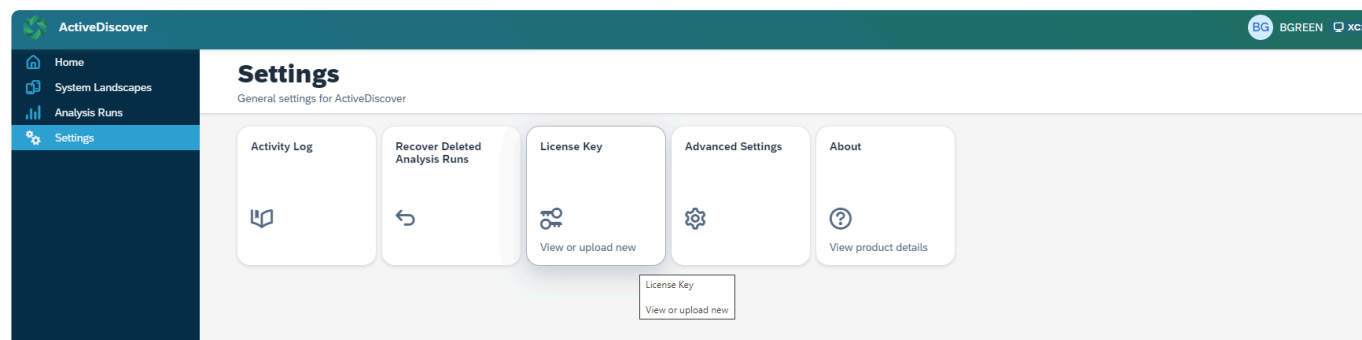

In the pop-up screen which is seen, you can see the existing Expiry Date and the number of Licensed

Landscapes
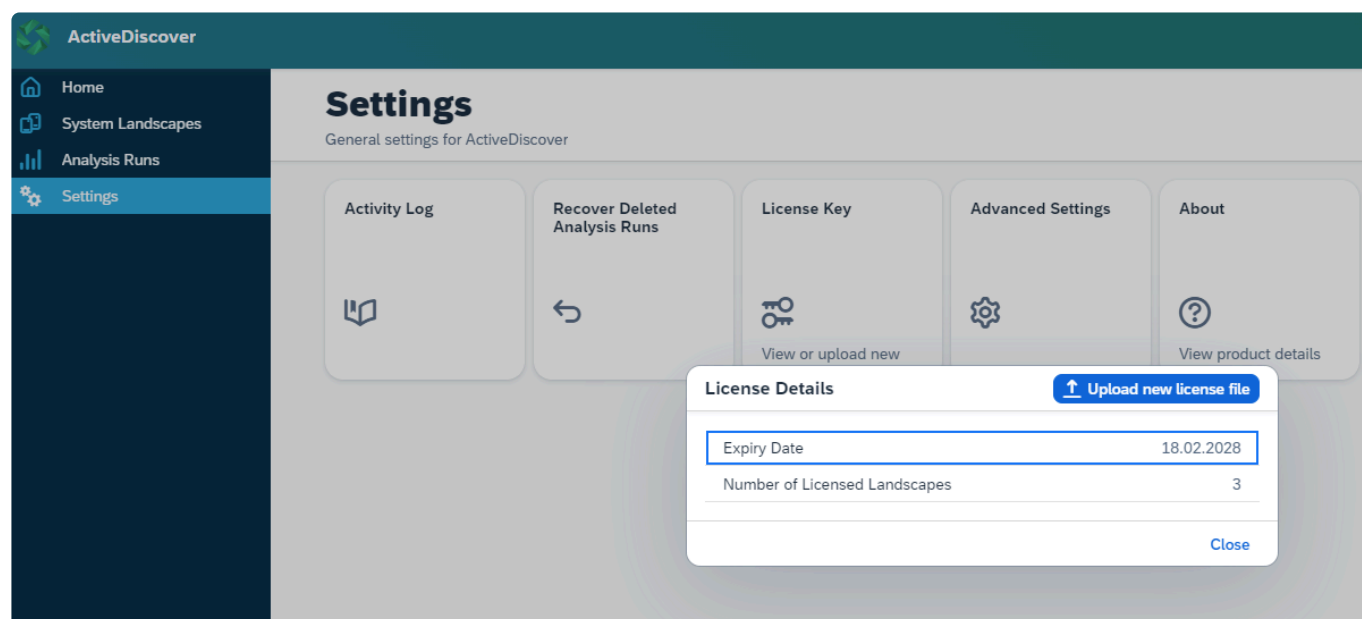
Clicking on "Upload new license file" will bring up a standard file access window from where you can select the license file to be uploaded.

If you have an incorrect or invalid file, you will see an upload error:
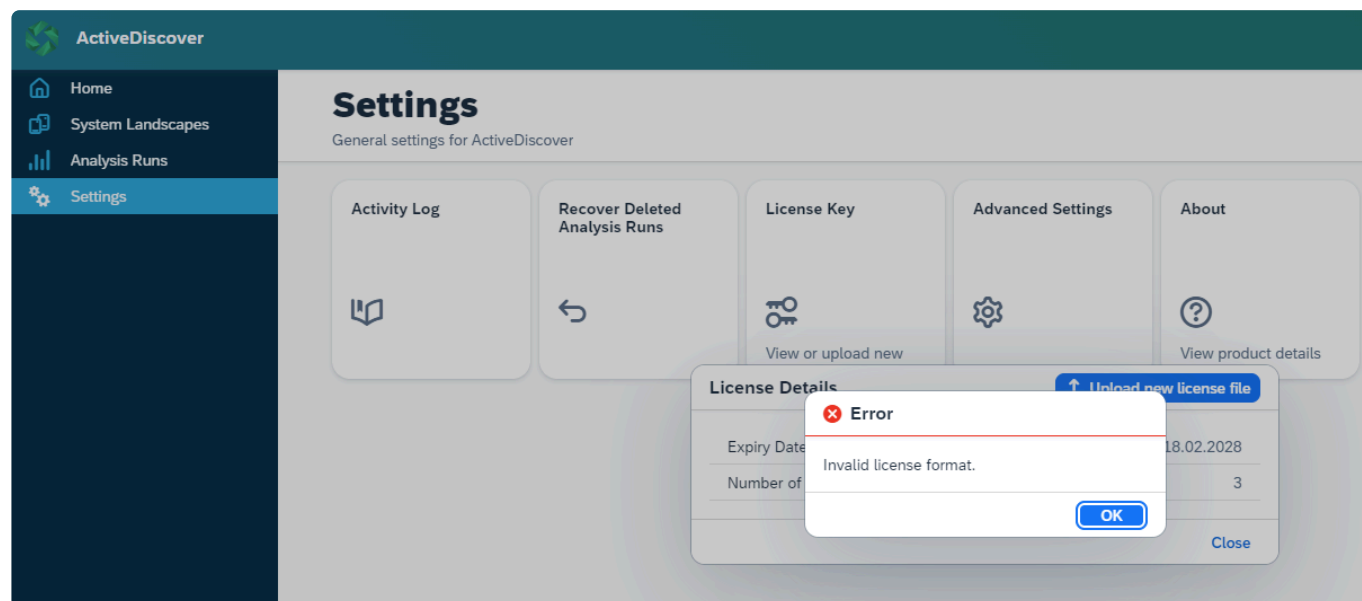
Checking and Updating the Diffuser License

You will also need to manually add a Diffuser License for the Central and Source system.

Use transaction: /n/btr/license

Selecting the Install Key File and then clicking Execute will bring up a File Selection screen where you can locate the License.

For Central it will be a License marked as "PX"

For Source it will be a license marked as "TE01"

2.7. RFC Connections

RFC Users

Create RFC-Users on Source and Reference System:

Note: The usernames given here are examples, and you should follow your naming convention where appropriate. There is no naming convention *required* by ActiveDiscover.

It is recommended, but not mandatory, to have a dedicated RFC connection for the purpose of ActiveDiscover's use.

Name	AD_RFC
Type	SYSTEM
Role	/BTI/PX_RFC

RFC Destinations

Create a RFC Destination (e.g. AD_SID) on Central pointing to Source and Reference.

Transaction SM59 for the RFC Setup:

To the following Source and Reference systems, where a logical name is recommended to make later identification easier. SID is replaced by your own System ID, for example:

Source

Name	AD_SIDofSRC
Type	3
Description	ActiveDiscover Source RFC Destination
User	AD_RFC (or the username defined above)

Reference

Name	AD_SIDofREF
Type	3
Description	ActiveDiscover Reference RFC Destination
User	AD_RFC (or the username defined above)

2.8. Diffuser Setup

The Diffuser software allows parallel processing and seamless background operation of large datasets.

You may alrady have Diffuser set up for ActiveControl functionality, such as Deep Impact, or Test Imapct Radar. You should still follow these steps, to ensure the relevant ActiveDiscoer aspects are correctly set up.

It is configured separately from ActiveDiscover and needs two programs defining. This is to be carried out in the Source system, defined earlier.
To clarify, the description below is not running the Diffuser programs, but defining their starting parameters and settings which will be necessary at runtime

Transaction: /btr/diffuser

Transaction Linkages

Enter the Diffuser Program as: **/BTI/TE_REP_MDR_OBJECT_DI_LINK**


Click "Create".

Without making changes click "Save" and specify a Transport which contains these changes. Now you can exit the transaction.

You need to repeat the same steps for the Diffuser Programm **/BTI/TE_REP_MDR_CR_TRAN_LINKS**

> ✳ Make sure to leave the transaction before creating other programs as there were strange buffering issues in the past.

Set the Defaults for Technical Settings radio button and click Display

Then confirm the defaults are seen, as below. If they are not set, please Change them accordingly:

Repeat this for Diffuser Programms **/BTI/TE_REP_MDR_CR_TRAN_LINKS** and **/BTI/ TE_REP_MDR_OBJECT_DI_LINK**

Where-Used Report

This should be carried out in the Central system.

First, create a Diffuser program for **/BTI/PX_MDR_WHEREUSED**

Diffuser Variants

Create a Variant for the program **/BTI/TE_REP_MDR_OBJECT_DI_LINK**, again via transaction "/btr/ diffuser"
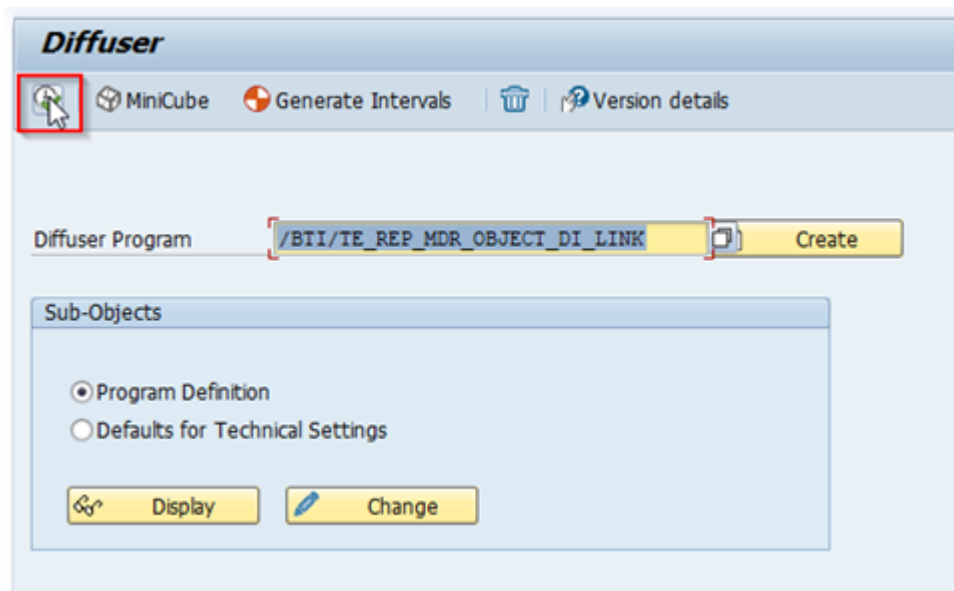
Click the Execute button and you will see the main selection screen. Please select all objects <u>except</u> Function Modules and click Save the first time. (to save this screen, see details from next screenshot) Now click on Technical Settings (Step 3) and enter an Interval Size (Step 4) and specify the number of batch jobs across all servers (Step 5). Note: Make sure to leave enough free processes for other jobs. Finally save the Technical Settings into the same variant by clicking on Save (Step 6).

We are not interested in actually running it, just creating a Variant, saving and leaving.
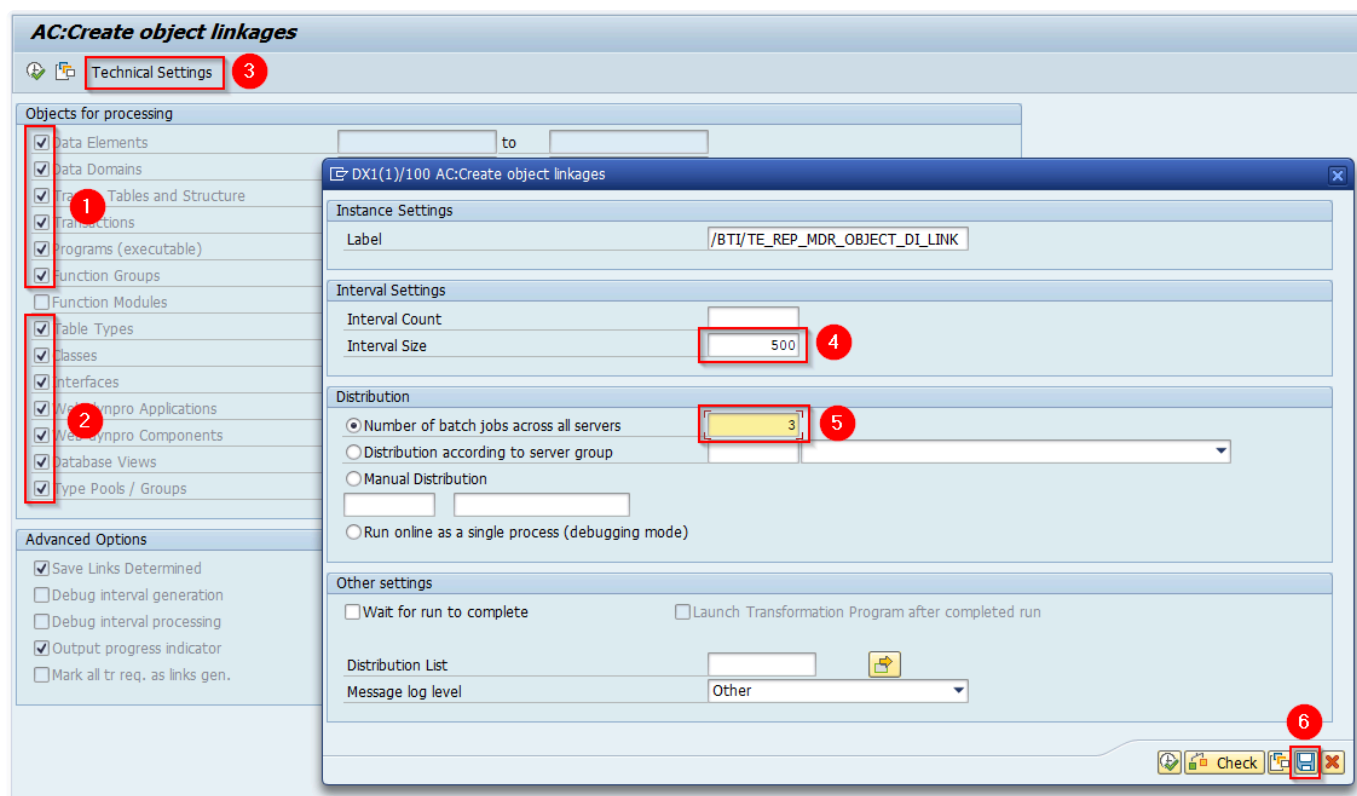
Name: OBJLINKS {the naming of the variant is required to be OBJLINKS}
Description: OBJLINKS

Click "Save".

You can now "Exit" to cancel the execution.

3. Analysis Setup

3.1. Orientation

Start ActiveDiscover and logon.

You will see a Home screen, which will show Completed and In Progress Analysis runs.
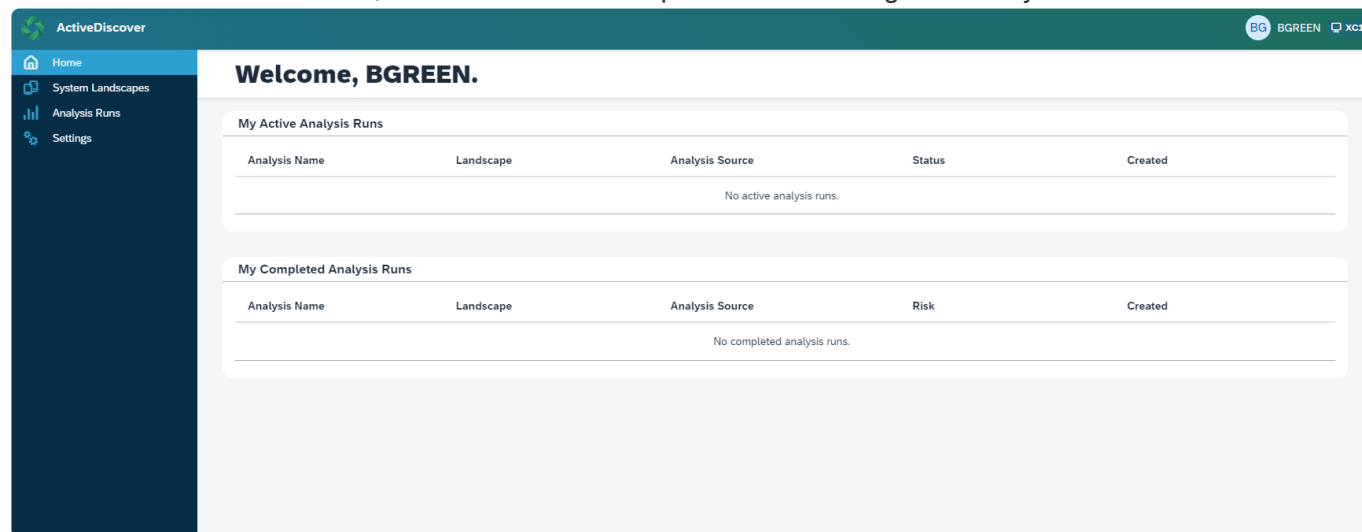
The Selection Bar on the left will give you access to:

1. Home: The landing screen and where you will see favourites and a top-level view of your Analysis Reports.
2. The list of System Landscapes. This is where the Source and Reference systems are defined and their configuration adjusted.
3. The whole list of Analysis Runs you have created yourself, and those created by others which are open to you to view.
4. The Settings for ActiveDiscover where you can View Activity Logs, Recover Deleted Analysis Runs, License Information, Advanced Settings and About, for the Version Details.

3.2. System Landscapes

The ActiveDiscover tool works by having a Source and a Reference system where you can compare a Change in the source, against the matching entry in the Reference, and use the Reference's usage information to add detail and relevance.

Landscape

To add a new Landscape, click on the System Landscapes screen.
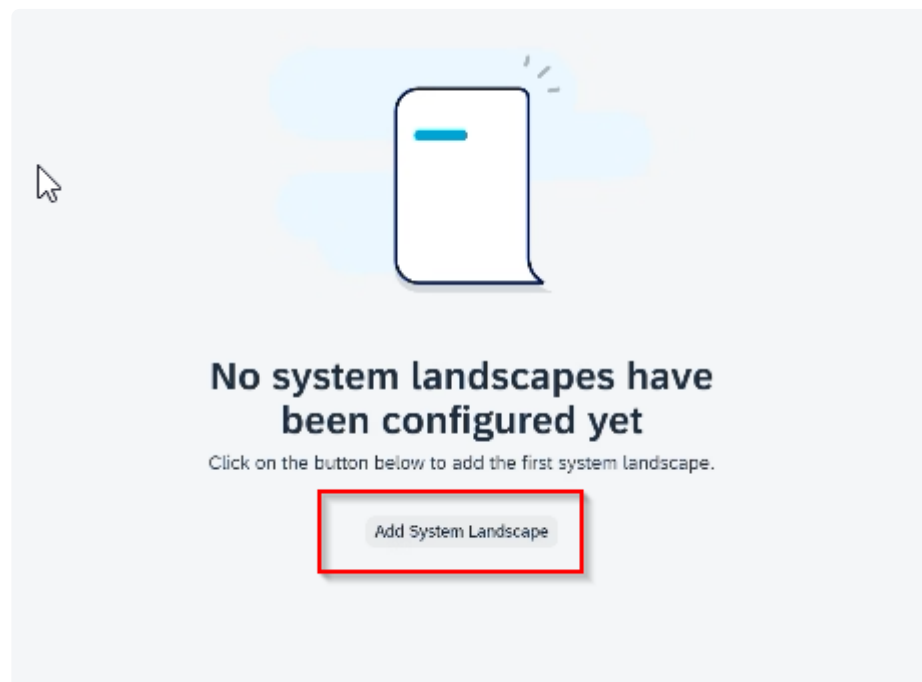
Click on the Add System Landscape and you can enter both a Landscape and a Description.
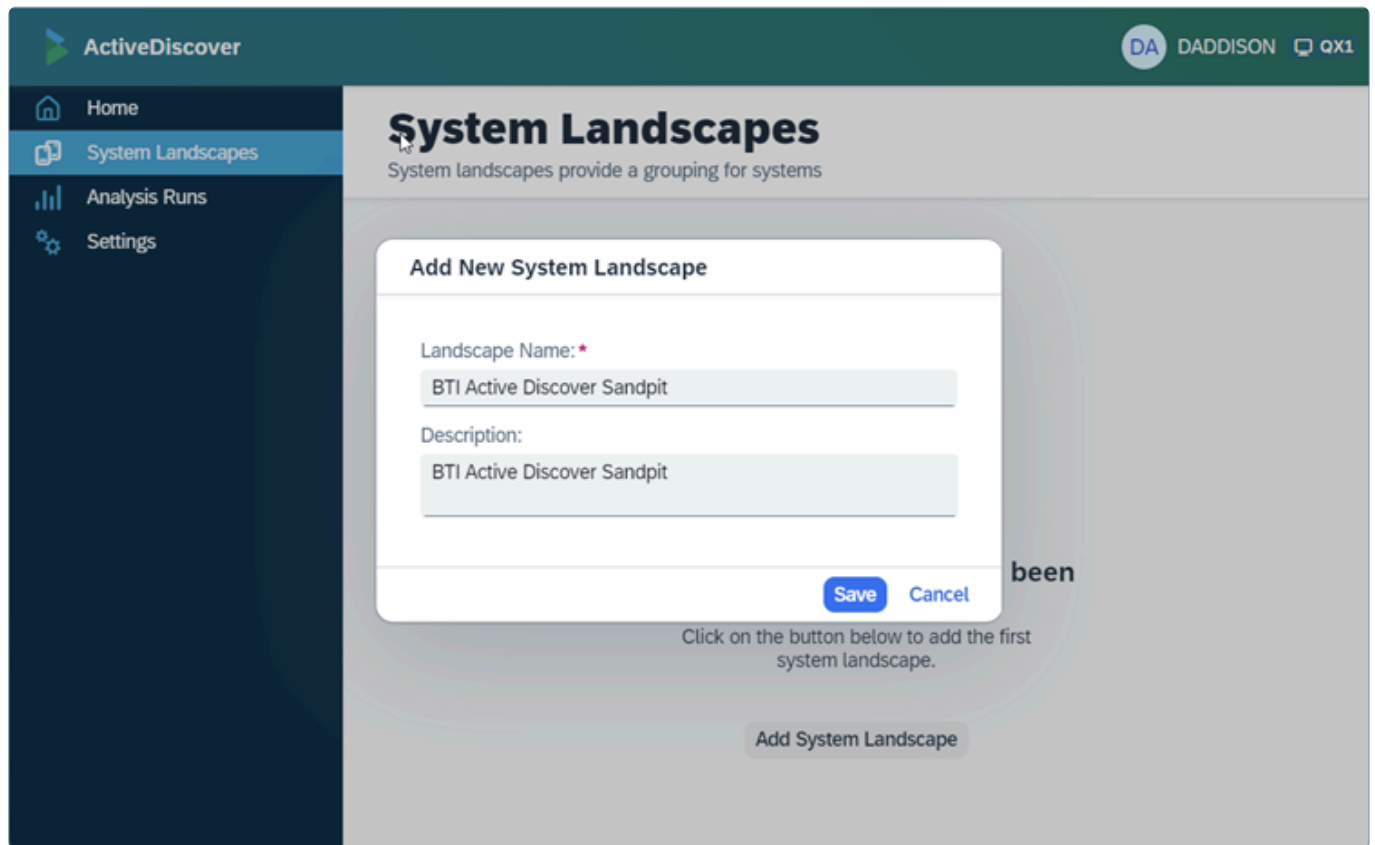
Once complete you will see your Landscape. Essentially this is the Framework against which you can register the Source and Reference systems.
No processing has been triggered by setting up the Landscape Name and Description in this step.

Source
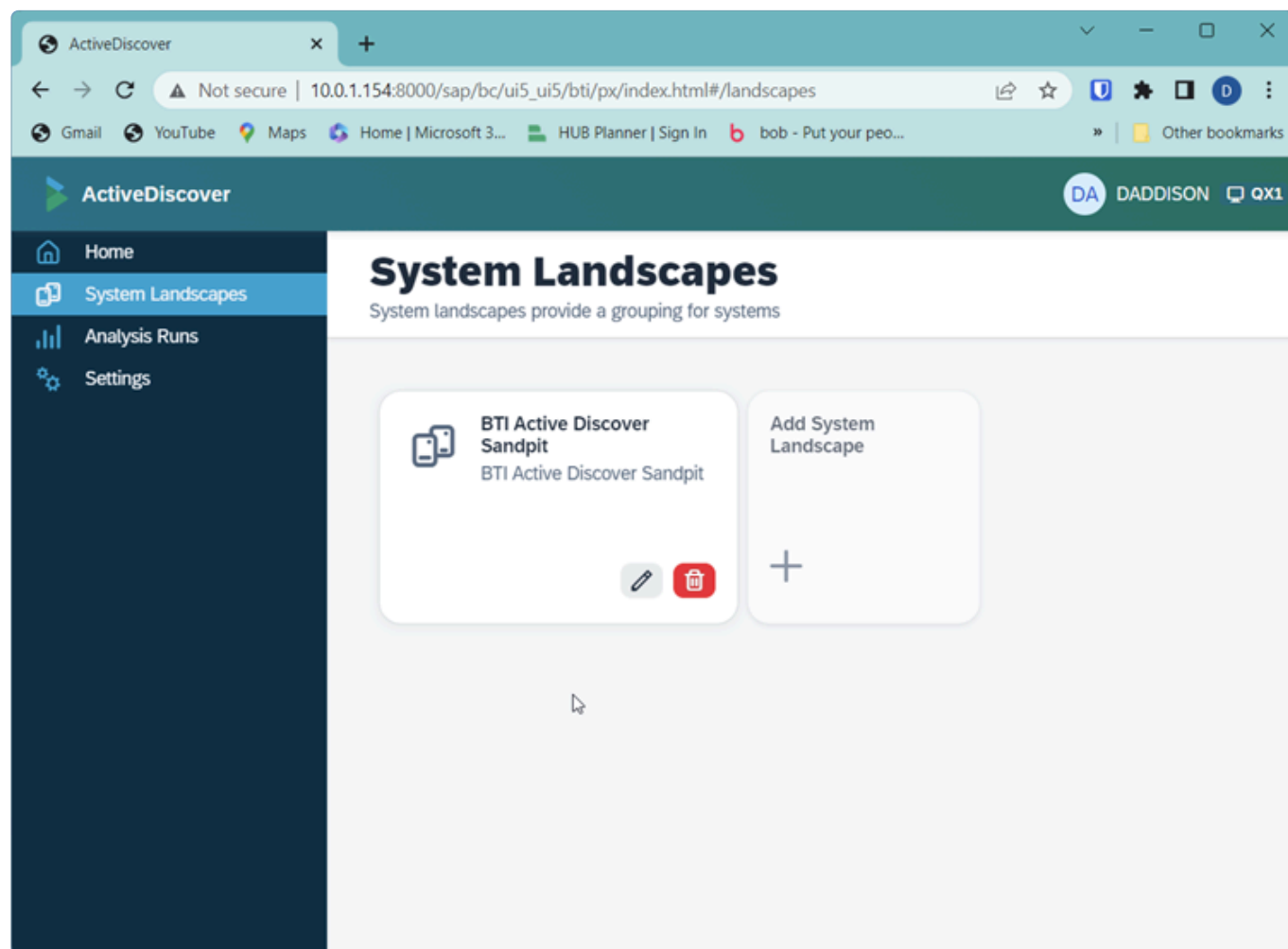
and then click on the Header of the Landscape's card:
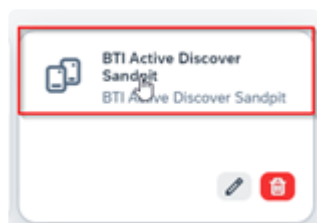
Add the Systems next by clicking on "Add New System"
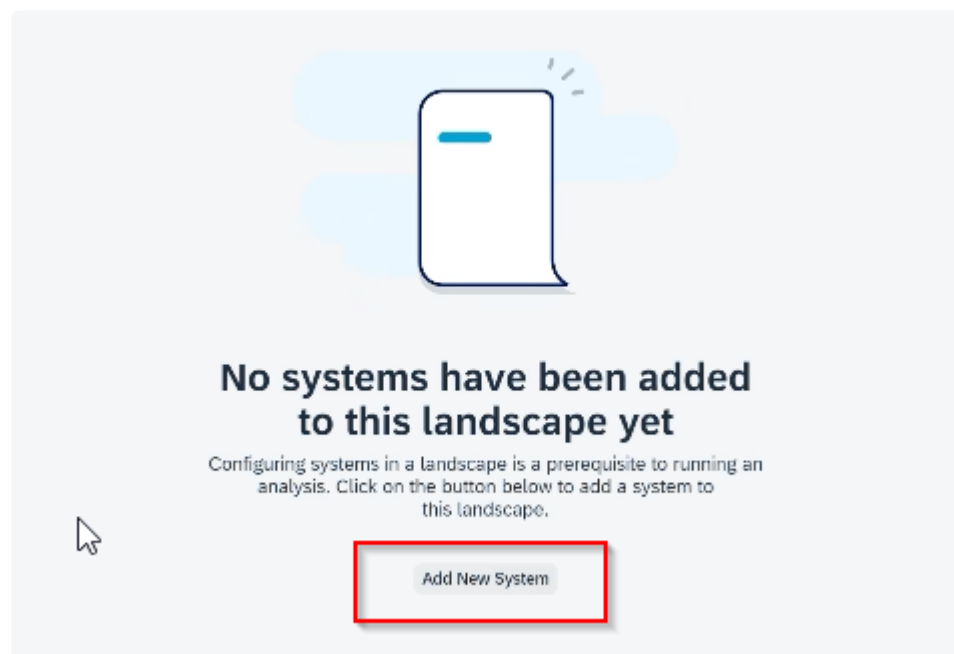
Select the RFC, which should have already been set up:
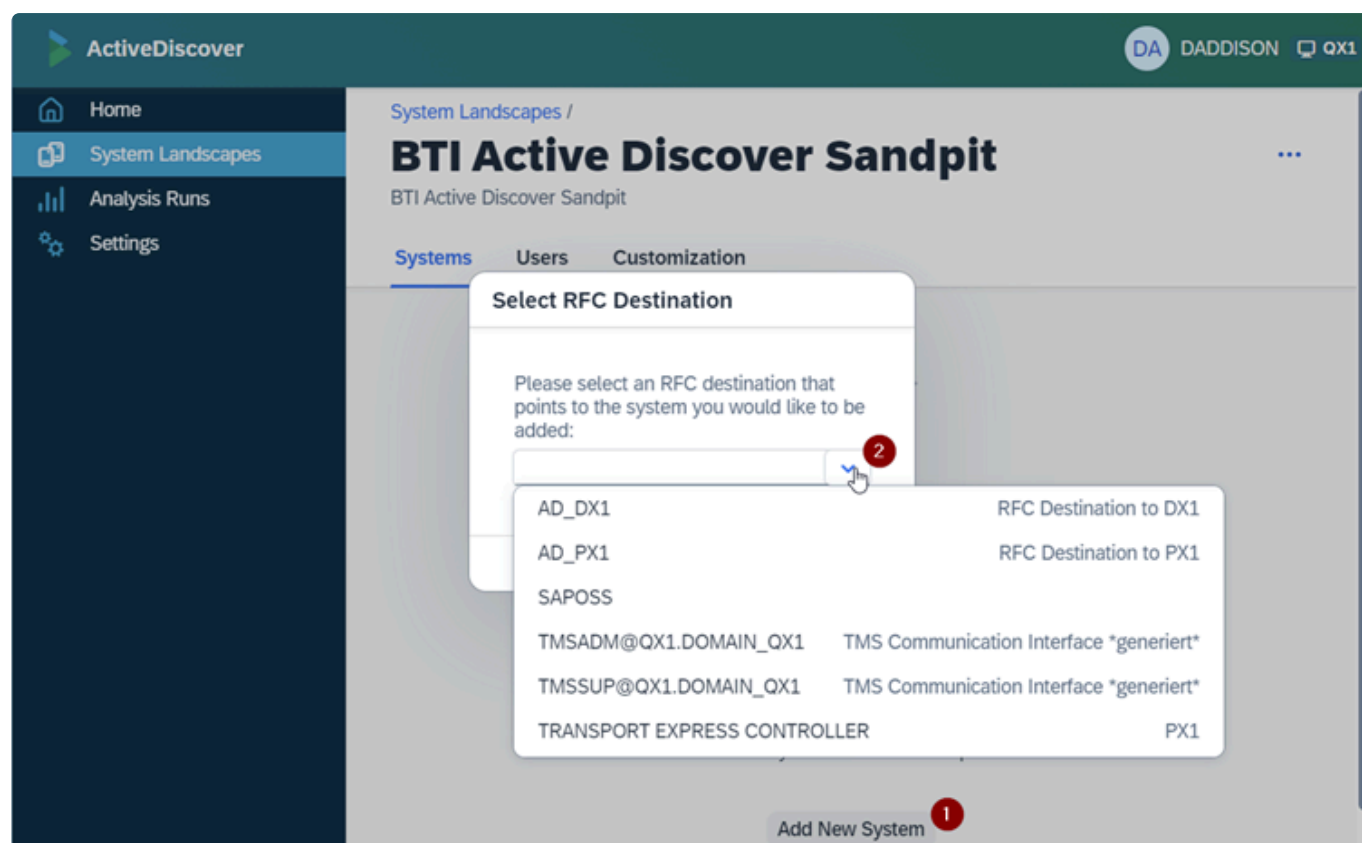
and then assign either Source or Reference as the System Role:
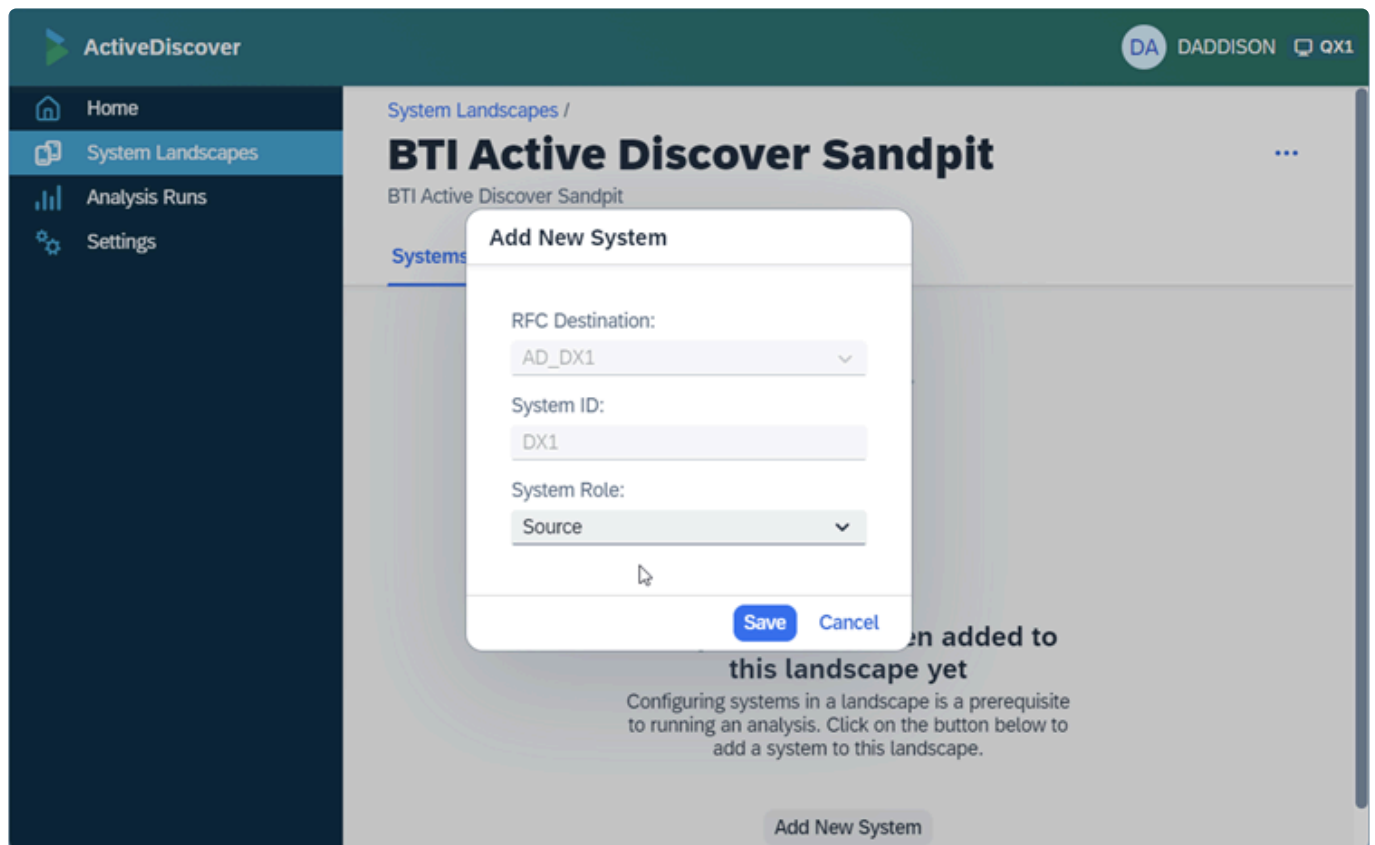
When the Source has been defined and you have clicked Save, this triggers the link building job. The Link Building is a one-time activity, and can take >2 days to run in some situations. There is a second, periodic operation which is automatically scheduled to update the dataset.
Whilst this is running the new system will have status "In progress" and a background job is scheduled. It can be viewed / monitored in SM37 as can the job logs in the event of any errors.
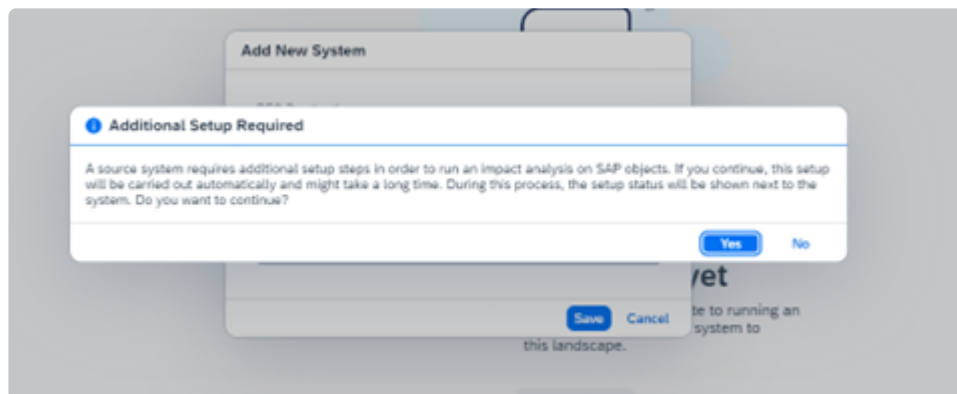
You can click on the System Status label to see more information:
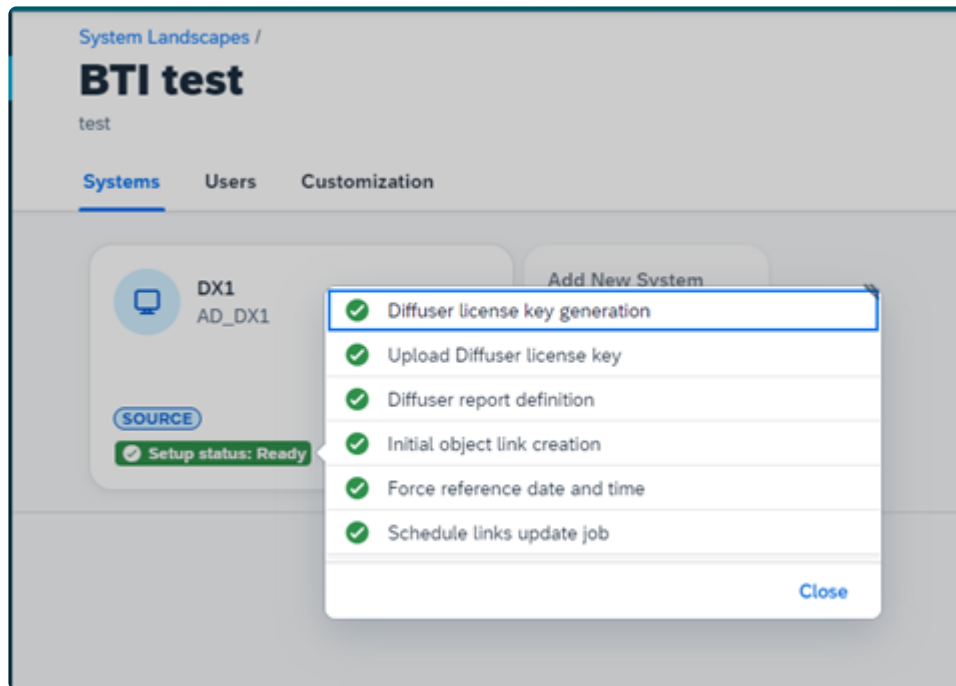
It can take up to 4 days to run, or more in complex, extended systems where there are high numbers of add-ons.

Reference

Setting up the Reference System is exactly the same, but there will be fewer setup steps automated in the background.

Follow the steps as follows:
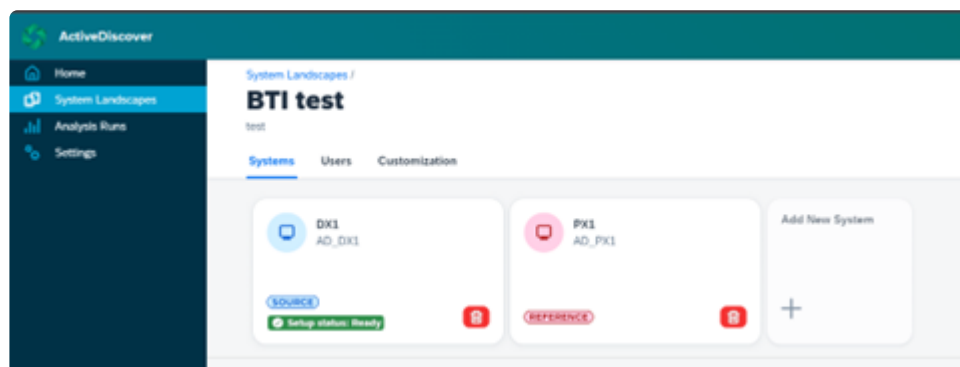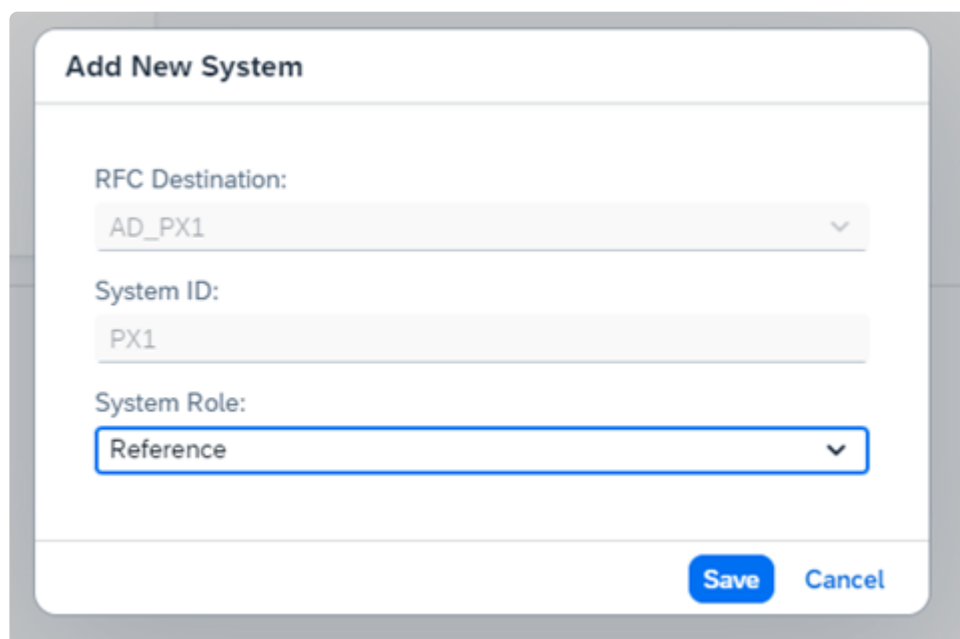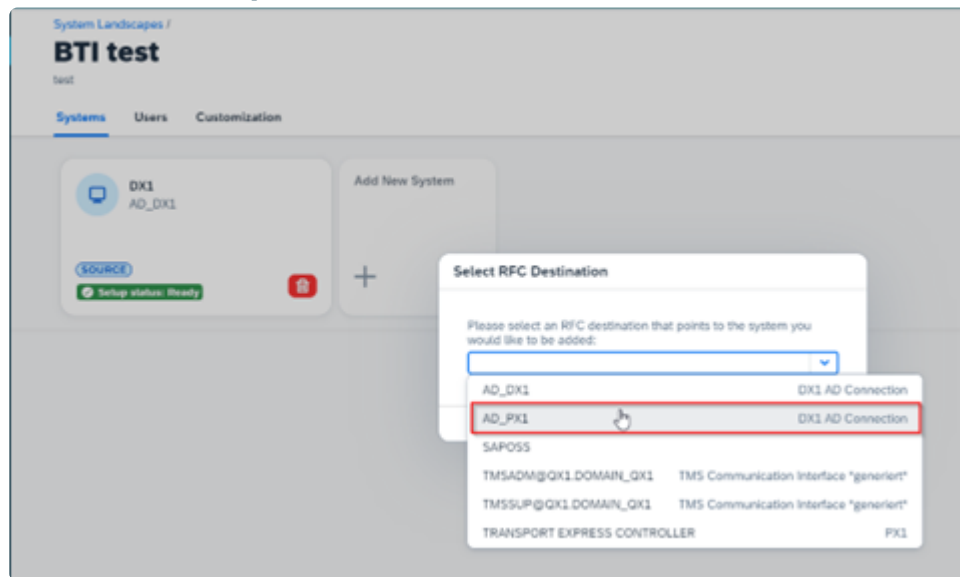
# 3.3. Running an Analysis

Create a New Analysis

Step 1 – Landscape and Name

From the main screen, navigate to the Analysis Runs page and click on "Create New Analysis Run"
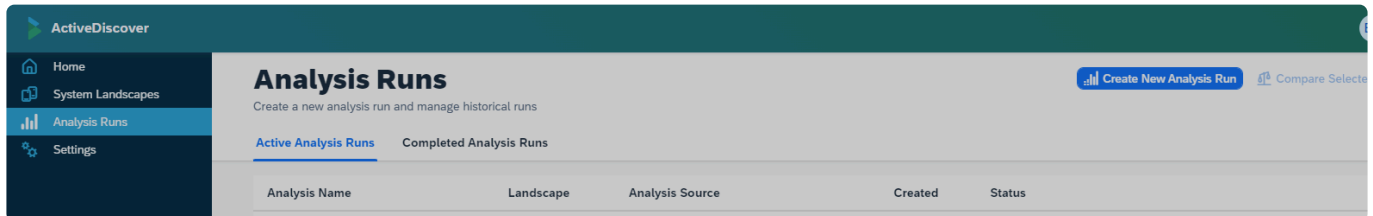
Steps in the setup are dynamically shown, after the current step is completed and validated.

1. Choose the System Landscape
2. Assign a name to the Analysis, and press Enter

> ✱ You can change the name of your Analysis later, if you wish.

Step 2 – Components

You can select the components you wish to run the analysis against. By default, some might be less relevant to you and you might wish to deselect them, perhaps to save time in the analysis generation.

The Usage Data Analytics and related metrics are dependend on the ST03 Data being activated.
For more information about setting up ST03, you can refer to SAP documentation.

> ✳ As per SAP Note: https://me.sap.com/notes/0002369736 activate the
> SAP_COLLECTOR_FOR_PERFMONITOR job to be schedule in client 000.

Step 3 – Analysis Source

You can select a variety of sources on which to base your analysis.
SAP Transports, Specific SAP Objects, and other sources will be added in due course.

SAP Transport(s)
Enter transport number(s) which exists in the Source system, and contains objects which you wish to
perform impact and scope analysis against your Reference system. The selection screen allows you to

look for transports based on filters and search criteria.

SAP Object(s)

Enter SAP Object(s) which exists in the Source system that you need to be compared against the Reference system.

When selecting a SAP Object, there are a multitude of object types that can be analysed:

In this example, entering a transaction code in the Object Name (1) and pressing Go (2) lists all objects that are associated with this Transaction Code and can be analysed.

Choose the Object Type = TRAN to analyse transaction SM50. Once confirmed, press Select to exit.

Select "Start Analysis Immediately".

The analysis starts and can be monitored here:

Completed Analysis Runs can be seen here:

> ❗ **Abort** is only seen when an Analysis Run is halted by a User
> **Error** is when a problem is identified by the System, and would need an action by the user to investigate or resolve.

3.4. Analysis Maintenance

Either during the analysis operation or after an analysis is completed, you will be able to view and manage the analysis from the Analysis Runs screen:
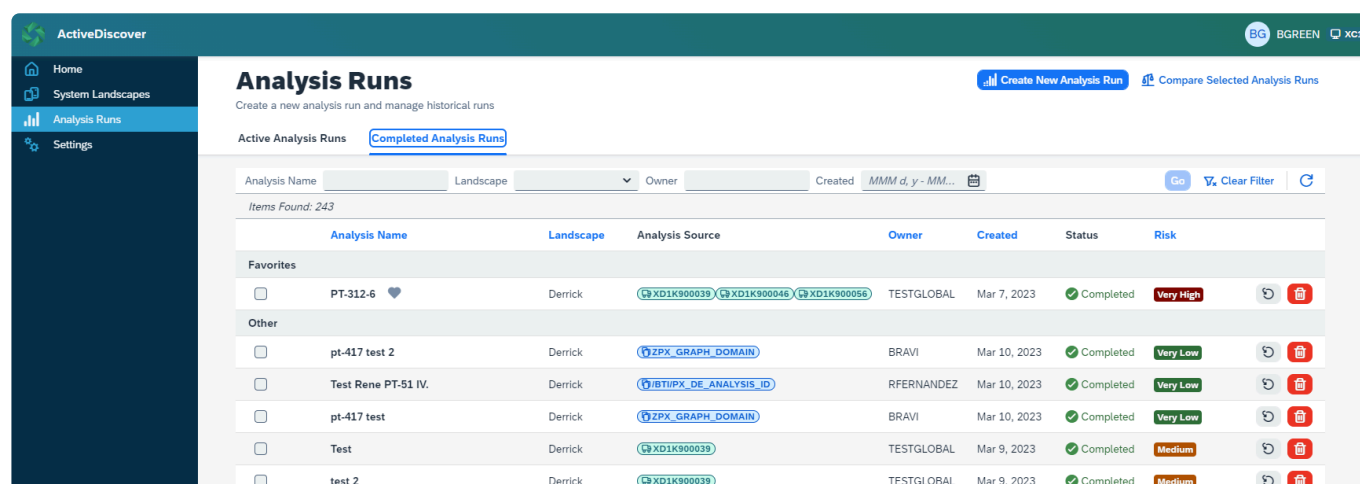
Active Analysis Runs

Completed Analysis Runs

3.4.1. Maintenance of Active Runs

From the Active Analysis Runs screen you can see runs which are:

1. Pending
2. Processing
3. Aborted
4. Error

Pending
This is the first state, and would be seen when the Analysis Run is waiting for background processors to become available.

Processing
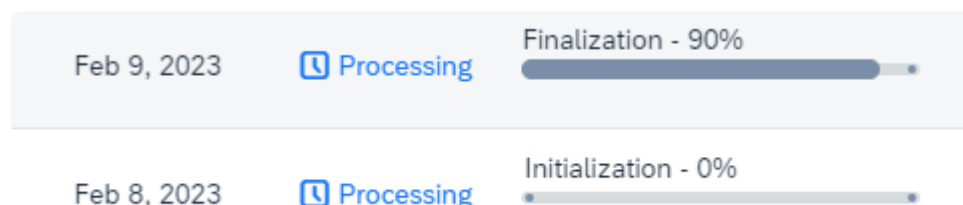
You can see, during the processing, the percentage completed and which stage is currently in progress.

Initialization
Impact Analysis
Usage Data Retrieval
Failure Prediction Analysis
Finalization

During this stage you can Abort the Analysis Run.
NOTE: You cannot resume an Aborted run and would need to restart it from scratch.

If you decide to Abort, ActiveDiscover will attempt to halt the active job.
If no job is found, there will be a notification, and the job will remain in a Processing state.

Aborted

Aborted runs will remain until a user with Adminstrator priveleges cleans them up or a period/time-out trigger causes them to be removed automatically. This is set at 30 days. Older runs would be less accurate and are best deleted to free up space and ensure precise risk scores are used.

The Administrator would manually delete the Aborted runs line by line, there is no separate tool to bulk-delete.

Error

If an error is encountered during processing it will show as Error. You can click on the Error word to see more detail.
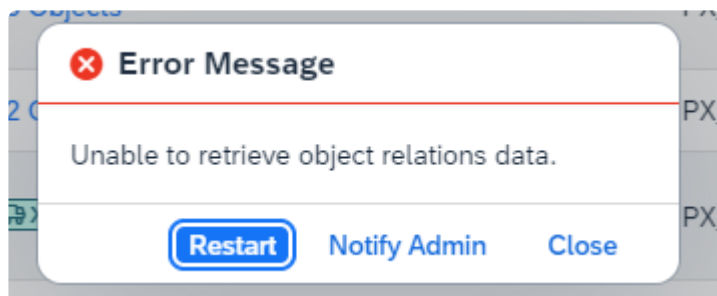
You can attempt to fix the problem and click Restart to resume processing.

3.4.2. Deleting and Recovering

When you are finished with an Analysis, you should delete it to free up the space.

From your list of Completed Analysis Runs, the Delete button on the right of the page will, with a prompt to confirm, remove the run from your list and set a Flagged for Deletion tag.
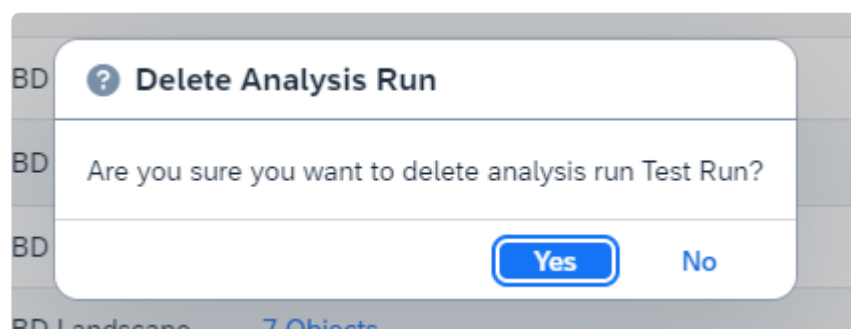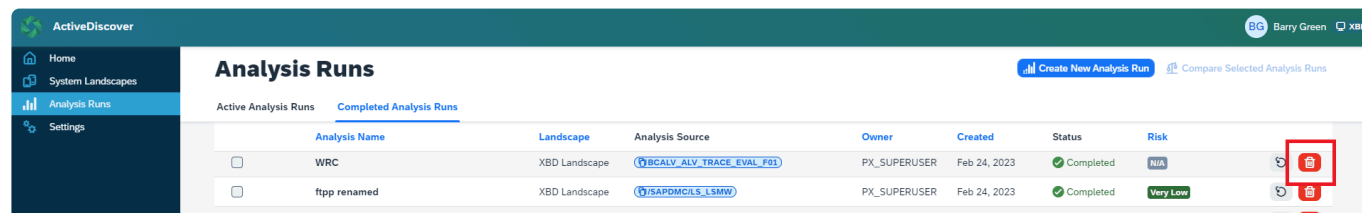
After a period, set by your Administrator, runs which are Flagged for Deletion will be automatically deleted forever.

Before this time, you can request via the Adminstrator for a run to have its Flagged for Deletion tag removed. This will bring it back to visibility in your Completed Analysis Runs report. From the Settings screen, click on Recover Deleted Analysis Runs.
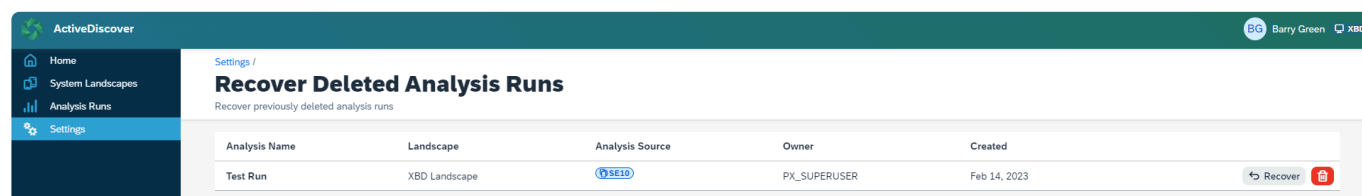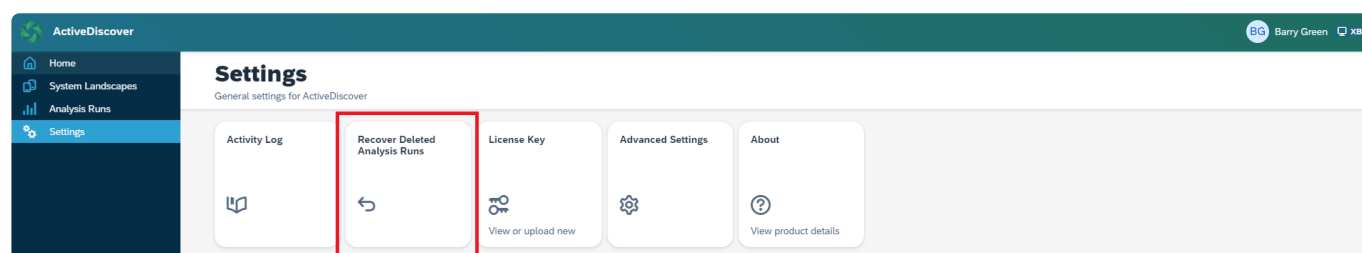
As Administrator, you can manually perform the **permanent deletion** from the same Recover Deleted Analysis Runs screen via the Delete button.

4. Errors and Troubleshooting

4.1. System Creation Errors

Diffuser License Not Installed

If a Diffuser License is not installed you will get an error:
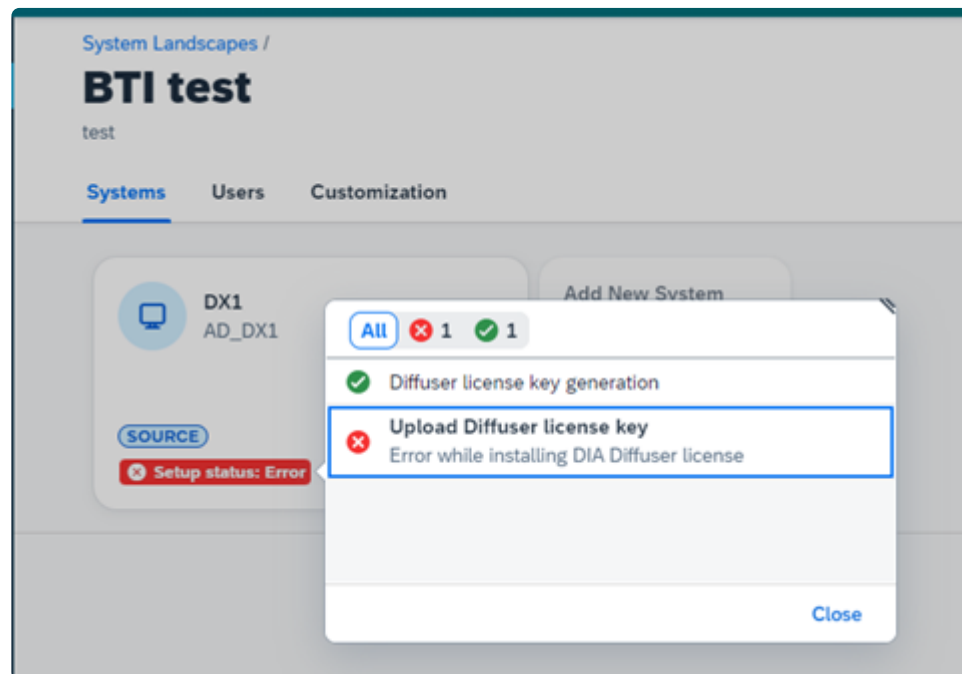
If the Diffuser Programs have not been created yet:
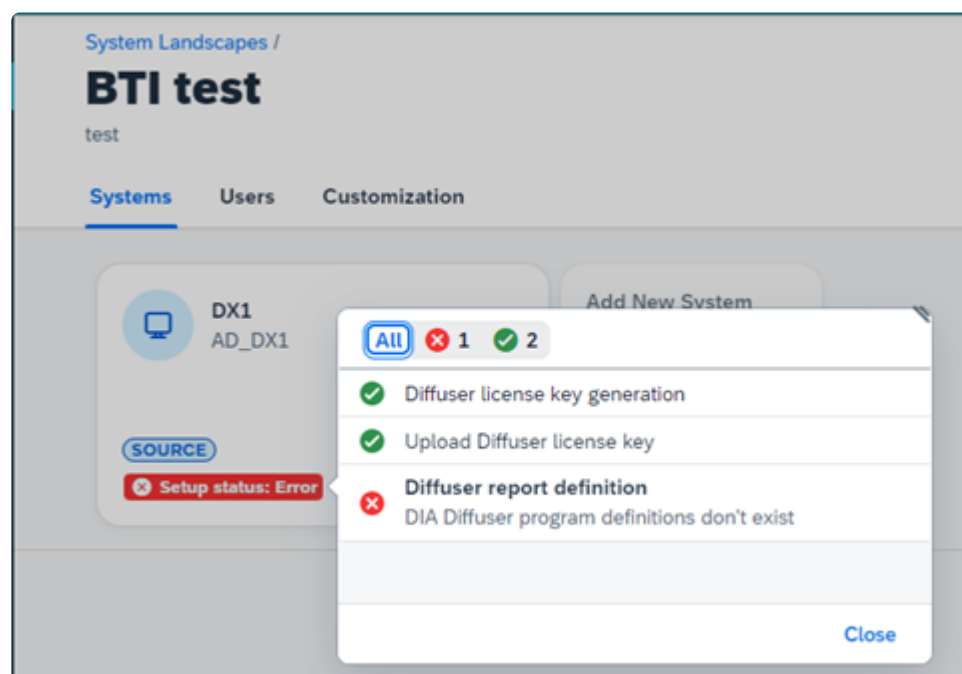
Reference System Error

If you have no ST03 data available:

You can follow SAP Note https://me.sap.com/notes/0002369736 and activate the SAP_COLLECTOR_FOR_PERFMONITOR job to be schedule in client 000 of your Reference system.

RFC Error

RFC destinations are language dependent, currently when using a german Chrome browser you get a Server Error 500 when RFC destinations are created in english. You need to align the language.

Truncate Initial Link Building Tables
You can truncate the following two tables to reset the Link Building process.

/BTI/TE_DI_OBJLK & /BTI/TE_OBJID

What if Automatic DIA link building fails to start

There are two possible ways to handle this error:

First possible way is performed in the ActiveDiscover UI:

1. Delete Source System
2. Settings -> Advanced Settings -> Turn on "Disable automatic DIA setup"
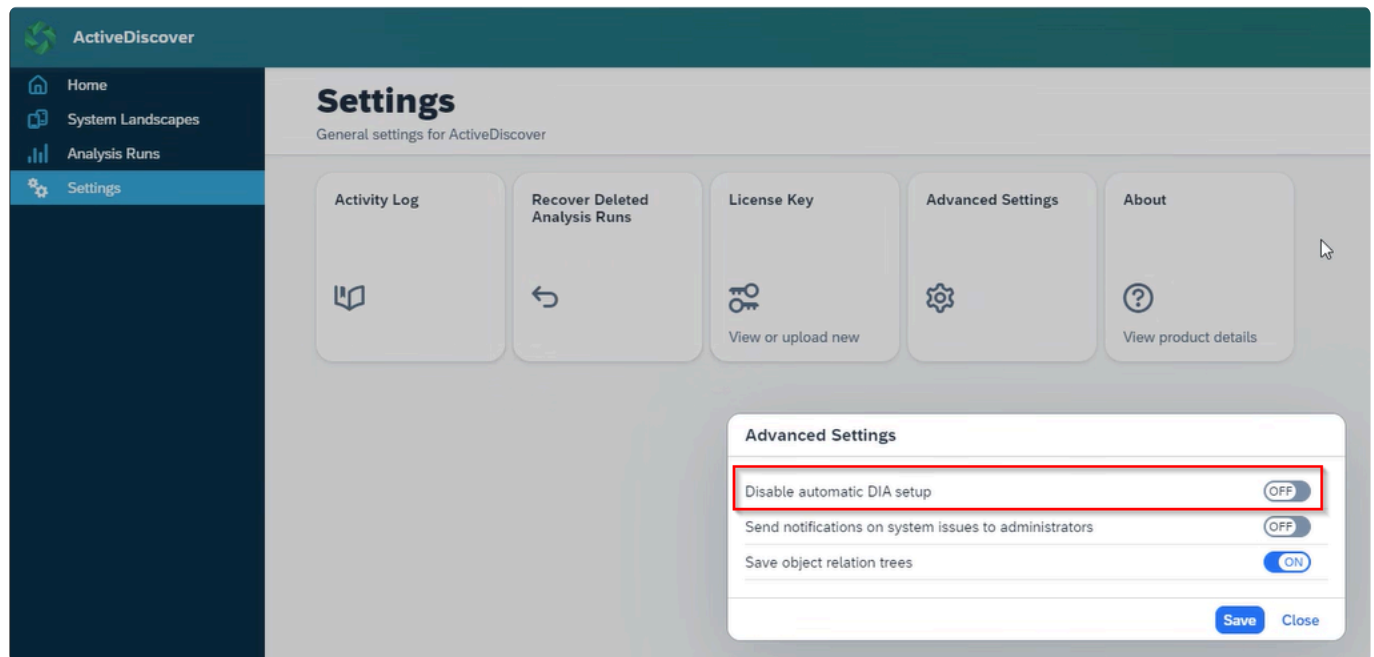
3. Perform the following steps manually:

Start the Initial Link Building by executing report /BTI/TE_REP_MDR_OBJECT_DI_LINK via SE38 on your Source System in the background using variant OBJLINKS

4. Settings -> Advanced Settings -> Turn off "Disable automatic DIA setup"

5. Add your Source System. ActiveDiscover will then validate your setup automatically

> **!** If you still get errors please revert step 4 and schedule the following periodic background job to keep the Links updated for newly released transports.

Schedule a new job on your central system.

Job Name:	DI_LINKS_UPDATE_JOB_PX
Report:	/BTI/PX_TIR_LINK_UPDATE
Note:	This Report has no selection screens
Step User	Personal Admin User or Background User with Role /BTI/PX_ADMINISTRATOR
Periodic Execution:	10 Minutes

Second possible way is performed in SAP GUI:

Turn it off by setting parameter AUTO_DIA_SETUP in table /BTI/PX_PARAMS to false (space), remove the system and re-add it, then do the setup manually as per the [ActiveControl FAQ](#)

What if Analysis run hangs

In the beta version, the error reporting for an analysis run has not been fully built, for example the UI won't recognize if the process short dumped etc.

Planned to improve this by GA

Need to look at ST22 and SM50 in the central system

Browser Cache

After an upgrade of AD the browser cache can be maintained in the client and does not display the latest iteration of the browser version or landscape view. Refreshing the browser (F5) does not rectify this.
Test – open incognito mode tab in browser and log into same system – if issue is not seen then the browser cache is still being referenced and normal browser session should be closed and reopened.

5. Upgrading ActiveDiscover

This section summarises the key considerations and the steps involved in performing an upgrade of ActiveDiscover:

- [What's New?](#)
- [Upgrade Steps](#)

The information contained within this section of the Administration Guide is version-agnostic and aims to act as a record of the high-level steps of upgrading ActiveDiscover, not in configuring new functionality contained within the latest release of the product.

5.1. What's New?

The table below summarises some of the new features (and requirements):

Topic	Details

5.2. Upgrade Steps

The key steps to perform an upgrade of ActiveDiscover are summarised below:

Step	Activity	Other Information
01	Provision of ActiveDiscover Software + Software Links	To request the latest version of ActiveDiscover, please email your Basis Technologies' Customer Success Manager, or assigned Delivery consultant.
02	Delivery of License Key by Basis Technologies	Once you have received the software, you will also need a License Key. You can request this via the Basis Technologies Support Team, by providing the following information in a support ticket raised via the Support Portal : 1) Customer name 2) Central System ID 3) Central Installation Number. 4) ActiveDiscover version.
03	Review of current ActiveDiscover roles usage – and impacts of new ActiveDiscover version on existing roles	Refer to Roles Matrix that should have been provided to you with the new ActiveDiscover software.
04	Central System: Apply Transports	Apply Transports to your Central System in the following order: 1. Object Comparison Transport 2. ActiveDiscover Main Transport 3. ActiveDiscover Roles Transport
05	Source Systems: Apply Transports	Apply Transports to all of your connected Source System in the following order: 1. Object Comparison Transport 2. ActiveDiscover Source System Transport 3. ActiveDiscover Roles Transport
06	Target Systems: Apply Transports	Apply Transports to all of your connected Target System in the following order: 1. Object Comparison Transport 2. ActiveDiscover Target System Transport 3. ActiveDiscover Roles Transport
07	Check Webservice	Check if you can reach your ActiveDiscover Dashboard after applying all transports
08	Install new License Key	Install new License Key via ActiveDiscover Dashboard by going to Settings -> License Key
09	Reset Browser Cache	Reset or Delete your Browser Cache or use Incognito Mode for a short period after the Upgrade as some

		functions may change and the old UI is still cached.
10	Update SAPUI5 Index Calculation	Refer to this article for details.
11	Apply new features	Check out What's New? for new features and configure them if needed

6. Uninstallation Guide

The transports will be provided by Basis Technologies upon request.
It is recommended that the uninstallation of any Production system objects is carried out according to your system maintenance schedule.

Note that all workbench objects will be removed via this approach and none are required to be manually handled.

7. Software Support

7.1. Online FAQ Forum

Basis Technologies offer an online forum containing over 800 searchable **Frequently Asked Questions** relating to our products. These FAQs cover many of the common error / warning messages that might be experienced during usage, and also useful HOW TO guides to perform many of the common operations within the tool.

The online forum can be accessed via the following URL:

https://basistechnologies.zendesk.com

We strongly encourage all our customers (in particular Administrators and Basis Team) to register for accounts on our website, and actively make use of this forum. It not only helps our customers be more self-sufficient and resolve common issues quickly and without the need for Basis Technologies involvement, but also helps us understand the common challenges our customers are facing.

7.2. Support from Basis Technologies

Raising Support Tickets

To request support from Basis Technologies on any issue relating to our product sets (ActiveControl, ActiveDiscover, Transport Expresso, DevOps, Testimony, Diffuser, BDEx Utilities or Transformation), support can be requested from Basis Technologies by submitting a request via our support portal link here.

Submitting your request will automatically create a ticket in Zendesk, the ticketing tool used by Basis Technologies.

Require additional Information or Services?

If additional information or services relating to any of Basis Technologies product sets is required, you can contact us via the support portal link here , or alternatively by contacting your assigned Basis Technologies Account Director.

8. Legal Statement

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