

Administration Runtime Expert (ARE) in action

6th June 2021

Rudi van Helvoirt

rvanhelvoirt@vanhelvoirt.nl

Agenda

- What is Administration Runtime Expert (ARE)?
- How to install ARE?
- How to use ARE?
- What can I do with ARE?

Examples:

- Distribute and apply PTF's
- System values
- Temporary License keys

What is Administration Runtime Expert?

- Introduction name: Application Runtime Expert – 5733ARE

Available since 18 juni 2010

Home page: IBM Administration Runtime Expert for i

IBM Administration Runtime Expert for i

IBM Administration Runtime Expert for i can help you ensure consistent performance and deployment for any workload running on your system.

IBM Administration Runtime Expert for i (ARE) can help you ensure consistent performance and deployment for any workload running on your system.

The product ships with an intuitive, easy to use GUI interface that allows the collection and verification of a customized set of information about an application, its runtime environment, and the IBM i system that it runs on. Users have the ability to collect a wide array of information, system settings, and attributes. This collected information is built into what we call a 'template'. Once a template is built, it can be used to verify the application, and its environment, on the same system where the template was built, or any other IBM i system. A system is verified against the information stored in the template, and the results are documented in a set of reports. These reports give a clear and concise view of what has changed, or what is different. The beauty of this interface and methodology is that it allows you build and maintain an application knowledge base; one that can be used to automatically apply its knowledge to verify a system. You can easily update your template to include new information and settings as you learn more about things that cause your application or system run incorrectly.

What is Administration Runtime Expert?

What can be collected

The IBM Administration Runtime Expert for i has a wide array of application attributes and settings it can collect, along with many of the system settings and values most critical to your applications. Here are some of the possible attributes and values that can be collected:

- File/directory/library authorities
 - Owner
 - Authorization list
 - Primary group
 - Object authorities
 - Data authorities
- File/directory/library attributes
 - Creation date
 - Last modified date
 - File size
 - File type
 - CCSID
 - IBM i object native attributes
- Attributes within property/http/XML configuration files
- User IDs
- Product PTFs & PTF Groups
- System Values & Network Attributes
- Product install status
- TCP/IP Network verification and configuration
- Environment variables
- Ports in use
- CL and QSHLL command output
- SQL statement output
- Log files

What is Administration Runtime Expert?

IBM Administration Runtime Expert for i (ARE) is a new product that has the potential to revolutionize how you do application service and support. ARE can help you ensure consistent performance and deployment for any workload running on your system.

The product ships with an intuitive, easy to use GUI interface, that allows you to collect and verify a customized set of information about an application, its runtime environment, and the IBM i system that it runs on.

This explains the original name: Application Runtime Environment
So why was it change from Application => Administration

What is Administration Runtime Expert?

It is a management tool, with which information can be collected.

How do I install ARE?

Check the requirements:

[Getting started guide](#)

Requirements

Installation

Usage

Before installing the IBM Administration Runtime Expert for i product, it is important to ensure all required software products are installed on your system, and that the products are updated to the correct PTF levels. The required software products, and the PTF levels for them, are listed below.

IBM i 7.3

Products

- 5770SS1 option 3 – Extended Base Directory Support
- 5770SS1 option 12 – Host Servers
- 5770SS1 option 30 – QShell
- 5770SS1 option 33 – PASE
- 5770JV1 option 14 – J2SE 7 32 bit
- 5770DG1 – IBM HTTP Server for i

PTF requirements

- Java Group PTF SF99725 level 1 or later

How do I install ARE?

Where can I find the installation software?

Media labels and their content:

The screenshot shows the IBM i 7.4 Documentation page. The left sidebar contains a navigation menu with the following items:

- IBM i
- Change version (7.4)
- Show full table of contents
 - Installation notes about the IBM i release
 - Media labels and their contents**
 - Feature codes for language version
 - Blank displays
 - System password
 - Installed status values
 - Options on the Prepare for Install menu
 - Options on Work with Licensed Programs menu
- Related information for Installing, upgrading, or deleting IBM i and related software
- Maintaining and managing IBM i and related software
- Distributing software
- Data migrations

The main content area displays a table of media labels and their contents. The table has the following columns: Product, Option, Code Load ID, Description, and Requires a software license key. The row for '5733-ARE' is highlighted in red. A red arrow points from the '5733-ARE' row to the 'LCD8-2570_0x B_GROUP3_03' link in the breadcrumb navigation above the table.

Product	Option	Code Load ID	Description	Requires a software license key
5770-SS1	23	5105	OptiConnect	No
5770-SS1	33	5111	Portable App Solutions Environment	No
5770-SS1	44	5050	Encrypted Backup Enablement	No
5770-SS1	45	5050	Encrypted ASP Enablement	No
5770-MG1	base	5050	Managed System Services	No
5770-SM1	base	5050	System Manager	No
5733-ARE	base	5050	Application Runtime Expert	No
5770-DFH	base	5050	CICS	No
5770-DFH	1	5050	CICS - Sample Applications	No
5798-FAX	base	5050	Facsimile Support	No

How do I install ARE?

Where can I find the installation software?

IBM's My Entitled Systems Support:

<https://www-304.ibm.com/servers/eserver/ess/ProtectedServlet.wss>

This section of the ESS website focuses on activities related to **Power and Storage software products** - downloading, ordering and updating software media and keys.

You **need to be registered** for one or more customer numbers to use most of the options, as access to customer numbers is what governs everything you are entitled to do. Options related to customer number access can be found under **My profile**.

The following activities are available within **My entitled software**:

- **Software updates** - IBM i, AIX and Linux - place update orders for products you have an active software maintenance for
- **Software downloads** - IBM i, AIX, Linux, Storage - download all your entitled software based on authorized customer numbers
- **IBM i Evaluation and NLV download** - IBM i - download any available free, trial and secondary national language version software media
- **IBM i software keys** - IBM i - download keys for licensed IBM i products, manage your IBM i temporary licenses (5733-ITL) and download interim keys for supported products

How do I install ARE?

Where can I find the installation software?

Entitled Systems Support > My entitled software > Software downloads >

Software downloads

Start ▶ Step 1: Product | Step 2: Language | Step 3: Package | Step 4: T&Cs | Step 5: Method | Step 6: Download

Download available software based on all active entitlements associated with all customer numbers registered under your profile. Additional information can be found in [Help](#) section.

By category ⓘ By machine ⓘ By product ⓘ

Customers: All available ▼

Category: IBM i ▼

Group: 7.4 (GA) ▼ 🔍

How do I install ARE?

Where can I find the installation software?

By category ⓘ By machine ⓘ By product ⓘ

Customers: All available ▾

Category: IBM i ▾

Group: 7.4 (GA) ▾ 🔍

Step 1: Select product

Entitled All Search:

<input type="checkbox"/>	Product	Title
<input checked="" type="checkbox"/>	5770-SS1	IBM i
<input type="checkbox"/>	5765-PVE	PowerVM Enterprise Edition
<input type="checkbox"/>	5765-PVS	PowerVM Standard Edition

How do I install ARE?

Where can I find the installation software?

Entitled Systems Support > My entitled software > Software downloads >

Software downloads

Start | Step 1: Product | **Step 2: Language** ▶ Step 3: Package | Step 4: T&Cs | Step 5: Method | Step 6: Download

Step 2: Language selection ⓘ

Main language: Lang Grp 1 Americas/Europe ▼

Product	Language
5770-SS1, IBM i	Lang Grp 1 Americas/Europe ▼

[Continue](#) [Back](#)

How do I install ARE?

Where can I find the installation software?

Entitled Systems Support > My entitled software > Software downloads >

Software downloads

Start | Step 1: Product | Step 2: Language | **Step 3: Package** ▶ Step 4: T&Cs | Step 5: Method | Step 6: Download

Step 3: Product download package selection

Current products ⓘ

Select all Search package title:

Product/Release			Download Package	Size (MB)
5770-SS1	details	<input type="checkbox"/>	IBM i	16622
07.04.00	packages	<input checked="" type="checkbox"/>	5841: i7.4 B_GROUP1 v07.04.00,ENU,DVD	13216
07.04.00	packages	<input type="checkbox"/>	5874: i 7 Licensed Mach. Code v07.04.00,ENU,DVD	575
07.04.00	packages	<input type="checkbox"/>	5941: Media and Storage Extensions v07.04.00,ENU,DVD-BTO-9660	1
07.04.00	packages	<input type="checkbox"/>	5943: DB2 Symmetric Multiproc v07.04.00,ENU,DVD-BTO-9660	1

How do I install ARE?

Where can I find the installation software?

Entitled Systems Support > My entitled software > Software downloads >

Software downloads

Start | Step 1: Product | Step 2: Language | **Step 3: Package** ▶ Step 4: T&Cs | Step 5: Method | Step 6: Download

Step 3: Product download package selection

Current products ⓘ

Select all Search package title:

Product/Release			Download Package	Size (MB)
5770-SS1	details	<input type="checkbox"/>	IBM i	16622
07.04.00	packages	<input checked="" type="checkbox"/>	5841: i7.4 B_GROUP1 v07.04.00,ENU,DVD	13216
07.04.00	packages	<input type="checkbox"/>	5874: i 7 Licensed Mach. Code v07.04.00,ENU,DVD	575
07.04.00	packages	<input type="checkbox"/>	5941: Media and Storage Extensions v07.04.00,ENU,DVD-BTO-9660	1
07.04.00	packages	<input type="checkbox"/>	5943: DB2 Symmetric Multiproc v07.04.00,ENU,DVD-BTO-9660	1

How do I install ARE?

Where can I find the installation software?

Entitled Systems Support > My entitled software > Software downloads >

Software downloads

Start | Step 1: Product | Step 2: Language | Step 3: Package | Step 4: T&Cs | **Step 5: Method** ▶ Step 6: Download

Step 5: Select method of download

Download instructions

Some of the processes to prepare and install the software may be different from what you normally use.

- Follow the instructions to [Prepare to install](#) the software.
- Follow the instructions to [Install](#) the software.

Additional information for all products can be found in the [IBM Knowledge Center](#)

Download method

Download using Download Director (requires java) ⓘ

Download using your browser (HTTPS) ⓘ

[Continue](#)

Select the HTTP option!!

How do I install ARE?

Where can I find the installation software?

Entitled Systems Support > My entitled software > My entitled software >

Software downloads

Start | Step 1: Product | Step 2: Language | Step 3: Package | Step 4: T&Cs | Step 5: Method | **Step 6: Download**

Step 6: Download with HTTPS

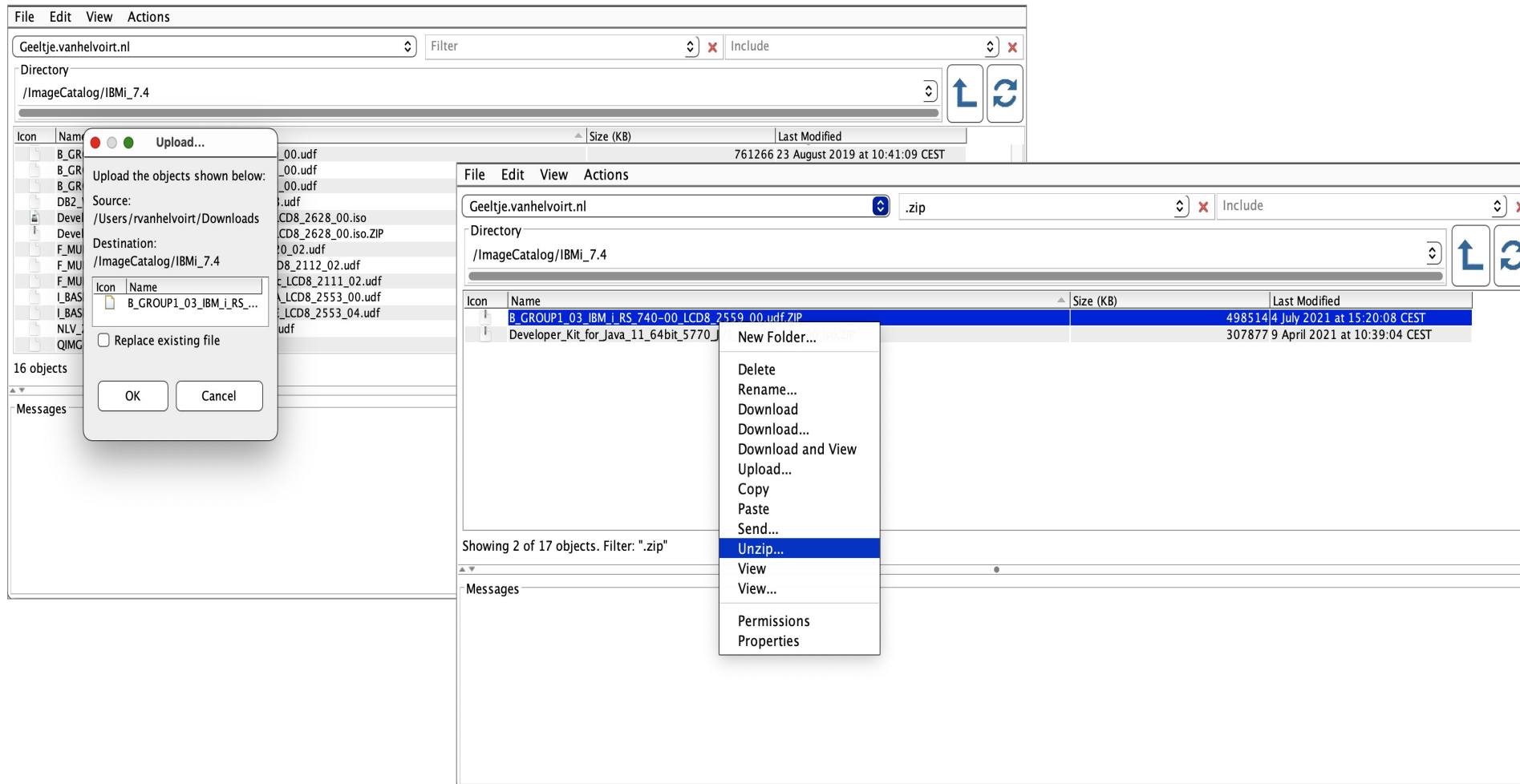
Current products [i](#)

B_GROUP1_02_IBM_i_RS_740-00 ↓ B_GROUP1_02_IBM_i_RS_740-00_LCD8_2555_00.udf.ZIP	2655
B_GROUP1_03_IBM_i_RS_740-00 ↓ B_GROUP1_03_IBM_i_RS_740-00_LCD8_2559_00.udf.ZIP	475
B_GROUP1_04_IBM_i_RS_740-00 ↓ B_GROUP1_04_IBM_i_RS_740-00_LCD8_2561_00.udf.ZIP	2314
B_GROUP1_05_IBM_i_RS_740-00 ↓ B_GROUP1_05_IBM_i_RS_740-00_LCD8_2562_00.udf.ZIP	747
DB2 Web Query for i V2.3.0 ↓ Db2_Web_Query_for_i_V2.3.0_1_of_2_LCD8_1900_04.udf.ZIP ↓ Db2_Web_Query_for_i_V2.3.0_2_of_2_LCD8_2641_00.udf.ZIP	5171
IBM Cloud Storage Solutions for i ↓ IBM_Cloud_Storage_Solutions_for_i_LCD8_2390_02.udf.ZIP	24
Developer Kit for Java 11 64bit 5770-JV1 ↓ Developer_Kit_for_Java_11_64bit_5770_JV1_LCD8_2628_00.iso.ZIP	293

[Download all links](#) [Select new download](#) [Back](#)

How do I install ARE?

How to upload & unzip in 2021 d



How do I install ARE?

```
RSTLICPGM LICPGM(5733ARE) DEV(OPTVRT01) OPTION(*BASE) RSTOBJ(*ALL)
```

PTF	
• Core	• Console
• V7R2M0 - SI75774	• V1R1M0 - SI75365
• V7R3M0 - SI75775	
• V7R4M0 - SI75776	

How do I install ARE?

Where to look for the most recent PTFs?

FixCentral?

Select fixes

IBM i, i5/OS, and OS/400

View results: Default >

Continue Clear selections Show fix details | Hide fix details

<input type="checkbox"/>	Description	Release date
<input type="checkbox"/>	1 PTF: → SI63996 Release: V1R1M0 Abstract: IBM Administration Runtime Expert for i updates Coverletter	2017/04/11

1-1 of 1 results

Identify fixes

IBM i, i5/OS, and OS/400

Select the latest Cumulative PTF package, browse for group PTFs, or search for PTFs by ID or description.

Cumulative and group PTFs Browse Cumulative and group PTFs for the selected IBM i release.

Select one ▼

Individual fix IDs Search for PTFs by entering one or more PTF IDs each separated by a comma or whitespace. (e.g., SF99504, SI19202). PTFs can be from any release.

Text Search for PTFs by entering text from the PTF title or ID. PTFs from releases V5R3 and greater will be searched.

Administration Runtime Expert

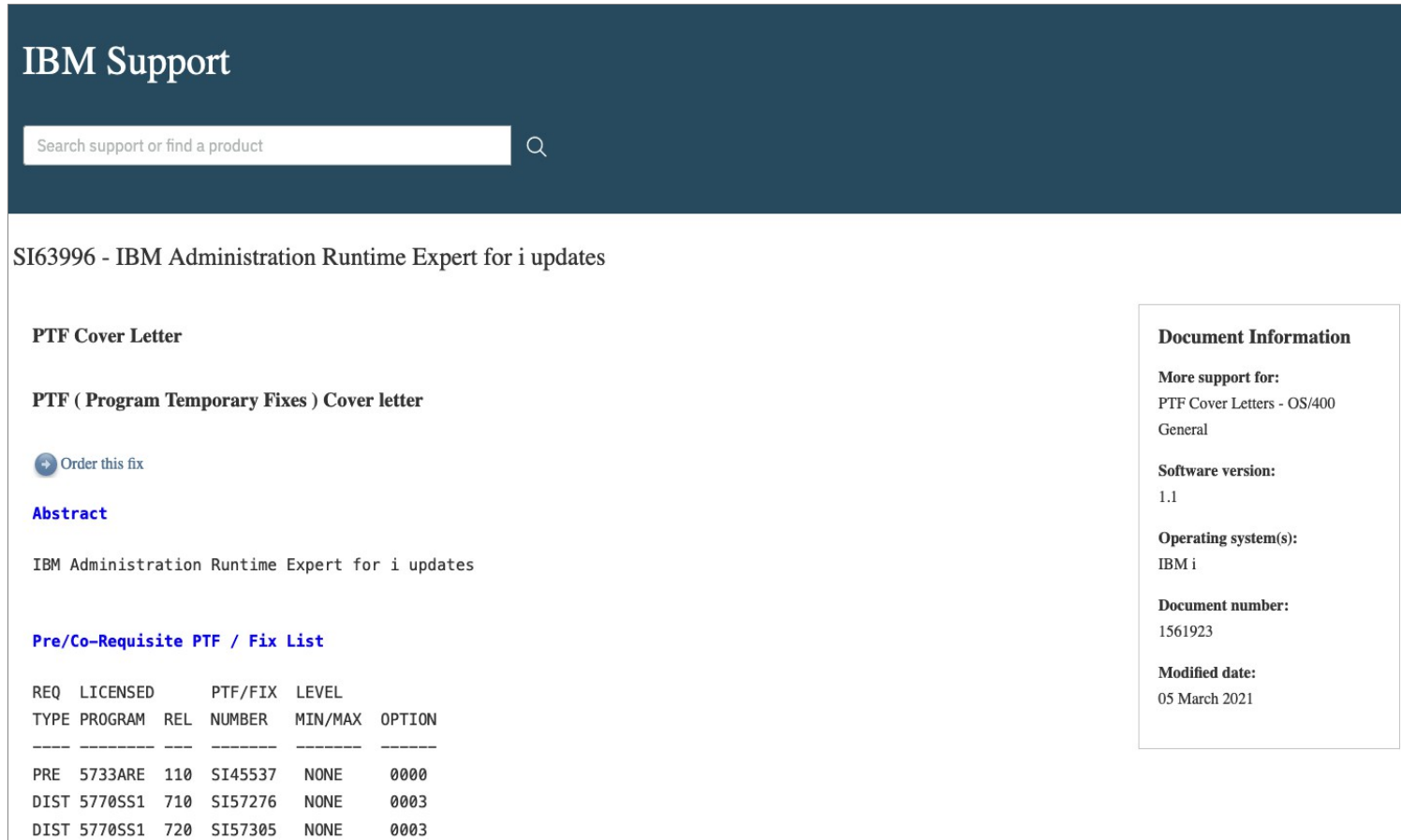
Continue

Back

How do I install ARE?

Where to look for the most recent PTFs?

Review PTF Cover Letter



The screenshot shows the IBM Support page for PTF SI63996. The page has a dark blue header with the 'IBM Support' logo and a search bar. Below the header, the title 'SI63996 - IBM Administration Runtime Expert for i updates' is displayed. The main content area is divided into two columns. The left column contains the 'PTF Cover Letter' section, which includes a link to 'Order this fix' and an 'Abstract' section. The right column contains the 'Document Information' section, which lists details such as 'More support for', 'Software version', 'Operating system(s)', 'Document number', and 'Modified date'. At the bottom of the page, there is a 'Pre/Co-Requisite PTF / Fix List' table.

IBM Support

Search support or find a product

SI63996 - IBM Administration Runtime Expert for i updates

PTF Cover Letter

PTF (Program Temporary Fixes) Cover letter

[Order this fix](#)

Abstract

IBM Administration Runtime Expert for i updates

Pre/Co-Requisite PTF / Fix List

REQ	LICENSED	PTF/FIX	LEVEL		
TYPE	PROGRAM	REL	NUMBER	MIN/MAX	OPTION
PRE	5733ARE	110	SI45537	NONE	0000
DIST	5770SS1	710	SI57276	NONE	0003
DIST	5770SS1	720	SI57305	NONE	0003

Document Information

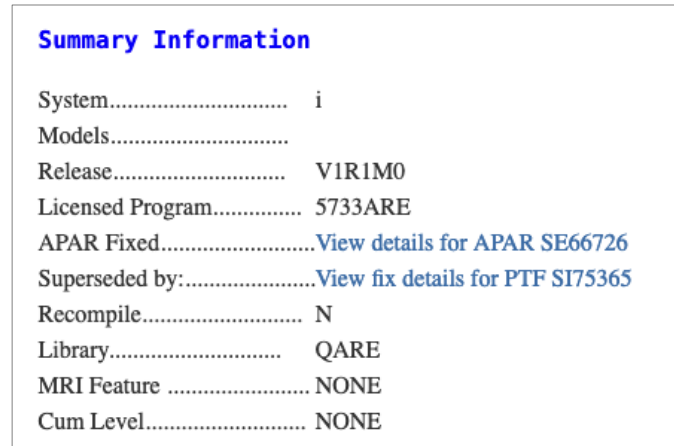
More support for:
PTF Cover Letters - OS/400
General

Software version:
1.1

Operating system(s):
IBM i

Document number:
1561923

Modified date:
05 March 2021



A box containing summary information for the PTF. It lists various attributes such as System, Models, Release, Licensed Program, APAR Fixed, Superseded by, Recompile, Library, MRI Feature, and Cum Level, each followed by its corresponding value or a link to more details.

Summary Information

System..... i
Models.....
Release..... VIR1M0
Licensed Program..... 5733ARE
APAR Fixed.....[View details for APAR SE66726](#)
Superseded by:.....[View fix details for PTF SI75365](#)
Recompile..... N
Library..... QARE
MRI Feature NONE
Cum Level..... NONE



How do I install ARE?

Where to look for the most recent PTFs?

DuckDuckGo?

Search result of string “5733ARE PTF/FIX”

SI75365

How do I use ARE?

STRTCPSVR SERVER(*HTTP) HTTPSVR(IBMARE)

Type options, press Enter.

2=Change 3=Hold 4=End 5=Work with 6=Release 7=Display message
8=Work with spooled files 13=Disconnect ...

Opt	Subsystem/Job	User	Type	CPU %	Function	Status
—	IBMARE	QTMHHTTP	BCH	0,0	PGM-QZHBMAIN	SIGW
—	IBMARE	QTMHHTTP	BCI	0,0	PGM-QZSRLOG	SIGW
—	IBMARE	QTMHHTTP	BCI	0,0	PGM-QZSRHTTP	SIGW
—	IBMARE	QWEBADMIN	BCI	0,0	JVM-/qibm/prod	THDW

How do I use ARE?

Hands-on section

Manage PTFs on IBM i with Administration Runtime Expert ARE

How do I use ARE?

http://system_name:12401/are

On Central System I use:

- `SNDPTFORD PTFID((*CUMPKG)) CHKPTF(*YES)`
- `SNDPTFORD PTFID((SF99731)) CHKPTF(*YES)`
- `D$PPTFCVR CVRATR(*SPCINST)`
- `INSPTF LICPGM((*ALL)) INSTYP(*DLYALL)`

NO Image Catalogs NO PTF iso images!!!

How do I use ARE?

http://system_name:12401/are


IBM Administration Runtime Expert for i IBM

Deployment Template Editor

The Deployment Template Editor allows users to create, edit, import and export deployment templates. The editor enables users to customize their templates. Templates created, imported, or edited using this editor can be used to verify systems using the 'Launch console' button below. [? Learn more...](#)

Manage templates:

Name	Last built by
<input type="radio"/> Are_demo_License_Check	RUDI
<input checked="" type="radio"/> Are_demo_System_Values	RUDI
<input type="radio"/> Are_demo_User_Usage	RUDI
<input type="radio"/> PTF_Checker_CS	RUDI
<input type="radio"/> PTF_Checker_PSP	RUDI
<input type="radio"/> PTF_Checker_PSP_new	RUDI



V 3.2.6

What can I do with ARE?

Example: Distribute and Apply PTF's

Starting Point: [Blog: I can - Dawn May](#)

IBM i Internet Access:

[IBM i - ESA and ECS VPN and HTTP Firewall Settings](#)

What can I do with ARE?

Example: Distribute and Apply PTF's

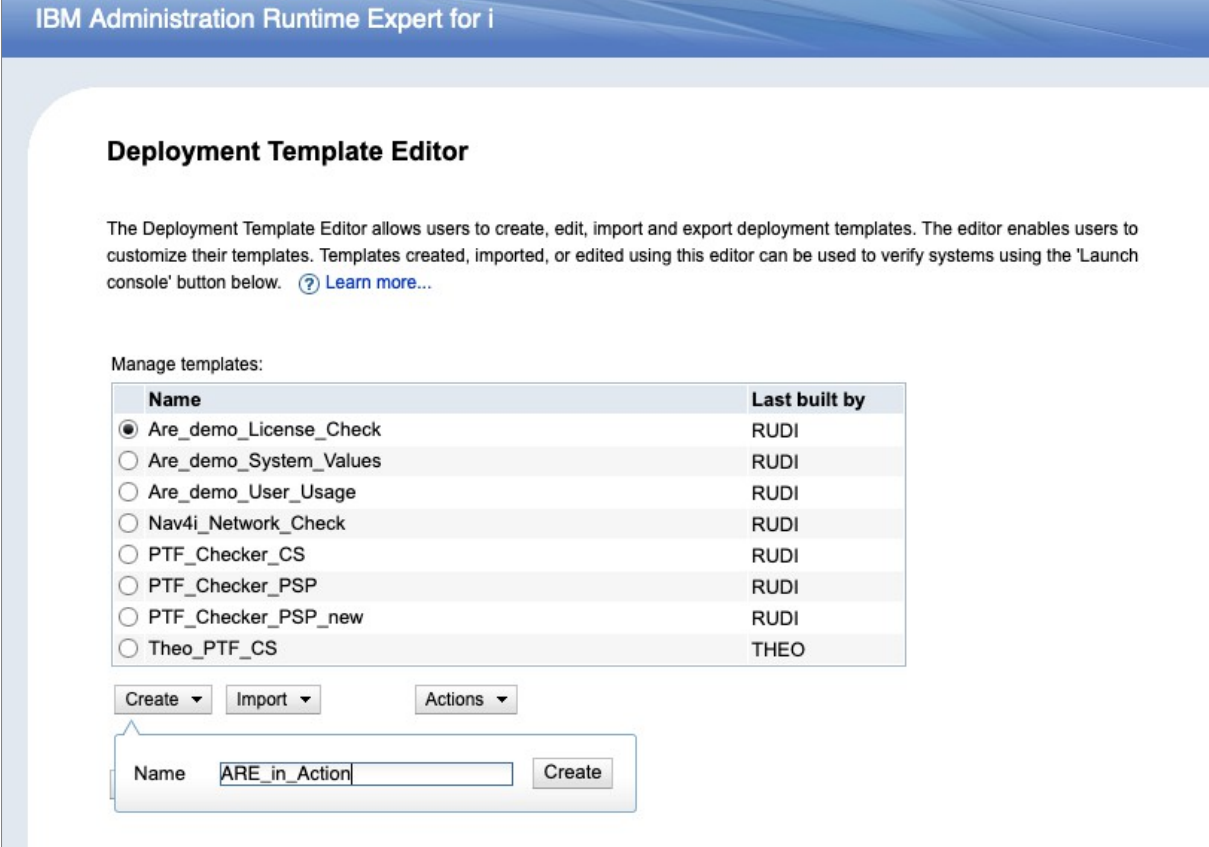
Purpose:

- Compare PTF's between systems:
Source and Target system
- Report the differences
- Have the option to Distribute the difference and apply them

What can I do with ARE?

Example: Distribute and Apply PTF's

Option "Create":



The screenshot shows the 'Deployment Template Editor' interface. At the top, it says 'IBM Administration Runtime Expert for i'. Below that is the title 'Deployment Template Editor'. A paragraph explains that the editor allows users to create, edit, import, and export deployment templates. Below this is a section titled 'Manage templates:' which contains a table with two columns: 'Name' and 'Last built by'. The table lists several templates, with 'Are_demo_License_Check' selected. Below the table are three dropdown menus: 'Create', 'Import', and 'Actions'. At the bottom, there is a form with a 'Name' field containing 'ARE_in_Action' and a 'Create' button.

IBM Administration Runtime Expert for i

Deployment Template Editor

The Deployment Template Editor allows users to create, edit, import and export deployment templates. The editor enables users to customize their templates. Templates created, imported, or edited using this editor can be used to verify systems using the 'Launch console' button below. [Learn more...](#)

Manage templates:

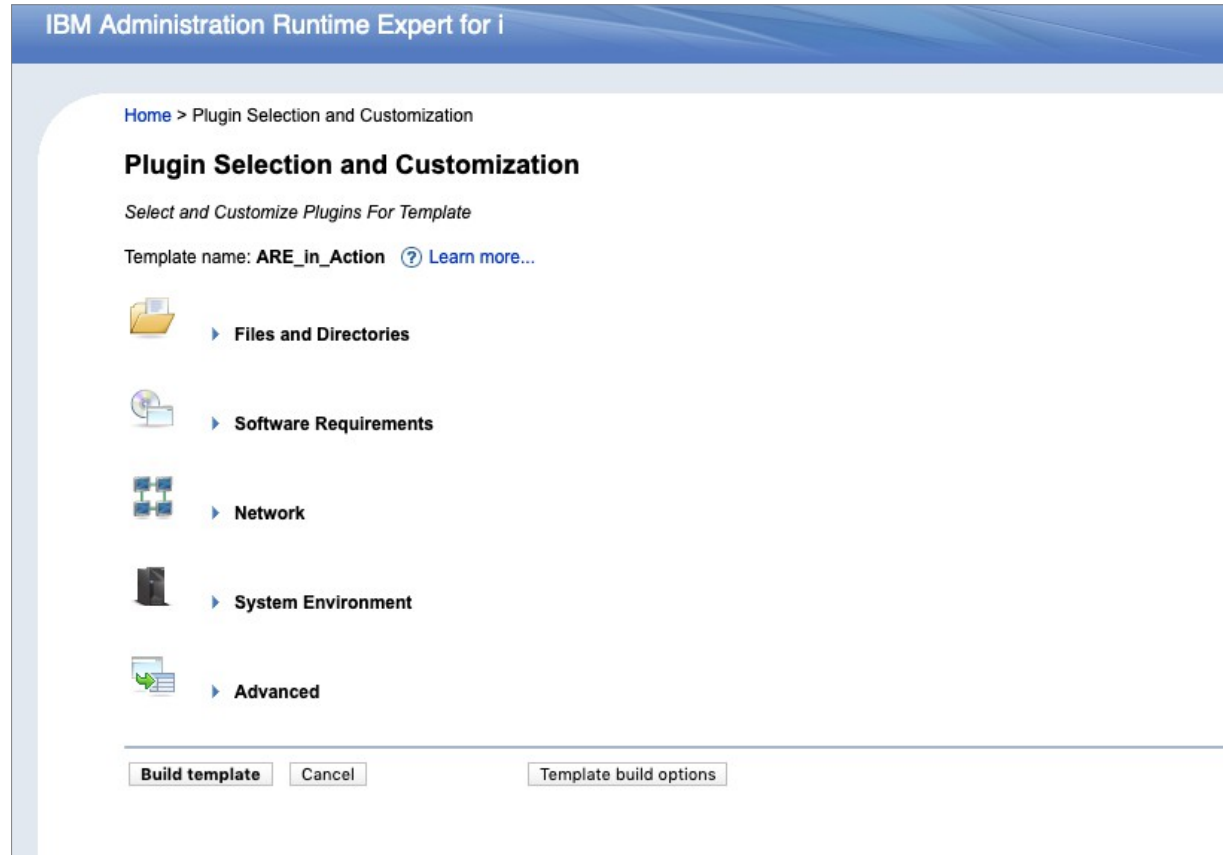
Name	Last built by
<input checked="" type="radio"/> Are_demo_License_Check	RUDI
<input type="radio"/> Are_demo_System_Values	RUDI
<input type="radio"/> Are_demo_User_Usage	RUDI
<input type="radio"/> Nav4i_Network_Check	RUDI
<input type="radio"/> PTF_Checker_CS	RUDI
<input type="radio"/> PTF_Checker_PSP	RUDI
<input type="radio"/> PTF_Checker_PSP_new	RUDI
<input type="radio"/> Theo_PTF_CS	THEO

Create ▾ Import ▾ Actions ▾

Name Create

What can I do with ARE?

Example: Distribute and Apply PTF's



What can I do with ARE?

Example: Distribute and Apply PTF's

IBM Administration Runtime Expert for i

Home > Plugin Selection and Customization

Plugin Selection and Customization

Select and Customize Plugins For Template

Template name: **ARE_in_Action** [? Learn more...](#)

- Files and Directories**
- Software Requirements**
 - IBM i Products**

Verify the install status and state of IBM i products.

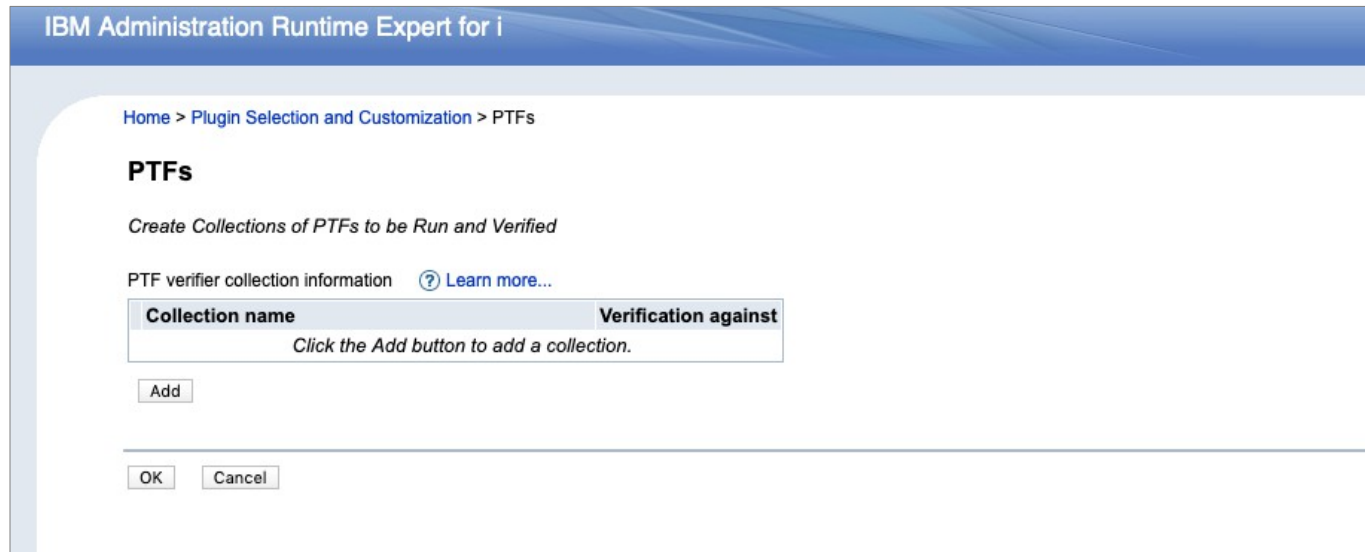
[Edit](#) [Remove](#) [? Learn more...](#)
 - PTFs**

Verify the existence and status of individual and group PTFs.

[Edit](#) [Remove](#) [? Learn more...](#)
- Network**
- System Environment**
- Advanced**

What can I do with ARE?

Example: Distribute and Apply PTF's



IBM Administration Runtime Expert for i

Home > Plugin Selection and Customization > PTFs

PTFs

Create Collections of PTFs to be Run and Verified

PTF verifier collection information [? Learn more...](#)

Collection name	Verification against
Click the Add button to add a collection.	

Add

OK Cancel

What can I do with ARE?

Example: Distribute and Apply PTF's

The screenshot shows the IBM Administration Runtime Expert for i interface. The title bar reads "IBM Administration Runtime Expert for i". The breadcrumb navigation is "Home > Plugin Selection and Customization > PTFs". The main heading is "PTFs" with the subtitle "Create Collections of PTFs to be Run and Verified". Below this, there is a section for "PTF verifier collection information" with a "Learn more..." link. A table with two columns, "Collection name" and "Verification against", is shown. Below the table is an "Add" button. A callout box points to the "Add" button, containing the text "Verification against:" followed by three radio button options: "Groups from Preventive Service Planning (PSP)", "PTFs or groups installed on central system" (which is selected), and "A list of specific PTFs or groups". An "OK" button is also present in the callout box.

IBM Administration Runtime Expert for i

Home > Plugin Selection and Customization > PTFs

PTFs

Create Collections of PTFs to be Run and Verified

PTF verifier collection information [Learn more...](#)

Collection name	Verification against
Click the Add button to add a collection.	

Add

Verification against:

- Groups from Preventive Service Planning (PSP)
- PTFs or groups installed on central system
- A list of specific PTFs or groups

OK

What can I do with ARE?

Example: Distribute and Apply PTF's

IBM Administration Runtime Expert for i

Home > Plugin Selection and Customization > PTFs > Central System

Central System

Select PTFs to verify on target system against Central System. This is where local host runs from.

PTF groups:

All PTF groups
 Select PTF groups to verify:

PTF groups [Learn more...](#)

PTF group	Description
SF99225	IBM OPEN SOURCE SOLUTIONS FOR I
SF99252	CONTENT MANAGER ONDEMAND FOR I - 5770-RD1 7.3
SF99333	DB2 WEB QUERY FOR I V2.2.0
SF99433	DB2 WEB QUERY FOR I V2.2.1
SF99581	WEBSPPHERE APP SERVER V8.5
SF99703	DB2 FOR IBM I
SF99722	IBM HTTP SERVER FOR I
SF99723	PERFORMANCE TOOLS
SF99724	BACKUP RECOVERY SOLUTIONS
SF99725	JAVA
SF99727	TECHNOLOGY REFRESH
SF99728	GROUP SECURITY
SF99729	GROUP HIPER
SF99730	CUMULATIVE PTF PACKAGE C8025730
SF99731	ALL PTF GROUPS EXCEPT CUMULATIVE PTF PACKAGE

PTF groups to verify [Learn more...](#)

PTF group	Description
-----------	-------------

Products PTFs belong to:

All
 Specific products:

Product [Learn more...](#)

Product	Description
0T00002	Test license information product
0T00003	Test II license information product
1TMELCF	Tivoli Management Agent
4HA0000	HA - Tools Software Product
4HA0001	HA - UPS Software Product
5722999	Licensed Internal Code
5722AP1	Advanced DBCS Printer Support
5722BR1	IBM Backup, Recovery and Media Services for i
5722BZ1	IBM Business Solutions
5722CM1	IBM Communications Utilities for System i
5722DB1	System/38 Utilities
5722DE1	IBM DB2 Extenders Version 9.5 for i
5722DFH	IBM CICS Transaction Server for i
5722DG1	IBM HTTP Server for i
5722DS1	Business Graphics Utility

Products to verify [Learn more...](#)

Product	Description
---------	-------------

Collection name:

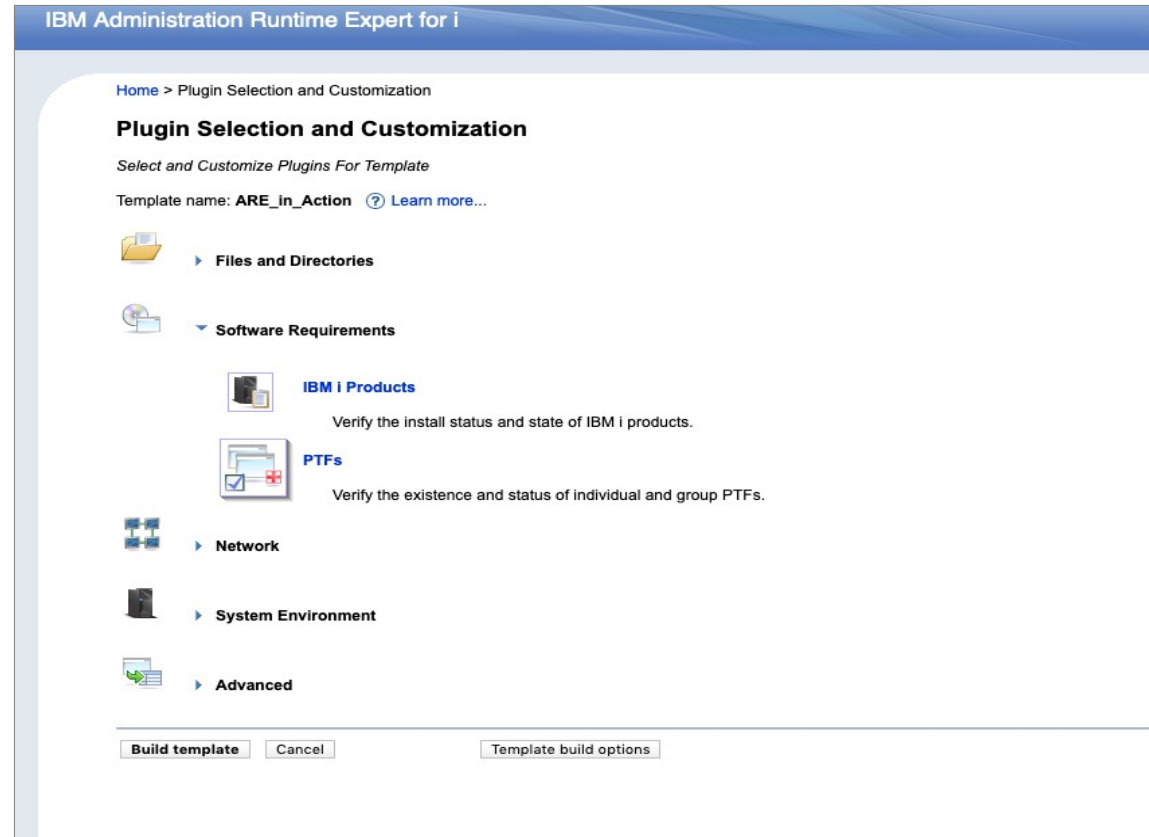
What can I do with ARE?

Example: Distribute and Apply PTF's



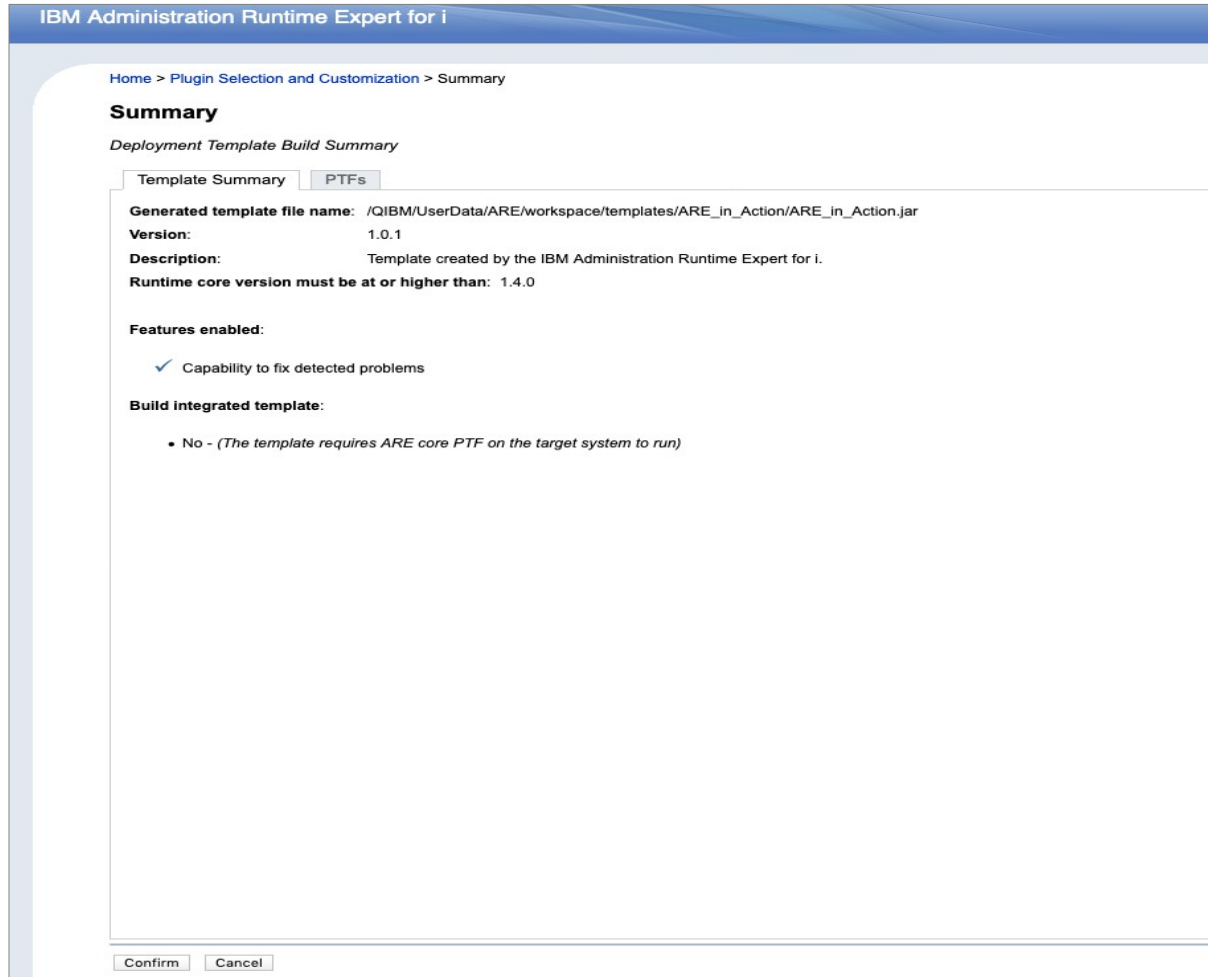
What can I do with ARE?

Example: Distribute and Apply PTF's



What can I do with ARE?

Example: Distribute and Apply PTF's



IBM Administration Runtime Expert for i

Home > Plugin Selection and Customization > Summary

Summary

Deployment Template Build Summary

Template Summary | PTFs

Generated template file name: /QIBM/UserData/ARE/workspace/templates/ARE_in_Action/ARE_in_Action.jar

Version: 1.0.1

Description: Template created by the IBM Administration Runtime Expert for i.

Runtime core version must be at or higher than: 1.4.0

Features enabled:

- ✓ Capability to fix detected problems

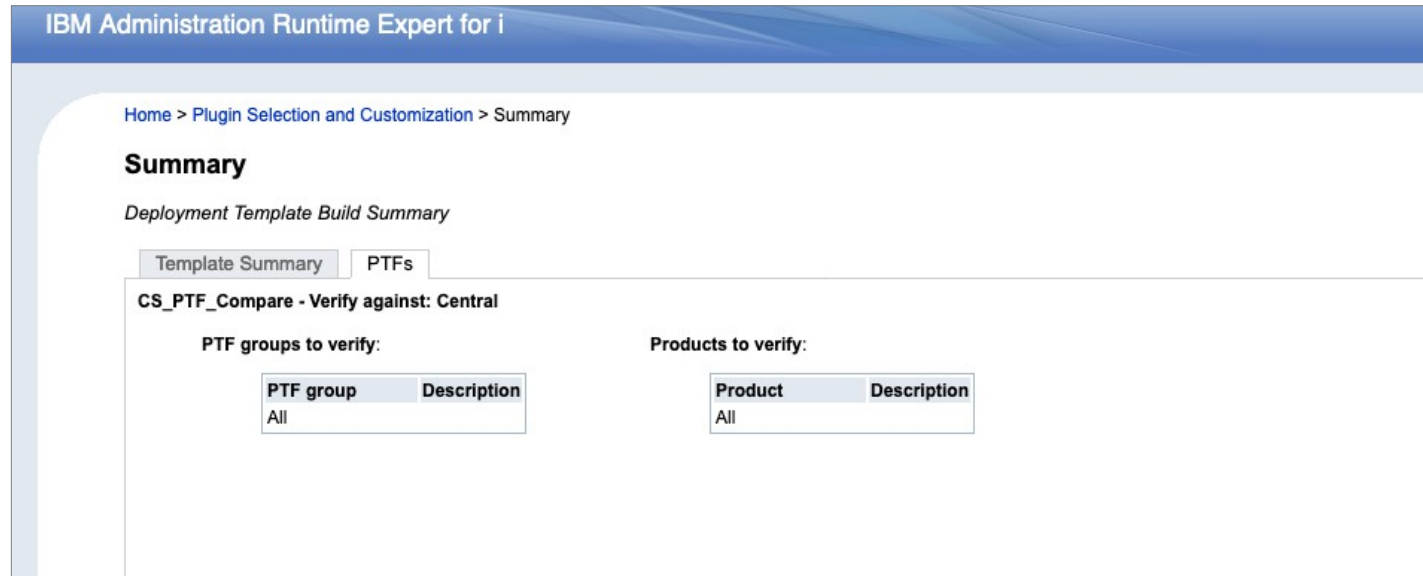
Build integrated template:

- No - (The template requires ARE core PTF on the target system to run)

Confirm Cancel

What can I do with ARE?

Example: Distribute and Apply PTF's



IBM Administration Runtime Expert for i

Home > Plugin Selection and Customization > Summary

Summary

Deployment Template Build Summary

Template Summary | PTFs

CS_PTF_Compare - Verify against: Central

PTF groups to verify:

PTF group	Description
All	

Products to verify:

Product	Description
All	

What can I do with ARE?

Example: Distribute and Apply PTF's



What can I do with ARE?

Example: Distribute and Apply PTF's

The screenshot shows the 'Deployment Template Editor' interface. At the top, it says 'IBM Administration Runtime Expert for i'. Below that is the title 'Deployment Template Editor'. A paragraph explains that the editor allows users to create, edit, import, and export deployment templates, and that templates created or edited using this editor can be used to verify systems using the 'Launch console' button. Below this is a section titled 'Manage templates:' which contains a table with two columns: 'Name' and 'Last built by'. The table lists several templates, with 'ARE_in_Action' selected. Below the table are three buttons: 'Create', 'Import', and 'Actions'. At the bottom, there is a 'Launch console' button and a text box that says 'Use console to verify remote systems using existing templates'.

IBM Administration Runtime Expert for i

Deployment Template Editor

The Deployment Template Editor allows users to create, edit, import and export deployment templates. The editor enables users to customize their templates. Templates created, imported, or edited using this editor can be used to verify systems using the 'Launch console' button below. [Learn more...](#)

Manage templates:

Name	Last built by
<input checked="" type="radio"/> ARE_in_Action	RUDI
<input type="radio"/> Are_demo_License_Check	RUDI
<input type="radio"/> Are_demo_System_Values	RUDI
<input type="radio"/> Are_demo_User_Usage	RUDI
<input type="radio"/> Nav4i_Network_Check	RUDI
<input type="radio"/> PTF_Checker_CS	RUDI
<input type="radio"/> PTF_Checker_PSP	RUDI
<input type="radio"/> PTF_Checker_PSP_new	RUDI
<input type="radio"/> Theo_PTF_CS	THEO

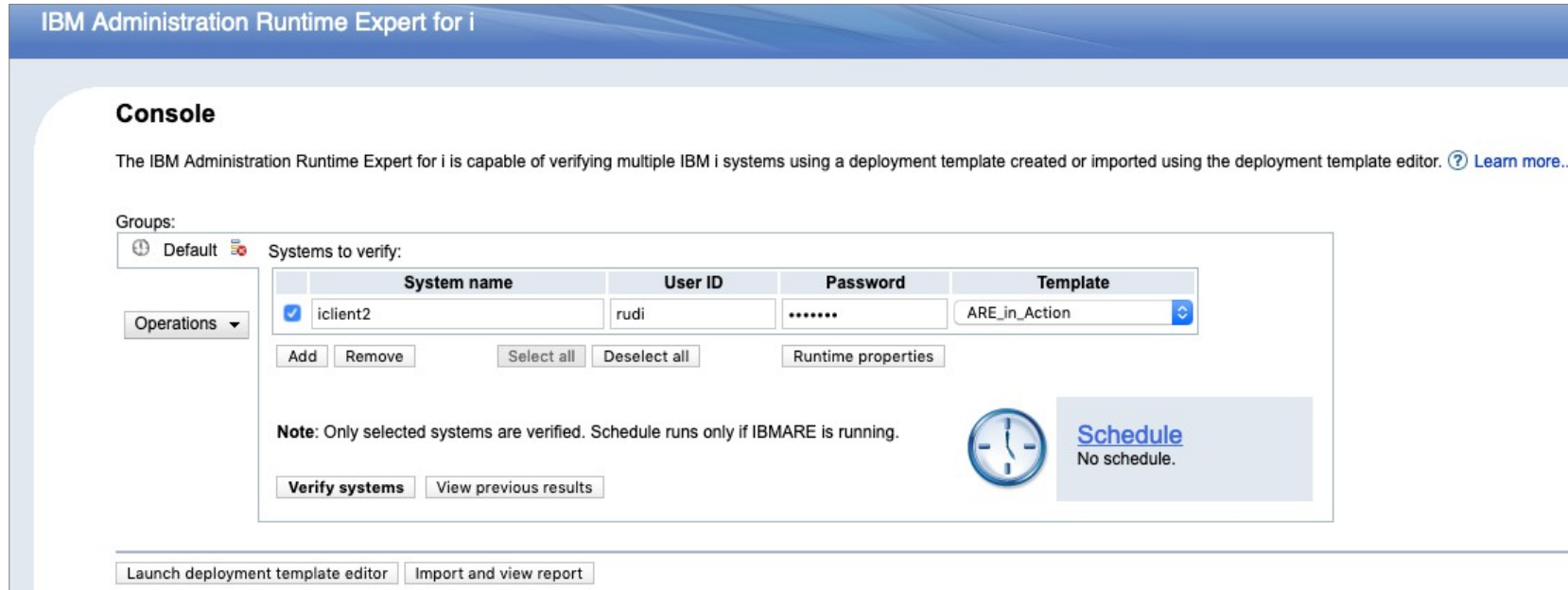
Create Import Actions

Launch console

Use console to verify remote systems using existing templates

What can I do with ARE?

Example: Distribute and Apply PTF's



The screenshot shows the 'Console' interface of the IBM Administration Runtime Expert for i. The main heading is 'Console'. Below it, a paragraph states: 'The IBM Administration Runtime Expert for i is capable of verifying multiple IBM i systems using a deployment template created or imported using the deployment template editor. [Learn more...](#)'

Under the 'Groups:' section, there is a 'Default' group. The 'Systems to verify:' section contains a table with the following data:

	System name	User ID	Password	Template
<input checked="" type="checkbox"/>	iclient2	rudi	*****	ARE_in_Action

Below the table are buttons for 'Add', 'Remove', 'Select all', 'Deselect all', and 'Runtime properties'. A note states: 'Note: Only selected systems are verified. Schedule runs only if IBMARE is running.' There are buttons for 'Verify systems' and 'View previous results'. A 'Schedule' button is present with the text 'No schedule.' below it. At the bottom of the console, there are buttons for 'Launch deployment template editor' and 'Import and view report'.

What can I do with ARE?

Example: Distribute and Apply PTF's

The image displays three sequential screenshots of the IBM Administration Runtime Expert (ARE) console, illustrating the progress of system verification for the system 'iclient2' using the 'ARE_in_Action' template.

Screenshot 1 (Top Left): Shows the initial state with 'System verification status: 0/1 complete'. The console table indicates the system is 'Validating signon'.

System name	Template	Status	Result
iclient2	ARE_in_Action	Validating signon	

Screenshot 2 (Top Right): Shows the progress with 'System verification status: 0/1 complete'. The console table indicates the system is 'Retrieving local information'.

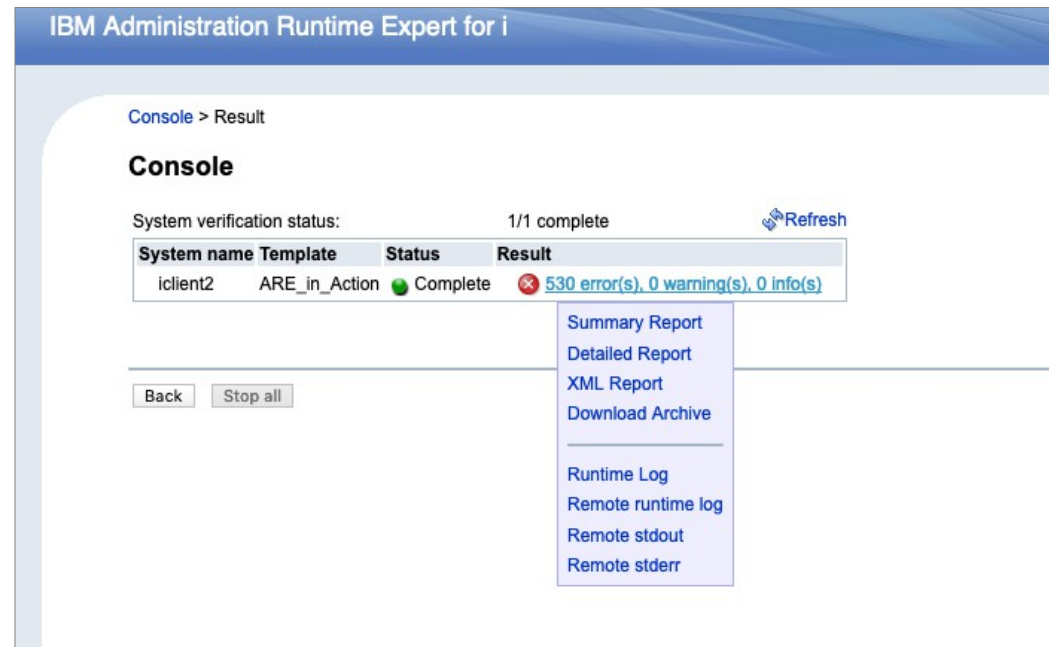
System name	Template	Status	Result
iclient2	ARE_in_Action	Retrieving local information	

Screenshot 3 (Bottom): Shows the final state with 'System verification status: 1/1 complete'. The console table indicates the system is 'Complete' but reports '530 error(s), 0 warning(s), 0 info(s)'. The 'Result' column contains a red 'X' icon.

System name	Template	Status	Result
iclient2	ARE_in_Action	Complete	530 error(s), 0 warning(s), 0 info(s)

What can I do with ARE?

Example: Distribute and Apply PTF's



IBM Administration Runtime Expert for i

Console > Result

Console

System verification status: 1/1 complete [Refresh](#)

System name	Template	Status	Result
iclient2	ARE_in_Action	Complete	530 error(s), 0 warning(s), 0 info(s)

[Summary Report](#)
[Detailed Report](#)
[XML Report](#)
[Download Archive](#)

[Runtime Log](#)
[Remote runtime log](#)
[Remote stdout](#)
[Remote stderr](#)

[Back](#) [Stop all](#)

What can I do with ARE?

Example: Distribute and Apply PTF's



IBM Administration Runtime Expert for i

Console > Result > Summary Report

Summary Report

System name: iclient2
Remote core version: 1.6.20
Template: ARE_in_Action
User ID: RUDI

Summary details [? Learn more...](#)

Plugin name	Attributes verified	Error	Warning	Info	Fix actions
▶  PTF Verifier	13936	530	0	0	 Fix actions (530)

[Back](#)

What can I do with ARE?

Example: Distribute and Apply PTF's

IBM Administration Runtime Expert for i

Console > Result > Summary Report > Fix Problems

Fix Problems

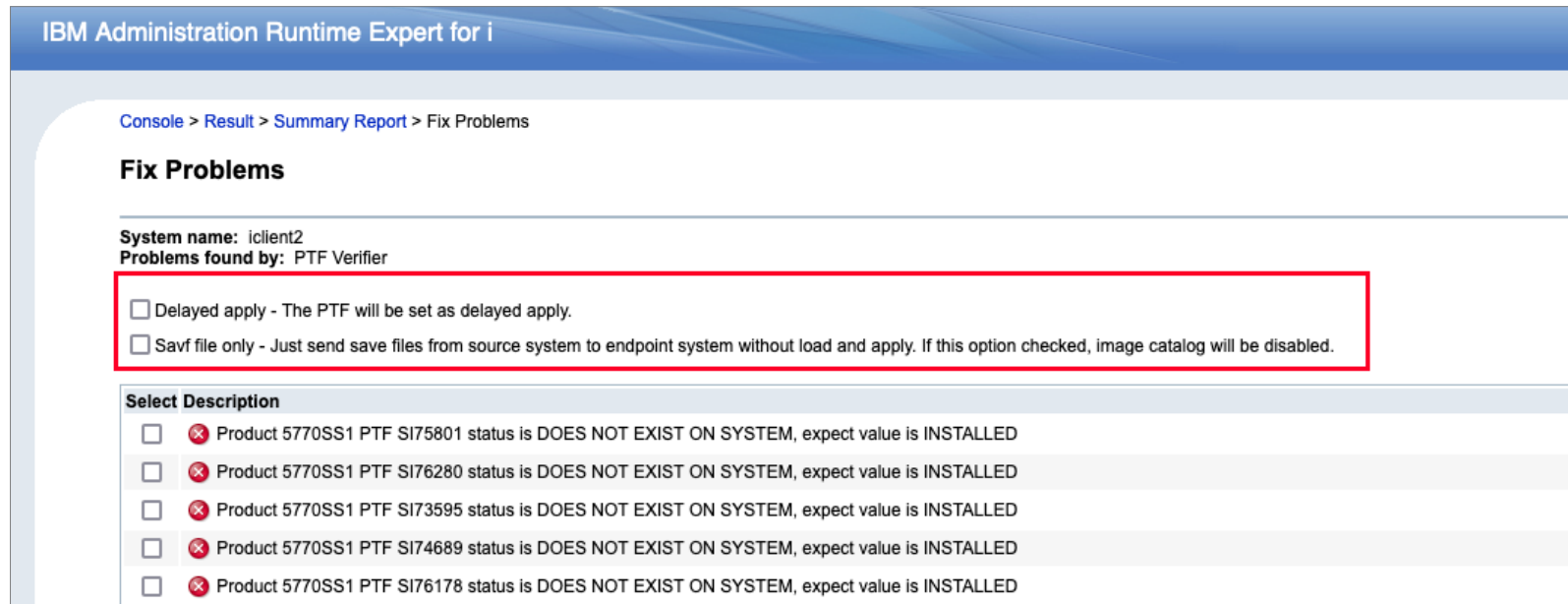
System name: iclient2
Problems found by: PTF Verifier

Select	Description
<input type="checkbox"/>	<input checked="" type="checkbox"/> Group PTF SF99433 - DB2 WEB QUERY FOR I V2.2.1 (level 4) could not be found on the system
<input type="checkbox"/>	<input checked="" type="checkbox"/> Group PTF SF99433 - DB2 WEB QUERY FOR I V2.2.1 (level 5) could not be found on the system
<input type="checkbox"/>	<input checked="" type="checkbox"/> Product 5770SS1 PTF SI68878 status is not what is expected
<input type="checkbox"/>	<input checked="" type="checkbox"/> Product 5770SS1 PTF SI69169 status is not what is expected
<input type="checkbox"/>	<input checked="" type="checkbox"/> Product 5770SS1 PTF SI69576 status is not what is expected
<input type="checkbox"/>	<input checked="" type="checkbox"/> Product 5770SS1 PTF SI69344 status is not what is expected
<input type="checkbox"/>	<input checked="" type="checkbox"/> Product 5770SS1 PTF SI70057 status is not what is expected
<input type="checkbox"/>	<input checked="" type="checkbox"/> Product 5770SS1 PTF SI63260 status is not what is expected
<input type="checkbox"/>	<input checked="" type="checkbox"/> Product 5770SS1 PTF SI67045 status is not what is expected
<input type="checkbox"/>	<input checked="" type="checkbox"/> Product 5770SS1 PTF SI67699 status is not what is expected
<input type="checkbox"/>	<input checked="" type="checkbox"/> Product 5770SS1 PTF SI58960 status is not what is expected
<input type="checkbox"/>	<input checked="" type="checkbox"/> Product 5770SS1 PTF SI58882 status is not what is expected
<input type="checkbox"/>	<input checked="" type="checkbox"/> Product 5770SS1 PTF SI59480 status is not what is expected
<input type="checkbox"/>	<input checked="" type="checkbox"/> Product 5770SS1 PTF SI59547 status is not what is expected
<input type="checkbox"/>	<input checked="" type="checkbox"/> Product 5770SS1 PTF SI60111 status is not what is expected
<input type="checkbox"/>	<input checked="" type="checkbox"/> Product 5770SS1 PTF SI60386 status is not what is expected
<input type="checkbox"/>	<input checked="" type="checkbox"/> Product 5770SS1 PTF SI60698 status is not what is expected
<input type="checkbox"/>	<input checked="" type="checkbox"/> Product 5770SS1 PTF SI62945 status is not what is expected

What can I do with ARE?

Example: Distribute and Apply PTF's

With new ARE PTFs new functionality added



IBM Administration Runtime Expert for i

Console > Result > Summary Report > Fix Problems

Fix Problems

System name: iclient2
Problems found by: PTF Verifier

Delayed apply - The PTF will be set as delayed apply.

Savf file only - Just send save files from source system to endpoint system without load and apply. If this option checked, image catalog will be disabled.

Select Description

<input type="checkbox"/>	⊗ Product 5770SS1 PTF SI75801 status is DOES NOT EXIST ON SYSTEM, expect value is INSTALLED
<input type="checkbox"/>	⊗ Product 5770SS1 PTF SI76280 status is DOES NOT EXIST ON SYSTEM, expect value is INSTALLED
<input type="checkbox"/>	⊗ Product 5770SS1 PTF SI73595 status is DOES NOT EXIST ON SYSTEM, expect value is INSTALLED
<input type="checkbox"/>	⊗ Product 5770SS1 PTF SI74689 status is DOES NOT EXIST ON SYSTEM, expect value is INSTALLED
<input type="checkbox"/>	⊗ Product 5770SS1 PTF SI76178 status is DOES NOT EXIST ON SYSTEM, expect value is INSTALLED

What can I do with ARE?

Example: Distribute and Apply PTF's

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Product 5770XE1 PTF SI41054 status is not what is expected
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Product 5770XE1 PTF SI42424 status is not what is expected
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Product 5770XE1 PTF SI44594 status is not what is expected
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Product 5770XE1 PTF SI45664 status is not what is expected
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Product 5770XE1 PTF SI47412 status is not what is expected
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Product 5770XE1 PTF SI49800 status is not what is expected
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Product 5770XE1 PTF SI50567 status is not what is expected
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Product 5770XE1 PTF SI52504 status is not what is expected
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Product 5770XE1 PTF SI53584 status is not what is expected
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Product 5770XE1 PTF SI53809 status is not what is expected
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Product 5770XE1 PTF SI55797 status is not what is expected
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Product 5770XE1 PTF SI56695 status is not what is expected
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Product 5770XE1 PTF SI57907 status is not what is expected
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Product 5770XE1 PTF SI60523 status is not what is expected
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Product 5770XE1 PTF SI62603 status is not what is expected
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Product 5770XE1 PTF SI64724 status is not what is expected
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Product 5770XE1 PTF SI66062 status is not what is expected
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Product 5770XE1 PTF SI67278 status is not what is expected
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Product 5770XE1 PTF SI68573 status is not what is expected

Select all Deselect all

▼ Processed problems

Result	Description
This table is empty.	

Fix the selected problems

Fix Back

What can I do with ARE?

Example: Distribute and Apply PTF's

The screenshot displays the Administration Runtime Expert (ARE) interface. The main area contains a list of 20 error messages, each with a blue checkmark icon on the left and a red 'X' icon on the right. The messages are: "Product 5770XE1 PTF SI41054 status is not what is expected", "Product 5770XE1 PTF SI42424 status is not what is expected", "Product 5770XE1 PTF SI44594 status is not what is expected", "Product 5770XE1 PTF SI45664 status is not what is expected", "Product 5770XE1 PTF SI47412 status is not what is expected", "Product 5770XE1 PTF SI49800 status is not what is expected", "Product 5770XE1 PTF SI50567 status is not what is expected", "Product 5770XE1 PTF SI52504 status is not what is expected", "Product 5770XE1 PTF SI53584 status is not what is expected", "Product 5770XE1 PTF SI53809 status is not what is expected", "Product 5770XE1 PTF SI55797 status is not what is expected", "Product 5770XE1 PTF SI56695 status is not what is expected", "Product 5770XE1 PTF SI57907 status is not what is expected", "Product 5770XE1 PTF SI60523 status is not what is expected", "Product 5770XE1 PTF SI62603 status is not what is expected", "Product 5770XE1 PTF SI64724 status is not what is expected", "Product 5770XE1 PTF SI66062 status is not what is expected", "Product 5770XE1 PTF SI67278 status is not what is expected", and "Product 5770XE1 PTF SI68573 status is not what is expected".

Below the list are two buttons: "Select all" and "Deselect all". A section titled "Processed problems" is expanded, showing a table with two columns: "Result" and "Description". The table is empty, with the text "This table is empty." displayed in the description column. At the bottom left, there are two buttons: "Fix" and "Back".

A dialog box titled "Administration Runtime Expert" is overlaid on the right side of the screen. It contains a blue header bar with the title and a white body with a blue loading icon and the text "Fixing problems, please wait..."

What can I do with ARE?

Example: Distribute and Apply PTF's

The screenshot shows the Administration Runtime Expert (ARE) interface. The main area displays a list of 20 synchronization errors for Product 5770XE1. Each error entry consists of a blue checkmark, a red 'X' icon, and the text: "Product 5770XE1 PTF [PTF ID] status is not what is expected". The PTF IDs listed are: SI41054, SI42424, SI44594, SI45664, SI47412, SI49800, SI50567, SI52504, SI53584, SI53809, SI55797, SI56695, SI57907, SI60523, SI62603, SI64724, SI66062, SI67278, and SI68573. Below the list are buttons for "Select all" and "Deselect all".

A modal dialog box titled "Administration Runtime Expert" is overlaid on the list, containing a gear icon and the text "Fixing problems, please wait...".

At the bottom of the interface, there is a section for "Processed problems" with a table. The table has columns for "Result" and "Description". The description cell contains the text "This table is empty." Below the table are buttons for "Fix" and "Back".

RFE => ARE PTF Sync progress indicator

What can I do with ARE?

Example: Distribute and Apply PTF's – After Fix Ran

```
Work with PTF Groups                                     System:  ICLIENT2

Type options, press Enter.
  1=Order   4=Delete   5=Display   6=Print   8=Display special handling PTFs
  9=Display related PTF groups  10=Display PTF apply information

Opt  PTF Group      Level  Status
█   SF99876        8      Installed
___ SF99876        7      Installed
___ SF99875       17      Installed
___ SF99875       16      Installed
___ SF99867        2      Installed
___ SF99867        1      Installed
___ SF99731       11      Installed
___ SF99731       10      Installed
___ SF99730     19116      Installed
___ SF99730     18242      Installed
___ SF99729       85      Not installed
___ SF99729       83      Installed
___ SF99728       41      Installed

F3=Exit  F6=Print  F11=Display descriptions  F12=Cancel
F22=Display entire field
```

More...

What can I do with ARE?

Example: Distribute and Apply PTF's – After Fix & Savf file only

Not completely there yet!!

The command

```
“INSPTF LICPGM((*ALL)) INSTYP(*DLYALL)”
```

does the rest of the magic

Not needed when taking Fix & Delayed apply

What can I do with ARE?

Example: Distribute and Apply PTF's – After INSPTF

```
Work with PTF Groups                                     System:  ICLIENT2

Type options, press Enter.
  1=Order   4=Delete   5=Display   6=Print   8=Display special handling PTFs
  9=Display related PTF groups   10=Display PTF apply information

Opt  PTF Group      Level  Status
█    SF99876        8      Installed
—    SF99875        17     Installed
—    SF99867         2     Installed
—    SF99731        11     Apply at next IPL
—    SF99730       19116   Installed
—    SF99729        85     Apply at next IPL
—    SF99728        41     Installed
—    SF99727         6     Installed
—    SF99725        12     Installed
—    SF99724        28     Apply at next IPL
—    SF99723         4     Installed
—    SF99722        18     Installed
—    SF99703        15     Installed

F3=Exit   F6=Print   F11=Display descriptions   F12=Cancel
F22=Display entire field
```

More...



What can I do with ARE?

Example: Distribute and Apply PTF's – With Delayed apply

IBM Administration Runtime Expert for i

Console > Result > Summary Report > Fix Problems

Fix Problems

System name: iclient2
Problems found by: PTF Verifier

Delayed apply - The PTF will be set as delayed apply.
 Savf file only - Just send save files from source system to endpoint system without load and apply. If this option checked, image catalog will be disabled.

Select Description

This table is empty.

Select all Deselect all

Processed problems

Result	Description
Fixed	Product 5770SS1 PTF SI75801 status is DOES NOT EXIST ON SYSTEM, expect value is INSTALLED
Fixed	Product 5770SS1 PTF SI76280 status is DOES NOT EXIST ON SYSTEM, expect value is INSTALLED
Fixed	Product 5770SS1 PTF SI73595 status is DOES NOT EXIST ON SYSTEM, expect value is INSTALLED
Fixed	Product 5770SS1 PTF SI74689 status is DOES NOT EXIST ON SYSTEM, expect value is INSTALLED
Fixed	Product 5770SS1 PTF SI76178 status is DOES NOT EXIST ON SYSTEM, expect value is INSTALLED
Fix failed	Product 5770SS1 PTF SI70746 status is DOES NOT EXIST ON SYSTEM, expect value is INSTALLED
Fix failed	Product 5770SS1 PTF SI69647 status is DOES NOT EXIST ON SYSTEM, expect value is INSTALLED
Fix failed	Product 5770SS1 PTF SI69886 status is DOES NOT EXIST ON SYSTEM, expect value is INSTALLED
Fix failed	Product 5770SS1 PTF SI70734 status is DOES NOT EXIST ON SYSTEM, expect value is INSTALLED
Fix failed	Product 5770SS1 PTF SI73482 status is DOES NOT EXIST ON SYSTEM, expect value is INSTALLED
Fixed	Product 5770SS1 PTF SI74159 status is DOES NOT EXIST ON SYSTEM, expect value is INSTALLED
Fix failed	Product 5770SS1 PTF SI76268 status is DOES NOT EXIST ON SYSTEM, expect value is INSTALLED
Fix failed	Product 5770SS1 PTF SI69635 status is DOES NOT EXIST ON SYSTEM, expect value is INSTALLED
Fix failed	Product 5770SS1 PTF SI70456 status is DOES NOT EXIST ON SYSTEM, expect value is INSTALLED
Fixed	Product 5722IP1 PTF RS00068 status is DOES NOT EXIST ON SYSTEM, expect value is INSTALLED
Fixed	Product 5722IP1 PTF SI11314 status is DOES NOT EXIST ON SYSTEM, expect value is INSTALLED
Fixed	Product 5722IP1 PTF SI11476 status is DOES NOT EXIST ON SYSTEM, expect value is INSTALLED
Fixed	Product 5722IP1 PTF SI12118 status is DOES NOT EXIST ON SYSTEM, expect value is INSTALLED
Fixed	Product 5722IP1 PTF SI12180 status is DOES NOT EXIST ON SYSTEM, expect value is INSTALLED
Fixed	Product 5722IP1 PTF SI14201 status is DOES NOT EXIST ON SYSTEM, expect value is INSTALLED
Fixed	Product 5722IP1 PTF SI18357 status is DOES NOT EXIST ON SYSTEM, expect value is INSTALLED
Fixed	Product 5722IP1 PTF SI18683 status is DOES NOT EXIST ON SYSTEM, expect value is INSTALLED
Fixed	Product 5722IP1 PTF SI28850 status is DOES NOT EXIST ON SYSTEM, expect value is INSTALLED

Message Area

Warning: PTF action required: An IPL is required to apply this PTF (SI75801.)
Warning: PTF action required: An IPL is required to apply this PTF (SI76280.)
Warning: PTF action required: An IPL is required to apply this PTF (SI76178.)
Warning: PTF action required: An IPL is required to apply this PTF (SI74495.)
Warning: PTF action required: An IPL is required to apply this PTF (SI76141.)

What can I do with ARE?

Example: System values

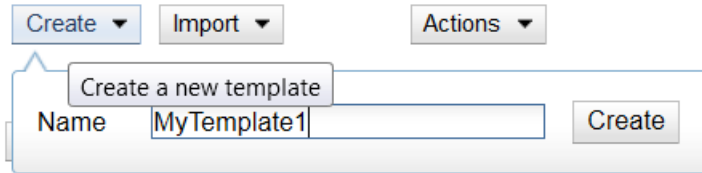
Purpose:

- Compare System values between systems:
Source and Target system
- Report the differences

What can I do with ARE?

Example: System values

Option “Create”:



The image shows a software interface with three buttons: 'Create', 'Import', and 'Actions'. The 'Create' button is selected, opening a dialog box titled 'Create a new template'. Inside the dialog, there is a text input field labeled 'Name' containing the text 'MyTemplate1', and a 'Create' button to the right of the input field.

What can I do with ARE?

Example: System values

The screenshot shows the 'System Environment' configuration window. It features a tree view on the left with the following items:

- System Environment** (expanded)
 - System Values and Network Attributes** (checked): Verify the settings of system values and network attributes. Actions: Edit, Remove, Learn more...
 - Environment Variables**: Verify the existence and values of system-wide environment variables. Actions: Edit, Remove, Learn more...
 - User IDs**: Verify attributes of IBM i user IDs. Actions: Edit, Remove, Learn more...
 - Scripts and Commands**: Specify scripts and commands to run and verify on the remote system. Actions: Edit, Remove, Learn more...
 - SQL Query Verifier**: Specify SQL to run and verify on the remote system. Actions: Edit, Remove, Learn more...
- Advanced** (collapsed)

At the bottom of the window, there are three buttons: **Build template** (highlighted with a red box), **Cancel**, and **Template build options**.

What can I do with ARE?

Example: System values

The screenshot shows the 'System Values and Network Attributes' dialog box in the IBM Administration Runtime Expert for i. The breadcrumb path is 'Home > Plugin Selection and Customization > System Values and Network Attributes'. The dialog is titled 'System Values and Network Attributes' and contains two main sections: 'System values and network attributes' and 'Values to verify'. The 'System values and network attributes' section contains a list of 20 attributes, including ALRBCKFP, ALRCTL, ALRDFTFP, ALRFTR, ALRHLCNT, ALRLOGSTS, ALRPRIFP, ALRRQSFP, ALRSTS, ALWADDCLU, ALWANYNET, ALWHPRTWR, ALWVRTAPPN, DDMACC, and DFTCNLST. The 'Values to verify' section contains a list of 14 attributes, including QABNORMSW, QACGLVL, QACTJOB, QADLACTJ, QADLSPLA, QADLTOTJ, QALWJOBITP, QALWOBJRST, QALWUSRDMN, QASTLVL, QATNPGM, QAUDCTL, QAUDENDACN, QAUDFRCLVL, and QAUDLVL. Each attribute in the 'Values to verify' list has an 'Edit' link next to it. The dialog also includes navigation buttons ('Previous', 'Next'), a 'Position to:' field, a 'Collection name:' field (set to 'System_Values'), and 'OK' and 'Cancel' buttons at the bottom.

IBM Administration Runtime Expert for i

Home > Plugin Selection and Customization > System Values and Network Attributes

System Values and Network Attributes

Select System Values or Network Attributes to Verify

System values and network attributes [? Learn more...](#)

- ALRBCKFP
- ALRCTL
- ALRDFTFP
- ALRFTR
- ALRHLCNT
- ALRLOGSTS
- ALRPRIFP
- ALRRQSFP
- ALRSTS
- ALWADDCLU
- ALWANYNET
- ALWHPRTWR
- ALWVRTAPPN
- DDMACC
- DFTCNLST

Values to verify [? Learn more...](#)

- QABNORMSW [Edit](#)
- QACGLVL [Edit](#)
- QACTJOB [Edit](#)
- QADLACTJ [Edit](#)
- QADLSPLA [Edit](#)
- QADLTOTJ [Edit](#)
- QALWJOBITP [Edit](#)
- QALWOBJRST [Edit](#)
- QALWUSRDMN [Edit](#)
- QASTLVL [Edit](#)
- QATNPGM [Edit](#)
- QAUDCTL [Edit](#)
- QAUDENDACN [Edit](#)
- QAUDFRCLVL [Edit](#)
- QAUDLVL [Edit](#)

Previous Next 1/3

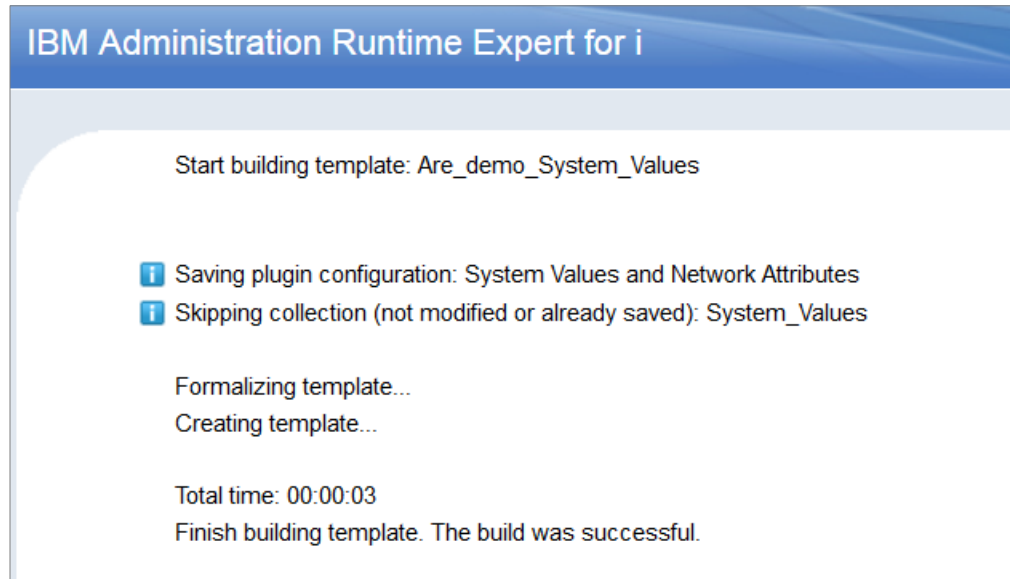
Position to:

Collection name:

OK Cancel

What can I do with ARE?

Example: System values



What can I do with ARE?

Example: System values

Set the option to Email the results:

Console

The IBM Administration Runtime Expert for i is capable of verifying multiple IBM i systems using a deployment template created or imported using the deployment template editor.

Groups: Default

Systems to verify:

	System name	User ID	Password	Template
<input type="checkbox"/>	192.168.69.11	Rudi	●●●●●●	Are_demo_License_Check
<input checked="" type="checkbox"/>	192.168.69.12	Rudi	●●●●●●	Are_demo_System_Values

Note: Only selected systems are verified. Schedule runs only if IBMARE is running.

[Schedule](#)
Every month, 01, 10:00
Passwords not set

What can I do with ARE?

Example: System values

Console Runtime Properties

Default user ID

Specify individual user ID and passwords [Learn more...](#)

Store individual user ID and passwords in an encrypted file on the console server

Use default user ID and password for all systems

Default user ID:

Default password:

*The default user ID and password will be used for each server verified. The value *DFTUSER will be specified for the user ID to indicate the default user is being used.*

Store default user ID and password in an encrypted file on the console server

Number of systems to verify at the same time:

Logging level:

Input properties for the Administration Runtime Expert:

Properties specified here are provided as input to the Administration Runtime Expert when it is run to verify each system using the specified deployment template. Each property should be in the format `key=value` and only one property can be specified per line. Example: `my.property.key=myValue`

Enable email notifications

*SMTP server name:

Port:

*From:

*To: *(use comma to separate addresses)*

Send on:

What can I do with ARE?

Example: System values

Running it:

Console

The IBM Administration Runtime Expert for i is capable of verifying multiple IBM i systems using a deployment template created or imported using the deployment template editor.

Groups: Default

Systems to verify:

	System name	User ID	Password	Template
<input type="checkbox"/>	192.168.69.11	Rudi	●●●●●●	Are_demo_License_Check ▾
<input checked="" type="checkbox"/>	192.168.69.12	Rudi	●●●●●●	Are_demo_System_Values ▾

Note: Only selected systems are verified. Schedule runs only if IBMARE is running.

[Schedule](#)
Every month, 01, 10:00
Passwords not set

What can I with ARE?

Example: System values

The result:

[Console](#) > Result

Console

System verification status: 1/1 complete [Refresh](#)

System name	Template	Status	Result
192.168.69.12	Are_demo_System_Values	Complete	32 error(s), 0 warning(s), 0 info(s)

[Back](#) [Stop all](#)

What can I do with ARE?

Example: System values

The result:

Console > Result

Console

System verification status: 1/1 complete [Refresh](#)

System name	Template	Status	Result
192.168.69.12	Are_demo_System_Values	Complete	32 error(s), 0 warning(s), 0 info(s)

[Summary Report](#)
[Detailed Report](#)
View summary report
[Download Archive](#)
Runtime Log
Remote runtime log
Remote stdout
Remote stderr

[Back](#) [Stop all](#)

What can I do with ARE?

Example: System values

The result:

[Console](#) > [Result](#) > Summary Report

Summary Report

System name: 192.168.69.12

Remote core version: 1.6.20

Template: Are_demo_System_Values

User ID: RUDI

Summary details [? Learn more...](#)

Plugin name	Attributes verified	Error	Warning	Info	Fix actions
▶ System Value Verifier	154	32	0	0	None

[Back](#)

What can I do with ARE?

Example: System values

The result:

Summary details [? Learn more...](#)

Plugin name	Attributes verified	Error
System Value Verifier	154	32
Description		
System value "QACTJOB" does not match its expected value		
Expected QACTJOB to equal 300 Actual value for QACTJOB is 200		
System value "QADLACTJ" does not match its expected value		
Expected QADLACTJ to equal 25 Actual value for QADLACTJ is 30		
System value "QADLTOTJ" does not match its expected value		
Expected QADLTOTJ to equal 25 Actual value for QADLTOTJ is 30		
System value "QASTLVL" does not match its expected value		
Expected QASTLVL to equal *INTERMED Actual value for QASTLVL is *BASIC		
System value "QAUDCTL" does not match its expected value		
Expected QAUDCTL to equal *NONE Actual value for QAUDCTL is *AUDLVL		
System value "QAUDLVL" does not match its expected value		
Expected QAUDLVL to equal [*CREATE' *DELETE' *SECURITY' *SAVRST' *OBJMGT'] Actual value for QAUDLVL is [*JOBDDTA' *CREATE' *DELETE' *OBJMGT' *SAVRST' *SECURITY' *SPLFDTA' *AUDLVL2']		
System value "QAUDLVL2" does not match its expected value		

What can I do with ARE?

Example: System values

The result (fragment of mail):

```
~~~~~  
ERROR! System value 'QACTJOB' does not match its expected value  
ERROR! System value 'QADLACTJ' does not match its expected value  
ERROR! System value 'QADLTOTJ' does not match its expected value  
ERROR! System value 'QASTLVL' does not match its expected value  
ERROR! System value 'QAUDCTL' does not match its expected value  
ERROR! System value 'QAUDLVL' does not match its expected value  
ERROR! System value 'QAUDLVL2' does not match its expected value  
ERROR! System value 'QBASACTLVL' does not match its expected value  
ERROR! System value 'QBASPOOL' does not match its expected value  
ERROR! System value 'QCHRID' does not match its expected value  
ERROR! System value 'QCNTYID' does not match its expected value  
ERROR! System value 'QCONSOLE' does not match its expected value  
ERROR! System value 'QDATE' does not match its expected value  
ERROR! System value 'QDATSEP' does not match its expected value  
ERROR! System value 'QDAY' does not match its expected value  
ERROR! System value 'QDAYOFWEEK' does not match its expected value  
ERROR! System value 'QDECfmt' does not match its expected value  
ERROR! System value 'QHOURL' does not match its expected value  
ERROR! System value 'QHSTLOGSIZ' does not match its expected value  
ERROR! System value 'QIPLSTS' does not match its expected value  
ERROR! System value 'QJOBMSGQFL' does not match its expected value  
ERROR! System value 'QJOBMSGQMX' does not match its expected value  
ERROR! System value 'QLIBLCKLVL' does not match its expected value  
ERROR! System value 'QLOGOUTPUT' does not match its expected value  
ERROR! System value 'QMCHPOOL' does not match its expected value  
ERROR! System value 'QQRVDEGREE' does not match its expected value  
ERROR! System value 'QSCANFCTL' does not match its expected value  
ERROR! System value 'QSSLCSL' does not match its expected value  
ERROR! System value 'QSTRUPPGM' does not match its expected value  
ERROR! System value 'QTOTJOB' does not match its expected value  
ERROR! System value 'QUPSDLYTIM' does not match its expected value  
ERROR! System value 'QUPSMGQ' does not match its expected value
```

What can I do with ARE?

Example: System values

Het result (fragment of mail):

```
*****
```

```
Regards,  
ARE tool
```

```
Notes and Tips -
```

- For more detailed information included in this email, go to [http://\[redacted\]:12401/are/](http://[redacted]:12401/are/) -> Launch Console -> ViewPreviousResults
- To disable or update these email notifications, go to [http://\[redacted\]-12401/are/](http://[redacted]-12401/are/) -> Launch Console -> Runtime properties
- For more information about ARE tool in general, go to <http://www-03.ibm.com/systems/power/software/i/are/index.html>

What can I do with ARE?

Check: Temporary License keys

Purpose:

- Check Temporary License keys
- Report notice of expiration date of Temporary License keys

What can I do with ARE?

Example: Temporary License keys

[Home](#) > [Plugin Selection and Customization](#) > [SQL Query Verifier](#) > [Customize SQL Query Verifier](#)

Customize SQL Query Verifier

Specify the SQL Query and Verifications Details

Collection name:

Select statement [? Learn more...](#)

```
SELECT * FROM QSYS2.LICENSE_INFO WHERE INSTALLED = 'YES' AND LICENSE_EXPIRATION <= CURRENT DATE + 30 DAYS;
```

*Example: SELECT * FROM myDB.myTable*

Print the result set of SQL query to the verification report:

Check the number of records returned for the SQL query [? Learn more...](#)

Expect value:

Comparison:

Severity:

Column value verification conditions [? Learn more...](#)

	Column name	Check class	Expected value	Comparison	Result type	Match case	Severity	Description
Example id		Numeric	6	Equals	All	False	Error	All ids should equal to 6
Example name		String	John	Contains substring	Any	True	Error	Names returned should contain 'John'

This table is empty.

What can I do with ARE?

Example: Temporary License keys

Run periodically:

Console

The IBM Administration Runtime Expert for i is capable of verifying multiple IBM i systems using a deployment template created or imported using the deployment template

Groups: Default

Systems to verify:

	System name	User ID	Password	Template
<input checked="" type="checkbox"/>	192.168.69.11	Rudi	••••••	Are_demo_License_Check
<input type="checkbox"/>	192.168.69.12	Rudi	••••••	Are_demo_System_Values

Add Remove Select all Deselect all Runtime properties

Note: Only selected systems are v

Verify systems View prev

Launch deployment template editor Import and

Schedule Setting

No schedule
 Daily
 Weekly
 Monthly

Every 1 At 10 : 0

Note: Only selected systems are verified. Schedule runs only if IBMARE is running. [Learn more...](#)

OK Cancel

Schedule
Every month, 01, 10:00

What can I do with ARE?

Example: Temporary License keys

The result:

Console > Result

Console

System verification status: 1/1 complete [Refresh](#)

System name	Template	Status	Result
192.168.69.11	Are_demo_License_Check	Complete	✓ No problem found

[Back](#) [Stop all](#)

What can I do with ARE?



Example: Temporary License keys

The result:

[Console](#) > Result

Console

System verification status: 1/1 complete [Refresh](#)

System name	Template	Status	Result
192.168.69.11	Are_demo_License_Check	 Complete	 1 error(s), 0 warning(s), 0 info(s)

[Back](#) [Stop all](#)

What can I do with ARE?

Example: Temporary License keys

Het result (fragment of mail):

```
From file:  
/QIBM/UserData/ARE/workspace/console/temp/Default/20170423185956_M/192.168.69.11_Are_demo_license_Check_Rudi_15/arercReport.zip:reports/summaryReport.txt  
~~~~~  
ERROR! Fail: the result count is not expected. 18 equals 0 is false!
```

Question?

Thanks!

Also for starting to use ARE when your are
back in your office!!!