REV GUARDIAN

Operational Environment Integrity

Ensure the integrity of your Operational Environment by having REV GUARDIAN periodically run Checks and based upon the status (True or False) execute Actions.

Native on all platforms

REV GUARDIAN runs natively on all platforms:

- iSeries
- UNIX,
- LINUX
- WINDOWS

You control the database locations

The ONLY platform that must have a Local database is iSeries as every i5OS installation has a DB2 instance.

On every other platform you are in total control of the database locations -
which can be Local or Remote.

At RevSoft we do have a simple rule:
'A Mission Critical server should have a Local database.'

Same Message management solution on all platforms

As REV GUARDIAN is exactly the same model on all platforms:

- The same Windows .net User Interfaces are used for all platforms:
  - Guardian Definitions - to define Assignments, Check Lists, Action Lists, Calendars, Security, LDAP etc.,
  - Host & Enterprise Operations - to manage as well as see and hear all Assignments as they are being processed,
  - Engine - to configure, add systems and migrate data.
- One education plan fits all.

Only install User Interfaces where required

As the User Interfaces are very specific as to their functions you only need to install them where they are required - instead of using one large cumbersome interface where only a small portion is required.

There is no security required for all the Windows .net User Interfaces.

30 long System Name

The iSeries System Name is up to 8 characters in length but in RevSoft you can use an Alias Name (on any platform) that can be up to 30 characters in length.

If a server has a System name of S1234567 it can be seen as (in RevSoft) as CUSTOMER_NAME_PROD or TAMPA_QANDA_RED_HAT,

Major Features

- Assignment,
- Assignment-Timing,
- Assignment-How to Run,
- Assignment-Start and End,
- Check List,
- Check List-commands,
- Check List-command lines,
- Actions,
- Calendars,
- Audit,
- Environments,
- Job Day Codes,
- Assignment Sheet,
- Run Sheet,
- Operations Panels,
- Host Operations
- Enterprise Operations,
- Security,
- Security-Module level,
- Security-Environment level,
- LDAP,
- Variables,
- Job logs.

REV GUARDIAN

Assignment

An Assignment is the term for the collection of components that comprise:

- Submission details of when to execute,
- Check List of what to check for,
- Action List to be processed and executed when the Check List is passed.

Assignment - Timing

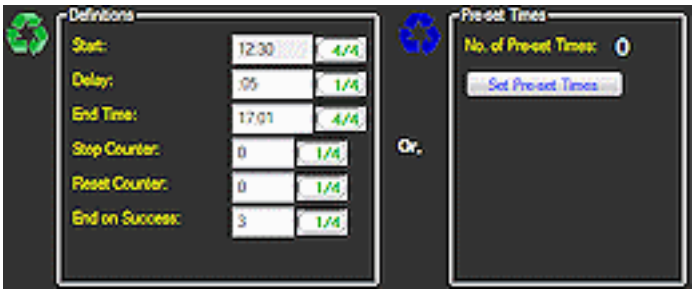
The When to Run and How to Run details control:

- What time the Assignment will start,
- The interval between executions,
- When the Assignment will end.

Assignment - How to Run

Assignments are defined to execute multiple times (cycles) and these can be:

- At regular timed intervals,
- At Pre-set specific times that are not regular timed intervals.



Assignment -Start and End

This is the time the Assignment will be submitted and start the first execution of Check List cycles.

There are 3 ways to define how an Assignment will end:

- End time - the Assignment will end executions when this time is reached,
- Stop Counter - the Assignment will end after this cycle number is processed,
- End on Success - the Assignment will end after the number of concurrent successful completion of the Check Lists is reached.

Check List

The Check List is a sequence of commands or command lines that are executed and will return a status of:

- True,
- False,

value.

	Seq.	Cond.	Required	Command to Execute
1	10	IF	False	RGOBJEXIST OBJ(RVLGPLZIPEOD) OBJTYPE(*FILE)
2	20	OR	False	RGFILACTR FILE(RVLGPLZIPEOD) CONDITION(*GT) VALUE(75)
3	30	OR	False	RGLCKSTS OBJ(RVLGPLZIPEOD) OBJTYPE(*FILE) LOCKSTATE(*EXCL)

Check List sequences can be joined by standard Boolean logic operands of IF, AND, OR.

At the end of the execution of the Check List it will return an overall:

- Pass,
- Fail,

based upon the status of each Check List sequence.

As a Check List processes command or command lines new ones can be added at any time.

REV GUARDIAN

Check List - iSeries commands

Examples of the iSeries commands are as follows:

- RGCFG - Check Configuration Status,
- RGJOBSTS - Check Job Status,
- RGJOBQJOBS - Check Jobs on Job Queue,
- RGMSGQMSG - Check Message Queue depth,
- RGOBJEXIST - Check Object Exists,
- RGSBSACT - Check Subsystem Active,
- RGSTG - Check Storage,
- RGTMPADD - Check Temporary Addresses.

Check List - LINUX, UNIX and WINDOWS command lines

Examples of the LINUX, UNIX and WINDOWS command lines are as follows:

- RGCHKCPU - Check CPU Usage,
- RGCHKMEM - Check Memory Usage,
- RGCHKOBJ - Check Object exists,
- RGCHKPORT - Check Port is Listening,
- RGCHKPROC - Check Process is Running,
- RGCHKSTG - Check Volume Storage,
- RGCHKURL - Check Website or Page,
- RGSVCACT - Check Service is Active,

Actions

The Actions is a sequence of commands or command lines to be processed and executed when the Check List is Passed.

Action Cycle

Actions can be defined to be executed:

- For all cycles of an Assignment,
- Specific cycle number in the Assignment,
- Cycle number range in the Assignment.

Calendars

In REV GUARDIAN all Calendars are user defined and are:

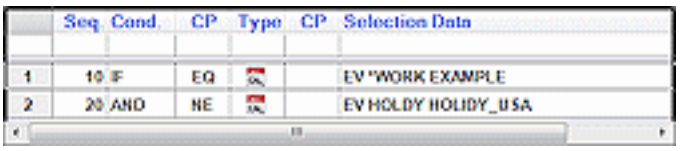
- Gregorian (standard 12 months).

Calendars are populated by user defined Day Codes - such as DAILY, WEKLY etc.

Assignments can then be defined to be available to run based upon the Frequency of the Day Code in the Calendar - such as Every, Last, First occurrence of the Day Code DAILY in the Calendar WORK_DAYS.

You use calendars in a *LIST - e.g.

- Every *WORK in the Calendar EXAMPLE,
- Not on Every HOLDY in the Calendar HOLIDY_USA.



	Seq	Cond.	CP	Type	CP	Selection Data
1	10	IF	EQ			EV *WORK EXAMPLE
2	20	AND	NE			EV HOLDY HOLIDY_USA

REV GUARDIAN

Audit

The Audit function in REV GUARDIAN logs every change that is made to a Assignment or any of its components.

Using the Audit facility:
- Updates can be undone,
- Deleted components can be undeleted,
- Deleted Assignment can be undeleted.

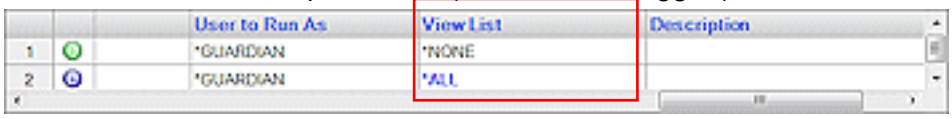
All Undo of updates and all undeletes (of components or complete Assignments are also logged in the Audit facility.

An Undo can also be undo - so in effect an Undo of an undo - and this is also logged.

Any time that a Assignment or any of the components are updated the Audit facility logs the:
- Before update image,
- After update image,

of the data and this allows for the rollback or undo to be performed (which is also logged).

Any updated data is very easy to recognize as it is displayed in Blue.



		User to Run As	View List	Description
1		*GUARDIAN	*NONE	
2		*GUARDIAN	*ALL	

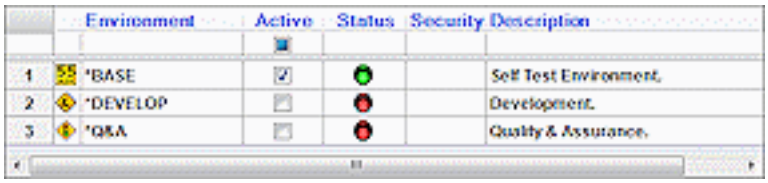
All other data is still displayed in Black.

Environments

All Environments are user defined and every Assignment must be registered to an Environment.

Using the shipped Environments you can immediately have:
- *BASE,
- *DEVELOP,
- *Q&A,

and you can promote your Assignments through the Environments.



	Environment	Active	Status	Security	Description
1	*BASE	☑			Self Test Environment.
2	*DEVELOP	☐			Development.
3	*Q&A	☐			Quality & Assurance.

Only Environments that are started can execute the available Assignments.

Environments can be security defined so you can control the users who can:
- See the Assignments,
- Update the Assignments,
- Add new Assignments to the Environment,
- Force Run a Assignment in the Environment.

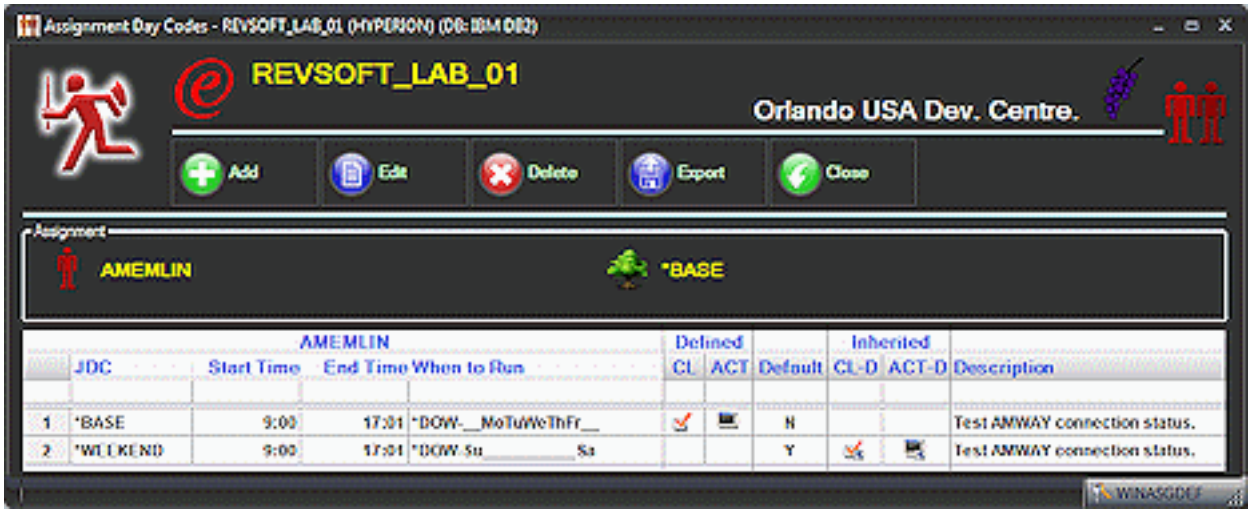
Job Day Codes

Each Assignment, in REV GUARDIAN, can be defined to have different Job Day Codes (JDC) or ‘flavors’ of the same Assignment.

Each JDC can be seen as a different flavor of the same Assignment e.g. Chocolate, Strawberry etc., and can be up to 10 characters in length such as DAILY, WEEKLY, MONTHLY etc.,

A simple example is as follows:
• Job Day Code *BASE runs on Monday through Thursday by Time with components of:
• Check List,
• Actions.

• Job Day Code *WEEKEND runs on Saturday and Sunday.



This Job Day Code will also ‘inherit’ the components defined in the *BASE JDC.

This is all still only 1 Assignment with the same Job Name, Environment etc., but has varying Job Day Codes or flavors.

Assignment Sheet

The Assignment Sheet has all the details of the:
- Assignment,
- Check List,
- Actions,

in an easy to understand .pdf format and can be used to:
- Build document archives for Assignments,
- Give Audit staff Assignment details in an:
    - Easy to understand,
    - Transportable,

format,
- Send to users to sign off on:
- A new Assignment,
- Updates to the Assignment.

The Assignment Sheet can be executed from the REV GUARDIAN Definitions .net interface.

Run Sheet

The Run Sheet that has all the Assignment execution details in an easy to understand .pdf format and can be used to:
- Build execution archives for Assignments,
- Give Audit staff Assignment execution details in an:
    - Easy to understand,
    - Transportable,

format,
- Send to users to show Assignment execution details.

The Run Sheet can be executed on any platform and can be executed:
- From the REV GUARDIAN Operations .net interface,
- By command line in a Job Script in REV SCHEDULER on a Windows server using the RGRUNSHEET command line.

Operations Panels

When Assignments are defined and executing you need to have a mechanism to control and manage the entire 'Roster' of Assignments and this is performed by the Operations Panels.

This will show all the Assignments that are due to run on a date or the date range.

As jobs are running they will:
• Change colors, • Play Sounds,
to reflect the current status of the Assignments.

From the Operations Panel you can:
• Force Run, • Hold, • Investigate and Manage,
Assignments.

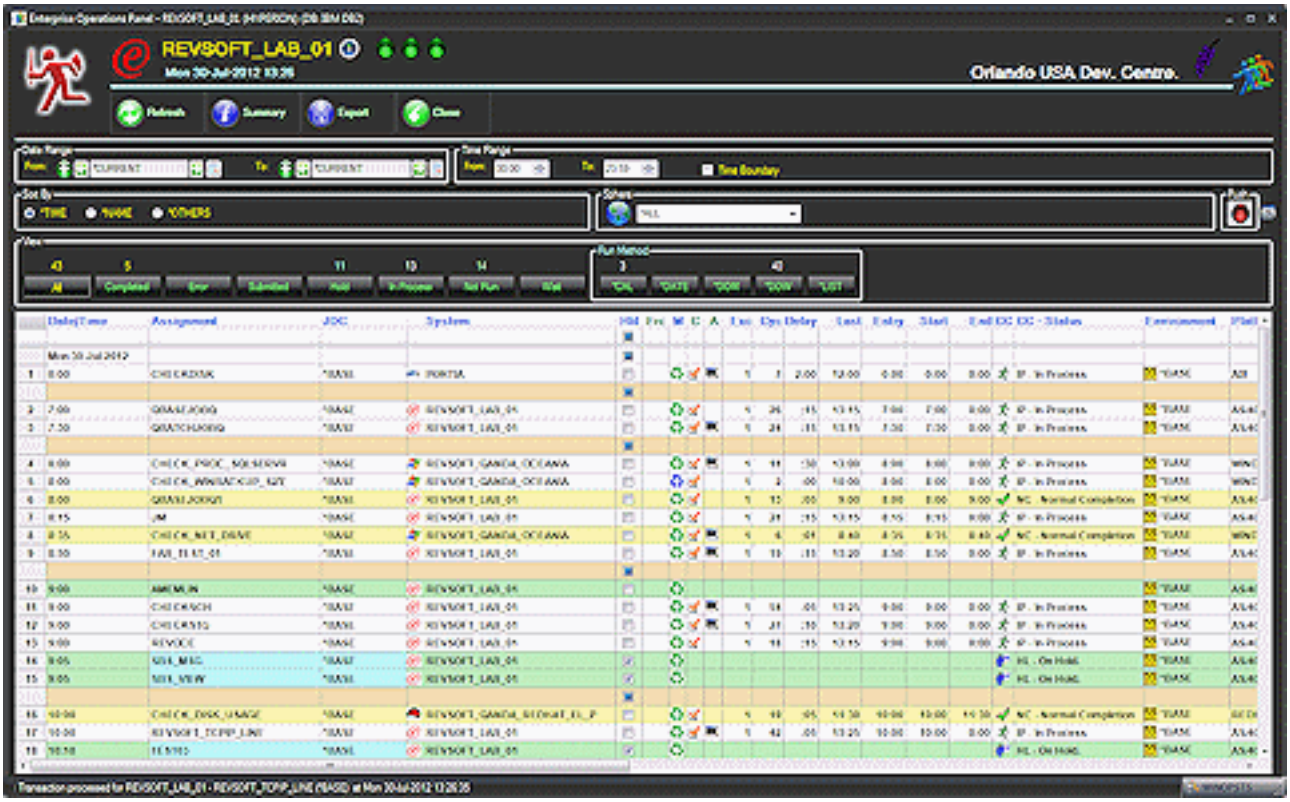
The Operations Panel will be the panel most used by the operations personnel within your corporation to control the Assignments under the control of REV GUARDIAN.

Host Operations

An Host Operations Panel to allow you to control and manage Assignments on a Server.

Enterprise Operations

An Enterprise Operations Panel to allow you to control and manage Assignments on all networked Servers.



Security

The security function in REV GUARDIAN can be implemented in up to 2 levels:
- Module level.
- Environment level.

Module Level


Using Module Security you can define Users who are authorized to:
- Command or Menu option,
- Selection options from panels.

All security is defined by:
- User Profile,
- *PUBLIC,
- User defined Authorization groups..

Environment Level


By setting the security at Environment level any:
- Existing Assignments,
- New Assignments,

for the Environment are automatically secured.

Setting the security at Environment level allows for the security to be:
- Controlled,
- Managed,

in one central location.

LDAP Interface Security


REV GUARDIAN now has full support for LDAP (Lightweight Directory Access Protocol) which is an Open Systems protocol to allow programs to look up information from a server.

In this way LDAP can be a central security repository that will contain the security definitions for some of all of the servers where REV GUARDIAN is operational.

The LDAP Interface can support security checking for both of the:
- 5250 Interface or terminal sessions,
- Windows Interface.

The LDAP security also supports keyword values for:
- *PUBLIC_SYSTEMS - these are Systems other than the Systems specifically defined,
- *PUBLIC_USERS - these are Users other than the Users specifically defined.

Variables

The variables that can be used in REV GUARDIAN fall into 2 areas:
- Assignment variables,
- System variables.

When variables are used there is also a Preview that allows you to view the:
- Defined value:

SNDMSG MSG('Message for cycle number #ASGCYCLNO from Assignment #ASGASGNAM running on #SYSNAME at #SYSTIME on #SYSDATE executing in #SYSJOB28.') TOUSR(QSYSOPR),

- Execution value:

SNDMSG MSG('Message for cycle number 0000 from Assignment QBASEJOBQ1 running on REVSOFT_LAB_01 at 153837 on 072612 executing in 802752/QUSER/QZDASOINIT.') TOUSR(QSYSOPR) .

The variables can be used in the Actions.

All variables (Assignment and System) can all be identified by the # character.

Some of the System shipped variables are as follows:

• #ASGENDD	- End Date,	• #ASGASGNAM	- Assignment Name,
• #ASGENDT	- End Time,	• #ASGJDC	- Job Day Code,
• #ASGSTRD	- Start Date	• #ASGRUNENV	- Environment Name,
• #ASGSTRT	- Start Time,	• #ASGCYCLNO	- Cycle Number,
• #ASGSBMD	- Submitted Date,	• #ASGINTID	- Internal ID,
• #ASGSBMT	- Submitted Time,	• #ASGRESET	- Reset After,
• #ASGFORCED	- Forced to Run,	• #ASGSTOP	- Stop After,
• #ASGCMP	- Completion Code,	• #ASGENDAFT	- End After,
• #ASGCYCLES	- No. Cycles to Execute,	• #ASGMET	- Run Method.

• #SYSDATE	- 6 long date in System Format,		
• #SYSDOW3	- Day of week - MON, TUE etc.,		
• #SYSJOBNAM	- i5OS Job Name,	• #DOMAIN	- Domain Name,
• #SYSUSRNAM	- i5OS User Name,	• #USER	- User Account,
• #SYSNB	- i5OS Job Number,		
• #SYSJOB28	- Job/User/Number,		
• #SYSMTH3	- Short month name - JAN, FEB etc.,		
• #SYSTEM	- System Name,		
• #SYSNAME - Alias Name.			

Job logs (LINUX, UNIX & WINDOWS only)

All Assignments executed create a job log and this shows complete details of the execution.

The header of the job log contains:

- Version and Build of the Engine,
- Details of the:
  - System name,
  - Alias name,
  - Platform,
  - Type,
  - DB location,
  - Process Id,
- Command Line Name,
- Run Id.

Job logs can be exported as:

- .pdf,
- .txt,

files.