

profi.com QC Backup User Guide

Audience: Administrators

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1 Introduction

1.1 The purpose of QC Backup

profi.com QC Backup allows Quality Center administrators creating scheduled backups based on QCP files. Different mechanisms to create project backups are described below.

In general backup Quality Center projects automatically consists of two parts.

1. backup of the project database in a backup format the database server supports
2. backup of the project file repository

Because of this splitting, administrators needs to ensure that database and filesystem is in sync during the backup process.

To create backups easier, HP Quality Center allows site administrators to backup a project using a single QCP file which consists of the database data and the project repository. But this type of backup needs to be created manually and cannot scheduled using Quality Center.

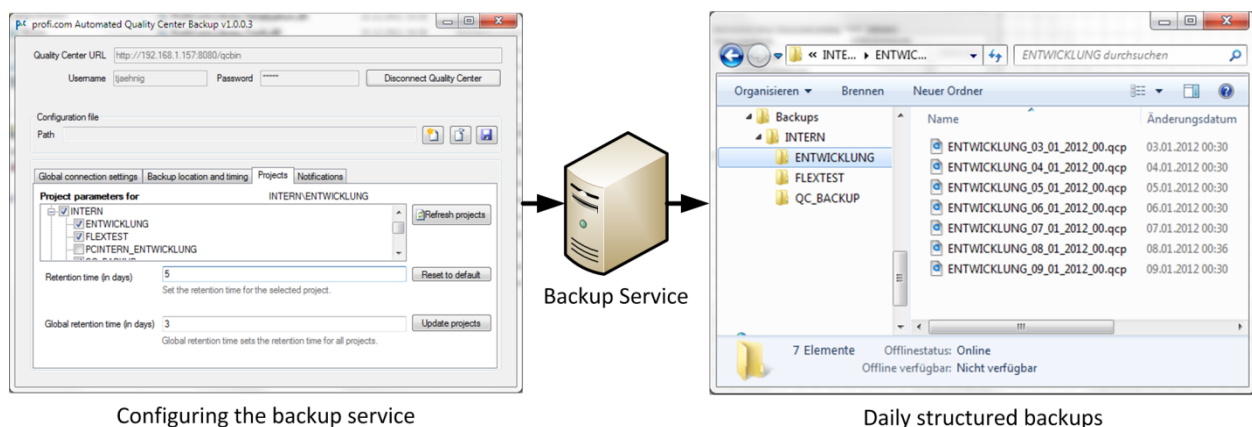
Restoring of such QCP backups is simpler than restoring database and filesystem individual. Thus it's independent from the database server. This means that the administrator can restore a project on a MS SQL server which was backedup on an Oracle server.

But creating backups using QC project exports (QCP) has some restrictions. These are described in chapter 4.

1.2 General usage

QC Backup is an automated standalone backup solution for HP Quality Center. The tool allows scheduled project backups based on Quality Center project exports (QCP).

It consists of a backup service and a client application to configure this service.



Configuring the backup service

Daily structured backups

2 Installation

2.1 Requirements

In order to run the backup the target system has to meet certain requirements.

2.1.1 HP Quality Center Client Side Components

The local installation of the Site Administration API and the Quality Center API is prerequisite for running the QC Backup. Just retrieve the QC Site Administration and the QC Client on the corresponding computer. When using Quality Center 11, you need to register the client components. (Add-ins page -> HP ALM Client Registration)

2.1.2 Microsoft .Net Framework

The QC Backup will be run on the basis of Microsoft .Net Framework 4.0 which should be available on the target system.

Download: <http://www.microsoft.com/downloads/en/details.aspx?FamilyID=0a391abd-25c1-4fc0-919f-b21f31ab88b7&displaylang=en>

2.1.3 Windows Operating System

Since the QC Backup is based on the Microsoft .Net Framework 4.0, Windows XP or later is required to use QC Backup.

(detailed information): <http://msdn.microsoft.com/en-us/library/8z6watww.aspx>)

Make sure you always have the latest service packs installed, especially for MS .Net Framework.

2.1.4 Architecture

The QC Backup is currently delivered in a version that has been optimized for the x86 architecture (32-Bit). However, it is also executable under any Windows 64-Bit OS (x64).

2.2 Installation

The QC Backup is currently a MSI Setup file. The setup automates most steps needed to install the application and the backup service.

To install profi.com QC Backup execute the MSI file and follow the instructions.

Copy the license file to the installation directory.

After the installation finishes, you can configure the backup process using the configuration tool, according to chapter 3. After that you need to start the windows service “profi.com QC Backup”.

Use the advanced configuration as described in chapter 5 if you want to configure other locations for the backup configuration and/or the license file.

3 Configuration

In order to execute the QC Backup service, the configuration file **BackupConfiguration.xml** must be available in the program folder. To create this file, the configuration program with the executable file “**ProfiCom.QCBackup.Main.exe**” is needed. Launch this program directly or using the short cut in the program menu “**profi.com AG\profi.com QC Backup\Backup Configuration**”. The following window will be displayed.

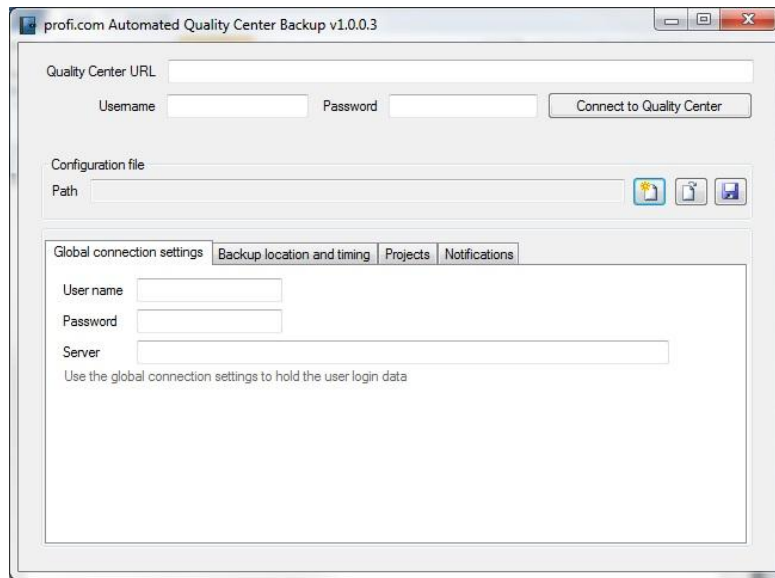


Figure 1: Start Screen

The window is divided into three sections.

3.1 Connection to Quality Center Site Administration

It enables the establishment of connection to Quality Center Site Administration e.g. to read existing projects.

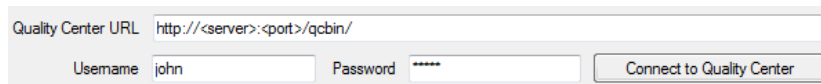


Figure 2: Site Administration Connection

Enter the HP Quality Center address “**http://<server>:<port>/qcbn**” into the input field Quality Center URL.

If you use a certificate-based secure connection to the HP Quality Center, enter the address with the corresponding protocol “**https**” instead of “**http**” .

Note:

When using the “https” (SSL), make sure that the used certificate is valid and trusted. To test this, connect to the designated address via Internet browser.

If there does not appear a safety message that expects a user interaction, an internet connection can always be successfully established by the QC Backup service in the future.

Otherwise the QC Backup service will stop when establishing the connection to the HP Quality Center Site Administration since the above mentioned user interaction is expected by the Windows security system.

The service thereby does not give any error messages and will not be terminated either. You can find a corresponding indication to the described error status in the Windows Application Event Log. There is an error code issued by the source "QC Backup Service" with the content of Method: „OnConnecting“.

Now enter the user name into the input field "Username" as well as the corresponding password in to the input field "Password" and click the button "Connect to Quality Center".

If the connection is successfully established, the before filled input fields will be deactivated and the name of the button that initiated the establishment of the connection, changes to "Disconnect Quality Center".

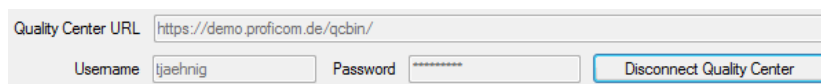


Figure 3: Established Site Administration Connection

Furthermore, the necessary data for the before established connection will be transferred to the corresponding parameters (Site Admin Connection) of the section "Configuration File".

3.2 Configuration file

In this section the options for storing and loading the configuration data regarding the QC Backup service will be shown.

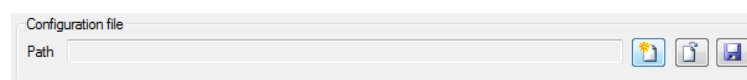


Figure 4: Configuration Data

When you are finished with the indication of the parameters for the following section, save them under the file name „BackupConfiguration.xml“ in the directory where the QC Backup service (ProfiCom.Products.Services.Hosts.WindowsService.exe) is executed.

3.3 Backup Configuration (QC Backup Service Options)

It enables the indication of parameters to control the QC Backup service. The configuration is split in functional parts using tabs.

For the correct functioning and behavior of the QC Backup service the following necessary and optional parameters are available.

3.3.1 Global Connection Settings

Figure 5: Service Options

Site Admin Connection

Connection data that are used by the QC Backup service to connect to the HP Quality Center Site Administration

3.3.2 Backup location and timing

Backup Directory

Enter the complete local path to the target directory where the backups shall be copied.

Figure 6: Backup Directory

The QC Backup service creates the following directory structure under the indicated path.

`<BackupDirectory>\<DomainName>\<ProjectName>\<ProjectName>_<dd>_<mm>_<yyyy>_<nn>.qcp`

BackupDirectory	The defined backup directory.
DomainName	The HP Quality Center domain name where the project is assigned to.
ProjectName	The HP Quality Center project name.
dd	Two-digit number, that indicates the day of the month of the backup creation.
mm	Two-digit number, that indicates the month of the year of the backup creation
yyyy	Four-digit number, that indicates the year of the backup creation
nn	Two-digit number, that is consecutive for the day of the month. The first backup for one day has the value „00“. Further backups for that day

	receive a respective value increased by 1.
--	--------------------------------------------

Table 1: Directory Structure of Backup Data

Example: C:\QC Backup\AGILE\HP_DEMO\ HP_DEMO_04_01_2011_00.qcp

Network Drive Mapping

Since the indication of UNC paths as backup directory is not possible, there is the option to use storage in the network by mapping a network drive.

Thereby, indicate the designated mapping by comparison of the local drive letter with the UNC path to the network resource.

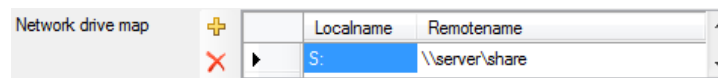


Figure 7: Network Drive Mapping

Note:

*Make sure that the service is executed under the account “network service”.
There are no mapped network drives for this account like in your user profile.*

Global Retention Time

Standard value for the retention time. This value is used by the QC Backup service if a HP Quality Center project with no value to be stored was configured as retention time for the project specific **Retention Time**. In this case, use is made of the value which was defined as a **Global Retention Time**.

The value for **Global Retention Time** that at least has to be “0” indicates how long (how many days) the backup per HP Quality Center project should be retained before it will be deleted.

Start time

It indicates the day time when the backup shall be run. Enter the corresponding valid values (hour, minute) for a time in the day.

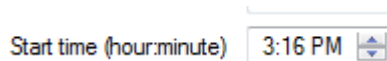


Figure 8: Starting Time

Independent of the indicated starting time the QC Backup service always has the status “running” i.e. “started”.

The service checks every five minutes if the conditions for the execution of the backup procedures will be met.

3.3.3 Notification settings

Configure how you get informed about the status of your backups.

Global connection settings | Backup location and timing | Projects | Notifications

Smtip server address: <smtp server>

Sender email adress: backupservice@<company>.com

Recipient email addresses

	Email address
+	projectadmin@<company>.com
✗	*

Send message on success

Send message on error

Figure 9: Notification settings

Email address

In order to receive feedback on the backup procedure you can enter an email address where status messages will be sent to by the QC Backup service. Thereby a connection to the SMTP server without authentication will be currently supported.

Smtip Server Adress

SMTP server address for sending status information by email. The indication of a DNS name or an IP address is possible.

Send Message on Error

It indicates that error messages will be sent by mail.

Send Message on Success

It indicates that status messages regarding the successful backup procedure will be sent.

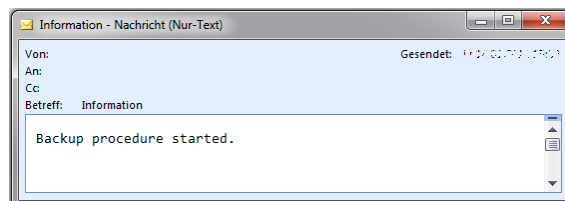


Figure 10: Email Backup Start

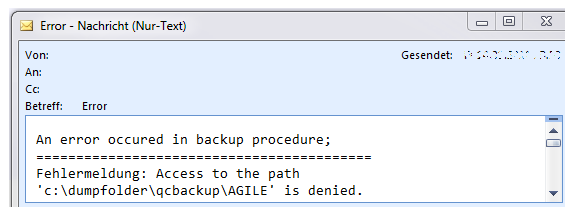


Figure 11: Email Backup Error

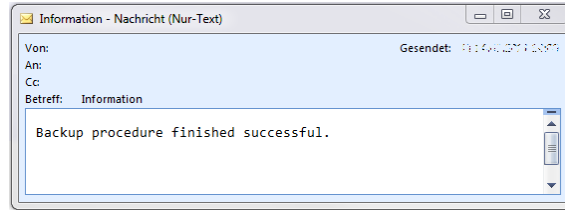


Figure 12: Email Backup End (Success)

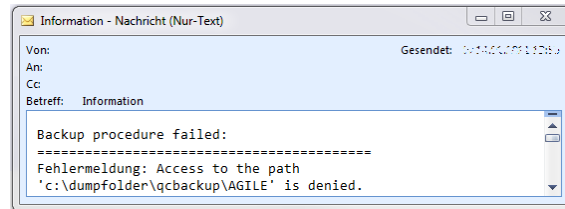


Figure 13: Email Backup End (Error)

3.3.4 Project backup configuration

Configure which projects should be involved in the backup process and how long you want to keep the backup files.

First, load the projects available in the HP Quality Center into the list by clicking the button “refresh projects“. The projects will then be read out and displayed.

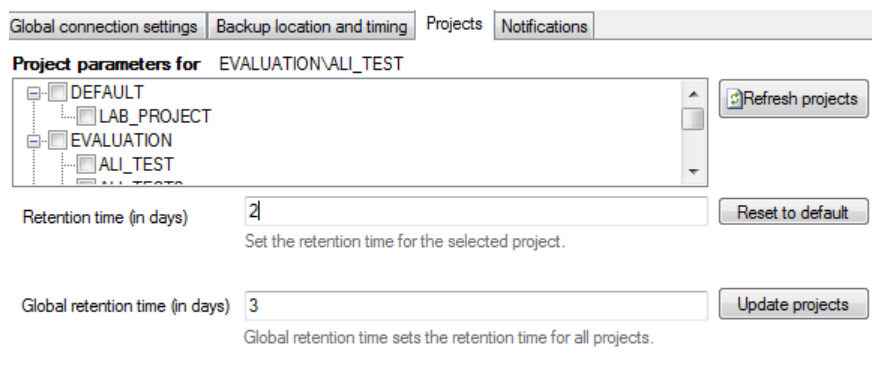


Figure 14: Project List

Select the projects to be stored by marking the corresponding list entries (by activating the respective check boxes).

When selecting a project, additional settings will be displayed on the right of the list.

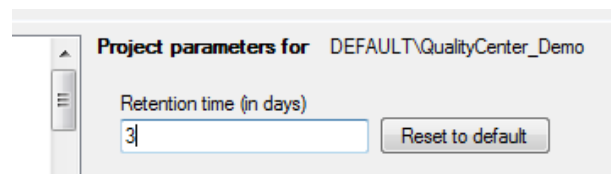


Figure 15: Project Specific Backup Settings

4 Limitations

Note: Creating backups based on Quality Center project exports (QCP file) has some restrictions:

1. The project will be deactivated during backup process. After the backup it is reactivated
2. This method is only recommended for small and mid-sized projects (database and file repository combined < 4 GB)¹ (This is a Quality Center limitation)
3. Only project backups created in the same QC version can be restored (e.g. QC 11)
4. The machine which creates the backups needs adequate free disk space available in the home directory of the service user, to temporarily store the project data before packaging it in a QCP file. (depends on the size of the project)

¹ HP Application Lifecycle Management 11 - Administrator Guide, page 84 (28/10/2011)

5 Advanced Configuration

The location expected location of the configuration and the license file can be changed in the following files.

ProfiCom.QCBackup.Main.exe.config (config file for the configuration tool)

The location of the license file can be changed like this:

```
<setting name="LicenseFilePath" serializeAs="String">
    <value>c:\license.xml</value>
</setting>
```

ProfiCom.QCBackup.Services.Hosts.WindowsService.exe.config (config file for the service)

The location of the configuration file can be changed like this:

```
<setting name="ConfigFilePath" serializeAs="String">
    <value>c:\backupserviceconf.xml</value>
</setting>
```

The location of the license file can be changed like this:

```
<setting name="LicenseFilePath" serializeAs="String">
    <value>c:\license.xml</value>
</setting>
```

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