



# What data does Automatic Batch Data Collection collect and from what source?

There are three types of Batch information collected by Automatic Batch Data Collection (ABDC), Master Recipes, Plant Hierarchy information and Batch (Control Recipe) information.

1. Master Recipes are collected directly from the Recipe Management Control Station using the standard file shares.

Exaquantum/Batch ABDC monitors the recipe download folder using a .NET file watcher on the Primary and Secondary Batch Server defined for each group in the HIS Batch Server group at the bottom of the Exaquantum/Batch System Configuration Tool. There is a separate watcher for each recipe group configured. The actual location depends on whether the Test Mode option is set in the Master Recipe Collection group of the Exaquantum/Batch System Configuration Tool (see the table below for details).

Configuration	HIS share places
Test Mode option unchecked	<code>\\&lt;HIS PC Name&gt;\CTMRECP\DBFile\&lt;Recipe Group number&gt;</code> e.g. <code>\\HIS0163\CTMRECP\DBFile\05\</code>
Test mode option checked	<code>\\&lt;Project Path&gt;\ TestMaster\&lt;HIS&gt;\Recipe\DBFile\ \&lt;Recipe Group number&gt;</code> e.g. <code>\\HIS0164\CS1000PJT\TestMaster\HIS0163\Recipe\DBFile\05\</code>

The following notes apply the elements in angle brackets in the table above:

1. <HIS PC Name> is the name defined in column 3 or 5 in the table in the HIS Batch Server group at the bottom of the Exaquantum/Batch System Configuration Tool.
2. <Project Path> is the name defined in the Project Path edit box in the Master Recipe Collection group of the Exaquantum/Batch System Configuration Tool.
3. <HIS> is the name defined in column 2 or 4 in the table in the HIS Batch Server group at the bottom of the Exaquantum/Batch System Configuration Tool.



- <Recipe Group number> is the name defined in column 1 in the table in the HIS Batch Server group at the bottom of the Exaquantum/Batch System Configuration Tool.

When a download is detected by any of the file watchers it raises an event passing the full path of the folder that was modified. This is then parsed to extract the recipe group and recipe number of the recipe that has actually changed.

This is then used to obtain the new master recipe information from a path which depends on whether the FDA option is set or not. The actual path is indicated in the table below:

Option	Path
FDA option unchecked	<pre>&lt;Recipe Path&gt;\RGnn\RCPmmmm</pre> <p>e.g.</p> <pre>\\HIS0164\CTMRMNG\RECIPE\RG01\RCP0001</pre>
FDA option checked	<pre>\\&lt;FDA Recipe Path&gt;\RCP\&lt;PJT&gt;\DATA\&lt;PJT&gt;\Recipe\&lt;Recipe Group number&gt;\&lt;Recipe number&gt;\&lt;Recipe Number&gt;</pre> <p>e.g.</p> <pre>\\HIS0164\FDADATA\RCP\EDEMO\DATA\EDEMO\Recipe\05\001</pre>

The following notes apply the elements in angle brackets in the table above:-

- <Recipe Path> is the name defined in the Recipe Path edit box in the Master Recipe Collection group of the Exaquantum/Batch System Configuration Tool.
- nn and mmmm are the recipe group and number extracted from the change event handler.
- <FDA Recipe Path> is the name defined in the FDA Recipe Path edit box in the Master Recipe Collection group of the Exaquantum/Batch System Configuration Tool. Note this only appears in the FDA option is checked.
- <PJT> is the name defined in the Project Name edit box in the Master Recipe Collection group of the Exaquantum/Batch System Configuration Tool.



Note, if a batch completes but the correct version of the master recipe does not exist in the Exaquantum/Batch Database then an error will be raised and the Batch not linked to any Master Recipe. Currently it is not possible to connect a Batch to a Master Recipe version once the batch has completed even if at some later stage the correct Master Recipe version is obtained.

2. The Equipment profile is obtained from the CENTUM CS 3000 or CENTUM VP Custom Plant Hierarchy via the Exaopc Batch server. This can be viewed using the browse feature of the Batch OPC Client Application ZOPBCHClient.exe. This is located in the tool folder of the EXA share from the Exaopc server. You should expand the tree to show the OPCBPhysicalModel. Note it is possible to copy this file to the Exaquantum/Batch server if required.

The OPCBPhysicalModel also includes the Train/Path Configuration. This is configured using the CENTUM CS 3000 or CENTUM VP Train Builder for all recipe groups being monitored

It is not possible to edit this on the Exaquantum/Batch server nor create a hierarchy manually if ABDC is enabled. Any changes must be made using the Custom Plant builder of CENTUM VP or CENTUM CS3000.

Both a Custom Plant Hierarchy and Train/Path Configuration are **essential** for correct operation of Automatic Batch Data Collection.

See the FAQ “What is the effect on ABDC if there is no Train/Path Hierarchy Configured?” for an explanation as to why this is essential and how to switch off this part of ABDC if not required.

3. Batch Properties and Formula Item data for a specific batch (Control Recipe) comes via the Exaopc Batch server the first time that ABDC sees the batch appear on the batch list and then again at Batch End. Some Formula Item data will also be collected at Unit Recipe End depending on the configuration of the Master Recipe. Different amounts of data are collected at different stages of the Batch (See the FAQ what data is collected when by the Automatic Batch Data Collection for more details).

The ZOPBCHClient.exe tool can be used to view the information available to ABDC. Expanding the tree under OPCBBatchModel will display a list of all the batches still recorded in the Recipe Overview screen for all recipe groups. This list is not broken down by recipe group however.

Alarm and Event data and Process data for Batch Trends also comes via Exaopc using the Exaopc AE server and Exaopc DA server respectively and are stored in Exaquantum PIMS.

See the FAQ “What must be configured on the Engineering Workstation in order for Exaquantum/Batch Automatic Batch Data Collection to collect all the information?” for details on the DCS project engineering requirements.