

Produce^{IT} Batch Version 1.2/4b Service Pack Release Notes

WE-DOC-04844	August 21, 2003
Nomenclature:	SP-B-BAMGS, SP-E-BAMGS, SP-U-BAMGS
Subject:	Produce^{IT} Batch Version 1.2/4b Service Pack Release Notes

1.0 Introduction

This document represents the release notes for Produce^{IT} Batch Version 1.2/4b Service Pack. This service pack can be applied to systems running Produce^{IT} Batch Version 1.2/1, 1.2/2, 1.2/3, 1.2/4 or 1.2/4a. If you are currently running Produce^{IT} Batch Version 1.2/1, 1.2/2, 1.2/3, 1.2/4 or 1.2/4a, this service pack will install the proper versions of all fixes from SP2, SP3, SP4, SP4a, and SP4b. **It cannot be applied to any other version of Produce^{IT} Batch.**

2.0 Product Support Information

Produce^{IT} Batch version 1.2 SP4b will work with Operate^{IT} Process Portal B1.1/2 (or later 1.1/x release) and the following Connect (RTDS) and controller combinations:

- Harmony/I90 Connect to BRC controller (version D.1 or later)
- Melody Connect to Melody controller (Melody Composer version 1.51D or later)
- Freelance/AC 800F Connect to AC 800F, DFC02, DCP10, DCP02 controllers (Freelance version 6.2 SP2 and Freelance version 7.1 SP2)
- OPC Connect to Control^{IT} AC 800M/C controller (version 3.0 or later)
- OPC Connect to controller/device with an OPC server compatible with Process Portal B1.1 OPC client

Produce^{IT} Batch 1.2 SP4b will also work with the Inform^{IT} Enterprise Historian Collect and Consolidate products at version 3.2/1 Patch 4 (or later) with PDL option.

The latest version of controller firmware should be used where possible.

Produce^{IT} Batch 1.2/5 has been released to support Operate^{IT} Process Portal B 1.2/0 (or later 1.2/x release) and the following Connect (RTDS) and controller combinations:

- Advant MOD300 Connect (version 2.2/0) to AC460, SC controllers (version 14.6 or later)
- Harmony/I90 Connect to BRC controller (version D.1 or later)

Contact your ABB sales representative for the latest information on Produce^{IT} Batch compatibility.

3.0 Problems Resolved In This Release

3.1 Recipe editor crash

Problem Description: The recipe editor (batch_graphc.exe) occasionally crashes while installing a recipe.

Resolution: Installation of Produce^{IT} Batch Version 1.2 SP2 should remedy this situation.

3.2 Batch_OPW or IE crash due to redundant server startup

Problem Description: The process "Batch_OPW.exe" or the Internet Explorer sometimes crashes when the secondary starts, or when no batch servers are online, or if there is confusion about which server is primary, such as in the situation leading to a "multiple batch managers" error. The crashes happen about 30 seconds after the secondary finishes SQL sync, when the batch database is large, and if an RPD is on display with a dynamic label. A slow network aggravates the problem.

Resolution: Installation of Produce^{IT} Batch Version 1.2 SP2 should remedy this situation.

3.3 NWKser crash after re-boot of batch server

Problem Description: Under certain conditions while re-booting either batch server NWKser, batch service manager function, would crash. This caused the start-up of batch services on the affected server to halt. The problem involved the license

validation on start-up of the Batch server. Produce^{IT} Batch's attempt to validate the appropriate Process Portal B license would fail and NWKser would crash.

Resolution: Installation of Produce^{IT} Batch Version 1.2 SP3 should remedy this situation.

3.4 Batch display takes 1 min to come up when the configured primary batch server is off-line.

Problem Description: This problem is caused by the performance difference of remote registry query function in Windows 2000 as opposed to Windows NT 4 operating system. Produce^{IT} Batch client software uses the remote registry query function of the operating system to determine which batch server to retrieve display data from. In Windows 2000, the query function introduces a significant delay (approx. 1 minute) when the node that is configured to be the primary server is off-line.

Resolution: Installation of Produce^{IT} Batch Version 1.2 SP3 should remedy this situation. Produce^{IT} Batch client software determines which server to retrieve display data from in an efficient manner. No appreciable delay in the call-up of batch displays should now be seen.

3.5 Navigator lockup occurs on rare occasions when calling up Batch displays.

Problem Description: When a Produce^{IT} display is invoked, Produce^{IT} first checks whether Batch services are running. It does this by querying the registries of the primary and secondary (if setup is redundant) Produce^{IT} server machines. Since the servers could be located on other machines, a remote registry query is used. Since the remote registry query can block for up to a minute on Windows 2000, two threads are spun up to handle the two queries. When one of the queries completes successfully, it is known that the Batch services are running, and so the other thread is terminated using the TerminateThread API. The description of the TerminateThread API on the MSDN lists several problems of using TerminateThread, including that if the target thread owns a critical section, the critical section will not be released. Under certain conditions, this behavior can cause a Navigator lockup.

Resolution: Installation of Produce^{IT} Batch Version 1.2 SP4 should remedy this situation. The manner in which Produce^{IT} Batch client software determines whether Batch services are running was redesigned and no longer uses threads and remote registry queries.

3.6 Rarely, the message "batch services not running" occurs when calling up Batch displays.

Problem Description: This problem is caused by the manner in which results of the remote registry query function are cached in Windows 2000 as opposed to Windows NT 4 operating system. Produce^{IT} Batch client software prior to 1.2/4 used the remote registry query function of the operating system to determine whether Batch services were running. In Windows 2000, the results of the query function fail to reflect the changing status of the remote registry, unless the Navigator is restarted.

Resolution: Installation of Produce^{IT} Batch Version 1.2 SP4 should remedy this situation. The manner in which Produce^{IT} Batch client software determines whether Batch services are running was redesigned and no longer uses remote registry queries.

3.7 A Restart command from higher level recipe causes a restart of a Melody Phase in Idle.

Problem Description: Each recipe level in Produce^{IT} (e.g. Phase, Operation, Unit Procedure, etc) has a state and a set of possible (visible) commands in the status dialog. A higher level recipe takes its state from an associated lower element (e.g.: if the active phase is in state Running then the operation is in the Running state too). This problem occurs when a higher level recipe or operation has more than one lower level elements (e.g. unit procedure with several phases with different states). The state of such a unit procedure is not consistent (N-Running, N-Aborted,...). When an associated Melody Phase is in Idle a Restart Command from a higher level recipe causes a restart of the Melody Phase.

Resolution: For Produce^{IT} Batch Version 1.2 SP4, the Melody driver was modified to only allow restart on Held or Stopped states.

3.8 Phase start is not immediately rejected if AC800F FPX block is in operator mode

Problem Description: If an AC800F FPX block is in Operator mode and a recipe tries to start the phase, the phase in the RPD goes to running (of course the phase is really not running), then after 30 seconds the phase goes into an error condition (red), but the string parameters like Recipe, Lot, Batch, Campaign ID are written to the AC800F. The recipe parameters are not written.

Resolution: Installation of Produce^{IT} Batch Version 1.2 SP4 should remedy this situation. Added a separate unique maximum wait for the Automatic and Program Mode values to speed up response.

3.9 Nuisance AC800F Controller phase start error messages on Process Portal B Event Page

Problem Description: For each phase start, two messages ("Batch:Bad Quality in Stream Atom for <phase function name>" and "Batch.....: <phase function name> reports bad quality on state-transition-atom (ST)- communication error") appear on the Process Portal B Event page.

Resolution: Installation of Produce^{IT} Batch Version 1.2 SP4 should remedy this situation. Fixed the code to not perform callbacks while Subscribing/Connecting to FPX Block. This eliminates the alarm sent to the PPB event page on the initial bad quality, and we do not turn the block (or the token) red because of initial bad quality. If the quality remains bad on retry, we send the bad quality alarm to the PPB event page, and turn the block red to indicate error.

3.10 History allows deletion of unarchived batch history with no audit trail

Problem Description: Currently, when a user wants to delete one or more batch event histories via the Batch History Archive dialog, he selects the Batch histories, adds them to a list, and clicks the "delete" button. Batch prompts the user with an "are you sure?" question, and if he clicks yes, the Batch histories are deleted whether they have been archived or not with no audit trail.

Resolution: Installation of Produce^{IT} Batch Version 1.2 SP4a should remedy this situation. If there are non-archived Batch histories in the selected list to be deleted, a second warning prompt will pop-up "Some Batch Histories have not been archived, and will be LOST IF DELETED. Please confirm this deletion." Further, a system event/alarm message will be issued to the Process Portal event system indicating each non-archived batch history that was deleted, with Batch ID, time stamp and User ID information.

3.11 Produce^{IT} Batch 1.2 has problems archiving/deleting a large number of batch records.

Problem Description: During product testing of Produce^{IT} Batch, problems have been encountered when the user attempts to archive and/or delete hundreds of batch records at a time. In some instances, the archive utility has failed to properly archive the batch records and did not generate an error indication. No problems have been seen when the number of batches being archived/deleted is under 100.

Resolution: In Produce^{IT} Batch1.2/4a the product limits the number of batches to archive/delete/restore to a maximum of 100.

3.12 Nwkser crash disrupts Primary / Secondary indicator

Problem Description: Nwkser crash disrupts Primary / Secondary indicator on the PIT servers. Crash is due to an access violation.

Resolution: Installation of Produce^{IT} Batch Version 1.2 SP4a should remedy this situation.

3.13 Archive function does not properly handle "/" in logical names of periodic data.

Problem Description: Archive function does not properly handle periodic data with logical names containing the "/" character (such as 1PI-1064.IN/SIG).

Resolution: Installation of Produce^{IT} Batch Version 1.2 SP4b should remedy this situation.

4.0 Additional Product Capability

4.1 Produce^{IT} Batch 1.2 SP2 was tested with the MS Excel version of Office XP.

However, there is a conflict between the Operate^{IT} Process Portal B1.1 report generator and the Produce^{IT} Batch report generator. Both mechanisms use Excel Automation and Add-Ins. The workaround is to avoid running Produce^{IT} Batch reports on a node where the Operate^{IT} Process Portal B1.1 Function Block Server is active (typically on an RTDS node) or it is necessary from time to time to re-add the Batch Excel interface add-in (Batch_fpexcel.xla).

4.2 Produce^{IT} Batch 1.2 SP3 (and later) supports MS SQL Server 2000 SP3.

Produce^{IT} Batch 1.2 SP3 and later have been validated to operate properly with Microsoft's SQL Server 2000 SP3. Refer to Technical Services Bulletin TB20030007A for detailed information.

5.0 Retrieving Produce^{IT} Batch 1.2 Service Pack 4b

Produce^{IT} Batch 1.2 SP4b is available for free download from the ABB Solutions Bank and at the ABB Automation Technical Services Web Site. To obtain the service pack from the ABB Automation Technical Services Web Site:

1. Navigate to the Web Site at <http://www8.abb.com/AutomationServices/>
2. Here you will be presented with a directory of available service pack's. To review the release notes, click on the service pack file name and then click on the Produce^{IT} Batch 1.2 SP4b Release Notes.
3. To download a file
 - IE Users: Click on the file name and select "Save this program to disk" when prompted for download.

- Netscape Users: Specify a desired file path and click on "Save" when prompted for download.

6.0 Installation of Produce^{IT} Batch 1.2 Service Pack 4b

Produce^{IT} Batch Version 1.2 SP4b is packaged as a self-contained installation procedure in the single file "ProduceIT 1.2 SP4b.exe". Produce^{IT} Batch Version 1.2 SP4b should be installed on all client and server workstations containing Produce^{IT} Batch Version 1.2/1, Produce^{IT} Batch Version 1.2/2, Produce^{IT} Batch Version 1.2/3, Produce^{IT} Batch Version 1.2/4, or Produce^{IT} Batch Version 1.2/4a. In a redundant server configuration, update the backup first, fail the primary over to it and then update the original primary. On each workstation, before executing the "ProduceIT 1.2 SP4b.exe" file, start the services control applet (Start->Settings->Control Panel->Administrative Tools->Services) and manually stop the "CON Network Level" service. Then double-click on the "ProduceIT 1.2 SP4b.exe" executable. The executable will prompt to confirm that ProduceIT Batch services are stopped, and will subsequently prompt the user to press another "OK" to do the install. The installation will occur and the message "Produce^{IT} Batch Version 1.2 SP4b was successfully applied." After running Produce^{IT} Batch Version 1.2 SP4b, restart the "CON Network Level" service. A reboot is not necessary.

The Produce^{IT} Batch Version 1.2 SP4b installation will check to make sure that the target system is at build 437, 438, 439, 440, 441, 442, or 443. If not, no installation occurs.

After installation, the Produce^{IT} Batch version will be at 1.2/4b, and the build will be at 1.2.443, in the Navigator "About" box.

7.0 Additional Notes

7.1 Known Problems and Workarounds

A list of known problems and their workarounds can be found in the Release notes for Produce^{IT} Batch Release 1.2/1 and subsequent Technical Bulletins made available from the ABB Solutions Bank. Please review these documents in the event that a problem is uncovered.

7.2 Produce^{IT} Batch Server Failover

Manual Produce^{IT} Batch Server failover must be done when batches are not changing; do not attempt a failover when batches are changing (i.e. when RPD block transitions are occurring).

- Failover should be initiated by an administrator via the Batch service manager or the Windows 2000 services dialog, or by restarting Windows 2000 on the primary server.
- When restarting a Produce^{IT} secondary server, wait five minutes after the "S" appears at the lower right corner of the monitor before attempting a failover to the server, to insure that synchronization completes for large databases or slow networks.

7.3 Configuration of redundant OPC RTDS server tags for use with Produce^{IT} Batch

When configuring redundant OPC RTDS server tags for use with Produce^{IT} Batch (AC 800M/C, Freelance/AC 800F controllers or Generic OPC/Function Phase Driver), the "Permit signals to write to OPC Server from the inactive RTDS" checkbox should be disabled (off). This option is found on the "OPC" tab within the "OPC Data Server" section of the OPC Server tag. The checkbox should be disabled on both the primary and secondary OPC Server tags.

7.4 Closing a Batch RPD display before it is drawn can cause a "black window" in Navigator.

On rare occasions, when a Batch RPD is closed immediately after being called up, but before it starts to be drawn, the Navigator will display a black area on the screen. One way this problem may occur is to double-click on a batch in the batch overview display, then dismiss the RPD before it starts to be drawn. This problem happens infrequently, and may never be seen on many systems.

Workaround: If a "black window" appears, one click of the mouse on any visible part of the non-blackened Navigator window will hide the black area underneath the Navigator and restore normal operation. Any subsequent RPD call-up on the affected console will then eliminate the hidden black area entirely.

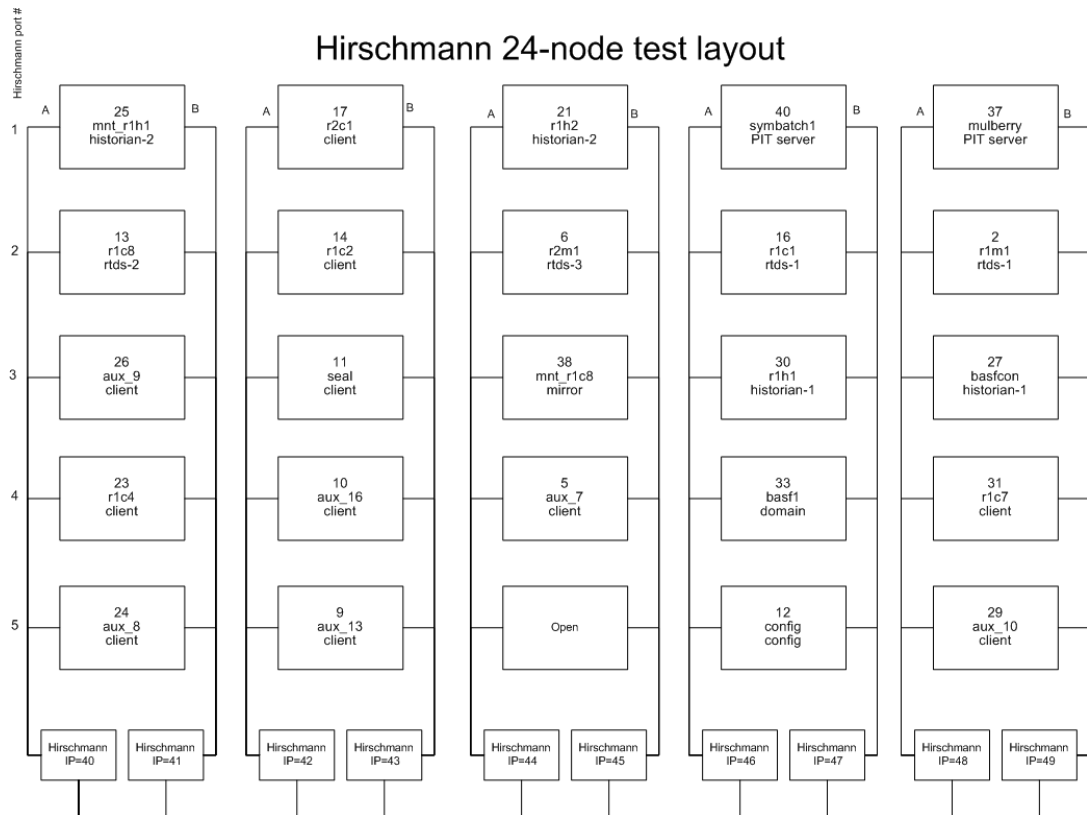
8.0 Produce^{IT} Batch 1.2 Deployment Guidelines

The following guidelines must be followed to minimize implementation and lifecycle costs and maximize customer satisfaction of Produce^{IT} Batch 1.2 systems with Operate^{IT} Process Portal B 1.0 and above.

- **Installation manuals must be followed to the letter.**
 - The Process Portal B and Produce^{IT} Batch installation manuals and the Release Notes for base and all service packs must all be read before beginning, and must be strictly followed by trained personnel. Under no circumstances should anyone rely on memory or notes from earlier installations. Produce^{IT} Batch must be reloaded if Process Portal B is reloaded on any client or server.
- **Produce^{IT} Batch servers must be loaded on dedicated PCs.**
 - PCs cannot be shared with an Process Portal B RTDS, Historian, or Configuration Server, with the following exceptions: 1) A non-redundant Produce^{IT} Batch server may be combined with a non-redundant Process Portal B RTDS for small-scale, low-performance, cost-sensitive systems. 2) Single PC systems can also combine Config. Server.
 - No third-party software except those specified in Produce^{IT} Batch documentation can be loaded on the servers, including CD-burner products and remote access tools.
- **Produce^{IT} Batch servers, in a non-redundant network, must be connected via a dedicated network switch.**
 - Redundant Servers should have short network runs to their shared dedicated 100MB switch, to minimize the likelihood that they will ever be out of communication. A typical installation combines servers and switch in the same cabinet.
 - Network disconnections require that Windows 2000 PCs be rebooted to restore the connection. A work-around is to put a switch on each PC.
- **Redundant networking for Process Portal B and Produce^{IT} Batch.**
 - The following dual-NIC redundant network solution configuration has been successfully qualified:
 - Hirschmann Rail Switches (RS2-TX/TX)
 - Intel PRO/100 S Server Adapters (Two per PC)
 - Intel PROSet Software (version 6.4.0.0), set to switch fault tolerant mode

Each PC must be connected to a pair of Hirschmann switches. The Hirschmann switches should be organized in pairs, with one switch for the Preferred Primary NIC connections and the other for the Preferred Secondaries. The Intel PROSet software, on each PC, should be used to configure Preferred Primary and Secondary NICs. Each switch should have its "RM" and "standby" switches in the off position, except for one switch which should have "RM" enabled.

An example of a configured system is shown below:



- **Avoid changing the network after the system is deployed.**
 - Process Portal B and Produce^{IT} Batch are network-intensive applications and are very sensitive to network changes, such as node addition and DNS issues. Static IP addresses must be used for servers and clients that have PPB installed.
 - If a node is added via the Config Server, the Produce^{IT} Batch servers must be restarted to recognize it.
 - Changing workgroup or domain settings must be avoided since it affects Windows security IDs. The system must be implemented during staging as it will be deployed at the customer site.
- **All servers including Produce^{IT} Batch servers must be protected against a sudden power loss.**
 - A UPS must be used, and power cables / reset buttons must be secure. Loss of power may require Produce^{IT} Batch to be reloaded.
- **Failover is designed to protect against sudden hardware failure of the primary server, a very infrequent event.**

- Produce^{IT} Batch servers must be configured to generate messages when their status changes, and Process Portal B must be configured to alarm the changes.
- After a failover occurs, the status of all batches must be examined.
- **Manual server failover must be done when batches are not changing.**
 - Do not attempt a manual failover when batches are changing (i.e., when RPD block transitions are occurring). Failover should be initiated by an administrator via the Batch service manager or the Windows 2000 services dialog. See release notes for additional instructions.
 - When restarting a Produce^{IT} Batch secondary server, wait five minutes after the "S" appears at the lower right corner of the monitor before attempting a failover to the server, to insure that synchronization completes for large databases or slow networks.
- **The "Set Process Portal B Time" Utility must be used to change system time. Refer to procedure in Produce^{IT} 1.2/1 release notes.**

Please contact Technical Support or the Produce^{IT} Batch team with any questions to the above guidelines.