

ONDEMAND NEWSLETTER

News and Tips about IBM Content Manager OnDemand 4^{TH} Quarter 2015

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NEWS

About this Newsletter

This newsletter is designed to keep you better informed about IBM® Content Manager OnDemand on all platforms. The newsletter is published quarterly.

Previous editions of this newsletter can be found in <u>support item 7024130</u>. They are also available on the OnDemand User Group web site under the heading '<u>Presentations</u>, <u>Newsletters</u>, and <u>such</u>'.

Correspondence related to this newsletter should be directed to odnews@us.ibm.com.

Fix pack 9.5.0.4 available

Multiplatforms

The fix pack 9.5.0.4 installation files are available from <u>IBM Fix Central</u>. This includes the OnDemand Administrator and OnDemand Windows client.

z/OS

To upgrade your system, choose the applicable PTF from the list in <u>support item 1260192</u>.

IBM i

For V7.2, see <u>Information APAR II14723</u> for a list of the required PTFs. Before upgrading, review the read-me in <u>support item 7041959</u>.

For V7.1, see <u>Information APAR II14497</u> for a list of the required PTFs. Before upgrading, review the read-me in <u>support item 7018085</u>.

Updated OnDemand Redbook available

The Redbook titled <u>IBM Content Manager</u> <u>OnDemand Guide</u> has been updated. Updates include information on server version 9.5, such as ODF, XML, transforms, and more.

Depending on your level of interest, you might want to read part or all of this Redbook. This Redbook provides a broad and deep understanding of Content Manager OnDemand. The content is written for readers with various levels of expertise and understanding. The Redbook is divided into several parts:

- Part I covers the basic Content Manager OnDemand concepts including administration, database structure, storage management and security.
- Part II covers indexing, loading, retrieval and expiration of data. It also discusses the various exits that allow you to determine how the data will be processed at various points within its life cycle.
- Part III covers scalability, reliability, availability and performance.
- Part IV covers report distribution, full text search, enhanced retention management and content federation services.
- Part V covers troubleshooting hints and tips.

Updated Datacap Redbook available

The Redbook titled <u>Implementing Mobile</u>
<u>Document Capture with IBM Datacap</u> has been updated. Updates include information on mobile document capture, and on Datacap V9.

SWIFT Component Alternatives & ISO 20022 Message Archiving & Analysis webcast

In this webcast, see how a complete financial messaging solution can make information exchange and compliance with the ISO20022 electronic payment standard more efficient.

Learn about critical message handling, exchange, archival and analysis required for electronic payments as directed by the ISO20022 standard. Download the webcast here today. (Registration is required.)

New infographics available

Two new infographics are available for Content Manager OnDemand.

The Big Data Landscape is Challenging

The <u>first infographic</u> describes how data quantity and sources are growing in size, while our ability to gain insight and answers are limited. Through IBM Content Manager OnDemand and Datawatch, an integrated solution pulls together the data sources and enables insights.

Customer experience matters in telecom

The <u>second infographic</u> describes how maintaining customer satisfaction is critical for retaining customers and reducing churn. However, delivering a strong customer experience is harder than ever before. Enhance customer service, improve operational efficiency and control costs with IBM Content Manager OnDemand.

End of support for V8.5

Content Manager OnDemand V8.5 will reach end of support on April 30, 2016. Customers running V8.5 should be planning their migration to the latest release of Content Manager OnDemand, which is currently V9.5. See announcement letters 914-241 and 914-242.

IBM Support Easy Onboarding tool

Do you need to get started with IBM Support? The IBM Support Easy OnBoarding tool was created to assist you through five basic IBM Support onboarding steps:

- Obtain an IBM ID
- Sign up for My Notifications
- Access the IBM Support Portal
- Register for Service Request
- Register for Passport Advantage (optional step for product downloads)

End of support for IBM i V6.1

Content Manager OnDemand V6.1 for i (5761RD1) went out of support on September 30, 2015. For continued support of this product, a support extension is required. Note that a support extension for IBM i V6.1 (5761SS1) does not include Content Manager OnDemand for i (5761RD1).

To request for a quote for a support extension for Content Manager OnDemand for i V6.1 contact Al Shazley, alshazly@us.ibm.com.

TIPS — CROSS PLATFORMS

Using the load capabilities through ODWEK

Ouestion

How do I use the load capabilities that were added to the Content Manager OnDemand Web Enablement Kit (ODWEK) at version 9.5?

Answer

Prior to ODWEK Java API V9.5, the only API that allowed documents to be added to the Content Manager OnDemand archive was the ODFolder.storeDocument API, which resulted in an archive request to the Content Manager OnDemand server for each document.

In ODWEK V9.5, new APIs have been introduced to allow documents to be loaded in bulk, similar to the ARSLOAD program. To accomplish this using the ODWEK Java API, perform the following:

- 1) Call the ODServer.loadInit API to initiate the load process.
- 2) For each document to load, call the ODServer.loadAddDoc API, passing the number of pages, a Hashtable containing database field names (keys) with their corresponding indexes (values), and the document data.
- 3) Call the ODServer.loadCommit API, specifying the application group and application to send the load data and load request to the Content Manager OnDemand server.

Be aware of the following:

- The Content Manager OnDemand server version must be V9.5.0.0 or higher.
- The steps must be called in the specified order. Attempting to call them out of order will result in an exception. If you need to reset the process for any reason, call the ODServer.loadReset API and begin the entire process again. All documents loaded during the process must meet all of the requirements of specified application group and application combination. For example, they must be the correct data type and format.
- As of Content Manager OnDemand V9.5.0.1, all dates must be standardized on the ISO date and/or date/time format.
 - The format for Date must be specified as %Y-%m-%d. For example: '2014-11-17'
 - The format for Date/Time (with or without TZ) must be specified as %Y-%m-%d %H:%M: %S.%F. For example: '2014-11-17 14:07:00.000000'
- The number of pages that the ODServer.loadAddDoc API accepts is valid only if the application group has a field defined with the 'Page Count' attribute. If the application group does not have such a field defined, the number of pages parameter passed to ODServer.loadAddDoc will be ignored.
- If the application being loaded to is Large Object-enabled, that attribute is not honored.

Server setup

Steps must be taken to prepare the Content Manager OnDemand instance where the documents will be loaded prior to calling any of the ODWEK load APIs. The directories specified must exist.

• On all servers except Windows, add two values to the ARS.CFG file for the instance. For example:

```
ARS_DOWNLOAD_DIR=/arstmp
ARS_DOWNLOAD_TMP_DIR=/arstmp
```

• On Windows servers, starting at server version 9.5.0.4, both parameters are entered automatically by the OnDemand Configurator upon startup. The parameters are initially set to the same value as the Temporary File Path (i.e. arstmp). To view and update those values, click the Parameters button on the Instance page. On the Parameters panel, find those two parameters on the list. After entering a new value, click the Update button. Note the path name entered must already exist.

Example

The support item referenced below contains example code that demonstrates loading by using the ODWEK Java APIs.

This tip is adapted from support item 1686382.

TIPS — MULTIPLATFORMS

Cloud-based storage support

Content Manager OnDemand for Multiplatforms v9.5.0.4 adds support for cloud-based storage. These additional storage managers supplement TSM, which, until now, has been the only storage manager supported for Content Manager OnDemand for Multiplatforms. A cloud-based storage solution allows Content Manager OnDemand users to leverage the advantages that such storage provides such as cost-savings, data replication, and disaster recovery.

The new functionality in Content Manager OnDemand is configured and behaves much in the same way that communicating with TSM does. This means that data in Content Manager OnDemand can be stored in cache as well as stored in cloud-based storage. The storing of archive data can take place at the same time that data is written to cache or be scheduled to migrate to cloud-based storage at a later date.

Content Manager OnDemand support for Apache Hadoop Distributed File System

Content Manager OnDemand now allows customers to store their data in an Apache Hadoop Distributed File System. This capability has been added to Content Manager OnDemand version 9.5.0.4.

Apache Hadoop

The ApacheTM Hadoop® project develops open-source software for reliable, scalable, distributed computing. The project includes the Hadoop Distributed File System (HDFSTM). HDFS is a distributed file system that provides high-throughput access to application data.

More information on Apache Hadoop Distributed File System is available at apache.org.

For more details of Content Manager OnDemand support for HDFS, see support item 1972957.

Content Manager OnDemand support for OpenStack Swift

Content Manager OnDemand now allows customers to store their data in an OpenStack Swift repository. This capability has been added to Content Manager OnDemand version 9.5.0.4.

OpenStack Swift

Swift is a highly available, distributed, eventually consistent object/blob store. Organizations can use Swift to store lots of data efficiently, safely, and cheaply.

More information on OpenStack Swift is available at openstack.org.

For more details of Content Manager OnDemand support for Swift, see support item 1972974.

Hardware compression available on AIX

What's new in 9.5.0.4

Content Manager OnDemand 9.5.0.4 for AIX is able to exploit the capability provided by the POWER8 compression acceleration adapter (#EJ13) in the same way that Content Manager OnDemand for zOS is able to exploit the zEnterprise Data Compression adapter (zEDC). The Content Manager OnDemand support utilizes the #EJ13 to perform compression and decompression for documents and resources stored with OD77 or OD77Lite compression. The #EJ13 can also be used by other Content Manager OnDemand functions that use OD77 or OD77Lite compression, such as ARSADMIN COMPRESS and DECOMPRESS.

How to utilize #EJ13 hardware-based compression

New compression types have been added to Content Manager OnDemand (OD77HW and OD77LiteHW). In order to leverage hardware-based compression, you must define the document and resource compression types to one of these values. If hardware-based is not available, then OD77HW will default to OD77 (software-based) and OD77LiteHW will default to OD77Lite (software-based).

For decompression, if hardware-based is available, Content Manager OnDemand will always try to use it (even if the data was stored without OD77HW or OD77LiteHW). Note that OD77HW and OD77LiteHW use the exact same compression when able to use the #EJ13. The difference between them is only when the #EJ13 is not available, in which case it defaults to the respective software-based compression algorithm.

For more information see support item 7047266.

See also IBM United States Hardware Announcement 114-061.

TIPS - Z/OS

How to capture return codes in batch JCL

Is there a difference between running a BPXBATCH job and a TSO (I-K-JEFF) job?

When using the first JCL sample, the return code will always be RC=00 on the job no matter the success or failure of the ARSDOC program.

```
EXEC PGM=IKJEFT1B
//SYSOUT
           DD SYSOUT=*
//STDOUT DD SYSOUT=*
//STDERR DD SYSOUT=*
//INMVS
           DD DISP=SHR, DSN=CMOD. PARMLIB (HOLD3)
//OUTHFS
           DD PATHDISP=(KEEP, KEEP),
// PATHOPTS=(ORDWR,OCREAT),
// PATHMODE=(SIRWXU,SIXUSR),
// PATH='/odtmp/hold3'
//SYSPRINT DD SYSOUT=*
//SYSTSPRT DD DUMMY
//SYSTSIN DD *
OCOPY INDD(INMVS) OUTDD(OUTHFS) TEXT
//*
//ARSDOC
          EXEC PGM=IKJEFT1A, REGION=0M
//SYSPROC DD
                DSN=SYS1.SBPXEXEC,DISP=SHR
//SYSEXEC DD DISP=SHR, DSN=SYS1. SAPSEXEC
           DD *
//STDENV
//* -f FOLDER NAME
//* -F PARM FILE
//* -L HOLD NAME
BPX SHAREAS=YES
BPX BATCH SPAWN=YES
//SYSTSPRT DD SYSOUT=*
//STDERR
           DD SYSOUT=*
//STDOUT
           DD SYSOUT=*
//SYSTSIN DD *
 OSHELL /usr/lpp/ars/bin/arsdoc hold_add -u ARSCMODR -h ARCHIVE +
 -F /odtmp/hold3
/*
```

We need a way to know when something failed inside the batch command, and not receive the same return code regardless of the outcome of the ARSDOC program.

The solution is to change the second job from an I-K-JEF job to BPXBATCH:

```
//S1 EXEC PGM=IKJEFT1B
//SYSOUT DD SYSOUT=*
//STDOUT DD SYSOUT=*
//STDERR DD SYSOUT=*
//INMVS DD DISP=SHR, DSN=CMOD. PARMLIB (HOLD2)
//OUTHFS DD PATHDISP=(KEEP, KEEP),
// PATHOPTS=(ORDWR,OCREAT),
// PATHMODE=(SIRWXU,SIXUSR),
// PATH='/odtmp/HOLD2.parm'
//SYSPRINT DD SYSOUT=*
//SYSTSPRT DD DUMMY
//SYSTSIN DD *
OCOPY INDD(INMVS) OUTDD(OUTHFS) TEXT
//*
//STEP1 EXEC PGM=BPXBATCH, REGION=0M
//SYSTSPRT DD SYSOUT=*
//SYSPRINT DD SYSOUT=*
//STDERR DD SYSOUT=*
//STDOUT DD SYSOUT=*
//STDPARM DD *
sh /usr/lpp/ars/bin/arsdoc hold add -u "user" -h "host" -v
-F /odtmp/HOLD2.parm
/*
```

If this job runs without error, it will end with RC=0.

If there is an error in the input, then the job will return RC=256.

Expiration processing basics for expiration type "Storage Manager"

For application groups with expiration type "Storage Manager," there are two programs available to expire indexes in Content Manager OnDemand for z/OS: ARSEXPIR and ARSEXOAM. Both require customization to function correctly.

ARSEXPIR uses SMF records to determine what indexes to delete. To create the SMF records, the OAM auto-delete exit (CBRHADUX) must be modified to write user SMF records.

ARSEXOAM uses rows that are added to a special table, ARSOAM_DELETE when OAM deletes an object. When expire processing is run, ARSEXOAM will use the rows in that table to determine what Content Manager OnDemand indexes to expire instead of using the SMF records. To use ARSEXOAM a trigger must be defined on the OAM directory table which will insert the collection and object name into the ARSOAM_DELETE table.

The ARSEXOAM program will only delete indexes for objects stored in OAM. If you are using VSAM linear data sets to store objects, you will still have to capture SMF records for VSAM linear data and run ARSEXPIR. You can choose one of the following options:

- Capture the SMF records for both VSAM linear data and OAM deletions and use ARSEXPIR for both.
- Use ARSEXPIR just for VSAM linear data and use the DB2 trigger and ARSEXOAM program for OAM.

If you are using only OAM, you might choose to use only the ARSEXOAM program.

Much more detail is available in the Content Manager OnDemand for z/OS product publications. The important point of this tip is to ensure that you know which of the two methods (or both) that you're using and to follow the proper documentation and procedures.

In the next issue we will explore the use of expiration type "Load."

TIPS - IBM I

New universal monitor exit

Output queue or directory monitor user exit program

You can design a user exit program to alter the application group name or application name that the output queue or directory monitor finds as it processes files in a monitored output queue or IFS directory.

What's new at 9.5.0.3

Beginning at Content Manager OnDemand server version 9.5.0.3, there are two options for the output queue and directory monitor exit:

- The attribute-specific monitor exit, which has been available since the first Common Server release.
- The universal monitor exit, which was introduced at Content Manager OnDemand server version 9.5.0.3.

The attribute-specific monitor exit calls a program with the same name as a specified attribute of the input file. Different input files usually require different exit programs. The universal monitor exit calls a single program for all input files

Overview of the monitor

An output queue or directory monitor (started by using the Start Monitor (STRMONOND) command or by using a monitor definition in IBM Navigator for i) automatically processes files from the specified output queue or IFS directory.

When you start the monitor, two parameters are used to determine which application group and application to use to archive the input files.

The Value for application name (APPSRC) parameter is used to determine the application name. The Value for application group (APPGRPSRC) parameter is used to determine the application group name. The same source or different sources can be specified for APPSRC and APPGRPSRC.

How the monitor exit works

The monitor exit is called once for each value specified in the Value for application group (APPGRPSRC) and Value for application name (APPSRC) parameters of the Start monitor (STRMONOND) command. For more details, see <u>support item 7046869</u>.

Enabling the universal monitor exit

To enable the universal monitor exit, create a data area named QRLMMONEXT in the instance library (if you want it to apply to that instance only) or in library QUSRRDARS (if you want it to apply to all Content Manager OnDemand instances). The data area type is *CHAR, with a length of 20. The first 10 bytes contain the universal output queue monitor exit program name. The

second 10 bytes contain the universal directory monitor exit program name. If you do not need one or the other of the two exit programs, that portion of the data area can be left blank. The exit program is searched for in the library list of the monitor job.

For example:

CRTDTAARA DTAARA(QUSROND/QRLMMONEXT) TYPE(*CHAR) LEN(20)
VALUE(UNIOUTQEXTUNIDIREXIT) TEXT('Enable the universal monitor exit')

Exit program details

In addition to all of the parameters passed to the attribute-specific monitor exit, the universal monitor exit passes one or two additional parameters that should not be changed:

- Called for If the exit was called for the application group, the value will be GROUP. If the
 exit was called for the application, the value will be APP. This parameter is passed for both
 output queue monitor exits and directory monitor exits.
- Data type The data type (device type) of the spooled file. The value will be *AFPDS, *SCS, or *LINE. The value for SCS-Extended will be *SCS. This parameter is only passed for output queue monitor exits. This parameter is not passed for directory monitor exits.

A sample universal output queue monitor user exit program and a sample universal directory monitor user exit program will be provided in a future release.

This tip is adapted from support item 7046869.

ARSSUPPORT enhanced

In the 3rd quarter 2015 newsletter, we described the ARSSUPPORT program as a tool to collect 'must gather' information for Problem Management Reports (PMRs). Beginning at server version 9.5.0.4, additional information is collected by the ARSSUPPORT program. The additional files created are:

File	Contents
dspusrprf.txt	Output from Display User Profile (DSPUSRPRF) command for the instance profile
prtprfint.txt	Output from Print Profile Internals (PRTPRFINT) command for the instance profile
PtfGroups.txt	Listing of installed PTF groups
SystemValues.txt	Listing of system values

In addition to the server version 9.5.0.4 PTFs, the following operating system PTFs, or their superseding PTFs, are also required:

V7.1 - SI54615

V7.2 - SI54618

IBM Navigator for i changes

The IBM Navigator for i server is being updated from a Lightweight Interface (LWI) base to a WebSphere Liberty base. LWI is no longer being updated and does not run with newer versions of Java, while Liberty is being actively updated and developed. Changes were required to the Content Manager OnDemand component of IBM Navigator for i as part of this transition. These changes are included in 5770RD1 PTFs SI57075 for V7.1, and SI57074 for V7.2. For the most part, this transition will be transparent, but there are two issues to note.

1) The following operating system and HTTP Server PTFs (or their superseding PTFs) update the IBM Navigator for i to a Liberty base:

V7.1	Product	V7.2
SI55992	577 0 SS1	SI55993
SI57343	577 0 SS1	SI57344
SI56827	577 0 SS1	SI56828
SI5683 0	577 0 SS1	SI56831
SI56992	577 0 SS1	SI56747
SI56993	577 0 SS1	SI56748
SI57000	577 0 SS1	SI56999
SI57 00 4	577 0 DG1	SI57 00 3

The Content Manager OnDemand PTFs can be installed prior to the Navigator PTFs without causing any issues. However, if the Navigator PTFs are installed prior to the Content Manager OnDemand PTFs, the Content Manager OnDemand component will not appear on the console until the Content Manager OnDemand PTFs are installed.

2) The help text that is displayed when you click the Help link at the top of the level 1 console will look different. Prior to this change, the help is displayed via an Eclipse based interface. After the change, the help is displayed as raw HTML. The content of the help remains the same. It is simply shown in a different format.

As a reminder, the Content Manager OnDemand component of the IBM Navigator for i browser interface is the replacement for the OnDemand Archive plugin of the System i Navigator native Windows interface. The browser interface was first shipped in V7.1 and is the strategic interface for administration of the portion of the Content Manager OnDemand server that is unique to IBM i. The Windows interface was last shipped with IBM i V7.1. If an attempt is made to connect to a V7.2 system with the Windows interface, an error message is displayed.

Notes on upgrading to server version 9 or 9.5

Before upgrading to server version 9 or 9.5

Content Manager OnDemand for i customers who are not already at server version 9 or higher should check their application groups for negative mask values. A negative mask value might cause a load failure with message ARS1130, as well as issues related to searching for documents. Run the following SQL statement for each server instance. In this example, the instance name is QUSROND.

```
SELECT ARSAGFLD.AGID, ARSAGFLD.NAME AS FIELD_NAME, ARSAGFLD.FIELD AS FIELD_NUM, ARSAGFLD.MASK, HEX(ARSAGFLD.MASK) AS HEX_MASK, ARSAG.NAME AS APP_GRP_NAME FROM QUSROND/ARSAGFLD, QUSROND/ARSAG WHERE ARSAGFLD.AGID = ARSAG.AGID AND ARSAGFLD.MASK < 0
```

If any data is returned, contact IBM software support for assistance in correcting the mask values.

When upgrading to server version 9.5.0.4

The first time you start each Content Manager OnDemand instance server (by using the Start TCP/IP Server (STRTCPSVR)) command) after applying the server version 9.5.0.4 upgrade PTFs, a check is performed to determine if there are any negative mask values in the database for any application groups defined for the instance. If any negative values are found, message OND0700 is issued and that particular instance will fail to start. The details of message OND0700 are shown below, where QUSROND is the instance name:

```
Message . . . : INSTANCE QUSROND HAS A DATABASE PROBLEM.

Cause . . . : AT LEAST ONE APPLICATION GROUP DEFINITION HAS A MASK FIELD VALUE THAT IS NOT VALID.

Recovery . . : CONTENT MANAGER ONDEMAND INSTANCE QUSROND CANNOT BE STARTED UNTIL THE MASK FIELD VALUE IS CORRECTED. CONTACT SOFTWARE SUPPORT FOR INSTRUCTIONS TO CORRECT THE PROBLEM.

Technical description . . . . . . : MASK FIELDS MUST CONTAIN A VALID VALUE. IF THE INSTANCE QUSROND IS ALLOWED TO START, UNPREDICTABLE RESULTS MIGHT OCCUR.
```

If you have multiple instances, the check will be performed the first time each instance server is started. If you receive message OND0700, you should contact IBM software support for assistance in correcting the mask values.

To ensure that you do not receive the OND0700 message during your upgrade to server version 9.5.0.4, you should run the SQL statement given earlier in this tip, and take action as needed.

ADDITIONAL INFORMATION

Knowledge Centers

Content Manager OnDemand for Multiplatforms Knowledge Centers

Content Manager OnDemand for z/OS Knowledge Centers

Content Manager OnDemand for i Knowledge Centers

Publication Libraries - Containing all PDF versions of the documentation

Content Manager OnDemand for Multiplatforms	Version 8.5	Version 9.0	Version 9.5
Content Manager OnDemand for z/OS	Version 8.5	Version 9.0	Version 9.5

Content Manager OnDemand for i <u>Version 7.1</u> <u>Version 7.2</u>

Product System Requirements

Content Manager OnDemand for Multiplatforms	Version 8.5	Version 9.0	Version 9.5
Content Manager OnDemand for z/OS	Version 8.5	Version 9.0	Version 9.5
Content Manager OnDemand for i	Version 7.1	Version 7.2	

More Enterprise Content Management Web Sites

Content Manager OnDemand Product Overview

Compatibility Matrix for the Content Manager OnDemand clients and servers

Content Navigator Product Overview

IBM Software Support Lifecycle Policies (search for Content Manager OnDemand)

Social Media

IBM Content Manager OnDemand is on social media, including <u>developerWorks</u>, <u>Facebook</u>, and the <u>Client Success Essentials wiki</u>. For more information and links to all social media sites, see <u>support item 1673183</u>.

OnDemand User Group

The primary objective of the OnDemand User Group (ODUG) is to create an environment and network encouraging the exchange and development of information regarding Content Manager OnDemand and its associated products.

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