

Upgrading from eZ publish 3.6 to eZ publish 3.8

I would like to share my experiences on upgrading a quite large multilanguage-site from eZ publish 3.6.11 to eZ publish 3.8.6.

An important, and recommended change is to change the character set from iso-8859-1 (latin1) to UTF-8 by eZ systems. Especially for multilanguage sites UTF-8 is recommended. Steps for what to do comes later in this guide. Please take extra notice of the php-script that does some utf8_decoding of some of the content. This is done for the ezselection, ezauthor and ezimage datatypes, because they actually stored content as utf8 in the database even when the database charset was iso-8859-1. If this script isn't run the result for me was utf8-characters encoded twice.

On the new eZ 3.8 site I've also implemented the clustering-functionality that puts /var-files in the database instead (import files to db with bin/php/clusterize.php). From implementing this, I experienced issues about a few files with too long filenames to fit into the database-table.

1: Server setups

The old server had Debian Sarge, and used official debian-packages for apache 1.3, php4.3 and mysql 4. ionCube eAccelerator 0.9.3 were used for php-acceleration.

The new server uses 64-bit Debian Etch, with official debian-packages for apache 2.2, php4.4 and mysql 5. I use Eaccelerator for php-acceleration (first I tried APC, but ran into problems, a few times the site ended up serving only a blank page with APC enabled).

2: Configuring and testing before upgrade

I use subversion for all my own extensions, settings and template-files. So I started with copying the trunk to a branch for 3.8 upgrade. The branch were checked out on the new server, and eZ publish 3.8 distribution were copied into my working copy. I never add standard eZ-distribution files to my svn! But if I need to make a kernel hack for any reason, I add those changed files to my own svn to keep track of them.

While testing 3.8 we also need to do some template-stuff on 3.6 now and then, so the trunk and the 3.8-branch must be merged regularly.

Import a databasedump from the old server/production server and follow the steps for upgrading found at http://ez.no/doc/ez_publish/upgrading.

3: The upgrade, steps done, scripts used

1. Disable eZ-login on old server, to make sure no content was edited
2. mysqldump of the database
3. copy dump-file to new server
4. copy var/storage files to new server
5. Ready to start!? Run shell-script: upgrade_to_ez38.sh
6. Script finished, test new site (map hostname to your client in your local hosts-file)
7. Test ok? Do the DNS-changes to point site hostname to new server.

Shell-script, upgrade_to_ez38.sh:

```
mysql --user=<ezdbuser> --password=<ezdbpasswd> ezhit <
/home/dbdump/ezhitdb.sql
cd /home/ezroot
# clear sessions
mysql --user=<ezdbuser> --password=<ezdbpasswd> ezhit <
/root/ezscripts/ezsession.sql
# ez-dbupdates 3.6.0-3.8.0
mysql --user=<ezdbuser> --password=<ezdbpasswd> ezhit <
update/database/mysql/3.8/dbupdate-3.6.0-to-3.8.0.sql
# convert db to utf8
php utf8fix_ezhit.php
mysql --user=<ezdbuser> --password=<ezdbpasswd> ezhit <
/root/ezscripts/convert_ezdb_to_utf8.sql
# clustertables
mysql --user=<ezdbuser> --password=<ezdbpasswd> ezhit <
/root/ezscripts/clustertables.sql
# import var/storage to clustertables in db
php bin/php/clusterize.php -q -s main
# update multilingual
php update/common/scripts/updatemultilingual.php -q -s main
# ezdbupdate 3.8.0 - 3.8.1
mysql --user=<ezdbuser> --password=<ezdbpasswd> ezhit <
update/database/mysql/3.8/dbupdate-3.8.0-to-3.8.1.sql
# ez-dbupdate 3.8.4 -3.8.5
mysql --user=<ezdbuser> --password=<ezdbpasswd> ezhit <
update/database/mysql/3.8/dbupdate-3.8.4-to-3.8.5.sql
# ez-dbupdate 3.8.5 -3.8.6
mysql --user=<ezdbuser> --password=<ezdbpasswd> ezhit <
update/database/mysql/3.8/dbupdate-3.8.5-to-3.8.6.sql
```

Php-script, utf8fix_ezhit.php:

```
<?php
/* Script for decoding xml fields with uft8 text in database wich use iso-8859-1
charset.

* To be used before converting your whole ezdb to utf8.

* If this is not done, the result of converting your ezdb to utf8 will be
double utf8-encoding of these xml-fields */

include_once( "lib/ezdb/classes/ezdb.php" );

$db =& ezDB::instance( "mysql", array( 'server' => 'localhost',
                                     'user' => 'user here',
                                     'password' => 'password here',
                                     'database' => 'db here' ) );

// Table: ezcontentclass_attribute
$sqlQuery = "SELECT id,data_text5 FROM ezcontentclass_attribute WHERE
data_type_string='ezselection'";
$result_array =& $db->arrayQuery( $sqlQuery );

foreach ( $result_array as $row ) {
    $id = $row['id'];
    $utf8_decoded_data = utf8_decode( $row['data_text5'] );
    $updatequery = "UPDATE ezcontentclass_attribute SET data_text5 =
'$utf8_decoded_data' WHERE id = '$id'";

    $db->Query( $updatequery ) ;
}

// Table: ezcontentobject_attribute
$sqlQuery = "SELECT id,data_text FROM ezcontentobject_attribute WHERE
data_type_string='ezauthor' OR data_type_string='ezimage'";
$result_array =& $db->arrayQuery( $sqlQuery );

foreach ( $result_array as $row ) {
    $id = $row['id'];
    $utf8_decoded_data = utf8_decode( $row['data_text'] );
    $updatequery = "UPDATE ezcontentobject_attribute SET data_text =
'$utf8_decoded_data' WHERE id = '$id'";

    $db->Query( $updatequery ) ;
}
?>
```

SQL-file, convert_ezdb_to_utf8.sql:

```
ALTER TABLE ezapprove_items CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezbasket CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezbinaryfile CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezcollab_group CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezcollab_item CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezcollab_item_group_link CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezcollab_item_message_link CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezcollab_item_participant_link CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezcollab_item_status CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezcollab_notification_rule CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezcollab_profile CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezcollab_simple_message CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezcontentbrowsebookmark CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezcontentbrowserecent CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezcontentclass CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezcontentclassgroup CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezcontentclass_attribute CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezcontentclass_classgroup CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezcontentobject CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezcontentobject_attribute CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezcontentobject_link CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezcontentobject_name CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezcontentobject_tree CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezcontentobject_version CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezcontent_language CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezcurrencydata CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezdiscountrule CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezdiscountsubrule CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezdiscountsubrule_value CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezenumobjectvalue CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezenumvalue CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezforgot_password CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezgeneral_digest_user_settings CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezimage CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezimagefile CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezimagevariation CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezinfocollection CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezinfocollection_attribute CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezkeyword CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezkeyword_attribute_link CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezmedia CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezmessage CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezmodule_run CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezmultipricedata CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE eznode_assignment CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE eznotificationcollection CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE eznotificationcollection_item CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
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ALTER TABLE eznotificationevent CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezoperation_memento CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezorder CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezorder_item CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezorder_status CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezorder_status_history CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezpackage CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezpaymentobject CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezpdf_export CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezpending_actions CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezpolicy CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezpolicy_limitation CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezpolicy_limitation_value CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezpreferences CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezproductcategory CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezproductcollection CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezproductcollection_item CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezproductcollection_item_opt CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezrole CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezrss_export CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezrss_export_item CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezrss_import CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezsearch_object_word_link CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezsearch_return_count CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezsearch_search_phrase CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezsearch_word CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezsection CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezsession CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezsite_data CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezsubtree_notification_rule CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE eztipafriend_counter CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE eztipafriend_request CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE eztrigger CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezurl CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezurlalias CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezurl_object_link CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezuser CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezuservisit CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezuser_accountkey CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezuser_discountrule CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezuser_role CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezuser_setting CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezvatrule CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezvatrule_product_category CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezvattype CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezview_counter CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezwaituntildatevalue CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezwishlist CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
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ALTER TABLE ezworkflow CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezworkflow_assign CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezworkflow_event CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezworkflow_group CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezworkflow_group_link CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;
ALTER TABLE ezworkflow_process CONVERT TO CHARACTER SET utf8 COLLATE utf8_danish_ci;

UPDATE ezcontentobject SET name = REPLACE(name, 'xml version="1.0" encoding="iso-8859-1"', 'xml
version="1.0" encoding="UTF-8"');
UPDATE ezcontentobject_name SET name = REPLACE(name, 'xml version="1.0" encoding="iso-8859-1"', 'xml
version="1.0" encoding="UTF-8"');
UPDATE ezcontentobject_attribute SET data_text = REPLACE(data_text, 'xml version="1.0"
encoding="iso-8859-1"', 'xml version="1.0" encoding="UTF-8"');
UPDATE ezcontentclass_attribute SET data_text5 = REPLACE(data_text5, 'xml version="1.0"
encoding="iso-8859-1"', 'xml version="1.0" encoding="UTF-8"');
```