

Best Practices for high-speed Data Transfer from Oracle to Netezza using FastReader

WisdomForce FastReader™ (www.wisdomforce.com) is high performance data transfer and migration software for high volumes of Oracle data. FastReader supports direct path and parallel extraction and unloads large Oracle databases in a fraction of the usual time into ASCII flat files or pipe.

Netezza (www.netezza.com) is a data warehouse appliances that deliver high performance data analysis and data analytics.

WisdomForce's customers such as Walmart.com, Motorola, Ross Stores and Michaels Stores use FastReader to transfer data from production Oracle systems into Netezza, allowing fast migration with very low overhead on Oracle.

This document describes important points for unloading data from Oracle using FastReader and loading into Netezza using the nzload utility or Netezza External Tables. When Netezza is chosen as a destination in FastReader, load scripts for the Netezza nzload utility are generated during the extraction.

Extraction Considerations

- Consider using parallel extraction in FastReader to speed up the extraction process. Options include extracting several tables in parallel as well as a single table in parallel.
- FastReader allows extraction into a FIFO pipe file on Unix/Linux platforms; this can be used to load the extracted data directly into Netezza, without creating a temporary text file. This method does not require a temporary storage area to be available in order to perform the migration.
- FastReader supports splitting the output of a single table into several files of a defined size. This option may be used to transfer and load the completed files into Netezza while the extraction process is ongoing without the need to wait for the process to finish before beginning the load process. This method does not require a large temporary storage area to be available in order to perform the migration.
- FastReader supports on-the-fly compression of the extracted text files. This speeds up the extraction process as well as saves the space need for temporary storage.

Loading Considerations

- Tables must be in created manually on the Netezza destination to receive the data. Loader scripts for nzload are generated while assuming the same table names in Netezza as the original tables in Oracle.
- For loading with nzload, the order of fields in the extracted text file must match the order of the columns in the table on the Netezza server. FastReader allows extraction of only some columns/fields from a table however the order of the selected fields in the output file is the same as in the table, in Oracle.
- Scripts generated by FastReader require that the directory containing the nzload utility be defined in the \$PATH variable.

FastReader settings for transfer data into Netezza

- Column Separator – must be a single character. Please make sure when choosing a column separator that this value does not appear in the text data in your database. A nonprintable ASCII character may be used, such as \a, \b, \f, \v or \xFF (where FF a hex code for an ASCII character).
- Enclosed By – set to an empty value for faster extraction and faster processing by nzload.
- Record Separator – must be \n. If your textual data in the Oracle tables contains end of line character (\n or \r\n) please make sure to check the checkbox “Replace new line with space”, set the variable “replace_new_line_with_space” to true in the unload.ini file or use the REPLACE_NEWLINE_WITH_SPACE=Y command line variable. This must be done to allow correct loading of these records into the destination.
- For timestamp and date formats choose YYYY-MM-DD HH24:MI:SS.FF6 and YYYY-MM-DD HH24:MI:SS respectively. These are ISO date formats which are supported by nzload.
- If the unloaded columns contain CLOB or LONG types, make sure that the checkbox “Unload binary into separate files” is not checked. Nzload supports loading fields up to 32768 bytes into varchar type columns from delimited text files.