

Capabilities

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This section describes the capabilities supported by HVR on each location class.

Capture

This section lists the capabilities related to Capture.

HVR Capability	Support Status
Capture changes from location	<p>Only supported on:</p> <ul style="list-style-type: none">• Aurora MySQL from 1.0 to 2.0, since HVR 5.3.1/25• Aurora PostgreSQL from 1.0 to 3.2, since HVR 5.5.5/2• Azure SQL Database• Azure SQL Managed Instance• DB2 for Linux, UNIX and Windows from version 9.7 to version 11.1• DB2 for i from version 7.2 to version 7.4• DB2 for z/OS from version 11.01.00 to version 12.01.05• HANA from version 1.0 SPS 11 to version 2.0 SPS 05• Ingres from version 9.1 to version 11.1 • MariaDB from version 10.0 to version 10.3, since HVR 5.3.1/13• MySQL from version 5.6 to version 8.0, since HVR 5.3.1/13• Oracle from version 9.2 to version 19.9• PostgreSQL from version 8.0 to version 12.0• SQL Server from 2000 (with SP1+) to 2019• Salesforce

<p>Log-based capture (capture from DBMS logging system)</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • Aurora MySQL from 1.0 to 2.0, since HVR 5.3.1/25 • Aurora PostgreSQL from 2.2 to 3.2, since HVR 5.5.5/2 • Azure SQL Managed Instance • DB2 for Linux, UNIX and Windows from version 9.7 to version 11.1 • DB2 for i from version 7.2 to version 7.4 • DB2 for z/OS from version 11.01.00 to version 12.01.05 • HANA from version 1.0 SPS 11 to version 2.0 SPS 05 • Ingres from version 9.1 to version 11.1 • MariaDB from version 10.0 to version 10.3, since HVR 5.3.1/13 • MySQL from version 5.6 to version 8.0, since HVR 5.3.1/13 • Oracle from version 9.2 to version 19.9 • PostgreSQL from version 9.4 to version 12.0 • SQL Server from 2005 to 2019
<p>Capture from Archive log files only</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • HANA from version 1.0 SPS 11 to version 2.0 SPS 05 • Oracle from version 9.2 to version 19.9, except on Amazon RDS for Oracle • SQL Server from 2005 to 2019, except on Amazon RDS for SQL Server, Google Cloud SQL for SQL Server, and Microsoft Azure SQL Database
<p>Log-based capture of DDL statements using action AdaptDDL</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • Aurora MySQL from 1.0 to 2.0, since HVR 5.3.1/25 • Azure SQL Managed Instance • DB2 for i from version 7.2 to version 7.4, since HVR 5.3.1/12 • MariaDB from version 10.0 to version 10.3, since HVR 5.3.1/21 • MySQL from version 5.6 to version 8.0, since HVR 5.3.1/21 • Oracle from version 9.2 to version 19.9 • SQL Server from 2005 to 2019
<p>Log-based capture of tables without a primary key</p>	<p>Supported on all classes where Log-based capture (capture from DBMS logging system) is supported, except for:</p> <ul style="list-style-type: none"> • Oracle version 9.2 and below • SQL Server 2005 and below

Direct access to logs on a file system	<p>Only supported on:</p> <ul style="list-style-type: none"> • HANA from version 1.0 SPS 11 to version 2.0 SPS 05 • Ingres from version 9.1 to version 11.1 • MariaDB from version 10.0 to version 10.3, since HVR 5.3.1/13, except on Amazon RDS for MariaDB, and Microsoft Azure Database for MariaDB • MySQL from version 5.6 to version 8.0, since HVR 5.3.1/13, except on Amazon RDS for MySQL, Google Cloud SQL for MySQL, and Microsoft Azure Database for MySQL • Oracle from version 9.2 to version 19.9, except on Amazon RDS for Oracle • PostgreSQL from version 9.4 to version 12.0, except on Amazon RDS for PostgreSQL, Google Cloud SQL for PostgreSQL, and Microsoft Azure Database for PostgreSQL • SQL Server from 2005 to 2019, except on Amazon RDS for SQL Server, Google Cloud SQL for SQL Server, and Microsoft Azure SQL Database
Access to logs using SQL interface	<p>Only supported on:</p> <ul style="list-style-type: none"> • Aurora MySQL from 1.0 to 2.0, since HVR 5.3.1/25 • Aurora PostgreSQL from 2.2 to 3.2, since HVR 5.5.5/2 • Azure SQL Managed Instance • DB2 for Linux, UNIX and Windows from version 9.7 to version 11.1 • DB2 for i from version 7.2 to version 7.4 • DB2 for z/OS from version 11.01.00 to version 12.01.05 • MariaDB from version 10.0 to version 10.3, since HVR 5.3.1/13 • MySQL from version 5.6 to version 8.0, since HVR 5.3.1/13 • Oracle from version 9.2 to version 19.9, since HVR 5.3.1/12 • PostgreSQL from version 9.4 to version 12.0 • SQL Server from 2005 to 2019
Log-based capture with /LogReadMethod parameter	<p>Only supported on:</p> <ul style="list-style-type: none"> • MariaDB from version 10.0 to version 10.3, since HVR 5.3.1/13 • MySQL from version 5.6 to version 8.0, since HVR 5.3.1/13 • Oracle from version 9.2 to version 19.9, since HVR 5.3.1/12 • PostgreSQL from version 9.4 to version 12.0 • SQL Server from 2005 to 2019

<p>Log-based capture of tables with LOB column</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • Aurora MySQL from 1.0 to 2.0, since HVR 5.3.1/25 • Aurora PostgreSQL from 2.2 to 3.2, since HVR 5.5.5/2 • Azure SQL Managed Instance • DB2 for Linux, UNIX and Windows from version 9.7 to version 11.1, since HVR 5.3.1/4 • DB2 for i from version 7.2 to version 7.4 • DB2 for z/OS from version 11.01.00 to version 12.01.05 • HANA from version 1.0 SPS 11 to version 2.0 SPS 05 • Ingres from version 9.1 to version 11.1 <ul style="list-style-type: none"> • MariaDB from version 10.0 to version 10.3, since HVR 5.3.1/13 • MySQL from version 5.6 to version 8.0, since HVR 5.3.1/13 • Oracle from version 10.0 to version 19.9 • PostgreSQL from version 9.4 to version 12.0 • SQL Server from 2005 to 2019
<p>Log-based capture from hidden rowid /RRN column (ColumnProperties /CaptureFromRowId)</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • DB2 for i from version 7.2 to version 7.4, since HVR 5.7.0/0 • HANA from version 1.0 SPS 11 to version 2.0 SPS 05 • Oracle from version 9.2 to version 19.9
<p>Rewind log-based capture to specific time (Hvrinit option <code>-i</code>)</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • Aurora MySQL from 1.0 to 2.0, since HVR 5.3.1/25 • Aurora PostgreSQL from 2.2 to 3.2, since HVR 5.5.5/2 • DB2 for i from version 7.2 to version 7.4 • HANA from version 1.0 SPS 11 to version 2.0 SPS 05 • Ingres from version 9.1 to version 11.1 • MariaDB from version 10.0 to version 10.3, since HVR 5.3.1/15 <ul style="list-style-type: none"> • MySQL from version 5.6 to version 8.0, since HVR 5.3.1/15 • Oracle from version 9.2 to version 19.9 • PostgreSQL from version 9.4 to version 12.0 • SQL Server from 2005 to 2019
<p>Rewind log-based capture to the beginning of currently active oldest transaction</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • Aurora PostgreSQL from 2.2 to 3.2, since HVR 5.5.5/2 • Oracle from version 10.0 to version 19.9 • PostgreSQL from version 9.4 to version 12.0 • SQL Server from 2005 to 2019
<p>Rewind log-based capture to the beginning of currently active oldest transaction for a specific list of tables</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • Oracle from version 10.0 to version 19.9 • SQL Server from 2005 to 2019

<p>Online refresh using accurate LSN /SCN</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • Aurora MySQL from 1.0 to 2.0, since HVR 5.3.1/25 • Azure SQL Managed Instance • DB2 for Linux, UNIX and Windows from version 9.7 to version 11.1 • DB2 for i from version 7.2 to version 7.4, since HVR 5.3.1/12 • HANA from version 1.0 SPS 11 to version 2.0 SPS 05 • MariaDB from version 10.0 to version 10.3, since HVR 5.3.1 /13 • MySQL from version 5.6 to version 8.0, since HVR 5.3.1/13 • Oracle from version 10.0 to version 19.9 • SQL Server from 2005 to 2019
<p>Online refresh skips capture log records early in scanner</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • Oracle from version 10.0 to version 19.9 • SQL Server from 2005 to 2019
<p>Populates column hvr_cap_user for use in ColumnProperties {hvr_cap_user} substitutions</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • Azure SQL Managed Instance • DB2 for Linux, UNIX and Windows from version 9.7 to version 11.1 • DB2 for i from version 7.2 to version 7.4 • DB2 for z/OS from version 11.01.00 to version 12.01.05 • Ingres from version 9.1 to version 11.1 • Oracle from version 9.2 to version 19.9 • SQL Server from 2005 to 2019
<p>Log-based capture of truncate table statements</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • Aurora MySQL from 1.0 to 2.0, since HVR 5.3.1/25 • DB2 for Linux, UNIX and Windows from version 9.7 to version 11.1 • DB2 for i from version 7.2 to version 7.4, support depends on system setting • DB2 for z/OS from version 11.01.00 to version 12.01.05 • Ingres from version 9.1 to version 11.1 • MariaDB from version 10.0 to version 10.3, since HVR 5.3.1 /21 • MySQL from version 5.6 to version 8.0, since HVR 5.3.1/21 • Oracle from version 9.2 to version 19.9

<p>Multiple log-based capture jobs can capture from same database</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • Aurora MySQL from 1.0 to 2.0, since HVR 5.3.1/25 • Aurora PostgreSQL from 2.2 to 3.2, since HVR 5.5.5/2 • Azure SQL Managed Instance • DB2 for Linux, UNIX and Windows from version 9.7 to version 11.1 • DB2 for i from version 7.2 to version 7.4 • DB2 for z/OS from version 11.01.00 to version 12.01.05 • HANA from version 1.0 SPS 11 to version 2.0 SPS 05 • Ingres from version 9.1 to version 11.1 • MariaDB from version 10.0 to version 10.3, since HVR 5.3.1/13 • MySQL from version 5.6 to version 8.0, since HVR 5.3.1/13 • Oracle from version 9.2 to version 19.9 • PostgreSQL from version 9.4 to version 12.0 • SQL Server from 2005 to 2019, only FN mechanism, not SP
<p>Capture from tables with basic compression</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • Aurora MySQL from 1.0 to 2.0, since HVR 5.3.1/25 • Azure SQL Managed Instance • DB2 for Linux, UNIX and Windows from version 9.7 to version 11.1 • Ingres from version 9.1 to version 11.1 • MariaDB from version 10.0 to version 10.3, since HVR 5.3.1/13 • MySQL from version 5.6 to version 8.0, since HVR 5.3.1/13 • Oracle from version 11.2.0.4 to version 19.9 • SQL Server from 2008 to 2019
<p>Capture from tables with advanced compression</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • Azure SQL Managed Instance • DB2 for Linux, UNIX and Windows from version 9.7 to version 11.1 • Ingres from version 9.1 to version 11.1 • Oracle from version 11.2.0.4 to version 19.9 • SQL Server from 2008 to 2019
<p>Capture from tables with BLOB compression</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • Oracle from version 11.2.0.4 to version 19.9
<p>Capture from tables with advanced index compression</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • Oracle from version 12.2 to version 19.9
<p>Capture from tables with advanced row compression</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • Oracle from version 12.0 to version 19.9

<p>Log-based capture checkpointing (action Capture /CheckpointingFrequency)</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • Aurora PostgreSQL from 2.2 to 3.2, since HVR 5.5.5/2 • DB2 for Linux, UNIX and Windows from version 9.7 to version 11.1 • DB2 for i from version 7.2 to version 7.4 • DB2 for z/OS from version 11.01.00 to version 12.01.05 • Ingres from version 9.1 to version 11.1 • Oracle from version 9.2 to version 19.9 • PostgreSQL from version 9.4 to version 12.0
<p>Hvrlogrelease to preserve journal /archives</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • Ingres from version 9.1 to version 11.1 • Oracle from version 9.2 to version 19.9 • SQL Server from 2005 to 2019
<p>Read archives from an alternative directory (Capture /ArchiveLogPath)</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • HANA from version 1.0 SPS 11 to version 2.0 SPS 05 • Oracle from version 10.0 to version 19.9 • SQL Server from 2005 to 2019
<p>Trigger-based capture (action Capture /TriggerBased)</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • Azure SQL Database • Azure SQL Managed Instance • DB2 for Linux, UNIX and Windows from version 9.7 to version 11.1 • Ingres from version 9.1 to version 11.1 • Oracle from version 9.2 to version 19.9 • SQL Server from 2000 (with SP1+) to 2019
<p>Capture /QuickToggle</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • Ingres from version 9.1 to version 11.1 • Oracle from version 9.2 to version 19.9
<p>Boundaries between transactions preserved by trigger-based capture</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • Azure SQL Managed Instance • Ingres from version 9.1 to version 11.1 • Oracle from version 9.2 to version 19.9 • SQL Server from 2000 (with SP1+) to 2019
<p>Trigger-based capture jobs can be woken by db-event when change happens</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • Azure SQL Managed Instance • Ingres from version 9.1 to version 11.1 • Oracle from version 10.0 to version 19.9 • SQL Server from 2008 to 2019

Hub Database

This section lists the capabilities related to Hub Database.

HVR Capability	Support Status
Hub database	<p>Only supported on:</p> <ul style="list-style-type: none">• Aurora MySQL from 1.0 to 2.0, since HVR 5.3.1/25• Aurora PostgreSQL from 1.0 to 3.2, since HVR 5.3.1/25• Azure SQL Database• Azure SQL Managed Instance• DB2 for Linux, UNIX and Windows from version 9.7 to version 11.1• DB2 for i from version 7.2 to version 7.4• Ingres from version 9.1 to version 11.1• MariaDB from version 10.0 to version 10.3 <ul style="list-style-type: none">• MySQL from version 5.6 to version 8.0• Oracle from version 9.2 to version 19.9• PostgreSQL from version 8.0 to version 12.0• SQL Server from 2000 (with SP1+) to 2019• Teradata from version 14.00 to version 17.00• Vector from version 2.0 to version 5.1

Integrate

This section lists the capabilities related to Integrate.

HVR Capability	Support Status
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<p>Integrate changes into location</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • Aurora MySQL from 1.0 to 2.0, since HVR 5.3.1/25 • Aurora PostgreSQL from 1.0 to 3.2, since HVR 5.3.1/25 • Azure SQL Database • Azure SQL Managed Instance • Azure Synapse Analytics • BigQuery version 2 • DB2 for Linux, UNIX and Windows from version 9.7 to version 11.1 • DB2 for i from version 7.2 to version 7.4 • DB2 for z/OS from version 10.01.00 to version 12.01.05 • Greenplum from version 4.0.0 to version 6.9.0* • HANA from version 1.0 SPS 11 to version 2.0 SPS 05 • Hive ACID from version 2.1.0 to version 3.1.0 • Ingres from version 9.1 to version 11.1 • Kafka version 0.8 <ul style="list-style-type: none"> • MariaDB from version 10.0 to version 10.3 • MySQL from version 5.6 to version 8.0 • Oracle from version 9.2 to version 19.9 • PostgreSQL from version 8.0 to version 12.0 • Redshift version 1.0 • SQL Server from 2000 (with SP1+) to 2019 • Salesforce • SingleStore version 7.1 • Snowflake version 2.8 • Teradata from version 14.00 to version 17.00 • Vector from version 2.0 to version 5.1
<p>Integrate with /Burst</p>	<p>Supported on all classes where Integrate changes into location is supported, except for:</p> <ul style="list-style-type: none"> • DB2 for z/OS from version 10.01.00 to version 12.01.05 • Kafka from version 0.8 to version 0.8 • Salesforce
<p>Integrate with /BurstCommitFrequency</p>	<p>Supported on all classes where Integrate changes into location is supported, except for:</p> <ul style="list-style-type: none"> • Hive ACID from version 2.1.0 to version 3.1.0 • Kafka from version 0.8 to version 0.8 • Salesforce
<p>Continuous integration (Integrate without /Burst)</p>	<p>Supported on all classes where Integrate changes into location is supported, except for:</p> <ul style="list-style-type: none"> • Hive ACID from version 2.1.0 to version 3.1.0

<p>Action TableProperties with /DuplicateRows for continuous integration</p>	<p>Supported on all classes where Integrate changes into location is supported, except for:</p> <ul style="list-style-type: none"> • Azure Synapse Analytics • BigQuery version 2 • Greenplum from version 4.0.0 to version 6.9.0* • HANA from version 1.0 SPS 11 to version 2.0 SPS 05 • Hive ACID from version 2.1.0 to version 3.1.0 • Kafka from version 0.8 to version 0.8 • Redshift version 1.0 • Salesforce • Snowflake version 2.8 • Teradata from version 14.00 to version 17.00
<p>Continuous Integrate with /OnErrorSaveFailed (without /Burst)</p>	<p>Supported on all classes where Integrate changes into location is supported, except for:</p> <ul style="list-style-type: none"> • Azure Synapse Analytics • BigQuery version 2 • Greenplum from version 4.0.0 to version 6.9.0* • HANA from version 1.0 SPS 11 to version 2.0 SPS 05 • Hive ACID from version 2.1.0 to version 3.1.0 • Kafka from version 0.8 to version 0.8 • Redshift version 1.0 • SingleStore version 7.1 • Snowflake version 2.8 • Teradata from version 14.00 to version 17.00 • Vector from version 2.0 to version 5.1
<p>Disable/enable database triggers during Integrate (/NoTriggerFiring)</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • Azure SQL Managed Instance • Ingres from version 9.1 to version 11.1 • SQL Server from 2000 (with SP1+) to 2019
<p>Action Transform /SoftDelete</p>	<p>Supported on all classes where Integrate changes into location is supported</p>
<p>Bulk load requires a staging area (LocationProperties /StagingDirectoryHvr)</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • Aurora MySQL from 1.0 to 2.0, since HVR 5.3.1/25 • BigQuery version 2 • Greenplum from version 4.0.0 to version 6.9.0* • HANA from version 1.0 SPS 11 to version 2.0 SPS 05 • Hive ACID from version 2.1.0 to version 3.1.0 • MariaDB from version 10.0 to version 10.3 • MySQL from version 5.6 to version 8.0 • Redshift version 1.0 • SingleStore version 7.1 • Snowflake version 2.8

Creation and update of HVR state tables	Supported on all classes, except for: <ul style="list-style-type: none"> • Hive ACID from version 2.0.0 to version 3.1.0 • Kafka from version 0.7 to version 0.8 • Salesforce
Integrate with /DbProc	Only supported on: <ul style="list-style-type: none"> • Azure SQL Database • Azure SQL Managed Instance • Ingres from version 9.1 to version 11.1 • Oracle from version 9.2 to version 19.9 • SQL Server from 2000 (with SP1+) to 2019

Bi-directional Replication

This section lists the capabilities related to Bi-directional Replication.

HVR Capability	Support Status
Detection of changes made by HVR in a bidirectional channel to prevent loop-back	Only supported on: <ul style="list-style-type: none"> • Aurora MySQL from 1.0 to 2.0, since HVR 5.3.1/25 • Aurora PostgreSQL from 1.0 to 3.2, since HVR 5.5.5/2 • Azure SQL Database • Azure SQL Managed Instance • DB2 for Linux, UNIX and Windows from version 9.7 to version 11.1, state table needs to be created before replication starts • DB2 for i from version 7.2 to version 7.4 • DB2 for z/OS from version 11.01.00 to version 12.01.05 • HANA from version 1.0 SPS 11 to version 2.0 SPS 05, state table needs to be created before replication starts • Ingres from version 9.1 to version 11.1 • MariaDB from version 10.0 to version 10.3, since HVR 5.3.1/13 • MySQL from version 5.6 to version 8.0, since HVR 5.3.1/13 • Oracle from version 9.2 to version 19.9 • PostgreSQL from version 8.0 to version 12.0, state table needs to be created before replication starts • SQL Server from 2000 (with SP1+) to 2019
CollisionDetect with Log-based Capture (without /TimestampColumn)	Only supported on: <ul style="list-style-type: none"> • Ingres from version 9.1 to version 11.1 • Oracle from version 9.2 to version 19.9

<p>CollisionDetect with Trigger-based Capture (with Capture /TriggerBased and without CollisionDetect /TimestampColumn)</p>	<p>Supported on all classes where Trigger-based capture (action Capture /TriggerBased) is supported, except for:</p> <ul style="list-style-type: none"> • DB2 for Linux, UNIX and Windows from version 9.7 to version 11.1
<p>CollisionDetect with /TimestampColumn</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • Aurora MySQL from 1.0 to 2.0, since HVR 5.3.1/25 • Aurora PostgreSQL from 1.0 to 3.2, since HVR 5.5.5/2 • Azure SQL Database • Azure SQL Managed Instance • DB2 for Linux, UNIX and Windows from version 9.7 to version 11.1 • DB2 for i from version 7.2 to version 7.4 • DB2 for z/OS from version 11.01.00 to version 12.01.05 • HANA from version 1.0 SPS 11 to version 2.0 SPS 05 • Ingres from version 9.1 to version 11.1 • MariaDB from version 10.0 to version 10.3, since HVR 5.3.1/13 • MySQL from version 5.6 to version 8.0, since HVR 5.3.1/13 • Oracle from version 9.2 to version 19.9 • PostgreSQL from version 8.0 to version 12.0 • SQL Server from 2000 (with SP1+) to 2019

Refresh and Compare

This section lists the capabilities related to Refresh and Compare.

HVR Capability	Support Status
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[Hvrrefresh](#) or [Hvrcompare](#) from source location

Only supported on:

- [Aurora MySQL](#) from 1.0 to 2.0, since HVR 5.3.1/25
- [Aurora PostgreSQL](#) from 1.0 to 3.2, since HVR 5.3.1/25
- [Azure SQL Database](#)
- [Azure SQL Managed Instance](#)
- [Azure Synapse Analytics](#)
- [BigQuery](#) version 2
- [DB2 for Linux, UNIX and Windows](#) from version 8.1.5 to version 11.1
- [DB2 for i](#) from version 7.0 to version 7.4
- [DB2 for z/OS](#) from version 10.01.00 to version 12.01.05
- [Greenplum](#) from version 3.0.0 to version 6.9.0*
- [HANA](#) from version 1.0 SPS 11 to version 2.0 SPS 05
- [Hive ACID](#) from version 2.0.0 to version 3.1.0
- [Ingres](#) from version 1.0 to version 11.1
- [MariaDB](#) from version 5.5 to version 10.3
- [MySQL](#) from version 5.5 to version 8.0
- [Oracle](#) from version 8.0 to version 19.9
- [PostgreSQL](#) from version 7.0 to version 12.0
- [Redshift](#) version 1.0
- [SQL Server](#) from 1998 to 2019
- [SingleStore](#) version 7.1
- [Snowflake](#) version 2.8
- [Teradata](#) from version 13.10 to version 17.00
- [Vector](#) from version 1.0 to version 5.1

Select more than 4 billion rows during [Hvrrefresh](#) or [Hvrcompare](#)

Supported on all classes, except for:

- [Ingres](#) from version 1.0 to version 11.1
- [Kafka](#) from version 0.7 to version 0.8
- [Salesforce](#)
- [Vector](#) from version 1.0 to version 5.1

Hvrrefresh into target location	Supported on all classes
Row-wise Hvrrefresh into target location (option -g)	Supported on all classes, except for: <ul style="list-style-type: none"> • Hive ACID from version 2.0.0 to version 3.1.0 • Kafka from version 0.7 to version 0.8 • Salesforce
Disable/enable foreign keys and secondary indices during Hvrrefresh (option -F)	Only supported on: <ul style="list-style-type: none"> • Ingres from version 1.0 to version 11.1 • Oracle from version 8.0 to version 19.9 • Vector from version 1.0 to version 5.1
Disable/enable constraints check during Hvrrefresh	Only supported on: <ul style="list-style-type: none"> • Oracle from version 8.0 to version 19.9
Disable/enable foreign keys from table to others during Hvrrefresh (option -F)	Only supported on: <ul style="list-style-type: none"> • Azure SQL Database • Azure SQL Managed Instance • SQL Server from 1998 to 2019
Defer foreign keys during Hvrrefresh (option -F)	Only supported on: <ul style="list-style-type: none"> • Oracle from version 8.0 to version 19.9
For a table: disable/enable journaling, disable/enable unique/primary constraints, disable/enable volatile secondary indices, support main storage structure during Hvrrefresh	Only supported on: <ul style="list-style-type: none"> • Ingres from version 1.0 to version 11.1 • Vector from version 1.0 to version 5.1
Disable/enable triggers during Hvrrefresh (option -f)	Only supported on: <ul style="list-style-type: none"> • Azure SQL Database • Azure SQL Managed Instance • Oracle from version 8.0 to version 19.9 • SQL Server from 1998 to 2019

Identity columns	<p>Only supported on:</p> <ul style="list-style-type: none"> • Azure SQL Database • Azure SQL Managed Instance • Ingres from version 9.3 to version 11.1 • SQL Server from 2000 (with SP1+) to 2019 • Snowflake version 2.8 • Vector from version 2.0 to version 5.1
Replicate database sequences (using action DbSequence)	<p>Only supported on:</p> <ul style="list-style-type: none"> • Ingres from version 9.1 to version 11.1 • Oracle from version 9.2 to version 19.9
Suggestions in GUI for Slice Boundaries using DBMS statistics (Hvrrefresh option -S)	<p>Only supported on:</p> <ul style="list-style-type: none"> • Oracle from version 11.0 to version 19.9, since HVR 5.3.1/21
Select data from each table from same consistent moment in time (Hvrrefresh options -Mnow , -Mscn=val , -Mhvr_tx_seq=val , -Mtime)	<p>Only supported on:</p> <ul style="list-style-type: none"> • Oracle from version 8.0 to version 19.9
Select data from each table from same consistent moment in time using a single transaction (and session) with 'serializable' SQL isolation level (Hvrrefresh option -Mserializable)	<p>Only supported on:</p> <ul style="list-style-type: none"> • Aurora PostgreSQL from 1.0 to 3.2, since HVR 5.3.1/25 • Azure SQL Database • Azure SQL Managed Instance • Oracle from version 8.0 to version 19.9 • PostgreSQL from version 7.0 to version 12.0 • SQL Server from 1998 to 2019
Select data from each table from same consistent moment in time using a single transaction (and session) with 'snapshot' SQL isolation level (Hvrrefresh option -Msnapshot)	<p>Only supported on:</p> <ul style="list-style-type: none"> • Azure SQL Database • Azure SQL Managed Instance • SQL Server from 1998 to 2019

Enable foreign keys immediately after [Hvrrefresh](#) option **-Mserializable** as done on **-Msnapshot** and **-Mnow**

Only supported on:

- [Oracle](#) from version 8.0 to version 19.9

Other Capabilities

This section lists the capabilities related to Other Capabilities.

HVR Capability	Support Status
Both row store and column store tables can be created	Only supported on: <ul style="list-style-type: none">• SingleStore version 7.1
Use distribution key for parallelizing changes within a table (ColumnProperties / DistributionKey)	Only supported on: <ul style="list-style-type: none">• Azure SQL Database• Azure SQL Managed Instance• Azure Synapse Analytics• Greenplum from version 3.0.0 to version 6.9.0*• Hive ACID from version 2.0.0 to version 3.1.0• Kafka from version 0.7 to version 0.8 • Redshift version 1.0• SQL Server from 1998 to 2019• SingleStore version 7.1• Teradata from version 13.10 to version 17.00

Call database procedure *dbproc* during replication jobs (action [AgentPlugin /DbProc](#))

Only supported on:

- [Aurora MySQL](#) from 1.0 to 2.0, since HVR 5.3.1/25
- [Aurora PostgreSQL](#) from 3.0 to 3.2, since HVR 5.3.1/25
- [Azure SQL Database](#)
- [Azure SQL Managed Instance](#)
- [DB2 for Linux, UNIX and Windows](#) from version 9.7 to version 11.1
- [HANA](#) from version 1.0 SPS 11 to version 2.0 SPS 05
- [Ingres](#) from version 9.1 to version 11.1
- [MariaDB](#) from version 10.0 to version 10.3
- [MySQL](#) from version 5.6 to version 8.0

- [Oracle](#) from version 9.2 to version 19.9
- [PostgreSQL](#) from version 11.0 to version 12.0
- [SQL Server](#) from 2000 (with SP1+) to 2019
- [SingleStore](#) version 7.1
- [Snowflake](#) version 2.8
- [Teradata](#) from version 14.00 to version 17.00

[DbObjectGeneration](#) with [/IncludeSQLFile](#)

Only supported on:

- [Azure SQL Database](#)
- [Azure SQL Managed Instance](#)
- [DB2 for Linux, UNIX and Windows](#) from version 9.7 to version 11.1
- [Ingres](#) from version 9.1 to version 11.1

- [Oracle](#) from version 9.2 to version 19.9
- [SQL Server](#) from 2000 (with SP1+) to 2019

International table and column names where DBMS is not configured with UTF-8 encoding

Supported on all classes

Lossless binary float datatypes. No dataloss when transporting float values (because base 2 fractions are never converted to base 10)

Only supported on:

- [Aurora PostgreSQL](#) from 1.0 to 3.2, since HVR 5.3.1/25
- [Azure SQL Database](#)
- [Azure SQL Managed Instance](#)
- [Azure Synapse Analytics](#)
- [DB2 for Linux, UNIX and Windows](#) from version 8.1.5 to version 11.1
- [DB2 for i](#) from version 7.0 to version 7.4
- [DB2 for z/OS](#) from version 10.01.00 to version 12.01.05

- [Ingres](#) from version 1.0 to version 11.1
- [Oracle](#) from version 8.0 to version 19.9
- [SQL Server](#) from 1998 to 2019

Treat DBMS table names and columns case sensitive
(action [LocationProperties /CaseSensitiveNames](#))

Only supported on:

- [Aurora MySQL](#) from 1.0 to 2.0, since HVR 5.3.1/25
- [Aurora PostgreSQL](#) from 1.0 to 3.2, since HVR 5.3.1/25
- [Azure SQL Database](#), since HVR 5.6.5/1
- [Azure SQL Managed Instance](#), since HVR 5.6.5/1
- [Azure Synapse Analytics](#), since HVR 5.6.5/1
- [BigQuery](#) version 2
- [DB2 for Linux, UNIX and Windows](#) from version 8.1.5 to version 11.1, since HVR 5.6.5/1
- [DB2 for i](#) from version 7.0 to version 7.4, since HVR 5.6.5/1
- [DB2 for z/OS](#) from version 10.01.00 to version 12.01.05, since HVR 5.6.5/1
- [Greenplum](#) from version 3.0.0 to version 6.9.0*
- [HANA](#) from version 1.0 SPS 11 to version 2.0 SPS 05, since HVR 5.6.5/1
- [Ingres](#) from version 1.0 to version 11.1
- [MariaDB](#) from version 5.5 to version 10.3
- [MySQL](#) from version 5.5 to version 8.0
- [Oracle](#) from version 8.0 to version 19.9
- [PostgreSQL](#) from version 7.0 to version 12.0
- [Redshift](#) version 1.0, since HVR 5.6.5/1
- [SQL Server](#) from 1998 to 2019, since HVR 5.6.5/1
- [SingleStore](#) version 7.1
- [Snowflake](#) version 2.8, since HVR 5.6.5/1
- [Teradata](#) from version 13.10 to version 17.00, since HVR 5.6.5/1
- [Vector](#) from version 1.0 to version 5.1

<p>Always treat DBMS table names and column names case sensitive</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • Aurora MySQL from 1.0 to 2.0 • Aurora PostgreSQL from 1.0 to 3.2 • Azure SQL Database • Azure SQL Managed Instance • Azure Synapse Analytics • BigQuery version 2 • MariaDB from version 5.5 to version 10.3 • MySQL from version 5.5 to version 8.0 • PostgreSQL from version 7.0 to version 12.0 • SQL Server from 1998 to 2019 • SingleStore version 7.1
<p>Always treat DBMS schema names case sensitive</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • Aurora MySQL from 1.0 to 2.0 • Aurora PostgreSQL from 1.0 to 3.2 • Azure SQL Database • Azure SQL Managed Instance • Azure Synapse Analytics • BigQuery version 2 • MariaDB from version 5.5 to version 10.3 • MySQL from version 5.5 to version 8.0 • PostgreSQL from version 7.0 to version 12.0 • SQL Server from 1998 to 2019 • SingleStore version 7.1
<p>Reduce width of datatype when selecting or capturing changes (action ColumnProperties /TrimDatatype)</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • Oracle from version 8.0 to version 19.9
<p>Distinguish and support capture from 'materialized views'</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • DB2 for Linux, UNIX and Windows from version 9.7 to version 11.1 • Oracle from version 9.2 to version 19.9
<p>Distinguish and support capture from 'row store tables'</p>	<p>Not supported</p>
<p>Distinguish and support capture from 'column store tables'</p>	<p>Only supported on:</p> <ul style="list-style-type: none"> • HANA from version 1.0 SPS 11 to version 2.0 SPS 05

* [The supported Greenplum versions](#) are 4.0.x, 4.2.x, 4.3.x, 5.5.x, 5.10.x and higher, and 6.0.x to 6.9.x