iSeries
DB2 Universal Database for iSeries
SQL Messages and Codes
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Chapter 1. DB2 Universal Database for iSeries SQL Messages and Codes

SQLCODEs and SQLSTATEs

SQL returns error codes to the application program when an error occurs. This reference lists SQLCODEs and their associated SQLSTATEs.

SQLCODEs and SQLSTATEs are returned in the SQLCA structure. SQLSTATE is an additional return code that provides application programs with common return codes for common error conditions found among the IBM relational database systems. SQLSTATEs are particularly useful when handling errors in distributed SQL applications.

If SQL encounters an error while processing the statement, the first characters of the SQLSTATE are not '00', '01', or '02', and the SQLCODE is a negative number. If SQL encounters a warning but valid condition while processing your statement, the SQLCODE is a positive number and bytes one and two of the SQLSTATE are '01'. If your SQL statement is processed without encountering an error or warning condition, the SQLCODE returned is 0 and the SQLSTATE is '00000'.

SQLCODEs

Every SQLCODE that is recognized on IBM iSeries 400 has a corresponding message in message file QSQLMSG. The message identifier for any SQLCODE is constructed by appending the absolute value (5 digits) of the SQLCODE to SQ and changing the third character to 'L' if the third character is '0'. For example, if the SQLCODE is 30070, the message identifier is SQ30070. If the SQLCODE is -0204, the message identifier is SQL0204.

When running in debug mode, SQL places a message corresponding to the SQLCODE in the job log for each SQL statement run. If you are not running in debug mode and get a negative SQLCODE, you will get a message in the job log also.

An application can also send the SQL message corresponding to any SQLCODE to the job log by specifying the message ID and the replacement text on the CL commands Retrieve Message (RTVMSG), Send Program Message (SNDDPMMSG), and Send User Message (SNDDSUSRMSG).

Each SQLCODE has a corresponding message in the message file QSQLMSG. Directions for finding a SQLCODE in the message file along with the text for these messages are available at SQL Messages Reference.

SQLSTATEs

For a list of SQLSTATEs that are used by the DB2 family of products, see DB2 Product Family.

When an SQLSTATE other than '00000' is returned from a non-DB2 UDB for iSeries 400 application server, DB2 UDB for iSeries attempts to map the SQLSTATE to a DB2 UDB for iSeries SQLCODE and message:

- If the SQLSTATE is not recognized by DB2 UDB for iSeries, the common message for the class is issued.
- If the SQLSTATE and SQLCODE correspond to a single DB2 UDB for iSeries SQLCODE, DB2 UDB attempts to convert the tokens returned in SQLERRM to the replacement data expected by the SQL message. If an error occurs while converting the tokens:
  - The SQLCA is not changed.
  - A common message for the class code of the SQLSTATE is issued.
The table below provides a list of general SQLSTATE classes. Each class links to a list of the more specific SQLSTATE codes that comprise that class.

**SQLSTATE Class Codes**

<table>
<thead>
<tr>
<th>Class Code</th>
<th>Meaning</th>
<th>For subcodes, refer to...</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Unqualified Successful Completion</td>
<td>Table 1</td>
</tr>
<tr>
<td>01</td>
<td>Warning</td>
<td>Table 2</td>
</tr>
<tr>
<td>02</td>
<td>No Data</td>
<td>Table 3</td>
</tr>
<tr>
<td>07</td>
<td>Dynamic SQL Error</td>
<td>Table 4</td>
</tr>
<tr>
<td>08</td>
<td>Connection Exception</td>
<td>Table 5</td>
</tr>
<tr>
<td>09</td>
<td>Triggered Action Exception</td>
<td>Table 6</td>
</tr>
<tr>
<td>0A</td>
<td>Feature Not Supported</td>
<td>Table 7</td>
</tr>
<tr>
<td>0E</td>
<td>Invalid Schema Name List Specification</td>
<td>Table 8</td>
</tr>
<tr>
<td>0F</td>
<td>Invalid Token</td>
<td>Table 9</td>
</tr>
<tr>
<td>20</td>
<td>Case Not Found for Case Statement</td>
<td>Table 10</td>
</tr>
<tr>
<td>21</td>
<td>Cardinality Violation</td>
<td>Table 11</td>
</tr>
<tr>
<td>22</td>
<td>Data Exception</td>
<td>Table 12</td>
</tr>
<tr>
<td>23</td>
<td>Constraint Violation</td>
<td>Table 13</td>
</tr>
<tr>
<td>24</td>
<td>Invalid Cursor State</td>
<td>Table 14</td>
</tr>
<tr>
<td>25</td>
<td>Invalid Transaction State</td>
<td>Table 15</td>
</tr>
<tr>
<td>26</td>
<td>Invalid SQL Statement Identifier</td>
<td>Table 16</td>
</tr>
<tr>
<td>27</td>
<td>Triggered Data Change Violation</td>
<td>Table 17</td>
</tr>
<tr>
<td>28</td>
<td>Invalid Authorization Specification</td>
<td>Table 18</td>
</tr>
<tr>
<td>2D</td>
<td>Invalid Transaction Termination</td>
<td>Table 19</td>
</tr>
<tr>
<td>2E</td>
<td>Invalid Connection Name</td>
<td>Table 20</td>
</tr>
<tr>
<td>2F</td>
<td>SQL Function Exception</td>
<td>Table 21</td>
</tr>
<tr>
<td>34</td>
<td>Invalid Cursor Name</td>
<td>Table 22</td>
</tr>
<tr>
<td>38</td>
<td>External Function Exception</td>
<td>Table 23</td>
</tr>
<tr>
<td>39</td>
<td>External Function Call Exception</td>
<td>Table 24</td>
</tr>
<tr>
<td>3C</td>
<td>Ambiguous Cursor Name</td>
<td>Table 25</td>
</tr>
<tr>
<td>42</td>
<td>Syntax Error or Access Rule Violation</td>
<td>Table 26</td>
</tr>
<tr>
<td>44</td>
<td>WITH CHECK OPTION Violation</td>
<td>Table 27</td>
</tr>
<tr>
<td>46</td>
<td>Java Errors</td>
<td>Table 28</td>
</tr>
<tr>
<td>51</td>
<td>Invalid Application State</td>
<td>Table 29</td>
</tr>
<tr>
<td>54</td>
<td>SQL or Product Limit Exceeded</td>
<td>Table 30</td>
</tr>
<tr>
<td>55</td>
<td>Object Not in Prerequisite State</td>
<td>Table 31</td>
</tr>
<tr>
<td>56</td>
<td>Miscellaneous SQL or Product Error</td>
<td>Table 32</td>
</tr>
<tr>
<td>57</td>
<td>Resource Not Available or Operator Intervention</td>
<td>Table 33</td>
</tr>
<tr>
<td>58</td>
<td>System Error</td>
<td>Table 34</td>
</tr>
</tbody>
</table>
Chapter 2. DB2 Universal Database for iSeries SQL Messages and Codes

SQLSTATE Classes and Codes

DB2 UDB for iSeries returns SQLSTATE codes to the applications that access it through SQL. SQLSTATE codes indicate whether the database operation was successfully performed or whether DB2 returned warnings or errors to the application.

SQLSTATEs can be associated with one or more SQLCODEs.

The tables below provide descriptions of SQLSTATE codes that could be returned to applications by DB2 UDB for iSeries.

Table 1. Class Code 00: Unqualified Successful Completion

<table>
<thead>
<tr>
<th>SQLSTATE Value</th>
<th>Meaning</th>
<th>SQLCODE Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>00000</td>
<td>Execution of the SQL statement was successful and did not result in any type of warning or exception condition.</td>
<td>+000</td>
</tr>
</tbody>
</table>

Table 2. Class Code 01: Warning

<table>
<thead>
<tr>
<th>SQLSTATE Value</th>
<th>Meaning</th>
<th>SQLCODE Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>01002</td>
<td>A DISCONNECT error occurred.</td>
<td>+596</td>
</tr>
<tr>
<td>01003</td>
<td>Null values were eliminated from the argument of a column function.</td>
<td>+000</td>
</tr>
<tr>
<td>01004</td>
<td>The value of a string was truncated when assigned to a host variable.</td>
<td>+000, +445</td>
</tr>
<tr>
<td>01005</td>
<td>Insufficient number of entries in an SQLDA.</td>
<td>+239</td>
</tr>
<tr>
<td>01006</td>
<td>A privilege was not revoked.</td>
<td>+569</td>
</tr>
<tr>
<td>01007</td>
<td>A privilege was not granted.</td>
<td>+570</td>
</tr>
<tr>
<td>0100C</td>
<td>One or more ad hoc result sets were returned from the procedure.</td>
<td>+178</td>
</tr>
<tr>
<td>0100D</td>
<td>The cursor that was closed has been re-opened on the next result set within the chain.</td>
<td>+467</td>
</tr>
<tr>
<td>0100E</td>
<td>The procedure returned too many result sets.</td>
<td>+464, +20206</td>
</tr>
<tr>
<td>01000</td>
<td>The number of result columns is larger than the number of host variables provided.</td>
<td>+000, +030</td>
</tr>
<tr>
<td>01004</td>
<td>The UPDATE or DELETE statement does not include a WHERE clause.</td>
<td>+000, +088</td>
</tr>
<tr>
<td>01005</td>
<td>The statement was not executed because it is unacceptable in this environment.</td>
<td>+084</td>
</tr>
<tr>
<td>01006</td>
<td>An adjustment was made to a DATE or TIMESTAMP value to correct an invalid date resulting from an arithmetic operation.</td>
<td>+000</td>
</tr>
<tr>
<td>01000</td>
<td>The null value has been assigned to a host variable, because the non-null value of the column is not within the range of the host variable.</td>
<td>+304</td>
</tr>
<tr>
<td>01017</td>
<td>A character that could not be converted was replaced with a substitute character.</td>
<td>+335</td>
</tr>
<tr>
<td>01019</td>
<td>The null value has been assigned to a host variable, because a numeric value is out of range.</td>
<td>+802</td>
</tr>
<tr>
<td>01020</td>
<td>The null value has been assigned to a host variable, because the characters cannot be converted.</td>
<td>+331</td>
</tr>
<tr>
<td>01022</td>
<td>The local table or view name used in the CREATE ALIAS statement is undefined.</td>
<td>+403</td>
</tr>
<tr>
<td>01026</td>
<td>Isolation level has been escalated.</td>
<td>+595</td>
</tr>
<tr>
<td>01028</td>
<td>WHERE NOT NULL is ignored, because the index key cannot contain null values.</td>
<td>+645</td>
</tr>
<tr>
<td>01032</td>
<td>An undefined object name was detected.</td>
<td>+204</td>
</tr>
<tr>
<td>01034</td>
<td>The string representation of a datetime value is invalid.</td>
<td>+180, +181</td>
</tr>
<tr>
<td>01035</td>
<td>An arithmetic operation on a date or timestamp has a result that is not within the valid range of dates.</td>
<td>+183</td>
</tr>
<tr>
<td>SQLSTATE Value</td>
<td>Meaning</td>
<td>SQLCODE Values</td>
</tr>
<tr>
<td>----------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>01536</td>
<td>During remote bind where existence checking is deferred, the server-name specified does not match the current server.</td>
<td>+114</td>
</tr>
<tr>
<td>01539</td>
<td>Connection is successful but only SBCS characters should be used.</td>
<td>+863</td>
</tr>
<tr>
<td>01542</td>
<td>Authorization ID does not have the privilege to perform the operation as specified.</td>
<td>+552</td>
</tr>
<tr>
<td>01544</td>
<td>The null value has been assigned to a host variable, because a substring error occurred; for example, an argument of SUBSTR is out of range.</td>
<td>+138</td>
</tr>
<tr>
<td>01545</td>
<td>An unqualified column name has been interpreted as a correlated reference.</td>
<td>+012</td>
</tr>
<tr>
<td>01547</td>
<td>A mixed data value is improperly formed.</td>
<td>+191, +304, +802</td>
</tr>
<tr>
<td>01548</td>
<td>The authorization ID does not have the privilege to perform the specified operation on the identified object.</td>
<td>+551</td>
</tr>
<tr>
<td>01557</td>
<td>Too many host variables have been specified on SELECT INTO or FETCH.</td>
<td>+326</td>
</tr>
<tr>
<td>01564</td>
<td>The null value has been assigned to a host variable, because division by zero occurred.</td>
<td>+802</td>
</tr>
<tr>
<td>01565</td>
<td>The null value has been assigned to a host variable, because a miscellaneous data exception occurred; for example, the character value for the CAST, DECIMAL, FLOAT, or INTEGER scalar function is invalid; a floating-point NAN (not a number) or invalid data in a packed decimal field was detected.</td>
<td>+304, +420, +802</td>
</tr>
<tr>
<td>01567</td>
<td>The table was created but not journaled.</td>
<td>+7905</td>
</tr>
<tr>
<td>01568</td>
<td>The unit of work was committed or rolled back, but the outcome is not fully known at all sites.</td>
<td>+990</td>
</tr>
<tr>
<td>01569</td>
<td>An ALTER TABLE may cause data truncation.</td>
<td>+460</td>
</tr>
<tr>
<td>01594</td>
<td>Insufficient number of entries in an SQLDA for ALL information (i.e. not enough descriptors to return the distinct name).</td>
<td>+237</td>
</tr>
<tr>
<td>01627</td>
<td>The DATALINK value may not be valid because the table is in reconcile pending or reconcile is not a possible state.</td>
<td>+360</td>
</tr>
<tr>
<td>01631</td>
<td>The external program could not be updated with the associated procedure or function attributes.</td>
<td>+7035</td>
</tr>
<tr>
<td>01634</td>
<td>The distinct data type name is too long and cannot be returned in the SQLDA. The short name is returned instead. of queries.</td>
<td>+7036</td>
</tr>
<tr>
<td>01643</td>
<td>Assignment to SQLCODE or SQLSTATE variable does not signal a warning or error.</td>
<td>+385</td>
</tr>
<tr>
<td>01646</td>
<td>A result sets could not be returned because the cursor was closed.</td>
<td>+7050</td>
</tr>
<tr>
<td>01647</td>
<td>A DB2SQL BEFORE trigger changed to DB2ROW.</td>
<td>+7051</td>
</tr>
<tr>
<td>01Hxx</td>
<td>Valid warning SQLSTATEs returned by a user-defined function or external procedure CALL.</td>
<td>+462</td>
</tr>
</tbody>
</table>

**Table 3. Class Code 02: No Data**

<table>
<thead>
<tr>
<th>SQLSTATE Value</th>
<th>Meaning</th>
<th>SQLCODE Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>02000</td>
<td>One of the following exceptions occurred:</td>
<td>+100</td>
</tr>
<tr>
<td></td>
<td>• The result of the SELECT INTO statement or the subselect of the INSERT statement was an empty table.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• The number of rows identified in the searched UPDATE or DELETE statement was zero.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• The position of the cursor referenced in the FETCH statement was after the last row of the result table.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• The fetch orientation is invalid.</td>
<td></td>
</tr>
<tr>
<td>02001</td>
<td>No additional result sets returned.</td>
<td>+387</td>
</tr>
</tbody>
</table>
### Table 4. Class Code 07: Dynamic SQL Error

<table>
<thead>
<tr>
<th>SQLSTATE Value</th>
<th>Meaning</th>
<th>SQLCODE Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>07001</td>
<td>The number of host variables is not the same as the number of parameter markers.</td>
<td>-313</td>
</tr>
<tr>
<td>07002</td>
<td>The call parameter list or control block is invalid.</td>
<td>-804</td>
</tr>
<tr>
<td>07003</td>
<td>The statement identified in the EXECUTE statement is a select-statement, or is not in a prepared state.</td>
<td>-518</td>
</tr>
<tr>
<td>07004</td>
<td>The USING clause is required for dynamic parameters.</td>
<td>-313</td>
</tr>
<tr>
<td>07005</td>
<td>The statement name of the cursor identifies a prepared statement that cannot be associated with a cursor.</td>
<td>-517</td>
</tr>
<tr>
<td>07006</td>
<td>An input host variable, transition variable, or parameter marker cannot be used, because of its data type.</td>
<td>-301</td>
</tr>
</tbody>
</table>

### Table 5. Class Code 08: Connection Exception

<table>
<thead>
<tr>
<th>SQLSTATE Value</th>
<th>Meaning</th>
<th>SQLCODE Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>08001</td>
<td>The application requester is unable to establish the connection.</td>
<td>-30080, -30082, -30089</td>
</tr>
<tr>
<td>08002</td>
<td>The connection already exists.</td>
<td>-842</td>
</tr>
<tr>
<td>08003</td>
<td>The connection does not exist.</td>
<td>-843, -900</td>
</tr>
<tr>
<td>08004</td>
<td>The application server rejected establishment of the connection.</td>
<td>-30060, -30061</td>
</tr>
<tr>
<td>08501</td>
<td>A DISCONNECT is not allowed when the connection uses an LU6.2 protected conversation.</td>
<td>-858</td>
</tr>
</tbody>
</table>

### Table 6. Class Code 09: Triggered Action Exception

<table>
<thead>
<tr>
<th>SQLSTATE Value</th>
<th>Meaning</th>
<th>SQLCODE Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>09000</td>
<td>A triggered SQL statement failed.</td>
<td>-723</td>
</tr>
</tbody>
</table>

### Table 7. Class Code 0A: Feature Not Supported

<table>
<thead>
<tr>
<th>SQLSTATE Value</th>
<th>Meaning</th>
<th>SQLCODE Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>0A001</td>
<td>The CONNECT statement is invalid, because the process is not in the connectable state.</td>
<td>-752</td>
</tr>
</tbody>
</table>

### Table 8. Class Code 0E: Invalid Schema Name List Specification

<table>
<thead>
<tr>
<th>SQLSTATE Value</th>
<th>Meaning</th>
<th>SQLCODE Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>0E000</td>
<td>The schema name list in a SET PATH statement is not valid.</td>
<td>-329</td>
</tr>
</tbody>
</table>

### Table 9. Class Code 0F: Invalid Token

<table>
<thead>
<tr>
<th>SQLSTATE Value</th>
<th>Meaning</th>
<th>SQLCODE Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>0F001</td>
<td>The locator value does not currently represent any value.</td>
<td>-423</td>
</tr>
</tbody>
</table>
### Table 10. Class Code 20: Case Not Found for Case Statement

<table>
<thead>
<tr>
<th>SQLSTATE Value</th>
<th>Meaning</th>
<th>SQLCODE Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>20000</td>
<td>The case was not found for the CASE statement.</td>
<td>-773</td>
</tr>
</tbody>
</table>

### Table 11. Class Code 21: Cardinality Violation

<table>
<thead>
<tr>
<th>SQLSTATE Value</th>
<th>Meaning</th>
<th>SQLCODE Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>21000</td>
<td>The result of a SELECT INTO is a result table of more than one row, or the result of the subquery of a basic predicate is more than one value.</td>
<td>-811</td>
</tr>
</tbody>
</table>

### Table 12. Class Code 22: Data Exception

<table>
<thead>
<tr>
<th>SQLSTATE Value</th>
<th>Meaning</th>
<th>SQLCODE Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>22001</td>
<td>Character data, right truncation occurred; for example, an update or insert value is a string that is too long for the column, or a datetime value cannot be assigned to a host variable, because it is too small.</td>
<td>-302, -303, -404, -433</td>
</tr>
<tr>
<td>22002</td>
<td>A null value, or the absence of an indicator parameter was detected; for example, the null value cannot be assigned to a host variable, because no indicator variable is specified.</td>
<td>-305</td>
</tr>
<tr>
<td>22003</td>
<td>A numeric value is out of range.</td>
<td>-302, -304, -406, -446, -802</td>
</tr>
<tr>
<td>22004</td>
<td>A null value cannot returned from a procedure that is defined as PARAMETER STYLE GENERAL or a type-preserving method that is invoked with a non-null argument.</td>
<td>-305</td>
</tr>
<tr>
<td>22006</td>
<td>The fetch orientation is invalid.</td>
<td>-231</td>
</tr>
<tr>
<td>22007</td>
<td>An invalid datetime format was detected; that is, an invalid string representation or value was specified.</td>
<td>-180, -181</td>
</tr>
<tr>
<td>22008</td>
<td>Datetime field overflow occurred; for example, an arithmetic operation on a date or timestamp has a result that is not within the valid range of dates.</td>
<td>-183</td>
</tr>
<tr>
<td>22011</td>
<td>A substring error occurred; for example, an argument of SUBSTR is out of range.</td>
<td>-138</td>
</tr>
<tr>
<td>22012</td>
<td>Division by zero is invalid.</td>
<td>-802</td>
</tr>
<tr>
<td>22018</td>
<td>The character value for the CAST, DECIMAL, FLOAT, or INTEGER scalar function is invalid.</td>
<td>-420</td>
</tr>
<tr>
<td>22019</td>
<td>The LIKE predicate has an invalid escape character.</td>
<td>-130</td>
</tr>
<tr>
<td>22021</td>
<td>A character is not in the coded character set.</td>
<td>-330, -331</td>
</tr>
<tr>
<td>22023</td>
<td>A parameter or host variable value is invalid.</td>
<td>-302, -304, -406, -802</td>
</tr>
<tr>
<td>22024</td>
<td>A NUL-terminated input host variable or parameter did not contain a NUL.</td>
<td>-302</td>
</tr>
<tr>
<td>22025</td>
<td>The LIKE predicate string pattern contains an invalid occurrence of an escape character.</td>
<td>-130</td>
</tr>
<tr>
<td>22501</td>
<td>The length control field of a variable length string is negative or greater than the maximum.</td>
<td>-311</td>
</tr>
<tr>
<td>22503</td>
<td>The string representation of a name is invalid.</td>
<td>-188</td>
</tr>
<tr>
<td>22504</td>
<td>A mixed data value is invalid.</td>
<td>-191, -304, -406, -802</td>
</tr>
<tr>
<td>22522</td>
<td>A CCSID value is not valid at all, not valid for the data type or subtype, or not valid for the encoding scheme.</td>
<td>-189</td>
</tr>
<tr>
<td>22524</td>
<td>Character conversion resulted in truncation</td>
<td>-334</td>
</tr>
</tbody>
</table>
### Table 13. Class Code 23: Constraint Violation

<table>
<thead>
<tr>
<th>SQLSTATE Value</th>
<th>Meaning</th>
<th>SQLCODE Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>23001</td>
<td>The update or delete of a parent key is prevented by a RESTRICT update or delete rule.</td>
<td>-531, -532</td>
</tr>
<tr>
<td>23502</td>
<td>An insert or update value is null, but the column cannot contain null values.</td>
<td>-407</td>
</tr>
<tr>
<td>23503</td>
<td>The insert or update value of a foreign key is invalid.</td>
<td>-530</td>
</tr>
<tr>
<td>23504</td>
<td>The update or delete of a parent key is prevented by a NO ACTION update or delete rule.</td>
<td>-531, -532</td>
</tr>
<tr>
<td>23505</td>
<td>A violation of the constraint imposed by a unique index or a unique constraint occurred.</td>
<td>-803</td>
</tr>
<tr>
<td>23511</td>
<td>A parent row cannot be deleted, because the check constraint restricts the deletion.</td>
<td>-543</td>
</tr>
<tr>
<td>23512</td>
<td>The check constraint cannot be added, because the table contains rows that do not satisfy the constraint definition.</td>
<td>-544</td>
</tr>
<tr>
<td>23513</td>
<td>The resulting row of the INSERT or UPDATE does not conform to the check constraint definition.</td>
<td>-545</td>
</tr>
<tr>
<td>23515</td>
<td>The unique index could not be created or unique constraint added, because the table contains duplicate values of the specified key.</td>
<td>-603</td>
</tr>
<tr>
<td>23520</td>
<td>The foreign key cannot be defined, because all of its values are not equal to a parent key of the parent table.</td>
<td>-667</td>
</tr>
</tbody>
</table>

### Table 14. Class Code 24: Invalid Cursor State

<table>
<thead>
<tr>
<th>SQLSTATE Value</th>
<th>Meaning</th>
<th>SQLCODE Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>24501</td>
<td>The identified cursor is not open.</td>
<td>-501, -507</td>
</tr>
<tr>
<td>24502</td>
<td>The cursor identified in an OPEN statement is already open.</td>
<td>-502</td>
</tr>
<tr>
<td>24504</td>
<td>The cursor identified in the UPDATE, DELETE, SET, or GET statement is not positioned on a row.</td>
<td>-508</td>
</tr>
<tr>
<td>24506</td>
<td>The statement identified in the PREPARE is the statement of an open cursor.</td>
<td>-519</td>
</tr>
<tr>
<td>24507</td>
<td>FETCH CURRENT was specified, but the current row is deleted, or a value of an ORDER BY column of the current row has changed.</td>
<td>-226</td>
</tr>
<tr>
<td>24513</td>
<td>FETCH NEXT, PRIOR, CURRENT, or RELATIVE is not allowed, because the cursor position is not known.</td>
<td>-227</td>
</tr>
<tr>
<td>24514</td>
<td>A previous error has disabled this cursor.</td>
<td>-906</td>
</tr>
</tbody>
</table>

### Table 15. Class Code 25: Invalid Transaction State

<table>
<thead>
<tr>
<th>SQLSTATE Value</th>
<th>Meaning</th>
<th>SQLCODE Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>25000</td>
<td>An update operation is invalid for the application execution environment.</td>
<td>-30090</td>
</tr>
<tr>
<td>25501</td>
<td>The statement is only allowed as the first statement in a unit of work.</td>
<td>-428</td>
</tr>
</tbody>
</table>

### Table 16. Class Code 26: Invalid SQL Statement Identifier

<table>
<thead>
<tr>
<th>SQLSTATE Value</th>
<th>Meaning</th>
<th>SQLCODE Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>26501</td>
<td>The statement identified does not exist.</td>
<td>-514, -516</td>
</tr>
<tr>
<td>26510</td>
<td>The statement name specified in a DECLARE CURSOR already has a cursor allocated to it.</td>
<td>-5023</td>
</tr>
</tbody>
</table>
Table 17. Class Code 27: Triggered Data Change Violation

<table>
<thead>
<tr>
<th>SQLSTATE Value</th>
<th>Meaning</th>
<th>SQLCODE Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>27000</td>
<td>An attempt was made to change the same row in the same table more than once in the same SQL statement.</td>
<td>-907</td>
</tr>
</tbody>
</table>

Table 18. Class Code 28: Invalid Authorization Specification

<table>
<thead>
<tr>
<th>SQLSTATE Value</th>
<th>Meaning</th>
<th>SQLCODE Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>28000</td>
<td>Authorization name is invalid.</td>
<td>-113, -188</td>
</tr>
</tbody>
</table>

Table 19. Class Code 2D: Invalid Transaction Termination

<table>
<thead>
<tr>
<th>SQLSTATE Value</th>
<th>Meaning</th>
<th>SQLCODE Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>2D522</td>
<td>COMMIT and ROLLBACK are not allowed in an ATOMIC Compound statement.</td>
<td>-774</td>
</tr>
<tr>
<td>2D528</td>
<td>Dynamic COMMIT or COMMIT ON RETURN procedure is invalid for the application execution environment</td>
<td>-30090</td>
</tr>
<tr>
<td>2D529</td>
<td>Dynamic ROLLBACK is invalid for the application execution environment.</td>
<td>-30090</td>
</tr>
</tbody>
</table>

Table 20. Class Code 2E: Invalid Connection Name

<table>
<thead>
<tr>
<th>SQLSTATE Value</th>
<th>Meaning</th>
<th>SQLCODE Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>2E000</td>
<td>Connection name is invalid.</td>
<td>-113, -188, -251</td>
</tr>
</tbody>
</table>

Table 21. Class Code 2F: SQL Function Exception

<table>
<thead>
<tr>
<th>SQLSTATE Value</th>
<th>Meaning</th>
<th>SQLCODE Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>2F002</td>
<td>The external function attempted to modify data, but the function was not defined as MODIFIES SQL DATA.</td>
<td>-577</td>
</tr>
<tr>
<td>2F003</td>
<td>The statement is not allowed in a function or procedure.</td>
<td>-751</td>
</tr>
<tr>
<td>2F004</td>
<td>The external function attempted to read data, but the function was not defined as READS SQL DATA.</td>
<td>-579</td>
</tr>
<tr>
<td>2F005</td>
<td>The function did not execute a RETURN statement.</td>
<td>-578</td>
</tr>
</tbody>
</table>

Table 22. Class Code 34: Invalid Cursor Name

<table>
<thead>
<tr>
<th>SQLSTATE Value</th>
<th>Meaning</th>
<th>SQLCODE Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>34000</td>
<td>Cursor name is invalid.</td>
<td>-504</td>
</tr>
</tbody>
</table>

Table 23. Class Code 38: External Function Exception

<table>
<thead>
<tr>
<th>SQLSTATE Value</th>
<th>Meaning</th>
<th>SQLCODE Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>38xxx</td>
<td>Valid error SQLSTATEs returned by a user-defined function, external procedure, or trigger.</td>
<td>-443</td>
</tr>
<tr>
<td>38001</td>
<td>The external routine is not allowed to execute SQL statements.</td>
<td>-487</td>
</tr>
<tr>
<td>SQLSTATE Value</td>
<td>Meaning</td>
<td>SQLCODE Values</td>
</tr>
<tr>
<td>----------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>38002</td>
<td>The external routine attempted to modify data, but the routine was not defined as MODIFIES SQL DATA.</td>
<td>-577</td>
</tr>
<tr>
<td>38003</td>
<td>The statement is not allowed in a routine.</td>
<td>-751</td>
</tr>
<tr>
<td>38004</td>
<td>The external routine attempted to read data, but the routine was not defined as READS SQL DATA.</td>
<td>-579</td>
</tr>
<tr>
<td>38501</td>
<td>Error occurred while calling a user-defined function, external procedure, or trigger (using the SIMPLE CALL or SIMPLE CALL WITH NULLS calling convention).</td>
<td>-443, -4302</td>
</tr>
</tbody>
</table>

Table 24. Class Code 39: External Function Call Exception

<table>
<thead>
<tr>
<th>SQLSTATE Value</th>
<th>Meaning</th>
<th>SQLCODE Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>39001</td>
<td>A user-defined function has returned an invalid SQLSTATE.</td>
<td>-463</td>
</tr>
<tr>
<td>39004</td>
<td>A null value is not allowed for an IN or INOUT argument when using PARAMETER STYLE GENERAL.</td>
<td>-470, -20205</td>
</tr>
</tbody>
</table>

Table 25. Class Code 3C: Ambiguous Cursor Name

<table>
<thead>
<tr>
<th>SQLSTATE Value</th>
<th>Meaning</th>
<th>SQLCODE Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>3C000</td>
<td>The cursor name is ambiguous.</td>
<td>-051</td>
</tr>
</tbody>
</table>

Table 26. Class Code 42: Syntax Error or Access Rule Violation

<table>
<thead>
<tr>
<th>SQLSTATE Value</th>
<th>Meaning</th>
<th>SQLCODE Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>42501</td>
<td>The authorization ID does not have the privilege to perform the specified operation on the identified object.</td>
<td>-551</td>
</tr>
<tr>
<td>42502</td>
<td>The authorization ID does not have the privilege to perform the operation as specified.</td>
<td>-552</td>
</tr>
<tr>
<td>42506</td>
<td>Owner authorization failure occurred.</td>
<td>-30053</td>
</tr>
<tr>
<td>42601</td>
<td>A character, token, or clause is invalid or missing.</td>
<td>-007, -029,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-097, -104,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-109, -115,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-128, -199,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-441, -491</td>
</tr>
<tr>
<td>42602</td>
<td>A character that is invalid in a name has been detected.</td>
<td>-113, -251</td>
</tr>
<tr>
<td>42603</td>
<td>An unterminated string constant has been detected.</td>
<td>-010</td>
</tr>
<tr>
<td>42604</td>
<td>An invalid numeric or string constant has been detected.</td>
<td>-103, -105</td>
</tr>
<tr>
<td>42605</td>
<td>The number of arguments specified for a scalar function is invalid.</td>
<td>-170</td>
</tr>
<tr>
<td>42606</td>
<td>An invalid hexadecimal constant has been detected.</td>
<td>-110</td>
</tr>
<tr>
<td>42607</td>
<td>An operand of a column function is invalid.</td>
<td>-112</td>
</tr>
<tr>
<td>42609</td>
<td>All operands of an operator or predicate are parameter markers.</td>
<td>-417</td>
</tr>
<tr>
<td>42610</td>
<td>A parameter marker is not allowed.</td>
<td>-184, -418</td>
</tr>
<tr>
<td>42611</td>
<td>The column or argument definition is invalid.</td>
<td>-106, -604</td>
</tr>
<tr>
<td>42612</td>
<td>The statement string is an SQL statement that is not acceptable in the context in which it is presented.</td>
<td>-084</td>
</tr>
<tr>
<td>42613</td>
<td>Clauses are mutually exclusive.</td>
<td>-628</td>
</tr>
<tr>
<td>42614</td>
<td>A duplicate keyword is invalid.</td>
<td>-637</td>
</tr>
<tr>
<td>42616</td>
<td>Invalid options are specified.</td>
<td>-5047</td>
</tr>
<tr>
<td>42617</td>
<td>The statement string is blank or empty.</td>
<td>-198</td>
</tr>
<tr>
<td>42618</td>
<td>A host variable is not allowed.</td>
<td>-090, -312,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-5012, -5024</td>
</tr>
<tr>
<td>SQLSTATE Value</td>
<td>Meaning</td>
<td>SQLCODE Values</td>
</tr>
<tr>
<td>----------------</td>
<td>-------------------------------------------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>42620</td>
<td>Read-only SCROLL was specified with the UPDATE clause.</td>
<td>-228</td>
</tr>
<tr>
<td>42621</td>
<td>The check constraint or generated column expression is invalid.</td>
<td>-546</td>
</tr>
<tr>
<td>42622</td>
<td>A name or label is too long.</td>
<td>-107</td>
</tr>
<tr>
<td>42625</td>
<td>A CASE expression is invalid.</td>
<td>-580</td>
</tr>
<tr>
<td>42629</td>
<td>Parameter names must be specified for SQL routines.</td>
<td>-078</td>
</tr>
<tr>
<td>42701</td>
<td>A duplicate column name in an INSERT or UPDATE statement was detected.</td>
<td>-121</td>
</tr>
<tr>
<td>42702</td>
<td>A column reference is ambiguous, because of duplicate names.</td>
<td>-203</td>
</tr>
<tr>
<td>42703</td>
<td>An undefined column or parameter name was detected.</td>
<td>-205, -206,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-213, -378,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-379, -5001</td>
</tr>
<tr>
<td>42704</td>
<td>An undefined object or constraint name was detected.</td>
<td>-204</td>
</tr>
<tr>
<td>42705</td>
<td>An undefined server-name was detected.</td>
<td>-950</td>
</tr>
<tr>
<td>42707</td>
<td>A column name in ORDER BY does not identify a column of the result table.</td>
<td>-208</td>
</tr>
<tr>
<td>42709</td>
<td>A duplicate column name in a PRIMARY, UNIQUE, or FOREIGN KEY clause was</td>
<td>-537</td>
</tr>
<tr>
<td></td>
<td>detected.</td>
<td></td>
</tr>
<tr>
<td>42710</td>
<td>A duplicate object or constraint name was detected.</td>
<td>-456, -601</td>
</tr>
<tr>
<td>42711</td>
<td>A duplicate column name was detected in the object definition or ALTER TABLE statement.</td>
<td>-612</td>
</tr>
<tr>
<td>42712</td>
<td>A duplicate table designator was detected in the FROM clause, or REFERENCING clause of a CREATE TRIGGER statement.</td>
<td>-212</td>
</tr>
<tr>
<td>42713</td>
<td>The local server name is not defined.</td>
<td>-250</td>
</tr>
<tr>
<td>42723</td>
<td>A function with the same signature already exists in the schema.</td>
<td>-454</td>
</tr>
<tr>
<td>42724</td>
<td>Unable to access an external program used for a user-defined function or a procedure.</td>
<td>-444, -4300,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-4303, -4304,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-4306</td>
</tr>
<tr>
<td>42725</td>
<td>A routine was referenced directly (not by either signature or by specific instance name), but there is more than one specific instance of that routine.</td>
<td>-476</td>
</tr>
<tr>
<td>42726</td>
<td>Duplicate names for common table expressions were detected.</td>
<td>-340</td>
</tr>
<tr>
<td>42732</td>
<td>A duplicate schema name in the SET CURRENT PATH statement was detected.</td>
<td>-585</td>
</tr>
<tr>
<td>42733</td>
<td>A procedure with the specified name cannot be added to the schema because the procedure overloading is not allowed in this database and there is already a procedure with the same name in the schema.</td>
<td>-484</td>
</tr>
<tr>
<td>42734</td>
<td>A duplicate parameter-name was detected.</td>
<td>-590</td>
</tr>
<tr>
<td>42736</td>
<td>The label specified on the GOTO, ITERATE, or LEAVE statement is not found or not valid.</td>
<td>-779</td>
</tr>
<tr>
<td>42737</td>
<td>The condition specified in the handler is not defined.</td>
<td>-781</td>
</tr>
<tr>
<td>42738</td>
<td>A duplicate column name or unamed column was specified in a DECLARE CURSOR statement of a FOR statement.</td>
<td>-783</td>
</tr>
<tr>
<td>42802</td>
<td>The number of insert or update values is not the same as the number of columns.</td>
<td>-117</td>
</tr>
<tr>
<td>42803</td>
<td>A column reference in the SELECT or HAVING clause is invalid, because it is not a grouping column; or a column reference in the GROUP BY clause is invalid.</td>
<td>-119, -122</td>
</tr>
<tr>
<td>42804</td>
<td>The result expressions in a CASE expression are not compatible.</td>
<td>-581</td>
</tr>
<tr>
<td>42805</td>
<td>An integer in the ORDER BY clause does not identify a column of the result table.</td>
<td>-125</td>
</tr>
<tr>
<td>42806</td>
<td>A value cannot be assigned to a host variable, because the data types are not compatible.</td>
<td>-303</td>
</tr>
<tr>
<td>42807</td>
<td>The INSERT, UPDATE, or DELETE is not permitted on this object.</td>
<td>-150, -155</td>
</tr>
<tr>
<td>42808</td>
<td>A column identified in the INSERT or UPDATE statement is not updateable.</td>
<td>-151</td>
</tr>
<tr>
<td>42809</td>
<td>The identified object is not the type of object to which the statement applies.</td>
<td>-152, -156, -159</td>
</tr>
<tr>
<td>42810</td>
<td>A view is identified in a FOREIGN KEY clause.</td>
<td>-157</td>
</tr>
<tr>
<td>42811</td>
<td>The number of columns specified is not the same as the number of columns in the SELECT clause.</td>
<td>-158</td>
</tr>
<tr>
<td>42812</td>
<td>A library name is required in CREATE TABLE in the system naming mode.</td>
<td>-5002</td>
</tr>
<tr>
<td>42813</td>
<td>WITH CHECK OPTION cannot be used for the specified view.</td>
<td>-160</td>
</tr>
<tr>
<td>42814</td>
<td>The column cannot be dropped, because it is the only column in the table.</td>
<td>-195</td>
</tr>
<tr>
<td>SQLSTATE Value</td>
<td>Meaning</td>
<td>SQLCODE Values</td>
</tr>
<tr>
<td>----------------</td>
<td>-------------------------------------------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>42815</td>
<td>The data type, length, scale, value, or CCSID is invalid.</td>
<td>-060, -171, -451, -713, -5005</td>
</tr>
<tr>
<td>42816</td>
<td>A datetime value or duration in an expression is invalid.</td>
<td>-182, -187</td>
</tr>
<tr>
<td>42817</td>
<td>The column cannot be dropped, because RESTRICT was specified and a view or constraint is dependent on the column.</td>
<td>-196</td>
</tr>
<tr>
<td>42818</td>
<td>The operands of an operator or function are not compatible.</td>
<td>-131, -401</td>
</tr>
<tr>
<td>42819</td>
<td>An operand of an arithmetic operation or an operand of a function that requires a number is not a number.</td>
<td>-402</td>
</tr>
<tr>
<td>42820</td>
<td>A numeric constant is too long, or it has a value that is not within the range of its data type.</td>
<td>-405, -410</td>
</tr>
<tr>
<td>42821</td>
<td>A data type for an assignment to a column is not compatible with the column data type.</td>
<td>-408</td>
</tr>
<tr>
<td>42822</td>
<td>An expression in the ORDER BY clause or GROUP BY clause is not valid.</td>
<td>-214</td>
</tr>
<tr>
<td>42823</td>
<td>Multiple columns are returned from a subquery that only allows one column.</td>
<td>-412</td>
</tr>
<tr>
<td>42824</td>
<td>An operand of LIKE is not a string, or the first operand is not a column.</td>
<td>-132, -414</td>
</tr>
<tr>
<td>42825</td>
<td>The rows of UNION, INTERSECT, EXCEPT, or VALUES do not have compatible columns.</td>
<td>-415</td>
</tr>
<tr>
<td>42826</td>
<td>The rows of UNION, INTERSECT, EXCEPT, or VALUES do not have the same number of columns.</td>
<td>-421</td>
</tr>
<tr>
<td>42827</td>
<td>The table identified in the UPDATE or DELETE is not the same table designated by the cursor.</td>
<td>-509</td>
</tr>
<tr>
<td>42828</td>
<td>The table designated by the cursor of the UPDATE or DELETE statement cannot be modified, or the cursor is read-only.</td>
<td>-510, -520</td>
</tr>
<tr>
<td>42829</td>
<td>FOR UPDATE OF is invalid, because the result table designated by the cursor cannot be modified.</td>
<td>-511</td>
</tr>
<tr>
<td>42830</td>
<td>The foreign key does not conform to the description of the parent key.</td>
<td>-538</td>
</tr>
<tr>
<td>42832</td>
<td>The operation is not allowed on system objects.</td>
<td>-607</td>
</tr>
<tr>
<td>42833</td>
<td>The qualified object name is inconsistent with the naming option.</td>
<td>-5016</td>
</tr>
<tr>
<td>42834</td>
<td>SET NULL cannot be specified, because the foreign key does not allow null values.</td>
<td>-629</td>
</tr>
<tr>
<td>42835</td>
<td>Cyclic references cannot be specified between named derived tables.</td>
<td>-341</td>
</tr>
<tr>
<td>42836</td>
<td>The specification of a recursive, named derived table is invalid.</td>
<td>-346</td>
</tr>
<tr>
<td>42837</td>
<td>The column cannot be altered, because its attributes are not compatible with the current column attributes.</td>
<td>-190</td>
</tr>
<tr>
<td>42841</td>
<td>A parameter marker can not be a user-defined type or reference type.</td>
<td>-432</td>
</tr>
<tr>
<td>42842</td>
<td>A column definition is invalid, because a specified option is inconsistent with the column description.</td>
<td>-683</td>
</tr>
<tr>
<td>42845</td>
<td>An invalid use of a NOT DETERMINISTIC or EXTERNAL ACTION function was detected.</td>
<td>-583</td>
</tr>
<tr>
<td>42846</td>
<td>Cast from source type to target type is not supported.</td>
<td>-461</td>
</tr>
<tr>
<td>42847</td>
<td>An OVRDBF command was issued for one of the referenced files, but one of the parameters is not valid for SQL.</td>
<td>-7002</td>
</tr>
<tr>
<td>42848</td>
<td>Isolation level CS WITH KEEP LOCKS is not allowed.</td>
<td>-194</td>
</tr>
<tr>
<td>42850</td>
<td>A logical file is invalid in CREATE VIEW.</td>
<td>-7010</td>
</tr>
<tr>
<td>42851</td>
<td>A referenced file is not a table, view, or physical file.</td>
<td>-7011</td>
</tr>
<tr>
<td>42852</td>
<td>The privileges specified in GRANT or REVOKE are invalid or inconsistent. (For example, GRANT ALTER on a view.)</td>
<td>-557</td>
</tr>
<tr>
<td>42855</td>
<td>The assignment of the LOB to this host variable is not allowed. The target host variable for all fetches of this LOB value for this cursor must be a locator or LOB variable.</td>
<td>-392</td>
</tr>
<tr>
<td>42857</td>
<td>A referenced file has more than one format.</td>
<td>-7003</td>
</tr>
<tr>
<td>42858</td>
<td>Operation cannot be applied to the specified object.</td>
<td>-7001</td>
</tr>
<tr>
<td>42860</td>
<td>The CHECK constraint cannot be dropped because it is enforcing a primary key to be not null.</td>
<td>-784</td>
</tr>
<tr>
<td>SQLSTATE Value</td>
<td>Meaning</td>
<td>SQLCODE Values</td>
</tr>
<tr>
<td>----------------</td>
<td>-------------------------------------------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>42862</td>
<td>An extended dynamic statement cannot be executed against a non-extended</td>
<td>-827</td>
</tr>
<tr>
<td></td>
<td>dynamic package.</td>
<td></td>
</tr>
<tr>
<td>42863</td>
<td>An undefined host variable in REXX has been detected.</td>
<td>-306</td>
</tr>
<tr>
<td>42866</td>
<td>The data type in either the RETURNS clause or the CAST FROM clause in the</td>
<td>-475</td>
</tr>
<tr>
<td></td>
<td>CREATE FUNCTION statement is not appropriate for the data type returned</td>
<td></td>
</tr>
<tr>
<td></td>
<td>from the sourced function or RETURN statement in the function body.</td>
<td></td>
</tr>
<tr>
<td>42872</td>
<td>FETCH statement clauses are incompatible with the cursor definition.</td>
<td>-225</td>
</tr>
<tr>
<td>42873</td>
<td>An invalid number of rows was specified in a multiple-row FETCH.</td>
<td>-221</td>
</tr>
<tr>
<td>42874</td>
<td>ALWCPYDTA(*NO) was specified, but a copy is necessary to implement the</td>
<td>-527</td>
</tr>
<tr>
<td></td>
<td>select-statement.</td>
<td></td>
</tr>
<tr>
<td>42875</td>
<td>The schema-name portion of a qualified name must be the same name as the</td>
<td>-5051</td>
</tr>
<tr>
<td></td>
<td>schema name.</td>
<td></td>
</tr>
<tr>
<td>42876</td>
<td>Different CCSIDs for keys in CREATE INDEX are only allowed with a *HEX</td>
<td>-7024</td>
</tr>
<tr>
<td></td>
<td>sort sequence.</td>
<td></td>
</tr>
<tr>
<td>42877</td>
<td>The column name cannot be qualified.</td>
<td>-197</td>
</tr>
<tr>
<td>42878</td>
<td>An invalid function or procedure name was used with the EXTERNAL keyword.</td>
<td>-449</td>
</tr>
<tr>
<td>42879</td>
<td>The data type of one or more input parameters in the CREATE FUNCTION</td>
<td>-492</td>
</tr>
<tr>
<td></td>
<td>statement is not appropriate for the corresponding data type in the source</td>
<td></td>
</tr>
<tr>
<td></td>
<td>function.</td>
<td></td>
</tr>
<tr>
<td>42880</td>
<td>The CAST TO and CAST FROM data types are incompatible, or would always</td>
<td>-453</td>
</tr>
<tr>
<td></td>
<td>result in truncation of a fixed string.</td>
<td></td>
</tr>
<tr>
<td>42882</td>
<td>The specific instance name qualifier is not equal to the function name</td>
<td>-455</td>
</tr>
<tr>
<td></td>
<td>qualifier.</td>
<td></td>
</tr>
<tr>
<td>42883</td>
<td>No function was found with a matching signature.</td>
<td>-458</td>
</tr>
<tr>
<td>42884</td>
<td>No function or procedure was found with the specified name and compatible</td>
<td>-440</td>
</tr>
<tr>
<td></td>
<td>arguments.</td>
<td></td>
</tr>
<tr>
<td>42885</td>
<td>The number of input parameters specified on a CREATE FUNCTION statement</td>
<td>-483</td>
</tr>
<tr>
<td></td>
<td>does not match the number provided by the function named in the SOURCE</td>
<td></td>
</tr>
<tr>
<td></td>
<td>clause.</td>
<td></td>
</tr>
<tr>
<td>42886</td>
<td>The IN, OUT, or INOUT parameter attributes do not match.</td>
<td>-469</td>
</tr>
<tr>
<td>42888</td>
<td>The table does not have a primary key.</td>
<td>-539</td>
</tr>
<tr>
<td>42889</td>
<td>The table already has a primary key.</td>
<td>-624</td>
</tr>
<tr>
<td>42890</td>
<td>A column list was specified in the references clause, but the identified</td>
<td>-573</td>
</tr>
<tr>
<td></td>
<td>parent table does not have a unique constraint with the specified column</td>
<td></td>
</tr>
<tr>
<td></td>
<td>names.</td>
<td></td>
</tr>
<tr>
<td>42891</td>
<td>A duplicate UNIQUE constraint already exists.</td>
<td>-541</td>
</tr>
<tr>
<td>42892</td>
<td>The referential constraint and trigger are not allowed, because the</td>
<td>-675</td>
</tr>
<tr>
<td></td>
<td>DELETE rule and trigger event are not compatible.</td>
<td></td>
</tr>
<tr>
<td>42893</td>
<td>The object or constraint cannot be dropped or authorities cannot be</td>
<td>-478, -616</td>
</tr>
<tr>
<td></td>
<td>revoked from the object, because other objects are dependent on it.</td>
<td></td>
</tr>
<tr>
<td>42894</td>
<td>The DEFAULT value is invalid.</td>
<td>-574</td>
</tr>
<tr>
<td>42895</td>
<td>For static SQL, an input host variable cannot be used, because its data</td>
<td>-301</td>
</tr>
<tr>
<td></td>
<td>type is not compatible with the parameter of a procedure or user-defined</td>
<td></td>
</tr>
<tr>
<td></td>
<td>function.</td>
<td></td>
</tr>
<tr>
<td>42896</td>
<td>The ASP number is invalid.</td>
<td>-7026</td>
</tr>
<tr>
<td>42898</td>
<td>An invalid correlated reference or transition table was detected in a</td>
<td>-696</td>
</tr>
<tr>
<td></td>
<td>trigger.</td>
<td></td>
</tr>
<tr>
<td>42899</td>
<td>Correlated references and column names are not allowed for triggered</td>
<td>-697</td>
</tr>
<tr>
<td></td>
<td>actions with the FOR EACH STATEMENT clause.</td>
<td></td>
</tr>
<tr>
<td>428A1</td>
<td>Unable to access a file referenced by a file reference variable.</td>
<td>-452</td>
</tr>
<tr>
<td>428B7</td>
<td>The number specified in an SQL statement is out of the valid range.</td>
<td>-490</td>
</tr>
<tr>
<td>428B8</td>
<td>The name specified on a rename is not valid.</td>
<td>-7029</td>
</tr>
<tr>
<td>428D1</td>
<td>Unable to access a file referenced by a DATALINK value.</td>
<td>-358</td>
</tr>
<tr>
<td>428D2</td>
<td>AS LOCATOR cannot be specified for a non-LOB parameter.</td>
<td>-398</td>
</tr>
<tr>
<td>428D4</td>
<td>A cursor specified in a FOR statement cannot be referenced in an OPEN,</td>
<td>-776</td>
</tr>
<tr>
<td></td>
<td>CLOSE, or FETCH statement.</td>
<td></td>
</tr>
<tr>
<td>428D5</td>
<td>The ending label does not match the beginning label.</td>
<td>-778</td>
</tr>
<tr>
<td>428D6</td>
<td>UNDO is not allowed for NOT ATOMIC compound statements.</td>
<td>-780</td>
</tr>
<tr>
<td>428D7</td>
<td>The condition value is not allowed.</td>
<td>-782</td>
</tr>
<tr>
<td>428D8</td>
<td>The sqlcode or sqlstate variable declaration is not valid.</td>
<td>-785</td>
</tr>
<tr>
<td>SQLSTATE Value</td>
<td>Meaning</td>
<td>SQLCODE Values</td>
</tr>
<tr>
<td>----------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>42903</td>
<td>A WHERE, VALUES, GROUP BY, HAVING, or SET clause includes an invalid reference, such as a column or OLAP function.</td>
<td>-120</td>
</tr>
<tr>
<td>42904</td>
<td>The SQL procedure was not created because of a compile error.</td>
<td>-7032</td>
</tr>
<tr>
<td>42906</td>
<td>A column function in a subquery of a HAVING clause includes an expression that applies an operator to a correlated reference.</td>
<td>-133</td>
</tr>
<tr>
<td>42907</td>
<td>The string is too long.</td>
<td>-134</td>
</tr>
<tr>
<td>42908</td>
<td>The statement does not include a required column list.</td>
<td>-153</td>
</tr>
<tr>
<td>42909</td>
<td>CREATE VIEW includes an operator or operand that is not valid for views. For example, UNION or UNION ALL.</td>
<td>-154</td>
</tr>
<tr>
<td>42910</td>
<td>The statement is not allowed in an ATOMIC Compound statement.</td>
<td>-775</td>
</tr>
<tr>
<td>42911</td>
<td>A decimal divide operation is invalid, because the result would have a negative scale.</td>
<td>-419</td>
</tr>
<tr>
<td>42912</td>
<td>A column cannot be updated, because it is not identified in the UPDATE clause of the select-statement of the cursor.</td>
<td>-503</td>
</tr>
<tr>
<td>42914</td>
<td>The DELETE is invalid, because a table referenced in a subquery can be affected by the operation.</td>
<td>-536</td>
</tr>
<tr>
<td>42917</td>
<td>The object cannot be explicitly dropped.</td>
<td>-658</td>
</tr>
<tr>
<td>42918</td>
<td>A user-defined data type cannot be created with a system-defined data type name (for example, INTEGER).</td>
<td>-473</td>
</tr>
<tr>
<td>42919</td>
<td>Nested compound statements are not allowed.</td>
<td>-777</td>
</tr>
<tr>
<td>42922</td>
<td>DROP SCHEMA cannot be executed under commitment control.</td>
<td>-5003</td>
</tr>
<tr>
<td>42923</td>
<td>Program or package must be recreated to reference an alias-name.</td>
<td>-7033</td>
</tr>
<tr>
<td>42924</td>
<td>An alias resolved to another alias rather than a table or view at the remote location.</td>
<td>-513</td>
</tr>
<tr>
<td>42926</td>
<td>Locators are not allowed with COMMIT(*NONE).</td>
<td>-7034</td>
</tr>
<tr>
<td>42927</td>
<td>The parameter must not have a subtype of mixed.</td>
<td>-192</td>
</tr>
<tr>
<td>42930</td>
<td>The same column was identified in FOR UPDATE OF and ORDER BY.</td>
<td>-5021</td>
</tr>
<tr>
<td>42932</td>
<td>The program preparation assumptions are incorrect.</td>
<td>-30052</td>
</tr>
<tr>
<td>42937</td>
<td>The object cannot be created, because the specified identifier is reserved for system use.</td>
<td>-457, -707</td>
</tr>
<tr>
<td>42939</td>
<td>SQL statements cannot be executed under commitment control, because DFM is already active under commitment control to another system.</td>
<td>-7017</td>
</tr>
<tr>
<td>42961</td>
<td>The server name specified does not match the current server.</td>
<td>-114</td>
</tr>
<tr>
<td>42962</td>
<td>A long column, LOB column, structured type column or datalink column cannot be used in an index, a key, or a constraint.</td>
<td>-350</td>
</tr>
<tr>
<td>42968</td>
<td>The connection failed, because there is no current software license.</td>
<td>-9012</td>
</tr>
<tr>
<td>42969</td>
<td>The package was not created and the current unit of work was rolled back, because of internal limitations or an invalid section number.</td>
<td>-917</td>
</tr>
<tr>
<td>42970</td>
<td>COMMIT HOLD or ROLLBACK HOLD is not allowed to a non-sql400. application server.</td>
<td>-7018</td>
</tr>
<tr>
<td>42971</td>
<td>SQL statements cannot be executed under commitment control, because DFM is already active under commitment control to another system.</td>
<td>-7017</td>
</tr>
<tr>
<td>42972</td>
<td>An expression in a join-condition references columns in more than one of the operand tables.</td>
<td>-338</td>
</tr>
<tr>
<td>42977</td>
<td>The authorization ID cannot be changed when connecting to the local server.</td>
<td>-7022</td>
</tr>
<tr>
<td>42978</td>
<td>An indicator variable is not a small integer.</td>
<td>-080</td>
</tr>
<tr>
<td>42981</td>
<td>CREATE SCHEMA is not allowed if changes are pending in the unit of work.</td>
<td>-7941</td>
</tr>
<tr>
<td>42984</td>
<td>The privilege cannot be granted to the view, because *OBJOPR or *OBJMGT authority exists on a dependent view or table, and the grantee does not have *ALLOBJ or the specified privilege on the dependent table or view.</td>
<td>-7027</td>
</tr>
<tr>
<td>42985</td>
<td>The statement is not allowed in a routine.</td>
<td>-577, -579, -751</td>
</tr>
<tr>
<td>42987</td>
<td>The statement is not allowed in a trigger.</td>
<td>-751</td>
</tr>
<tr>
<td>42990</td>
<td>A unique index or unique constraint is not allowed because the key columns are not a superset of the partitioned key columns.</td>
<td>-270</td>
</tr>
<tr>
<td>42996</td>
<td>The partition key cannot be a datetime or floating-point column.</td>
<td>-328</td>
</tr>
<tr>
<td>SQLSTATE</td>
<td>Meaning</td>
<td>SQLCODE</td>
</tr>
<tr>
<td>----------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>42998</td>
<td>A referential constraint is not allowed because the foreign key columns are not a superset of the partitioned key columns or the node group is not the same as the parent table.</td>
<td>-256</td>
</tr>
<tr>
<td>429B6</td>
<td>Rows from a distributed table cannot be redistributed because the table contains a datalink column with FILE LINK CONTROL.</td>
<td>-7037</td>
</tr>
<tr>
<td>429B7</td>
<td>A referential constraint with a delete rule of CASCADE is not allowed on a table with a DataLink column with FILE LINK CONTROL.</td>
<td>-7038</td>
</tr>
</tbody>
</table>

Table 27. Class Code 44: WITH CHECK OPTION Violation

<table>
<thead>
<tr>
<th>SQLSTATE</th>
<th>Meaning</th>
<th>SQLCODE</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>44000</td>
<td>The INSERT or UPDATE is not allowed, because a resulting row does not satisfy the view definition.</td>
<td>-161</td>
<td></td>
</tr>
</tbody>
</table>

Table 28. Class Code 46: Java Errors

<table>
<thead>
<tr>
<th>SQLSTATE</th>
<th>Meaning</th>
<th>SQLCODE</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>46001</td>
<td>The URL specified on an install or replace of a jar procedure did not identify a valid jar file.</td>
<td>-20200</td>
<td></td>
</tr>
<tr>
<td>46002</td>
<td>The jar name specified on the install, replace, or remove of a java procedure is not valid.</td>
<td>-20201</td>
<td></td>
</tr>
<tr>
<td>46003</td>
<td>The jar file cannot be removed, a class is in use by a procedure.</td>
<td>-20202</td>
<td></td>
</tr>
<tr>
<td>46007</td>
<td>A Java function has a Java method with an invalid signature.</td>
<td>-20203</td>
<td></td>
</tr>
<tr>
<td>46008</td>
<td>A Java function could not map to a single Java method.</td>
<td>-20204</td>
<td></td>
</tr>
<tr>
<td>46501</td>
<td>The install or remove jar procedure for &quot;&lt;jar-id&gt;&quot; specified the use of a deployment descriptor.</td>
<td>-20207</td>
<td></td>
</tr>
</tbody>
</table>

Table 29. Class Code 51: Invalid Application State

<table>
<thead>
<tr>
<th>SQLSTATE</th>
<th>Meaning</th>
<th>SQLCODE</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>51002</td>
<td>The package corresponding to an SQL statement execution request was not found.</td>
<td>-805</td>
<td></td>
</tr>
<tr>
<td>51003</td>
<td>Consistency tokens do not match.</td>
<td>-818</td>
<td></td>
</tr>
<tr>
<td>51004</td>
<td>An address in the SQLDA is invalid.</td>
<td>-822</td>
<td></td>
</tr>
<tr>
<td>51009</td>
<td>COMMIT or ROLLBACK is not allowed, because commitment control has not been started.</td>
<td>-7007</td>
<td></td>
</tr>
<tr>
<td>51015</td>
<td>An attempt was made to execute a section that was found to be in error at bind time.</td>
<td>-525</td>
<td></td>
</tr>
<tr>
<td>51021</td>
<td>SQL statements cannot be executed until the application process executes a rollback operation.</td>
<td>-918</td>
<td></td>
</tr>
<tr>
<td>51037</td>
<td>The operation is not allowed because a trigger has been marked inoperative.</td>
<td>-7048</td>
<td></td>
</tr>
</tbody>
</table>

Table 30. Class Code 54: SQL or Product Limit Exceeded

<table>
<thead>
<tr>
<th>SQLSTATE</th>
<th>Meaning</th>
<th>SQLCODE</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>54001</td>
<td>The statement is too long or too complex.</td>
<td>-101</td>
<td></td>
</tr>
<tr>
<td>54002</td>
<td>A string constant is too long.</td>
<td>-102</td>
<td></td>
</tr>
<tr>
<td>54004</td>
<td>The statement has too many table names or too many items in a SELECT or INSERT list.</td>
<td>-129, -840</td>
<td></td>
</tr>
<tr>
<td>SQLSTATE Value</td>
<td>Meaning</td>
<td>SQLCODE Values</td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>-------------------------------------------------------------------------</td>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td>54005</td>
<td>The sort key is too long, or has too many columns.</td>
<td>-136</td>
<td></td>
</tr>
<tr>
<td>54006</td>
<td>The result of concatenation is too long.</td>
<td>-137</td>
<td></td>
</tr>
<tr>
<td>54008</td>
<td>The key is too long, a column of the key is too long, or the key many columns.</td>
<td>-602, -613, -614, -631</td>
<td></td>
</tr>
<tr>
<td>54009</td>
<td>Too many users were specified in GRANT or REVOKE.</td>
<td>-5017</td>
<td></td>
</tr>
<tr>
<td>54010</td>
<td>The record length of the table is too long.</td>
<td>-101</td>
<td></td>
</tr>
<tr>
<td>54011</td>
<td>Too many columns were specified for a table or view.</td>
<td>-101</td>
<td></td>
</tr>
<tr>
<td>54019</td>
<td>The maximum number of late descriptors has been exceeded, probably because too many different CCSIDs were used.</td>
<td>-871</td>
<td></td>
</tr>
<tr>
<td>54021</td>
<td>Too many constraints, or the size of the constraint is too large.</td>
<td>-642</td>
<td></td>
</tr>
<tr>
<td>54023</td>
<td>The limit for the number of parameters or arguments for a function or a procedure has been exceeded.</td>
<td>-442, -448</td>
<td></td>
</tr>
<tr>
<td>54028</td>
<td>The maximum number of concurrent LOB handles has been reached.</td>
<td>-429</td>
<td></td>
</tr>
<tr>
<td>54038</td>
<td>Maximum depth of nested functions, procedures, or triggers was exceeded.</td>
<td>-724</td>
<td></td>
</tr>
<tr>
<td>54044</td>
<td>A multiple-byte (UCS-2) sort sequence table cannot be supprted in DRDA because it is too large.</td>
<td>-7031</td>
<td></td>
</tr>
</tbody>
</table>

Table 31. Class Code 55: Object Not in Prerequisite State

<table>
<thead>
<tr>
<th>SQLSTATE Value</th>
<th>Meaning</th>
<th>SQLCODE Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>55005</td>
<td>Recursion is not supported to a non-sql400. application server.</td>
<td>-145</td>
</tr>
<tr>
<td>55006</td>
<td>The object cannot be dropped, because it is currently in use by the same application process.</td>
<td>-615, -615, -950</td>
</tr>
<tr>
<td>55007</td>
<td>The object cannot be altered, because it is currently in use by the same application process.</td>
<td>-951</td>
</tr>
<tr>
<td>55018</td>
<td>The schema cannot be dropped, because it is in the library list.</td>
<td>-7006</td>
</tr>
<tr>
<td>55019</td>
<td>The table is in an invalid state for the operation.</td>
<td>-7008</td>
</tr>
<tr>
<td>55029</td>
<td>Local program attempted to connect to a remote database.</td>
<td>-862</td>
</tr>
<tr>
<td>55042</td>
<td>The alias is not allowed because it identifies a single member of a multiple member file.</td>
<td>-7030</td>
</tr>
</tbody>
</table>

Table 32. Class Code 56: Miscellaneous SQL or Product Error

<table>
<thead>
<tr>
<th>SQLSTATE Value</th>
<th>Meaning</th>
<th>SQLCODE Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>56084</td>
<td>An unsupported SQLTYPE was encountered in a select-list or input-list.</td>
<td>-351, -352</td>
</tr>
</tbody>
</table>

Table 33. Class Code 57: Resource Not Available or Operator Intervention

<table>
<thead>
<tr>
<th>SQLSTATE Value</th>
<th>Meaning</th>
<th>SQLCODE Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>57005</td>
<td>The statement cannot be executed, because a utility or a governor time limit was exceeded.</td>
<td>-666</td>
</tr>
<tr>
<td>57006</td>
<td>The object cannot be created, because a DROP or CREATE is pending.</td>
<td>-679</td>
</tr>
<tr>
<td>57007</td>
<td>The object cannot be used, because a DROP or ALTER is pending.</td>
<td>-910, -910</td>
</tr>
<tr>
<td>57011</td>
<td>Virtual storage or database resource is not available.</td>
<td>-904, -971</td>
</tr>
<tr>
<td>57012</td>
<td>A non-database resource is not available. This will not affect the successful execution of subsequent statements.</td>
<td>-30040</td>
</tr>
<tr>
<td>57013</td>
<td>A non-database resource is not available. This will affect the successful execution of subsequent statements.</td>
<td>-30041</td>
</tr>
<tr>
<td>57014</td>
<td>Processing was canceled as requested.</td>
<td>-952</td>
</tr>
<tr>
<td>57017</td>
<td>Character conversion is not defined.</td>
<td>-332</td>
</tr>
</tbody>
</table>
### Table 34. Class Code 58: System Error

<table>
<thead>
<tr>
<th>SQLSTATE Value</th>
<th>Meaning</th>
<th>SQLCODE Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>58003</td>
<td>An invalid section number was detected.</td>
<td>-144</td>
</tr>
<tr>
<td>58004</td>
<td>A system error (that does not necessarily preclude the successful execution of subsequent SQL statements) occurred. SQLSTATE 58004, when combined with SQLCODE -4301, indicates this meaning for the failure: Java interpreter startup or communication failed.</td>
<td>-901, -4301</td>
</tr>
<tr>
<td>58008</td>
<td>Execution failed due to a distribution protocol error that will not affect the successful execution of subsequent DDM commands or SQL statements.</td>
<td>-30000</td>
</tr>
<tr>
<td>58009</td>
<td>Execution failed due to a distribution protocol error that caused deallocation of the conversation.</td>
<td>-30020</td>
</tr>
<tr>
<td>58010</td>
<td>Execution failed due to a distribution protocol error that will affect the successful execution of subsequent DDM commands or SQL statements.</td>
<td>-30021</td>
</tr>
<tr>
<td>58011</td>
<td>The DDM command is invalid while the bind process in progress.</td>
<td>-30050</td>
</tr>
<tr>
<td>58012</td>
<td>The bind process with the specified package name and consistency token is not active.</td>
<td>-30051</td>
</tr>
<tr>
<td>58014</td>
<td>The DDM command is not supported.</td>
<td>-30070</td>
</tr>
<tr>
<td>58015</td>
<td>The DDM object is not supported.</td>
<td>-30071</td>
</tr>
<tr>
<td>58016</td>
<td>The DDM parameter is not supported.</td>
<td>-30072</td>
</tr>
<tr>
<td>58017</td>
<td>The DDM parameter value is not supported.</td>
<td>-30073</td>
</tr>
<tr>
<td>58018</td>
<td>The DDM reply message is not supported.</td>
<td>-30074</td>
</tr>
<tr>
<td>58028</td>
<td>The commit operation failed, because a resource in the unit of work was not able to commit its resources.</td>
<td>-175</td>
</tr>
<tr>
<td>58033</td>
<td>An unexpected error occurred while attempting to access a client driver.</td>
<td>-969</td>
</tr>
</tbody>
</table>
Chapter 3. DB2 Universal Database for iSeries SQL Messages and Codes

SQL Messages Reference

SQL Messages are displayed when a DB2 UDB for iSeries returns an error or warning code to the application that uses it. The base message text is displayed or logged at runtime.

Using Display Message Description (DSPMSGD) to display a message description

Detailed descriptions of all DB2 UDB for iSeries messages, including SQLCODEs, are available in message file QSQLMSG. You can display and print them from the Display Message Description display. The CL command to display the message description is DSPMSGD. This command shows you both the first level and the second level text for the message. The first level is a short, single sentence version of the message. The second level generally describes the reason in more detail and provides suggested solutions.

To show the message that corresponds to SQLCODE 0204, type the following command:

DSPMSGD RANGE(SQL0204) MSGF(QSYS/QSQLMSG)

Using the online reference to display message descriptions

You can use the reference below with both positive and negative SQLCODEs. Take the absolute value of the SQLCODE, then append it to the letters "SQL" (for SQLCODEs less than 10 000) or the letters "SQ" (for SQLCODEs greater than or equal to 10 000) to determine the message identifier. Each SQLCODE corresponds to one or more SQLSTATEs. Refer to DB2 UDB for iSeries SQLSTATE Classes and Codes for more information about SQLSTATEs.

<table>
<thead>
<tr>
<th>SQL0007</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Message Text:</strong></td>
</tr>
<tr>
<td><strong>Cause Text:</strong></td>
</tr>
<tr>
<td><strong>Recovery Text:</strong></td>
</tr>
<tr>
<td><strong>SQLCODE or SQLCODEs:</strong></td>
</tr>
<tr>
<td><strong>SQLSTATE or SQLSTATEs:</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SQL0010</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Message Text:</strong></td>
</tr>
<tr>
<td><strong>Cause Text:</strong></td>
</tr>
</tbody>
</table>
**Recovery Text:** Delimit the string constant. Check for any missing or extra quotation marks and apostrophes. These errors are likely to cause other errors. Some statements may not have been processed as the result of either missing or extra string delimiters. Precompile the program again.

**SQLCODE or SQLCODEs:** -010
**SQLSTATE or SQLSTATEs:** 42603

---

**SQL0012**

**Message Text:** Correlation without qualification occurred for column &1 to table &2.

**Cause Text:** Column &1 which occurs in a subselect, is not explicitly qualified, and occurs in table &2 in library &3 specified in the FROM clause of an outer subselect or as the target of an update or delete operation. Consequently, the reference to the column in the subselect is an outer reference, and correlation will occur.

**Recovery Text:** Ensure you intended to use the correlation. If you did not intend to use the correlation, the column does not exist in any of the tables or views identified in the FROM clause of the same level of the subselect that column &1 was referenced. Since it is a good practice to explicitly qualify any intended correlated references, it is recommended that the statement be changed so that the column &1 is qualified with a table designator.

**SQLCODE or SQLCODEs:** +012
**SQLSTATE or SQLSTATEs:** 01545

---

**SQL0029**

**Message Text:** INTO clause missing from embedded statement.

**Cause Text:** SELECT and VALUES INTO statements embedded in a program must have an INTO clause to specify where the results of the statement are to be placed. A dynamic VALUES INTO statement must have an INTO clause.

**Recovery Text:** Add the INTO clause to the statement, and precompile the program again.

**SQLCODE or SQLCODEs:** -029
**SQLSTATE or SQLSTATEs:** 42601

---

**SQL0030**

**Message Text:** Number of host variables less than result values.

**Cause Text:** The number of host variables specified in the INTO clause is less than the number of result values. If the program is run, only the variables specified will have values assigned to them.
### SQL0051

**Message Text:** Cursor or procedure &1 previously declared.

**Cause Text:** One of the following has occurred:

- Cursor &1 has already been specified in a previous DECLARE CURSOR statement. A cursor name must be unique within the program.
- Procedure &1 specified on a CALL statement is ambiguous.

**Recovery Text:** Make certain that the cursor names on all DECLARE CURSOR statements and the procedure names on all DECLARE PROCEDURE statements are unique in the program. Precompile the program again.

**SQLCODE or SQLCODEs:** -051

**SQLSTATE or SQLSTATEs:** 3C000

---

### SQL0060

**Message Text:** Value &3 for argument &1 of &2 function not valid.

**Cause Text:** The length or scale specified as &3 for argument &1 of the &2 function is not valid. The length specified for numeric values must be an unsigned integer from 1 through 31. The scale specified for numeric values must be an unsigned integer between 0 and the specified length.

**Recovery Text:** Correct the length or scale specified for the function. Try the request again.

**SQLCODE or SQLCODEs:** -060

**SQLSTATE or SQLSTATEs:** 42815

---

### SQL0078

**Message Text:** Parameter name required for routine &1 in &2.

**Cause Text:** Parameter name must be specified when creating SQL routines.

**Recovery Text:** Specify a parameter name. Try the request again.

**SQLCODE or SQLCODEs:** -078

**SQLSTATE or SQLSTATEs:** 42629
SQL0080

| Message Text: | Indicator variable &1 not SMALLINT type. |
| Cause Text: | The definition of indicator variable &1 must be a 2-byte binary with a zero scale. |
| Recovery Text: | Specify an indicator variable that is defined as a 2-byte binary with a zero scale. Try the request again. |
| SQLCODE or SQLCODEs: | -080 |
| SQLSTATE or SQLSTATEs: | 42978 |

SQL0084

| Message Text: | SQL statement not allowed. |
| Cause Text: | The SQL statement is not allowed for one of the following reasons: |
| | • DECLARE CURSOR, DECLARE STATEMENT, FETCH, OPEN, CLOSE, WHENEVER, PREPARE, EXECUTE, EXECUTE IMMEDIATE, INCLUDE, DECLARE TABLE, DECLARE VARIABLE, DECLARE procedure, and DESCRIBE are not allowed in interactive SQL, dynamic SQL, or using the RUNSQLSTM command. |
| | • BEGIN DECLARE SECTION and END DECLARE SECTION are not allowed in interactive SQL, in dynamic SQL, in RPG, or in REXX. |
| | • A blocked INSERT statement is not allowed in interactive SQL or dynamic SQL. |
| | • The CONNECT, SET CONNECTION, RELEASE, and DISCONNECT statements are not allowed in dynamic SQL. CONNECT with constants specified for user ID and password is not allowed in a precompiled program. |
| | • SELECT cannot be issued from an EXECUTE IMMEDIATE statement or the RUNSQLSTM command. |
| | • A CREATE SCHEMA statement that contains other DDL statements can only be processed using the RUNSQLSTM command. |
| | • The SET OPTION statement is only allowed in REXX, in a precompiled program, or in SQL routines. In a precompiled program, it must be the first SQL statement in the program. |
| | • DECLARE STATEMENT, DECLARE VARIABLE, DECLARE procedure, INCLUDE, SELECT INTO, WHENEVER, blocked INSERT, and blocked FETCH statements are not allowed in REXX. |
| | • The SET TRANSACTION statement is not allowed when the current connection is to a remote database. |
| | • The SQL statement specified is not a valid statement on the current release of the AS/400. The statement may be valid on a future release of the AS/400 or on a system other than an AS/400. |
Recovery Text: The statement cannot be run in this mode. For a CONNECT statement in a precompiled program, specify the user ID and password as host variables. If in interactive SQL, you may syntax check a statement by setting the statement processing value to *SYN.

SQLCODE or SQLCODEs: +084 -084
SQLSTATE or SQLSTATEs: 01505 42612

Message Text: &1 applies to entire table.

Cause Text: The UPDATE or DELETE statement does not have a WHERE clause and will delete or update all the rows in the specified table.

Recovery Text: Do one of the following:
- Verify that all the rows in the specified table need to be deleted or updated and try the statement again.
- If the rows in the specified table do not need to be deleted or updated, add a WHERE clause and precompile the program again.

SQLCODE or SQLCODEs: +088
SQLSTATE or SQLSTATEs: 01504

Message Text: Host variable not permitted here.

Cause Text: Host variable &1 is not allowed as used in this statement. Host variables are not allowed:
- In a CREATE VIEW, CREATE TABLE, or ALTER TABLE statement.
- In any interactive SQL statement when the Statement processing value is *RUN or *VLD.
- In an SQL statement processed by the RUNSQLSTM command.
- In an INSERT, UPDATE, DELETE, or DECLARE CURSOR statement in REXX.

Recovery Text: Do one of the following and try the request again.
- Specify either a constant or a column name to replace the host variable. The colon indicates that the name that follows is a host variable. Remove the colon to specify a column name.
- If in interactive SQL, set the statement processing value to *SYN to syntax check a statement that contains a host variable.
- If in REXX, change the host variables to parameter markers and prepare the INSERT, UPDATE, DELETE, or DECLARE CURSOR statement.

SQLCODE or SQLCODEs: -090
### SQL0097

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Use of data type not valid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>The data type specified in the statement can not be specified for a procedure or function. Data types such as LONG VARCHAR can only be specified for columns, and cannot be specified for parameters.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Correct the data type specified for the procedure or function. Try the request again.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>-097</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42601</td>
</tr>
</tbody>
</table>

### SQL0100

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Row not found for &amp;1.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>One of the following conditions has occurred:</td>
</tr>
<tr>
<td></td>
<td>• If this is a FETCH statement, no more rows satisfy the selection values (end of file). The name of the cursor is &amp;1.</td>
</tr>
<tr>
<td></td>
<td>• If this is a FETCH statement for a scrollable cursor, a record was not found.</td>
</tr>
<tr>
<td></td>
<td>– If NEXT was specified, end of file was reached.</td>
</tr>
<tr>
<td></td>
<td>– If PRIOR was specified, the beginning of the file was reached.</td>
</tr>
<tr>
<td></td>
<td>– If RELATIVE was specified, either the beginning of file or the end of file was reached, depending on the value specified.</td>
</tr>
<tr>
<td></td>
<td>– If FIRST or LAST was specified, then no records satisfy the selection criteria. The name of the cursor is &amp;1.</td>
</tr>
<tr>
<td></td>
<td>• If this is an embedded SELECT statement, no rows satisfy the selection values.</td>
</tr>
<tr>
<td></td>
<td>• If this is an UPDATE, INSERT, or DELETE statement, no rows satisfy the subselect or WHERE clause. No rows were updated, inserted, or deleted.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>No recovery is necessary.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>+100</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>02000</td>
</tr>
</tbody>
</table>

### SQL0101

| Message Text: | SQL statement too long or complex. |
### Cause Text:
The SQL statement is longer than the limit allowed for length or complexity. The reason code is &1. One of the following reason codes indicates the error:
- 1 - The total number of subselects in a fullselect (UNION or UNION ALL clause) is greater than 32.
- 2 - The total number of columns, constants, and operators is greater than the SQL limits.
- 3 - The sum of the lengths of the non-LOB columns in a select list or in a table or view definition is greater than 32766 or the field contains a LOB and the sum of the allocates and the non-varying field lengths is greater than 32740. The maximum length is reduced if any of the columns are variable length or allow null values. Also, this reason code is used if the total length of all columns exceeds 3750096383 if a LOB is present.
- 4 - The total number of nested subselects is greater than 31.
- 5 - The total length of the statement text is greater than 32767.
- 6 - The relative position value specified on the FETCH statement is outside the range of valid values.
- 7 - A system name could not be generated.

### Recovery Text:
Simplify the statement or divide the statement up into more than one statement and try the request again. For reason code 7, specify a different name for the table, view, index or alias.

### SQLCODE or SQLCODEs:
-101

### SQLSTATE or SQLSTATEs:
54001 54010 54011

---

### SQL0102
**Message Text:** String constant beginning with &1 too long.

**Cause Text:** The string constant beginning with &1 is larger than 32740 bytes. If this is a graphic string constant, the string cannot be longer than 16370 DBCS characters.

**Recovery Text:** Reduce the length of the string. Try the request again.

**SQLCODE or SQLCODEs:** -102

**SQLSTATE or SQLSTATEs:** 54002

---

### SQL0103
**Message Text:** Numeric constant &1 not valid.

**Cause Text:** The token &1 begins with a digit, but the token is not a valid integer, decimal, or floating point constant. Identifiers cannot begin with a digit except in a COBOL program or for the WHENEVER statement in a FORTRAN program.
### SQL0104

**Message Text:** Token &1 was not valid. Valid tokens: &2.

**Cause Text:** A syntax error was detected at token &1. Token &1 is not a valid token. A partial list of valid tokens is &2. This list assumes that the statement is correct up to the token. The error may be earlier in the statement, but the syntax of the statement appears to be valid up to this point.

**Recovery Text:** Do one or more of the following and try the request again:
- Verify the SQL statement in the area of the token &1. Correct the statement. The error could be a missing comma or quotation mark, it could be a misspelled word, or it could be related to the order of clauses.
- If the error token is `<END-OF-STATEMENT>`, correct the SQL statement because it does not end with a valid clause.

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>-104</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42601</td>
</tr>
</tbody>
</table>

### SQL0105

**Message Text:** Mixed or graphic string constant not valid.
### Cause Text:

Mixed or graphic constants that are not valid were found in the value beginning &1. One of the following occurred:

- An odd number of bytes were found between the shift-out and shift-in characters.
- Multiple shift-out characters were found before a shift-in character was found.
- A shift-out and shift-in were not found in the first and last byte, respectively, or were found in a position other than the first and last byte of a graphic string constant.
- The PL/I form of the graphic string was used but the program is not PL/I.
- A shift-out was found indicating a PL/I graphic string. The shift-out was not followed by a DBCS apostrophe, an even number of DBCS characters, another DBCS apostrophe, a DBCS G, and a shift-in.

If this is a LABEL ON statement for a column, and the string is longer than 20 bytes, then one of the 20-byte segments has a DBCS constant that is not valid.

### Recovery Text:

Specify the correct format for the constant. If this is a LABEL ON statement for a column, ensure each 20-byte segment is in the correct format. Check for a quotation mark, an apostrophe, shift-out or shift-in character, or an odd number of characters between the shift-out and shift-in characters. Ensure graphic string constants are specified in the correct form for the language. Try the request again.

### SQLCODE or SQLCODEs:

-105

### SQLSTATE or SQLSTATEs:

42604

#### SQL0106

**Message Text:**

Precision specified for FLOAT not valid.

**Cause Text:**

The precision specified for the FLOAT column or parameter is not valid for floating point data. The precision allowed is from 1-53. If 1-23 is specified, the column or parameter is defined as single-precision floating point. If 24-53 is specified, the column or parameter is defined as double-precision floating point.

**Recovery Text:**

Change the precision specified. Try the request again.

**SQLCODE or SQLCODEs:**

-106

**SQLSTATE or SQLSTATEs:**

42611

#### SQL0107

**Message Text:**

&1 too long. Maximum &2 characters.
**Cause Text:**

The name or string beginning with &1 is too long. The maximum length allowed is &2. The maximum length for names depend on the type of the name:

- System names for a collection, library, package, program, and other system objects cannot exceed 10 characters.
- SQL names for a table, view, index, alias, constraint, correlation, parameter, user-defined type, or trigger cannot exceed 128 characters.
- SQL names for a column cannot exceed 30 characters. System-column names cannot exceed 10 characters.
- Cursor names, statement names, or relational database names cannot exceed 18 characters.
- Procedure or function names cannot exceed 128 characters. If the external program name is not specified, the name cannot exceed 10 characters because it is used for the program name.
- Host variable names cannot exceed 64 characters.
- Names for SQL variables, parameters, labels, or conditions in the routine body of an SQL routine cannot exceed 128 characters.

The maximum length of the string for a password is 128.

The maximum length of the string for a COMMENT ON statement is 2000.

The maximum length of the string for a LABEL ON statement is 50. If the label is specified as a column heading, the maximum is 60.

**Recovery Text:**

Change the name or string to a length of &2. Try the request again.

**SQLCODE or SQLCODEs:**

-107

**SQLSTATE or SQLSTATEs:**

42622

---

**SQL0109**

**Message Text:**

&1 clause not allowed.
<table>
<thead>
<tr>
<th>Cause Text:</th>
<th>One of the following conditions was not allowed:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Embedded SELECT statements cannot include the FOR UPDATE clause, the FOR READ ONLY clause, the FOR FETCH ONLY clause, the OPTIMIZE clause, or the UNION or UNION ALL operator.</td>
<td></td>
</tr>
<tr>
<td>• SELECT statement used in cursor declarations or subselects cannot have an INTO clause.</td>
<td></td>
</tr>
<tr>
<td>• CREATE VIEW statements may not have an INTO, ORDER BY, FOR UPDATE, FOR READ ONLY, FOR FETCH ONLY, or OPTIMIZE clause.</td>
<td></td>
</tr>
<tr>
<td>• INSERT statements may not have an INTO clause in a subselect, a FOR UPDATE, FOR READ ONLY, FOR FETCH ONLY, or an OPTIMIZE clause.</td>
<td></td>
</tr>
<tr>
<td>• WHERE CURRENT OF cursor clause is not allowed in statements processed in interactive SQL or statements processed by the RUNSQLSTM command.</td>
<td></td>
</tr>
<tr>
<td>• The NOT NULL clause is not allowed in the definition of a column being added to a table unless a default value is specified.</td>
<td></td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Remove the clause. A cursor may be needed to perform the processing.</td>
</tr>
<tr>
<td>• The FOR UPDATE, FOR READ ONLY, FOR FETCH ONLY, and OPTIMIZE clauses are accepted in the DECLARE CURSOR statement.</td>
<td></td>
</tr>
<tr>
<td>• The UNION or UNION ALL operators are accepted in the DECLARE CURSOR and INSERT statements.</td>
<td></td>
</tr>
<tr>
<td>• The INTO clause is accepted in the FETCH and embedded SELECT statements.</td>
<td></td>
</tr>
<tr>
<td>• The ORDER BY clause is allowed on the DECLARE CURSOR, embedded SELECT, and the INSERT statements.</td>
<td></td>
</tr>
<tr>
<td>• The WHERE CURRENT OF cursor clause is valid in an embedded or dynamic SQL statement.</td>
<td></td>
</tr>
<tr>
<td>• Remove the NOT NULL clause from the column definition or specify a default value for the column.</td>
<td></td>
</tr>
</tbody>
</table>

Try the request again.

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>-109</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42601</td>
</tr>
</tbody>
</table>

### SQL0110

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Hexadecimal constant beginning with &amp;1 not valid.</th>
</tr>
</thead>
</table>

Chapter 3. DB2 Universal Database for iSeries SQL Messages and Codes 27
### Cause Text:

Either the hexadecimal constant &1 contains one or more characters that are not valid or the number of characters between the string delimiters is not valid. Hexadecimal constants must contain an even number of characters. The length of a hexadecimal graphic string must be a multiple of 4 to ensure that it contains a valid number of DBCS characters. Hexadecimal constants representing MIXED data must have an even number of bytes between the shift-out (X/0E/) and shift-in (X/0F/) characters and must have paired shift characters. Hexadecimal graphic constants cannot contain a shift-out or a shift-in.

### Recovery Text:

Correct the constant. Ensure that the constant contains an even number of digits and that the length for a hexadecimal graphic constant is a multiple of 4. The valid characters for hexadecimal digits are characters 0 through 9 and uppercase or lowercase A through F. Ensure MIXED data is in the correct format. Remove shift-out or shift-in characters from a hexadecimal graphic constant. Try the request again.

### SQLCODE or SQLCODEs:

-110

### SQLSTATE or SQLSTATEs:

42606

---

### SQL0112

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Argument of function &amp;1 contains another function.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>The argument of column function &amp;1 contains another column function. Only expressions without column functions are allowed as arguments of a column function.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Correct the function specification. Try the request again.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-112</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42607</td>
</tr>
</tbody>
</table>

---

### SQL0113

| Message Text: | Name &1 not allowed. |
&1 contains a character that is not allowed or does not contain any characters.

An ordinary identifier must begin with (A-Z, $, #, or @) and be followed by zero or more (A-Z, 0-9, $, #, @, or _).

A delimited identifier is a string of characters within SQL escape characters. The characters allowed in delimited names depends on the type of name.

- The characters between the escape characters for system table names, collection names, package names and other system object names can be any characters except Hex 00-3F, Hex 40 (space), Hex 5C (*), Hex 6F (?), Hex 7D (/), Hex 7F (″), and Hex FF.

- The characters between the escape characters for SQL table names, cursor names, statement names, correlation names, column names, procedure names, function names, parameter names, constraint names, user-defined type names, or trigger names can be any characters except Hex 00-3F and Hex FF.

- Delimited system column names must begin with (A-Z, $, #, or @) and be followed by zero or more (A-Z, 0-9, $, #, @, or an _).

A relational database name must begin with A-Z and be followed by 0 or more letters, numbers 0-9, or an _.

Ordinary identifiers that are contained within host variables must not include lowercase letters because they are not converted to uppercase.

Correct the name. Try the request again.

SQLCODE or SQLCODEs: -113
SQLSTATE or SQLSTATEs: 28000 2E000 42602

SQL0114
Message Text: Relational database &1 not the same as current server &2.
Cause Text: Relational database &1 was specified in a 3 part name in the statement. However, either the name is not the same as the current server &2, or the name is not the same as a relational database name specified previously in the statement.
Recovery Text: Change the statement so the relational database name specified is the same as the current server or so that all relational database names in the statement match.
SQLCODE or SQLCODEs: +114 -114
SQLSTATE or SQLSTATEs: 01536 42961

SQL0115
Message Text: Comparison operator &1 not valid.

Simple comparisons like &1 cannot be followed by a list of items.

Change either the comparison or the operand. The comparison operators IN and NOT IN can be used with a list of items, or the comparison can be separated into several comparisons separated with an AND boolean operator. ANY, ALL, and SOME comparison operators must be followed by a subselect, rather than an expression or a list of items. Try the request again.

SQLCODE or SQLCODEs: -115
SQLSTATE or SQLSTATEs: 42601

Statement contains wrong number of values.

The following conditions may exist:
- The number of values is not the same as the number of object columns in this INSERT or UPDATE statement.
- The number of values is not the same as the number of target host variables in this SET or VALUES INTO statement.
- The number of SELECT list items in the subselect is not the same as the number of object columns in this INSERT statement.
- The number of SELECT list items in the subselect in a SET clause is not the same as the number of object columns for the SET clause in this UPDATE statement.
- One or more of the object columns not specified in the INSERT statement were created as NOT NULL.
- One or more of the object columns specified in the INSERT statement were created as NOT NULL, and the statement specified DEFAULT as the value to be inserted.

Correct the statement to specify a single value for each of the object columns. Ensure that the character designated as the decimal point is used correctly in any numeric literals. If the object columns not specified in the INSERT statement were created as NOT NULL, specify valid values for those columns. Try the request again.

SQLCODE or SQLCODEs: -117
SQLSTATE or SQLSTATEs: 42802

Column &1 or expression in HAVING clause not valid.
<table>
<thead>
<tr>
<th>Cause Text:</th>
<th>One of the following has occurred:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Column &amp;1 specified in a HAVING clause is not within a column function and is not in the GROUP BY clause.</td>
</tr>
<tr>
<td></td>
<td>• An expression specified in a HAVING clause is not within a column function and is not in the GROUP BY clause.</td>
</tr>
<tr>
<td></td>
<td>• The RRN function is specified in the HAVING clause and is not within a column function.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Remove the column, expression, or the RRN function from the HAVING clause or add the column or expression to the GROUP BY clause. Try the request again.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-119</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42803</td>
</tr>
</tbody>
</table>

**SQL0120**

| Message Text: | Use of column function &2 not valid. |
| Cause Text: | A column function cannot be specified in a WHERE clause, a SET clause, a GROUP BY clause, or in a JOIN condition. |
| Recovery Text: | Remove the column function. Try the request again. |
| SQLCODE or SQLCODEs: | -120 |
| SQLSTATE or SQLSTATEs: | 42903 |

**SQL0121**

| Message Text: | Duplicate name &1 not allowed. |
| Cause Text: | Name &1 is specified more than once in either the list of object columns of an INSERT statement, in the SET clause of an UPDATE statement, or in the list of target host variables in the SET or VALUES INTO statement. If the specified names are not the same then one of the following has occurred: |
|              | • If the object is a view, the column they identify in the base table may be the same column. |
|              | • The names may correspond to the same system column name. |
| Recovery Text: | Do one of the following and try the request again: |
|              | Remove the duplicate column. |
|              | Specify a column list on the INSERT statement to remove the duplicate column. |
| SQLCODE or SQLCODEs: | -121 |
| SQLSTATE or SQLSTATEs: | 42701 |
### Column &1 or expression specified in SELECT list not valid.

**Message Text:** Column &1 or expression specified in SELECT list not valid.

**Cause Text:** One of the following has occurred:
- The statement contains column name &1 and a column function in the SELECT clause and no GROUP BY clause is specified,
- Column name &1 is specified in the SELECT clause but not in the GROUP BY clause.
- An expression is specified in the SELECT clause but not in the GROUP BY clause.
- The RRN, PARTITION, NODENAME, or NODENUMBER function is specified in the SELECT clause with a column function or a GROUP BY clause.

**Recovery Text:** Do one of the following and try the request again:
- If a GROUP BY clause is required, make certain that all columns or expressions in the SELECT list are also in the GROUP BY clause. Do not specify the RRN, PARTITION, NODENAME, or NODENUMBER function.
- If a GROUP BY clause is not needed, the SELECT list should not contain column functions with column names or the RRN, PARTITION, NODENAME, or NODENUMBER function.

**SQLCODE or SQLCODEs:** -122

**SQLSTATE or SQLSTATEs:** 42803

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### ORDER BY column number &1 not valid.

**Message Text:** ORDER BY column number &1 not valid.

**Cause Text:** The ORDER BY clause in the statement contains a column number that is either greater than the maximum number of values that can be selected (8000), or is greater than the number of columns in the result table select list.

**Recovery Text:** Correct the column number in the ORDER BY clause to specify a column in the result table. Try the request again.

**SQLCODE or SQLCODEs:** -125

**SQLSTATE or SQLSTATEs:** 42805

---

### Use of NULL is not valid.

**Message Text:** Use of NULL is not valid.

**Cause Text:** The keyword NULL is not valid with the operator specified. NULL is only allowed in a predicate following IS or IS NOT. NULL is a reserved keyword and can only be used as the name of a column if the name is delimited when used in an SQL statement.
### Recovery Text:
Either change the operator to IS or IS NOT or, if the word NULL was meant to be a column name, specify the name within delimiters.

### SQLCODE or SQLCODEs:
-128

### SQLSTATE or SQLSTATEs:
42601

### SQL0129

**Message Text:** Too many tables in SQL statement.

**Cause Text:**
The SQL statement contains too many tables or views. A single SQL statement can have a maximum of 256 tables or views referred to within it. This number includes the base tables of a view.

**Recovery Text:**
Do one of the following and try the request again:
- Split the SQL statement into two or more simpler statements with a maximum of 256 tables referred to in each.
- If this is a CREATE VIEW statement, reduce the number of tables to a maximum of 256.

### SQLCODE or SQLCODEs:
-129

### SQLSTATE or SQLSTATEs:
54004

### SQL0130

**Message Text:** ESCAPE character &1 or LIKE pattern is not valid.

**Cause Text:**
Either ESCAPE character &1 is not valid or the use of the ESCAPE character in the LIKE pattern is not valid.

The ESCAPE character is not valid if:
- The length is not 1 SBCS character or 1 graphic character.
- The shift-in (X/0E/) and the shift-out (X/0F/) characters are specified.

The LIKE pattern is not valid if:
- The character string expression forming the pattern contains an ESCAPE character that is not followed by a percent sign, an underscore, or another ESCAPE character.
- The graphic string expression forming the pattern contains an ESCAPE character that is not followed by a DBCS percent sign, a DBCS underscore, or another ESCAPE character.

**Recovery Text:**
Specify a valid LIKE pattern and ESCAPE character. Try the request again.

### SQLCODE or SQLCODEs:
-130

### SQLSTATE or SQLSTATEs:
22019 22025

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Chapter 3. DB2 Universal Database for iSeries SQL Messages and Codes 33
### SQL0131

**Message Text:** Operands of LIKE not compatible or not valid.

**Cause Text:**
- The operands of LIKE and the ESCAPE character must be character or graphic. One of the following errors has occurred:
  - The operand to the right of a LIKE operator is not character or graphic.
  - The operands of a LIKE operator are not compatible.
  - The ESCAPE character is not compatible with the operands.

**Recovery Text:** Ensure the operands and the ESCAPE character specified with the LIKE operator are character or graphic. Try the request again.

**SQLCODE or SQLCODEs:** -131

**SQLSTATE or SQLSTATEs:** 42818

### SQL0132

**Message Text:** LIKE predicate not valid.

**Cause Text:**
- Either the second operand or the ESCAPE character specified in a LIKE predicate is not valid. The second operand must be a string expression. The ESCAPE character must be a string expression but cannot be a special register.

**Recovery Text:** Change the incorrect operand or the operator. Try the request again.

**SQLCODE or SQLCODEs:** -132

**SQLSTATE or SQLSTATEs:** 42824

### SQL0133

**Message Text:** Operator on correlated column in SQL function not valid.

**Cause Text:**
- An SQL column function appearing in a subquery of a HAVING clause is not valid if the argument of the function is an expression that contains an operator (+, -, *, /, **), a concatenation operator, or a scalar function that is applied to a correlated reference. An operation cannot be performed on a correlated reference since the computed value of the group cannot be determined in the outer (correlated) subselect without a possible value from the inner subselect.
Recovery Text: If the operator is a scalar function, make the column function the argument of the scalar function. Otherwise, remove the operator on the correlated reference or move the operator so it is not in the argument of the column function. For example, specifying the expression of the form:

\[
\text{AVG( outertable.column1 + innertable.column2 )}
\]

is not valid, while the expression

\[
\text{AVG( outertable.column1 ) + innertable.column2}
\]

is valid.

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>-133</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42906</td>
</tr>
</tbody>
</table>

### SQL0134

**Message Text:** String, argument, or path too long.

**Cause Text:** One of the following errors has occurred:

- The argument of a COUNT function is too long. The argument of a COUNT function cannot be longer than 2000 bytes if DISTINCT is specified. If the argument is graphic, then the argument cannot be longer than 1000 DBCS characters.
- More than 268 libraries were specified on the SET PATH statement or on the SET OPTION SQLPATH statement.
- A LOB column was used in a ORDER BY expression, GROUP BY expression, join specification, SELECT clause with DISTINCT, or in a UNION in which the ALL keyword was omitted.

**Recovery Text:** Change the argument of the function or the number of libraries in the path so that the length does not exceed the maximum. Remove the LOB column from the clause where it is not allowed. Try the request again.

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>-134</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42907</td>
</tr>
</tbody>
</table>

### SQL0136

**Message Text:** ORDER BY, GROUP BY, or join columns too long.
| **Cause Text:** | The maximum number of elements in an ORDER BY list is 10000. The total length of all the ORDER BY elements cannot exceed 10000 bytes. The maximum number of columns in a GROUP BY list is 120. The total length of all the GROUP BY columns cannot exceed 2000 bytes. The total length of all the join columns in an exception join or outer join cannot exceed 2000 bytes. If the ORDER BY or GROUP BY list contains null capable columns, then an additional byte is required for each null capable column. If the ORDER BY or GROUP BY list contains varying-length character columns, then the 2 byte length is included in the total length. |
| **Recovery Text:** | The statement must be changed so that the length of the ORDER BY, GROUP BY, or join values does not exceed their limits. One or more column names must be removed from the clause. Try the request again. |
| **SQLCODE or SQLCODEs:** | -136 |
| **SQLSTATE or SQLSTATEs:** | 54005 |

### SQL0137

| **Message Text:** | Result too long. |
| **Cause Text:** | A concatenation operator or a HEX scalar function was specified, but the resulting length of the operation exceeds the maximum allowed. The maximum length is: |
| | • 32766 bytes if the result is fixed-length character. |
| | • 32740 bytes if the result is varying-length character. |
| | • 16383 DBCS characters if the result is fixed-length graphic. |
| | • 16370 DBCS characters if the result is varying-length graphic. |
| | • 2147483647 bytes if the result is a binary or character LOB. |
| | • 1073741823 DBCS characters if the result is a double-byte character LOB. |
| **Recovery Text:** | Change the expression to decrease the resulting length to less than or equal to the maximum allowed. If converting from graphic to character data, the result length specified on the scalar function must be less than 8191. The SUBSTR scalar function can be used to decrease the length of an operand. Try the request again. |
| **SQLCODE or SQLCODEs:** | -137 |
| **SQLSTATE or SQLSTATEs:** | 54006 |

### SQL0138

| **Message Text:** | Argument &1 of substringing function not valid. |
### Cause Text:

Argument 2 or 3 of the SUBSTRING function or argument 2 of the LEFT function is either out of range or is an expression that does not evaluate to an integer.

- For the SUBSTRING function, argument 2 specifies the position of the first character of the result and argument 3 specifies the length of the result. Argument 2 must be a valid position of the first argument. Argument 3 must not exceed the length of argument 1 between argument 2 and the end of the string.
- For the LEFT function, argument 2 specifies the length of the result. Argument 2 must not exceed the length of argument 1.
- If argument 1 is a character string, a character is a byte, and if argument 1 is graphic string, a character is a DBCS character.
- If the argument is *N, then one of the arguments is not valid but the argument number is not known.

### Recovery Text:

If the argument is *N, display the previously listed messages in the job log (DSPJOBLOG command) or press F10 (Display messages in job log) from this display to determine which argument is in error. Change one or more of the arguments specified in the SUBSTR function. The INTEGER scalar function may be used to convert the argument into an integer result. Try the request again.

### SQLCODE or SQLCODEs:

+138 -138

### SQLSTATE or SQLSTATEs:

01544 22011

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### SQL0144

#### Message Text:

Section number &1 not valid. Current high section number is &3. Reason &2.

#### Cause Text:

Reason code is &2.

- Reason code 1, section number &1 has already been assigned.
- Reason code 2, section number &1 is smaller than next possible number.
- Reason code 3, section number on ENDBND is smaller than highest one assigned.
- Reason code 4, section number is not in the SQL package.
- Reason code 5, section number of zero is not valid.

#### Recovery Text:

Contact your IBM representative to report the problem.

#### SQLCODE or SQLCODEs:

-144

#### SQLSTATE or SQLSTATEs:

58003

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### SQL0145

#### Message Text:

Recursion not supported for application server other than AS/400.
**Cause Text:** Program &1 in &2 was called recursively when connected to an application server that is not an AS/400. The program was connected to application server &3 with product identification of &4. If the application server is an IBM product, the identification is in the form `pppvvrrm`, where:

- `ppp` identifies the product as follows:
  - DSN for DB2 UDB for OS/390
  - ARI for SQL/DS
  - QSQ for DB2 UDB for AS/400
  - SQL for all other DB2 products
- `vv` is a two-digit version identifier such as / 06 /.
- `rr` is a two-digit release identifier such as / 01 /.
- `m` is a one-digit modification level such as / 0 / .

For example, if the application server is Version 6 Release 1 of DB2 UDB for OS/390, the value of the product identification is / DSN06010 /.

**Recovery Text:** Change your application so that it is not recursively called when connected to a server other than an AS/400 system.

**SQLCODE or SQLCODEs:** -145

**SQLSTATE or SQLSTATEs:** 55005

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**SQL0150**

**Message Text:** View or logical file &1 in &2 read-only.

**Cause Text:** Update, delete, or insert is not allowed. &1 in library &2 can be used only for read operations.

A view or logical file can be used only for read operations if one or more of the following conditions are true:

- The view contains a DISTINCT keyword, GROUP BY clause, HAVING clause, or a column function in the outer-most subselect.
- The view or logical file contains a join function.
- The view contains a subquery that refers to the same table as the table of the outer-most subselect. A view of this type may be used for inserting rows.
- All the columns of the view are expressions, scalar functions, constants, or special registers.
- All the columns of the logical file are input only.
- The select list of the view omits a column of the based on table that does not allow null values or default values. Inserting into the view is not allowed.

**Recovery Text:** Change the statement to insert, delete, or update data into the base table of view &1. All columns of the table that do not allow null values or default values must be assigned a value when inserting a row into a table or view. Try the request again.

**SQLCODE or SQLCODEs:** -150
**SQL150A**

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>System trigger &amp;1 in &amp;2 ignored.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>TABLE is specified for the object type, but the table has a trigger that was added by the ADDPFTRG command. The system trigger is ignored.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>If ignoring the trigger is not acceptable, create an SQL trigger to replace the system trigger.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>-150</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42807</td>
</tr>
</tbody>
</table>

**SQL150B**

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>&amp;3 in table &amp;1 in &amp;2 ignored.</th>
</tr>
</thead>
</table>
| Cause Text:  | One of the following attributes is ignored:  
  • REUSEDLT(*NO) is not supported by SQL.  
  • System names are not supported by the specified standards option.  
  • Labels and parameter comments are not supported by the DB2 Universal Database standards option.  
  • Labels and comments are not supported by the ISO and ANSI standards option. |
| Recovery Text: | If it is not acceptable to ignore REUSEDLT(*NO):  
  1. Create the object using the generated SQL statement.  
  2. Issue a CHGPF CL command to change the table to REUSEDLT(*NO).  
  If it is not acceptable to ignore system names, labels, or parameter comments; change the standards option to allow AS/400 extensions and try the request again.  
  If it is not acceptable to ignore comments, change the standards option and try the request again. |

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>-150</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42807</td>
</tr>
</tbody>
</table>

**SQL150C**

| Message Text: | &3 for schema &1 ignored. |
### SQL150D

**Message Text:**
&4 in column &3 ignored.

**Cause Text:**
&4 is an attribute of column &3 in table or view &1 in &2. The attribute is ignored because it is not supported by the specified standards option.

**Recovery Text:**
If it is not acceptable to ignore &4, change the standards option and try the request again.

**SQLCODE or SQLCODEs:** -150

**SQLSTATE or SQLSTATEs:** 42807

### SQL150E

**Message Text:**
&3 changed to &4.

**Cause Text:**
&3 is a language or parameter style of procedure or user-defined function &1 in &2. The language or parameter style is not supported by the specified standards option. &4 is not an equivalent language or parameter style, but is used instead.

**Recovery Text:**
If it is not acceptable to use &4, change the standards option and try the request again.

**SQLCODE or SQLCODEs:** -150

**SQLSTATE or SQLSTATEs:** 42807

### SQL150F
<table>
<thead>
<tr>
<th>Message Text:</th>
<th>&amp;3 changed to equivalent language supported by the standards option.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>The language for procedure or function &amp;1 in &amp;2 is not supported by the specified standards option. The new language is functionally equivalent to the original language.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>If it is not acceptable to change the language, change the standards option to allow AS/400 extensions and try the request again.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-150</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42807</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SQL0151</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message Text:</td>
</tr>
</tbody>
</table>
| Cause Text: | &1 is a column of an implicit or explicit column list for an INSERT statement or a SET clause on an UPDATE statement. &1 is read only because it is:  
  • Derived from an expression, a constant, or a special register.  
  • Defined on a column of an underlying view that cannot be updated.  
  • In a column of a logical file that is defined as input only. |
| Recovery Text: | Remove column &1 from the column list or the SET clause. If this is an INSERT and a column list was not specified, then specify a column list to remove column &1. Try the request again. |
| SQLCODE or SQLCODEs: | -151 |
| SQLSTATE or SQLSTATEs: | 42808 |

<table>
<thead>
<tr>
<th>SQL0152</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message Text:</td>
</tr>
<tr>
<td>Cause Text:</td>
</tr>
<tr>
<td>Recovery Text:</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SQL0153</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message Text:</td>
</tr>
</tbody>
</table>
A column list must be specified in a CREATE VIEW statement when any element of the SELECT list in the view definition is a function, expression, constant, or special register and the AS clause is not specified, or when two elements have the same column name. Every column name and system-column name must be unique in a view definition. If two column names are the same, the column name is &1.

Do one of the following and try the request again:
- Provide a list of names for the columns in the view
- Specify an AS clause to assign a unique name to the unnamed elements or to rename the duplicate columns in the SELECT list.

SQLCODE or SQLCODEs: -153
SQLSTATE or SQLSTATEs: 42908

UNION and UNION ALL for CREATE VIEW not valid.

The view defined in the CREATE VIEW statement cannot be created because the definition contains a UNION or UNION ALL clause.

Do not attempt to create views having definitions that contain a UNION clause. Correct the statement and try the request again.

SQLCODE or SQLCODEs: -154
SQLSTATE or SQLSTATEs: 42909

Transition table &1 read-only.

Statement is not allowed. Transition table &1 in an SQL trigger can be used only for read operations.

Change the statement to specify a table other than the transition table or remove the statement. Transition tables can be specified on SELECT statements. Qualify table names in an SQL trigger that may have the same name as transition tables. Try the request again.

SQLCODE or SQLCODEs: -155
SQLSTATE or SQLSTATEs: 42807

&1 in &2 not a table.
<table>
<thead>
<tr>
<th>Message Text</th>
<th>Cause Text</th>
<th>Recovery Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQL0157</td>
<td>&amp;1 in &amp;2 not valid in FOREIGN KEY clause.</td>
<td>Specify the base table that contains the parent key in the FOREIGN KEY clause.</td>
</tr>
<tr>
<td>SQLSTATE</td>
<td>-157</td>
<td></td>
</tr>
<tr>
<td>SQLSTATE</td>
<td>42810</td>
<td></td>
</tr>
<tr>
<td>SQL0158</td>
<td>Number of columns specified not consistent.</td>
<td>Specify a column name for each column in the view or table. Try the request again.</td>
</tr>
<tr>
<td>SQLSTATE</td>
<td>-158</td>
<td></td>
</tr>
<tr>
<td>SQLSTATE</td>
<td>42811</td>
<td></td>
</tr>
<tr>
<td>SQL0159</td>
<td>&amp;1 in &amp;2 not correct type.</td>
<td></td>
</tr>
</tbody>
</table>

Chapter 3. DB2 Universal Database for iSeries SQL Messages and Codes 43
### SQL0160

**Message Text:** WITH CHECK OPTION not allowed for view &1 in &2.

**Cause Text:** The WITH CHECK OPTION clause is not allowed in the CREATE VIEW statement for view &1 in &2 because the select-statement contains at least one of the following:
- The first FROM clause identifies more than 1 table or view.
- The first SELECT clause contains the DISTINCT keyword.
- The outer subselect contains a GROUP BY clause.
- The outer subselect contains a HAVING clause.
- The outer subselect contains a column function.
- All the select items in the outer subselect are expressions.
- The SELECT statement contains a subquery.
- The WITH CASCaded CHECK OPTION was specified and a view in the FROM clause contains a subquery.

**Recovery Text:** Remove the WITH CHECK OPTION clause.

**SQLCODE or SQLCODEs:** -160

**SQLSTATE or SQLSTATEs:** 42813
### SQL0161

**Message Text:**
INSERT or UPDATE not allowed because a resulting row does not satisfy view definition &1 in &2.

**Cause Text:**
The INSERT or UPDATE could not be done because a resulting row did not satisfy the view definition for &1 in &2. Either the view or an underlying view contains a WITH CHECK OPTION clause.

**Recovery Text:**
Change the data being inserted or updated so that it conforms to the view definition.

**SQLCODE or SQLCODEs:** -161

**SQLSTATE or SQLSTATEs:** 44000

### SQL0170

**Message Text:**
Number of arguments for function &1 not valid.

**Cause Text:**
A scalar or column function has been specified with an incorrect number of arguments.
- The SUBSTRING function may have two or three arguments.
- The ZONED, STRIP, TRIM, VARCHAR, VARGRAPHIC, CLOB, DBCLOB and DLVALUE functions may have between one and three arguments.
- The DECIMAL function may have between one and four arguments.
- The CHAR, TIMESTAMP, and BLOB functions may have one or two arguments.
- The VALUE, COALESCE, MAX, MIN, LAND, LOR, and XOR functions must have at least two arguments.
- The MOD, POWER, CONCAT, IFNULL, and LEFT functions must have two arguments.
- The CURDATE, CURTIME, and NOW functions must be specified without any arguments.
- The TRANSLATE function may have between one and four arguments.

**Recovery Text:**
Correct the number of arguments specified for the function. Try the request again.

**SQLCODE or SQLCODEs:** -170

**SQLSTATE or SQLSTATEs:** 42605

### SQL0171

**Message Text:**
Argument &1 of function &2 not valid.
**Cause Text:**

The data type, length, or value of argument &1 of function &2 specified is not valid. A list of conditions for some of the functions follows. For:

- **CONCAT**, all operands must be either character or graphic.
- **SUBSTRING**, argument 1 must be a string and argument 2 and 3 must be integer.
- **DATE**, argument 1 must be a date, a timestamp, or a valid numeric value.
- **TIME**, argument 1 must be a time or a timestamp.
- **TIMESTAMP**, the argument can be a timestamp if only one argument is specified. If two arguments are specified, argument 1 must be a date and argument 2 must be a time.
- **DAY, MONTH, or YEAR**, the argument must be a date, timestamp, or a date or timestamp duration.
- **HOUR, MINUTE, or SECOND**, the argument must be a time, timestamp, or a time or timestamp duration.
- **DAYS**, the argument must be a date or a timestamp.
- **MICROSECOND**, the argument must be a timestamp or a timestamp duration.
- **VALUE, COALESCE, IFNULL, MIN, or MAX** scalar functions, all arguments must be compatible.
- **STRIP**, argument 1 must be a string and argument 3 must be compatible. Argument 2 must be LEADING, TRAILING, or BOTH.
- **TRIM**, the last argument must be a string and the strip character must be compatible.
- **TRANSLATE, UPPER, UCASE, LCASE, or LOWER**, the first argument must be character or UCS-2 graphic. For TRANSLATE when the first argument is character, the three optional arguments must be strings.
- **VARCHAR, VARGRAPHIC, CLOB, DBCLOB, or BLOB**, argument 1 must be a string. Argument 2 must be an valid integer. Argument 3, if allowed, must be a valid CCSID.
- **HASH**, arguments cannot be date, time, timestamp, or floating point. It cannot have a column function in any argument.
- **DLVALUE**, the arguments must be character strings.
- **If the function or argument is *N, an argument of a function contained in the statement is not valid.**

**Recovery Text:**

Refer to the &3612. book for more information on the scalar functions. Correct the arguments specified for the function. Try the request again.

**SQLCODE or SQLCODEs:** -171

**SQLSTATE or SQLSTATEs:** 42815
A commit failed due to reason code &2. The logical unit of work identifier is &1. A list of the reason codes follows:

- Reason code 1 is transaction program error.
- Reason code 2 is commit resulted in a rollback.

Display the previous messages in the joblog and take the appropriate action.

SQLCODE or SQLCODEs: -175
SQLSTATE or SQLSTATEs: 58028

Query expression text for view &1 in &2 too long.

The query expression text for view &1 in &2 is longer than 10000 bytes and does not fit in the SYSVIEWS catalog view. The statement text cannot be stored in the system catalog views. The VIEW_DEFINITION column of the SYSVIEWS catalog view will contain the null value for this view.

No recovery is necessary. If the complete text is required in the system catalog views, recreate the view with the length of the query expression less than or equal to 10000 bytes.

SQLCODE or SQLCODEs: +178
SQLSTATE or SQLSTATEs: 0100A

Syntax of date, time, or timestamp value not valid.

The string representation of a date, time, or timestamp value does not conform to the syntax for the specified or implied data type and format. &2 is either the character string constant that is not valid or the column or host variable that contained the string. If the name is *N, then the value is an expression specified in the statement. If the string was found in a host variable, the host variable number is &1.

Ensure that the date, time, or timestamp value conforms to the syntax for the data type it represents. Try the request again.

SQLCODE or SQLCODEs: +180 -180
SQLSTATE or SQLSTATEs: 01534 22007

Value in date, time, or timestamp string not valid.
### Cause Text:
The string representation of a date, time or timestamp value is not in the acceptable range. &2 is either the character string constant that is not valid or the column or host variable that contained the string. If the name is "N, then the value was found in an expression specified in the statement. If the value was found in a host variable, then the host variable number is &1. The proper ranges for date, time, or timestamp values are as follows:

- The range for years is from 0001 to 9999.
- The range for months is from 1 to 12.
- The range for days is from 1 - 30 for April, June, September, and November, from 1 - 28 for February and from 1 to 31 for all other months. In a leap year, the range for February can be from 1 to 29.
- The range for days in a Julian date is from 001 to 366 for a leap year or 001 to 365 days for all other years.
- The range for hours is from 0 to 24. If the hour is 24, then the other parts of the time values must be zeros. If the time format is USA, then the hour cannot be greater than 12.
- The range for minutes is from 0 to 59.
- The range for seconds is from 0 to 59.
- The range for microseconds is from 0 to 999999.

### Recovery Text:
Ensure that the date, time, or timestamp value conforms to the ranges for the data type it represents. Try the request again.

**SQLCODE or SQLCODEs:** +181 -181

**SQLSTATE or SQLSTATEs:** 01534 22007

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### SQL0182

**Message Text:** A date, time, or timestamp expression not valid.

**Cause Text:**
One of the following has occurred:

- An operand of addition is a date and the other is not a date duration.
- An operand of addition is a time and the other is not a time duration.
- An operand of addition is a timestamp and the other is not a duration.
- An operand of subtraction is a date and the other is not a date, character, or date duration.
- An operand of subtraction is a time and the other is not a time, character, or time duration.
- An operand of subtraction is a timestamp and the other is not a timestamp, character, or duration.

**Recovery Text:**
Correct the arithmetic expression so that it contains a valid date, time, or timestamp expression. Try the request again.

**SQLCODE or SQLCODEs:** -182

**SQLSTATE or SQLSTATEs:** 42816
### SQL0183

**Message Text:** Result of date or timestamp expression not valid.

**Cause Text:**
The result of an arithmetic operation is a date or timestamp that is not within the valid range of dates which are between 0001-01-01 and 9999-12-31. If the result is a date in the format YMD, MDY, DMY, or JUL then the year must be between 1940 and 2039. If this is a FETCH, embedded SELECT, SET or VALUES INTO, then the relative position of the host variable in the INTO clause is &1 and the host variable name is &2.

**Recovery Text:**
Correct the arithmetic expression or the data that was being processed at the time the error occurred. If the date format is YMD, MDY, DMY or JUL and the result is not between 1940 and 2039, then specify USA, ISO, EUR, or JIS for the date format. The date format can be specified on the STRSQL or CRTSQLxxx commands or can be changed for the job by using the CHGJOB command. Try the request again.

**SQLCODE or SQLCODEs:** +183 -183

**SQLSTATE or SQLSTATEs:** 01535 22008

### SQL0184

**Message Text:** Parameter marker not valid in expression.

**Cause Text:** A parameter marker cannot be used as an operand in a date/time arithmetic expression.

**Recovery Text:** Correct the arithmetic expression. Try the request again.

**SQLCODE or SQLCODEs:** -184

**SQLSTATE or SQLSTATEs:** 42610

### SQL0187

**Message Text:** Use of labeled duration not valid.
### Cause Text:
One of the following has occurred:
- A labeled duration is specified but is not the operand of the operators plus or minus.
- A labeled duration of years, months, or days is specified as the operand of addition or subtraction and the other operand is not date or timestamp.
- A labeled duration of hours, minutes, or seconds is specified as the operand of addition or subtraction and the other operand is not time or timestamp.
- A labeled duration of microseconds is specified as the operand of addition or subtraction and the other operand is not timestamp.
- A labeled duration is specified as the left operand of subtraction.
- The value specified for the labeled duration is not a numeric type.

### Recovery Text:
Correct the use of the labeled duration. Try the request again.

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>-187</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42816</td>
</tr>
</tbody>
</table>

---

### SQL0188

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>&amp;1 not a valid string representation of a name.</th>
</tr>
</thead>
</table>

### Cause Text:
The host variable contains a string representation of a name that is not valid for one of the following reasons:
- The host variable is empty.
- The first character is a period, a slash, or a blank.
- The number of identifiers is greater than the maximum allowed for the name of the object. For example, the host variable identifies a table name but the host variable contains 4 or more identifiers. A table name can contain a maximum of 3 identifiers. A relational database name can contain a maximum of 1 identifier.
- An identifier is too long.
- A period not contained in a delimited identifier is followed by a period or a blank.
- A slash not contained in a delimited identifier is followed by a slash or a blank.
- A blank is followed by characters other than blanks.
- A delimited identifier contains no characters.
- A delimited identifier is followed by a character other than a period, a slash or a blank.
- The ending delimiter is missing from a delimited identifier.

### Recovery Text:
Change the name. Try the request again.

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>-188</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>22503 28000 2E000</td>
</tr>
</tbody>
</table>
### SQL0189

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Coded Character Set Identifier &amp;1 not valid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>Coded Character Set Identifier (CCSID) &amp;1 is not valid for one of the following reasons:</td>
</tr>
<tr>
<td></td>
<td>• The CCSID is not EBCDIC.</td>
</tr>
<tr>
<td></td>
<td>• The CCSID is not supported by the system.</td>
</tr>
<tr>
<td></td>
<td>• The CCSID is not valid for the data type.</td>
</tr>
<tr>
<td></td>
<td>• If the CCSID is specified for graphic or DBCLOB data, then the CCSID must be a DBCS CCSID.</td>
</tr>
<tr>
<td></td>
<td>• If the CCSID is specified for UCS-2 data, then the CCSID must be a UCS-2 CCSID.</td>
</tr>
<tr>
<td></td>
<td>• If the CCSID is specified for CLOB, DBCLOB or DATALINK data, then the CCSID must not be 65535.</td>
</tr>
<tr>
<td></td>
<td>• If there are multiple DATALINK columns with FILE LINK CONTROL, they must all have the same CCSID.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Ensure that all CCSID values in the statement are supported by the system and are valid for the data type. For a list of valid CCSID values, refer to the Work Management Guide.</td>
</tr>
</tbody>
</table>

| SQLCODE or SQLCODEs: | -189 |
| SQLSTATE or SQLSTATEs: | 22522 |

### SQL0190

| Message Text: | Attributes of column &3 in &1 in &2 not compatible. |

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The attributes specified for column &3 in &1 in &2 are not compatible with the attributes of the existing column. Either the data type, the length, or the clause is not valid.

\- A numeric column cannot be changed to a type that is not numeric.
\- A character column cannot be changed to a DATE, TIME, TIMESTAMP, or a numeric column.
\- A DATE, TIME, or TIMESTAMP column cannot be changed to a character or a numeric column.
\- A character column cannot be changed to DBCS-only column.
\- A character, graphic, DataLink, or UCS2 column cannot be changed to a column with an incompatible CCSID.
\- A DataLink column cannot be changed to a column with a shorter length.
\- A column can be changed to a user-defined type if the type is promotable to the new type. A column that is a user-defined type cannot be changed to a different type.
\- Columns cannot be changed to or from a DataLink.
\- The length of a column that allows null values cannot be greater than 32765 for fixed-length character, 32739 for varying-length character, 16382 for fixed-length graphic, and 16369 for varying-length graphic. The length of a DataLink column cannot be greater than 32717. The length of a binary or character LOB column cannot be greater than 2147483647. The length of a double-byte LOB column cannot be greater than 1073741823. The length of a DBCS-open column cannot be less than 4.
\- DROP DEFAULT can only be specified if a default value is defined for the existing column and the column does not have NOT NULL as the null attribute.

Specify attributes that are compatible with column &3. Try the request again.

SQLCODE or SQLCODEs: -190
SQLSTATE or SQLSTATEs: 42837

### SQL0191

**Message Text:** Mixed data not properly formed.

**Cause Text:** A mixed data string does not have the proper format. Every shift-out character (/0E/X) should have a corresponding shift-in character (/0F/X). If these characters are not paired, the data is not valid. The conversion was from column or host variable &2 to column or host variable &4.

**Recovery Text:** Ensure that all mixed character data has paired shift characters.

SQLCODE or SQLCODEs: +191 -191
SQLSTATE or SQLSTATEs: 01547 22504
### SQL0192

<table>
<thead>
<tr>
<th><strong>Message Text:</strong></th>
<th>Argument of translation function not valid.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cause Text:</strong></td>
<td>The argument of the TRANSLATE, UCASE, UPPER, LCASE, or LOWER scalar function is a DBCS-only string. The argument must be SBCS, DBCS-open, or DBCS-either.</td>
</tr>
<tr>
<td><strong>Recovery Text:</strong></td>
<td>Change the argument of the function to one that is valid. Try the request again.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-192</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42937</td>
</tr>
</tbody>
</table>

### SQL0194

<table>
<thead>
<tr>
<th><strong>Message Text:</strong></th>
<th>KEEP LOCKS not allowed.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cause Text:</strong></td>
<td>KEEP LOCKS was specified for cursor &amp;1 but is not allowed because the cursor is not opened for read only. The cursor must be opened for read only to allow locks to be kept. For an explanation of read only cursors, see the &amp;4611.</td>
</tr>
<tr>
<td><strong>Recovery Text:</strong></td>
<td>Do not specify KEEP LOCKS, or specify a cursor that is read only.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-194</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42848</td>
</tr>
</tbody>
</table>

### SQL0195

<table>
<thead>
<tr>
<th><strong>Message Text:</strong></th>
<th>Last column of &amp;1 in &amp;2 cannot be dropped.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cause Text:</strong></td>
<td>An attempt was made to drop one or more columns using an ALTER TABLE statement. The columns cannot be dropped from table &amp;1 in &amp;2 because at least one of the existing columns must be preserved when altering a table.</td>
</tr>
<tr>
<td><strong>Recovery Text:</strong></td>
<td>Ensure table &amp;1 in &amp;2 will have at least one column once the ALTER statement is complete. Either remove the DROP of one of the columns and try the request again, or, if all of the columns should be removed, drop the table and create it again.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-195</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42814</td>
</tr>
</tbody>
</table>

### SQL0196

| **Message Text:** | Column &3 in &1 in &2 cannot be dropped. |
### SQL0197

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Column &amp;1 cannot be qualified.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>Column names in an ORDER BY clause of a SELECT statement cannot be qualified if a UNION or UNION ALL operator is specified.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Remove the qualifier from the column name. Ensure the name specified in the ORDER BY clause is a named column of the result table. Try the request again.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-197</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42877</td>
</tr>
</tbody>
</table>

### SQL0198

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>SQL statement empty or blank.</th>
</tr>
</thead>
</table>
| Cause Text:  | The SQL statement is empty or blank. One of the following has occurred:  
  • During precompiling, the SQL statement referred to has no text between the EXEC SQL and the ending delimiter. The statement is ignored.  
  • While running a program containing SQL statements, the operand of a PREPARE or EXECUTE IMMEDIATE statement is blank or empty. The operand, host variable, or literal string that was the object of either the PREPARE or EXECUTE IMMEDIATE statement contained all blanks or was an empty string. |
| Recovery Text: | If precompiling, correct the statement or remove it and precompile the program again. If running a program containing SQL statements, correct the logic of the program to make certain that a valid SQL statement is provided before issuing a PREPARE or EXECUTE IMMEDIATE statement. |
| SQLCODE or SQLCODEs: | -198 |
| SQLSTATE or SQLSTATEs: | 42617 |
### SQL0199

**Message Text:**
Keyword &1 not expected. Valid tokens: &2.

**Cause Text:**
The keyword &1 was not expected here. A syntax error was detected at keyword &1. The partial list of valid tokens is &2. This list assumes that the statement is correct up to the unexpected keyword. The error may be earlier in the statement but the syntax of the statement seems to be valid up to this point.

**Recovery Text:**
Examine the SQL statement in the area of the specified keyword. A colon or SQL delimiter may be missing. SQL requires reserved words to be delimited when they are used as a name. Correct the SQL statement and try the request again.

**SQLCODE or SQLCODEs:** -199

**SQLSTATE or SQLSTATEs:** 42601

### SQL0203

**Message Text:**
Name &1 is ambiguous.

**Cause Text:**
The name &1 is ambiguous for one of the following reasons:

- Two or more of the tables specified in a FROM clause contain columns with the name &1. The name specified can refer to a column name or a system column name in the table.
- The name is specified in an ORDER BY clause and is the same as more than 1 result column name.
- OLD_ROW and NEW_ROW are specified for an SQL trigger and a transition variable specified in the routine body is not qualified.

**Recovery Text:**
Qualify the column name with a table name or correlation name or use the AS clause to provide a unique result column name that can be specified in the ORDER BY clause. Qualify the transition variable in the trigger with the name specified for OLD_ROW or NEW_ROW. Try the request again.

**SQLCODE or SQLCODEs:** -203

**SQLSTATE or SQLSTATEs:** 42702

### SQL0204

**Message Text:**
&1 in &2 type *&3 not found.

**Cause Text:**
&1 in &2 type *&3 was not found. If this is an ALTER TABLE statement and the type is *N, a constraint was not found. If this is not an ALTER TABLE statement and the type is *N, a function, procedure, or trigger was not found.
### Recovery Text:
Change the name and try the request again. If the object is a node group, ensure that the DB2 Multisystem product is installed on your system and create a nodegroup with the CRTNODGRP CL command.

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>+204  -204</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>01532  42704</td>
</tr>
</tbody>
</table>

### SQL0205

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Column &amp;1 not in table &amp;2 in &amp;3.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>A column with the name &amp;1 does not exist in table or view &amp;2 in library &amp;3.</td>
</tr>
</tbody>
</table>
| Recovery Text: | Do one of the following and try the request again:
  - Make certain that the column names, table names, and any qualifiers are specified correctly.
  - If the column is not qualified, the column &1 is no longer in table &2. It was originally found in table &2, but it no longer exists. If the column is now available in a different table and is referenced by this statement, a precompile may be necessary.
  - If more than one table is referenced in a SQL statement, the column name should be qualified.
  - If this is a CREATE TABLE statement and column &1 is specified in a partitioning key or constraint for the table being created, add a column definition for column &1 or remove it from the constraint or partitioning key. |
| SQLCODE or SQLCODEs: | -205 |
| SQLSTATE or SQLSTATEs: | 42703 |

### SQL0206

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Column &amp;1 not in specified tables.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>&amp;1 is not a column of table &amp;2 in library &amp;3. If the table is *N, &amp;1 is not a column of any table or view that can be referenced.</td>
</tr>
</tbody>
</table>
| Recovery Text: | Do one of the following and try the request again:
  - Ensure that the column and table names are specified correctly in the statement.
  - If this is a SELECT statement, ensure that all the required tables were named in the FROM clause.
  - If the column was intended to be a correlated reference, qualify the column with the correct table designator. |
| SQLCODE or SQLCODEs: | -206 |
| SQLSTATE or SQLSTATEs: | 42703 |
### SQL0208

**Message Text:** ORDER BY column &1 or expression not in result table.

**Cause Text:**
Column &1 or an expression is specified in the ORDER BY clause and is not valid because:
- The column or expression is not in the result table (is not specified in the SELECT list).
- The column or expression is in the SELECT list but the result column is renamed using an AS clause. If the AS clause is used to name a column in the result table, the name specified on the AS clause must be the name specified on the ORDER BY clause.
- A qualified name in the ORDER BY clause refers to a name specified in an AS clause. A name specified in an AS clause cannot be qualified.
- The name does not refer to a named column of the result table when a UNION or UNION ALL operator is specified. The result column is named if the corresponding columns in each SELECT list have the same name.

**Recovery Text:**
Do one of the following and try the request again:
- Add column &1 or the expression to the result table.
- Remove column &1 or the expression from the ORDER BY clause.
- Ensure &1 is a named result column if UNION or UNION ALL is specified.
- Specify a numeric column identifier in place of &1 in the ORDER BY clause.

**SQLCODE or SQLCODEs:** -208

**SQLSTATE or SQLSTATEs:** 42707

### SQL0212

**Message Text:** Duplicate table designator &1 not valid.

**Cause Text:** One of the following has occurred:
- More than one table in a FROM clause of a subselect has a table designator with the name &1. If a correlation name is specified, the correlation name is the table designator. If one is not specified, the table name or view name is the table designator. If SQL naming is specified, the table name consists of the implicit or explicit collection name followed by the actual table name. If system naming is specified, the table name itself is used without a qualifier as the table designator. The table designator must be unique on each level of a subselect.
- Names specified in the REFERENCING clause of a CREATE TRIGGER statement are not unique. The names specified for the NEW and OLD correlation name and the NEW_TABLE and OLD_TABLE names must be unique and must not be the same as the table on which the trigger is being defined.
Make certain there is a unique table designator for every table in a FROM clause for the same level of a subselect. Since collection-name/table-name cannot be used to qualify a column, the table name must be unique or a correlation name must be specified. Specify unique names in the REFERENCING clause of the CREATE TRIGGER statement. Correct any errors and try the request again.

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>-212</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42712</td>
</tr>
</tbody>
</table>

### SQL0213

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Parameter &amp;1 not in routine &amp;2 in &amp;3.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>A parameter with a name &amp;1 does not exist in routine &amp;2 in library &amp;3.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Make certain that the parameter name, routine name, and any qualifiers are specified correctly. Try the request again.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-213</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42703</td>
</tr>
</tbody>
</table>

### SQL0214

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>ORDER BY expression is not valid.</th>
</tr>
</thead>
</table>
| Cause Text:  | The expression in the ORDER BY clause in position &1 is not valid for reason code &3.  
|              | • 1 - The SELECT statement contains a UNION.  
|              | • 2 - DISTINCT is specified in the SELECT clause and the expression cannot be matched exactly with an expression in the select list.  
|              | • 3 - The select list uses a column function or there is a GROUP BY clause and the expression is not a column function or does not match exactly with an expression in the select list.  
|              | • 4 - A column function in the ORDER BY clause requires grouping. |
Recovery Text:

Make the change listed for reason &3 and try the request again:

- 1 - Remove the expression from the ORDER BY clause.
- 2 - Remove DISTINCT from the select clause or change the ORDER BY expression to refer to a select list item by using a numeric column identifier or a column name.
- 3 - Change the expression in the ORDER BY clause to a column function or change to use a numeric column identifier or a column name.
- 4 - Add a GROUP BY clause or remove the column function from the ORDER BY clause.

SQLCODE or SQLCODEs:  -214
SQLSTATE or SQLSTATEs:  42822

### SQL0221

**Message Text:**
Number of rows &2 not valid.

**Cause Text:**
A blocked FETCH, a blocked INSERT, or a SET RESULT SETS statement is not valid. The number of rows specified is not between 0 and 32767 or is greater than the dimension of the host structure array. The number of rows specified is &2 and the dimension of the array is &3. If this is a FETCH statement, the cursor name is &1.

**Recovery Text:**
Either ensure the number of rows is from 0 through 32767 and less than or equal to the dimension of the array, or increase the size of the array.

SQLCODE or SQLCODEs:  -221
SQLSTATE or SQLSTATEs:  42873

### SQL0225

**Message Text:**
FETCH not valid; cursor &1 not declared with SCROLL.

**Cause Text:**
A FETCH statement was specified with PRIOR, FIRST, LAST, BEFORE, AFTER, CURRENT, or RELATIVE for cursor &1. Cursor &1 was not declared with SCROLL. Only NEXT may be used for cursors that have not been declared SCROLL.

**Recovery Text:**
In order to specify PRIOR, FIRST, LAST, BEFORE, AFTER, CURRENT or RELATIVE on the FETCH statement, the cursor must be declared scrollable. To create a scrollable, read-only cursor, add the SCROLL keyword to the DECLARE CURSOR statement for cursor &1. To create a scrollable cursor that can be updated, add the DYNAMIC SCROLL keywords to the DECLARE CURSOR statement for cursor &1.

SQLCODE or SQLCODEs:  -225
SQLSTATE or SQLSTATEs:  42872
### SQL0226

**Message Text:** Current row deleted or moved for cursor &1.

**Cause Text:** A FETCH CURRENT was specified for scrollable cursor &1. The current row was either deleted or updated. If the row was updated, one of the following could have occurred:
- A value of an ORDER BY column of the current row has changed.
- A value of a column in the index has changed.
- A column has been changed so it no longer meets the record selection criteria

**Recovery Text:** Specify NEXT, PRIOR, FIRST, LAST, BEFORE, AFTER, or RELATIVE on the FETCH statement to position the cursor and fetch another row.

**SQLCODE or SQLCODEs:** -226

**SQLSTATE or SQLSTATEs:** 24507

### SQL0227

**Message Text:** FETCH not valid, cursor &1 in unknown position.

**Cause Text:** A previous blocked FETCH for cursor &1 resulted in an error (SQLCODE &2, SQLSTATE &3) in the middle of processing a block of rows retrieved from the database manager. One or more rows left in the block could not be returned to the program following the error, leaving the position of the cursor unknown. If the SQLSTATE is *N, the error is unknown.

**Recovery Text:** Close and reopen the cursor to set the position. For scrollable cursors, FIRST, LAST, BEFORE, or AFTER may also be used to position the cursor.

**SQLCODE or SQLCODEs:** -227

**SQLSTATE or SQLSTATEs:** 24513

### SQL0228

**Message Text:** FOR UPDATE clause not valid with SCROLL for cursor &1.

**Cause Text:** The FOR UPDATE clause and SCROLL keyword are specified for cursor &1. The FOR UPDATE clause is not valid with the SCROLL keyword unless the DYNAMIC keyword is also specified. If SCROLL is specified and DYNAMIC is not specified, the cursor is read-only. If DYNAMIC SCROLL is specified, the cursor can be updated.
Recovery Text: To declare a scrollable cursor that is read-only, specify the SCROLL keyword but do not specify the FOR UPDATE clause. To declare a scrollable cursor that can be updated, specify DYNAMIC SCROLL. Precompile the program again.

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>-228</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42620</td>
</tr>
</tbody>
</table>

**SQL0231**

Message Text: Position of cursor &1 not valid for FETCH of current row.

Cause Text: A FETCH CURRENT or a FETCH RELATIVE 0 was specified for scrollable cursor &1. The operation is not valid because the cursor is not positioned on a record. A FETCH of the current row is not allowed following a FETCH BEFORE, a FETCH AFTER, or a FETCH that resulted in an SQLCODE of +100.

Recovery Text: Ensure the cursor is positioned on a record before attempting to fetch the current row.

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>-231</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>22006</td>
</tr>
</tbody>
</table>

**SQL0237**

Message Text: Not enough SQLVAR entries were provided in the SQLDA.

Cause Text: The SQLDA only provided &2 SQLVAR entries. Since at least one of the columns being described is a distinct type or a LOB, &3 SQLVAR entries should have been specified. None of the secondary SQLVAR entries have been set. Since at least one of the columns is a distinct type or a LOB, space should be provided for twice as many SQLVAR entries as the number of columns. Only the base SQLVAR entries have been set.

Recovery Text: If there is no need for the additional information about the distinct type(s) or LOB(s), then no action is required. If this information is needed, the value of the SQLN field in the SQLDA should be increased to the value indicated in the message, and the statement should be resubmitted.

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>+237</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>01594</td>
</tr>
</tbody>
</table>

**SQL0239**

Message Text: Not enough SQLVAR entries were provided in the SQLDA.
| Cause Text: | The SQLDA only provided &1 SQLVAR entries. Since at least one of the columns being described is a distinct type or a LOB, &2 SQLVAR entries should have been specified. No SQLVAR entries have been set. If any of the columns is a distinct type or a LOB, then space should be provided for twice as many SQLVAR entries as the number of columns. None of the SQLVAR entries have been set. |
| Recovery Text: | If the distinct type or LOB information is needed, the value of the SQLN field should be increased to the value indicated in the message, and the statement should be resubmitted. If there is no need for the additional information about the distinct type(s) or LOB(s), then it is possible to resubmit the statement only providing enough SQLVAR entries to accommodate the number of columns. |
| SQLCODE or SQLCODEs: | +239 |
| SQLSTATE or SQLSTATEs: | 01005 |

**SQL0250**

| Message Text: | Local relational database not defined in the directory. |
| Cause Text: | One of the following has occurred:  
- Three part names were used and the relational database name is not defined in the relational database directory.  
- A connect was attempted and the local relational database name is not defined in the relational database directory.  
- The SQL statement uses the CURRENT SERVER special register and the local relational database name is not defined in the relational database directory.  
- The SQL statement referred to a view which used the CURRENT SERVER special register and the local relational database name is not defined in the relational database directory. |
| Recovery Text: | Define the local relational database name using the Add Relational Database Directory Entry (ADDRDBDIRE) command. |
| SQLCODE or SQLCODEs: | -250 |
| SQLSTATE or SQLSTATEs: | 42718 |

**SQL0251**

| Message Text: | Character in relational database name &1 not valid. |
| Cause Text: | &1 contains either a #, @, ., or a $, which are not valid character for a relational database name. Valid characters include A-Z, 0-9, and underscore. |
| Recovery Text: | Correct the name. Try the request again. |
| SQLCODE or SQLCODEs: | -251 |
| SQLSTATE or SQLSTATEs:  | 2E000 42602 |

### SQL0256

**Message Text:** Constraint &1 in &2 not allowed on distributed file.

**Cause Text:** Constraint &1 in &2 not allowed for one of the following reasons:
- The columns that make up the partitioning key must be a subset of the columns that make up the foreign key. The columns may appear in any order.
- The node group of the dependent table in a foreign key constraint must match the node group of the parent table.

**Recovery Text:** Ensure that every column that is in the partitioning key is also in the foreign key for the table. Also ensure that the dependent table and the parent table are built over the same nodegroup.

**SQLCODE or SQLCODEs:** -256

**SQLSTATE or SQLSTATEs:** 42998

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| SQLSTATE or SQLSTATEs:  | 2E000 42990 |

### SQL0270

**Message Text:** Function not allowed for distributed table &1 in &2.

**Cause Text:** Table &1 in &2 is a distributed table. The function is not allowed for one of the following reasons:
- The unique index or unique constraint is not allowed, because all unique indexes or unique constraints of a distributed table must be a superset of the columns that make up the partitioning key. If this is a CREATE TABLE statement and the PARTITIONING KEY clause was not specified, then the default partitioning key is the first column of the primary key, or the first valid column of the table.
- Data in one of the partitioning key columns was changed via an UPDATE statement, which would have forced the row to a different node.
- The table contains a LOB field. LOB fields are not allowed in a distributed table.

**Recovery Text:** Ensure that all unique indexes or unique constraints contain all the columns of the partitioning key. Ensure that data in the partitioning key columns is not changed, or is changed to a value that would reside on the same node. Ensure the table does not contain any LOB fields.

**SQLCODE or SQLCODEs:** -270

**SQLSTATE or SQLSTATEs:** 42990

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| SQLSTATE or SQLSTATEs:  | 2E000 42990 |
**Message Text:** Input host variable &2 or argument &1 not valid.

**Cause Text:**
The value in relative position &1 in the statement is a type that is not compatible with the requested operation. The value is host variable &2, entry &1 in an SQLDA, or argument &2 in a CALL statement. A name *N indicates that a user's SQLDA was used or that a constant or special register was specified on the CALL statement.

**Recovery Text:**
Do one of the following and try the request again:
- Use a host variable that is the correct type.
- Specify an argument in the CALL that is the correct type.
- Change the type specified for parameter &1 in the DECLARE PROCEDURE statement.

**SQLCODE or SQLCODEs:** -301

**SQLSTATE or SQLSTATEs:** 07006 42895

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**Message Text:** Conversion error on input host variable or parameter &2.

**Cause Text:**
Host variable or parameter &2 or entry &1 in an SQLDA contains a value that cannot be converted to the attributes required by the statement. Error type &3 occurred. A list of the error types follows:
- Error type 1 is overflow.
- Error type 2 is floating point overflow.
- Error type 3 is floating point underflow.
- Error type 4 is a floating point conversion error.
- Error type 5 is not an exact result.
- Error type 6 is numeric data that is not valid.
- Error type 7 is double-byte character set (DBCS) data that is not valid.
- Error type 8 is C NUL-terminator is missing for character host variables or double NUL-terminator is missing for graphic host variables and the program was compiled with the *CNULRQD option.
- Error type 9 is character truncation when mapping a host variable or constant to a character parameter on a CALL statement.
- Error type 10 is the incompatible conversion from the input SQLDATA value to the specified SQLTYPE in a REXX application.

If the host variable name is *N and the statement is FETCH, an SQLDA was specified. If the parameter name is *N and the statement is CALL, an SQLDA, a constant, or a special register was specified.

**Recovery Text:**
Change the value of the host variable or parameter or entry in the SQLDA so that it can be converted and is valid. Try the request again.

**SQLCODE or SQLCODEs:** -302

**SQLSTATE or SQLSTATEs:** 22001 22003 22023 22024
## SQL0303

**Message Text:**
Host variable &2 not compatible.

**Cause Text:**
A FETCH, SELECT, CALL, SET, or VALUES INTO cannot be performed because the data type of host variable &2 is not compatible with the data type of the corresponding list item.

- When selecting a date value, a character host variable must be at least 6 bytes for a Julian date, at least 8 bytes for a date in the MDY, YMD, DMY formats, or at least 10 bytes for all other formats.
- When selecting a time value, a character host variable must be at least 8 bytes for a time in the USA format and at least 5 bytes for all other formats.
- When selecting a timestamp value, a character host variable must be at least 19 bytes.
- If the host variable is C NUL-terminated and the program was compiled with `*CNULRQD` option, then an additional byte is required for the NUL-terminator for date/time values.

The relative position of the host variable in the INTO clause, the SQLDA, or the CALL statement is &1. If the host variable name is `*N`, an SQLDA was specified on a FETCH statement.

**Recovery Text:**
Ensure that the data types are compatible for each of the corresponding list items. Ensure the host variables are defined correctly for date, time, and timestamp values.

**SQLCODE or SQLCODEs:**
-303

**SQLSTATE or SQLSTATEs:**
22001 42806

## SQL0304

**Message Text:**
Conversion error in assignment to host variable &2.
| Cause Text: | During an attempt to return a value to host variable &2 on a FETCH, an embedded SELECT statement, a CALL statement, a SET statement, or a VALUES INTO statement. Error type &3 occurred. A list of the error types follows:  
- Error type 1 is overflow.  
- Error type 2 is floating point overflow.  
- Error type 3 is floating point underflow.  
- Error type 4 is a floating point conversion error.  
- Error type 5 is not an exact result.  
- Error type 6 is numeric data that is not valid.  
- Error type 7 is double-byte character set (DBCS) data that is not valid.  
The relative position of the host variable is &1. If the host variable name is '*N, an SQLDA was specified on the FETCH or CALL statement. |
| Recovery Text: | Change the size and, if necessary, the type of the host variable or entry in the SQLDA so that it can contain the result value or correct the data that is not valid. Precompile the program again. |
| SQLCODE or SQLCODEs: | +304 -304 |
| SQLSTATE or SQLSTATEs: | 01515 01547 01565 22003 22023 22504 |

### SQL0305

| Message Text: | Indicator variable required. |
| Cause Text: | A FETCH, an embedded SELECT, a CALL or a SET or VALUES INTO statement has resulted in a null value, but an indicator variable was not specified for host variable &2. The relative position of the host variable in the INTO clause or parameter list is &1. If the host variable name is '*N, an SQLDA was specified. |
| Recovery Text: | Specify an indicator variable, and precompile the program again. |
| SQLCODE or SQLCODEs: | -305 |
| SQLSTATE or SQLSTATEs: | 22002 22004 |

### SQL0306

| Message Text: | REXX input host variable &1 not defined. |
| Cause Text: | The REXX input host variable &1 appears in an SQL statement, but it is not defined because a value has not been assigned to the variable. |
| Recovery Text: | Verify that &1 is spelled correctly in the SQL statement and that a value is assigned to the host variable before the SQL statement is run. |
| SQLCODE or SQLCODEs: | -306 |
**SQL0311**

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Length in a varying-length or LOB host variable not valid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>Host variable &amp;2 was specified. The value in the length portion of the variable length or LOB host variable is either negative or greater than the declared length. If the host variable is graphic the length should be the number of DBCS characters. The host variable number is &amp;1. The specified length is &amp;4. The variable is declared to have length &amp;3.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Change the length portion of the varying-length or LOB host variable to a valid positive number or zero. Try the request again.</td>
</tr>
</tbody>
</table>

**SQLCODE or SQLCODEs:** -311

**SQLSTATE or SQLSTATEs:** 22501

**SQL0312**

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Variable &amp;1 not defined or not usable.</th>
</tr>
</thead>
</table>
| Cause Text:  | The variable &1 appears in the SQL statement, but one of the following conditions exists:  
  • No declaration for the variable exists.  
  • The attributes are not correct for the use specified.  
  • The host variable was specified in dynamic SQL. Host variables are not valid in dynamic SQL.  
  • In REXX, host variable names cannot contain embedded blanks.  
  • The variable name is used in the routine body of an SQL procedure or function, but the variable is not declared as an SQL variable or parameter. The scope of an SQL variable is the compound statement that contains the declaration.  
  • The variable is used in the routine body of an SQL trigger, but the variable is not declared as an SQL variable or the variable is an OLD transition variable and cannot be modified. |
### SQL0313

**Message Text:** Number of host variables not valid.

**Cause Text:** The number of host variables or entries in an SQLDA specified in either an EXECUTE or OPEN statement is not the same as the number of parameter markers specified in the prepared SQL statement &1. If the statement name is "N, the number of host variables or entries in an SQLDA was specified in an OPEN statement and is not the same as the number of host variables specified in the DECLARE CURSOR statement for cursor &2.

**Recovery Text:** Change the number of host variables specified in the USING clause or the number of entries in the SQLDA to equal the number of parameter markers in the prepared SQL statement or the number of host variables in the DECLARE CURSOR statement. Precompile the program again.

**SQLCODE or SQLCODEs:** -313

**SQLSTATE or SQLSTATEs:** 07001 07004

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### SQL0326

**Message Text:** Too many host variables specified.
&1 host variables were specified on the FETCH, embedded SELECT, SET, or VALUES INTO statement, but only &2 columns were returned from the query. Extra host variables will be filled with the appropriate default value for the specified type.

- Character host variables and character LOB/s will be filled with blanks.
- Binary LOB/s will be filled with null characters.
- Date host variables will be filled with the current date.
- Time host variables will be filled with the current time.
- Timestamp host variables will be filled with the current timestamp.
- Graphic host variables and double-byte character LOB/s will be filled with double-byte blanks.
- UCS-2 host variables will be filled with UCS-2 blanks.
- Variable length character and graphic host variables will be set to a length of 0.
- C NUL-terminated character host variables will have a NUL-terminator set into the first character position.
- C NUL-terminated graphic host variables will have a double NUL-terminator set into the first DBCS character position.
- Numeric host variables will be set to a value of 0. REXX host variables will be defaulted to variable length character with the length set to 0.

No recovery is necessary.

SQLCODE or SQLCODEs: +326
SQLSTATE or SQLSTATEs: 01557

Column &1 not allowed in partitioning key.

Column &1 is not allowed to be part of the partitioning key. If the column name is *N, then there are no valid columns for use as the default partitioning key. Columns of type DATE, TIME, TIMESTAMP, FLOAT, DATALINKS, and LOBs are not allowed in the partitioning key.

Remove the column from the list of partitioning key columns, or change the data type of the column.

SQLCODE or SQLCODEs: -328
SQLSTATE or SQLSTATEs: 42996

The SET PATH name list is not valid.
### Cause Text:

Input host variable &1 contains a SET PATH name list that is not valid. A host variable name *N indicates that an incorrect string constant was specified on the SET PATH statement or for the SQLPATH on the SET OPTION statement. The name list must have the following attributes:

- The length must be greater than 0.
- The length cannot be greater than 3483.
- It must contain a list of valid library names, separated by commas.
- The list can contain a maximum of 268 library names.
- Each library name must be capitalized unless it is a special delimited name.
- The list cannot contain the special values, *LIBL, CURRENT PATH, SYSTEM PATH or USER.

### Recovery Text:

Use a string constant or host variable with the correct value.

### SQLCODE or SQLCODEs:

-329

### SQLSTATE or SQLSTATEs:

0E000
## SQL0332

**Message Text:** Character conversion between CCSID &1 and CCSID &2 not valid.

**Cause Text:**
Character or graphic conversion has been attempted for data that is not compatible. There is no conversion defined between CCSID &1 and CCSID &2.

If one CCSID is 65535, the other CCSID is a graphic CCSID. Conversion is not defined between 65535 and a graphic CCSID.

If this is a CONNECT statement, conversion is not defined between the default application requester SBCS CCSID and the application server SBCS CCSID. If the second CCSID is 0, the application server did not return its default SBCS CCSID. An application server other than an AS/400 may not support a CCSID of 65535.

**Recovery Text:**
Ensure that all character or graphic comparisons, concatenation, or assignments are between columns or host variables with compatible CCSID values.

If this is a CONNECT statement, change either the SBCS CCSID of the application requester or the application server, so conversion between the CCSID values is defined.

**SQLCODE or SQLCODEs:** -332

**SQLSTATE or SQLSTATEs:** 57017
### SQL0335

**Message Text:** Character conversion resulted in substitution characters.

**Cause Text:** Character column or host variable &2 has been converted to character column or host variable &3. The conversion defines that several different character values in the source data will translate to the same value in the target data. It will no longer be possible to separate these values. The CCSID of the source data is &4 and the CCSID of the target is &5.

**Recovery Text:** Change the definition of the columns or host variables so that CCSID values that are used will allow all character values in the source to be converted to character values in the target.

**SQLCODE or SQLCODEs:** +335

**SQLSTATE or SQLSTATEs:** 01517

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### SQL0338

**Message Text:** JOIN predicate not valid.

**Cause Text:** The JOIN predicate is not valid because a column is specified that exists in a table that is outside the scope of the join predicate. The scope is generally determined from left to right but is also based on the position of the join-condition. If parentheses are used, columns inside the parentheses can not come from a table outside the parentheses.

**Recovery Text:** Do one of the following and try the request again:
- Make certain that the column names, table names, and any qualifiers are specified correctly.
- Specify parentheses around joined tables to specify a join order other than left to right. Ensure columns exist in tables that are in the same scope.

**SQLCODE or SQLCODEs:** -338

**SQLSTATE or SQLSTATEs:** 42972
### SQL0340
**Message Text:** Duplicate name &1 for common table expressions.  
**Cause Text:** Name &1 cannot be used to define more than one table expression.  
**Recovery Text:** Change the name for one of the common table expressions. Try the request again.  
**SQLCODE or SQLCODEs:** -340  
**SQLSTATE or SQLSTATEs:** 42726

### SQL0341
**Message Text:** Cyclic references between common table expressions.  
**Cause Text:** The common table expressions specified are not valid. The subselect for table &1 refers to table &2 and the subselect for table &2 refers to table &1. Cyclic references between common table expressions are not allowed.  
**Recovery Text:** Change the common table expressions to refer to a table that exists or a common table expression that has already been defined. Try the request again.  
**SQLCODE or SQLCODEs:** -341  
**SQLSTATE or SQLSTATEs:** 42835

### SQL0346
**Message Text:** Recursion not allowed for common table expressions.  
**Cause Text:** The common table expression specified is not valid. The subselect for table &1 refers to itself. Recursive common table expressions are not allowed.  
**Recovery Text:** Change the common table expressions to refer to a table that exists or a common table expression that has already been defined. Try the request again.  
**SQLCODE or SQLCODEs:** -346  
**SQLSTATE or SQLSTATEs:** 42836

### SQL0350
**Message Text:** Column &1 is not valid as key field for index or constraint.  
**Cause Text:** A LOB or Datalink column is not valid as a key field, the key of an index, or the foreign key of a referential constraint.  
**Recovery Text:** Remove the LOB or Datalink column from the specification of the index, key, or constraint.  
**SQLCODE or SQLCODEs:** -350
SQL0351

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>The AR is not at the same level and DB2 cannot transform the data type to a compatible type.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>The data type of entry &amp;1 is not supported on the Application Requester. The usual cause is that the Application Requester is at less than Level 6 for the SQL Access Manager, and the Application Server cannot transform the data type to a compatible type. It can also mean that an attempt was made to use SQLCI (SQL Client Integration) with an unsupported data type such as BLOB or DataLink.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Change the data type to one that is supported by the corresponding Application Requester or SQLCI.</td>
</tr>
</tbody>
</table>

SQL0352

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>The AS is not at the same level and DB2 cannot transform the data type to a compatible type.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>The data type of entry &amp;1 is not supported on the Application Server. The Application Server is at less than Level 6 for the SQL Access Manager, and the Application Requester cannot transform the data type to a compatible type.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Change the data type to one that is supported by the corresponding Application Server.</td>
</tr>
</tbody>
</table>

SQL0357

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>File server &amp;1 used in DataLink not currently available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>Server &amp;1 in the URL of the DataLink value is not available for reason code &amp;2. The reason codes are as follows:</td>
</tr>
<tr>
<td></td>
<td>• 1 The file server in a Datalink value is not available.</td>
</tr>
<tr>
<td></td>
<td>• 2 The database server, instance, or database from which the operation was attempted is not registered with the file server.</td>
</tr>
<tr>
<td></td>
<td>• 3 Restart recovery is pending or is in progress on a file server involved in the operation.</td>
</tr>
<tr>
<td></td>
<td>• 4 The file server in a Datalink value is registered with the database but is an unknown server.</td>
</tr>
</tbody>
</table>
### SQL0358

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Error &amp;1 occurred using DataLink data type.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>An error occurred while using a DataLink. Possible errors are:</td>
</tr>
<tr>
<td></td>
<td>• Error type 21 is format of DataLink value not valid.</td>
</tr>
<tr>
<td></td>
<td>• Error type 22 is the DataLink File Manager (DLFM) is not properly configured on the server.</td>
</tr>
<tr>
<td></td>
<td>• Error type 23 is link type not valid.</td>
</tr>
<tr>
<td></td>
<td>• Error type 24 is file does not exist.</td>
</tr>
<tr>
<td></td>
<td>• Error type 25 is file already linked.</td>
</tr>
<tr>
<td></td>
<td>• Error type 26 is file not available.</td>
</tr>
<tr>
<td></td>
<td>• Error type 27 is length of comment or URL not valid.</td>
</tr>
<tr>
<td></td>
<td>• Error type 28 is user not authorized to link the file.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Correct that error in the DataLink and try the request again. For error type 22, it may be that the host database or the prefix have not been added to the DLFM on the server. If that is the case, use the commands Add Host Database to DLFM (ADDHDBDLFM) or Add Prefix to DLFM (ADDPFXDLFM) to correct the error.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-358</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>428D1</td>
</tr>
</tbody>
</table>

### SQL0360

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>DataLink in table &amp;1 in &amp;2 may not be valid due to pending links.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>Table &amp;1 in library &amp;2 has DataLinks in link pending mode. While the DataLink can be retrieved using FETCH or SELECT INTO, the DataLink may not be valid because the file has DataLinks in link pending mode.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Verify that the value retrieved is a valid URL. The command WRKPFDL (Work with Physical File DataLinks) can be used to determine which files have DataLinks in link pending mode.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>+360</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>01627</td>
</tr>
</tbody>
</table>

### SQL0387

| Message Text:       | No additional result sets returned. |
| Cause Text: | Procedure &1 in &2 was defined to return a maximum number of &4 result sets. The procedure returned &3 result sets. |
| Recovery Text: | None. |
| SQLCODE or SQLCODEs: | +387 |
| SQLSTATE or SQLSTATEs: | 02001 |

### SQL0392

| Message Text: | Assignment of LOB to specified host variable not allowed. |
| Cause Text: | The target host variable for all fetches of this LOB value for cursor &1 must be a locator or a LOB host variable. |
| Recovery Text: | Change the target of this fetch to either a LOB host variable or a LOB locator to be consistent with other fetches for this cursor. If it is necessary to use both LOB host variables and LOB locators as targets for this fetch, use the "NOOPTLOB compiler option." |
| SQLCODE or SQLCODEs: | -392 |
| SQLSTATE or SQLSTATEs: | 42855 |

### SQL0401

| Message Text: | Comparison operator &1 operands not compatible. |
| Cause Text: | The operands of comparison operator &1 are not compatible. |
| | • Numeric operands are compatible with any other numeric operands. |
| | • Character operands are compatible with operands that are character, graphic, date, time, timestamp, or LOB. |
| | • Date, time, timestamp, or LOB operands are compatible with character operands or with another operand of the same type. |
| | • Graphic and large object operands are compatible with graphic, character, or large object operands. |
| | • Operands that are user-defined types can only be compared to operands that are the same exact type. |
| | • Datalink operands cannot be compared. |
| Recovery Text: | Check the data types of all operands to see if the data types are compatible. If all the operands of the SQL statement are correct and a view is being accessed, then check the data types of all the operands in the view definition. Correct the errors. Try the request again. |
| SQLCODE or SQLCODEs: | -401 |
| SQLSTATE or SQLSTATEs: | 42818 |
### SQL0402

**Message Text:**

&1 use not valid.

**Cause Text:**

An operand has been specified for the arithmetic function or operator &1 that is not valid.

- User-defined types cannot be specified as operands of operators or scalar functions. User-defined types can only be specified with operators and within user-defined functions created specifically for that type.
- The operand of DIGITS can be any numeric type except floating-point.
- The operand of INTEGER, SMALLINT, BIGINT, FLOAT, DOUBLE, and DOUBLE_PRECISION cannot be date, time, or timestamp.
- The other functions or operators require numeric operands.

**Recovery Text:**

Ensure all operands of function or operator &1 are valid. Correct the operands. Try the request again.

**SQLCODE or SQLCODEs:** -402

**SQLSTATE or SQLSTATEs:** 42819

---

### SQL0403

**Message Text:**

Alias &1 in &2 created but table or view not found.

**Cause Text:**

The alias &1 was created in &2, but the referenced table or view, &3 in &4, could not be found.

**Recovery Text:**

The alias was created, but cannot be used until &3 in &4 is created.

**SQLCODE or SQLCODEs:** +403

**SQLSTATE or SQLSTATEs:** 01522

---

### SQL0404

**Message Text:**

Value for column or variable &1 too long.

**Cause Text:**

An INSERT or UPDATE statement or a SET or VALUES INTO statement specifies a value that is longer than the maximum length string that can be stored in &1. The length of &1 is &2 and the length of the string is &3.

**Recovery Text:**

Reduce the length of the string from &3 to a maximum of &2 and try the request again.

**SQLCODE or SQLCODEs:** -404

**SQLSTATE or SQLSTATEs:** 22001

---

### SQL0405
### SQL0406

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Conversion error on assignment to column &amp;2.</th>
</tr>
</thead>
</table>
| **Cause Text:**       | During an attempt to assign a value to column &2 with an INSERT, UPDATE, or ALTER TABLE statement, conversion error type &3 occurred. If precompiling, the error occurred when converting a numeric constant to the same attributes as column &2. A list of the error types follows:
  - Error type 1 is overflow.
  - Error type 2 is floating point overflow.
  - Error type 3 is floating point underflow.
  - Error type 4 is a floating point conversion error.
  - Error type 5 is not an exact result.
  - Error type 6 is numeric data that is not valid.
  - Error type 7 is DBCS data that is not valid. |
| **Recovery Text:**    | Change the statement so that the result value fits in column &2 and is valid, or create the table or view again, specifying a new type or length for column &2 so that the result value can be assigned. |
| **SQLCODE or SQLCODEs:** | -406  |
| **SQLSTATE or SQLSTATEs:** | 22003 22023 22504 |

### SQL0407

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Null values not allowed in column or variable &amp;5.</th>
</tr>
</thead>
</table>

---

78 iSeries: DB2 Universal Database for iSeries SQL Messages and Codes
Cause Text:
One of the following has occurred:

- Column &5 is a target column in an UPDATE or INSERT statement for table &3 in &4. Either a null value was specified to be inserted or updated into this column or a value for the column was not specified in an INSERT statement and the column does not allow null values. The null value was specified in the relative entry number &6 in the VALUES list, select list, or SET clause.

- Column &5 is specified in an ALTER statement for table &3 in &4. The attribute of column &5 can not be changed to NOT NULL because a null value exists in relative entry number &6 of the column.

- Variable &5 is a target variable in an SQL procedure, function, or trigger. A null value was specified to be set into this variable using a SET or VALUES statement, but the variable does not allow null values. The null value was specified in relative entry number &6 in the SET or VALUES INTO clause.

The null value was specified as either NULL, a host variable with an associated indicator variable that contains a negative value, a column containing a null value, or an expression that evaluated to NULL. If it is a host variable or column then the name is &7.

The null value for a column may be disallowed by a CHECK constraint that was added implicitly to enforce the NOT NULL attribute of the column specified on the CREATE or ALTER of the column.

Recovery Text:
If this is an ALTER TABLE statement, change the existing null values in the column to a non-null value. Otherwise, change the value so the result is not null. If a host variable is specified, change the value in the related indicator variable to be greater than or equal to zero. Try the request again.

SQLCODE or SQLCODEs: -407
SQLSTATE or SQLSTATEs: 23502

Message Text:
Value for column or variable &1 not compatible.
### Cause Text:
The data type of the source value is not compatible with the data type of the target column or variable &1. If the statement is INSERT or UPDATE, &1 is a column in table &2 in &3.
- Any numeric type value can be assigned to a column of any numeric type.
- Any character, double-byte character set (DBCS), graphic or large object type can be assigned to a column of any character, DBCS, graphic or large object type.
- A date, time, or timestamp value can be assigned to any character, DBCS, or graphic type.
- Any character, DBCS, or graphic type can be assigned to a date, time, or timestamp column.
- A date value can be assigned to a date.
- A time value can be assigned to a time.
- A timestamp value can be assigned to a timestamp.
- A value being assigned to a user-defined type must be promotable to the source type.
- The DLVALUE function must be specified when assigning to a DataLink.

### Recovery Text:
Change the column, host variable, constant, or function assigned to &1 to one that is compatible. Try the request again.

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>-408</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42821</td>
</tr>
</tbody>
</table>

### SQL0410

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Floating point literal &amp;1 not valid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>The number of characters in the floating point constant &amp;1 cannot exceed 24 excluding leading zeros. The number of digits in the first number cannot exceed 17 excluding leading zeros, and the number of digits in the second number cannot exceed 3.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Correct the indicated literal &amp;1. Make certain that the floating point literal is in the correct form shown by the following examples: +1.2E+3, 15E1, 2.E5, 2.2e-1, +5.E+2, -.1e1. Try the request again.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-410</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42820</td>
</tr>
</tbody>
</table>

### SQL0412

| Message Text: | Subquery with more than one result column not valid. |
### SQL0414

**Message Text:**
Operand not valid in LIKE predicate.

**Cause Text:**
Operand 1 of a LIKE predicate has a type of numeric, date, time, timestamp, DataLink or is a user-defined type. Operands specified in LIKE predicates must be character, graphic, or large objects. If the ESCAPE character is specified, operand 1 cannot be DBCS-only. If the operand is a column, the column name is &1.

**Recovery Text:**
Change operand 1 of the LIKE predicate to be a character or graphic type or use another operator for numeric, date, time, or timestamp comparisons. Do not specify an ESCAPE character if operand 1 is DBCS-only. Try the request again.

**SQLCODE or SQLCODEs:** -414

**SQLSTATE or SQLSTATEs:** 42824

### SQL0415

**Message Text:**
UNION operands not compatible.

**Cause Text:**
Column &2 is not compatible with its related column in the other operand of a UNION or UNION ALL clause. The relative position of the value in the select list is &1. One of the following conditions exists:
- One column is numeric, and the other is not numeric.
- One column is DBCS-only and the other is character. DBCS refers to the double-byte character set.
- One of the columns is date, time, or timestamp and the other is not the same type.
- One column is graphic, and the other is not graphic or character.
- If the column name is *N, the column is not a named column.

**Recovery Text:**
Change the columns of the operands of the UNION clause so that they are compatible. If one operand is date, time, or timestamp and the other operand is character, you can use the DATE, TIME, or TIMESTAMP scalar function, respectively, to convert the data to a compatible type. Try the request again.
SQL0417

Message Text: Combination of parameter markers not valid.

Cause Text: The statement string specified as the object of a PREPARE statement contains a predicate or expression where parameter markers have been used as operands of the same operator. The following restrictions apply to the use of parameter markers:

- Both the operands in a predicate cannot be parameter markers. For example, specifying predicates of the form:
  ? = ?
  or
  ? = ( SELECT ? FROM x )
are not valid.
- Both the operands in a expression cannot be parameter markers. For example, specifying an expression of the form:
  ? + ?
is not valid. At least one of the operands in the BETWEEN predicate cannot be a parameter marker. For example, specifying the predicate of the form:
  ? BETWEEN ? and ?
is not valid.
- At least, one of the operands of the IN predicate must not be a parameter marker. For example, specifying the predicate of the form:
  ? IN (?, ?, ?)
is not valid.

Recovery Text: Correct the statement so that all operands of the predicate or expression are not parameter markers. A CAST specification can be used in most cases to assign attributes to a parameter marker. Try the request again.

SQL0418

Message Text: Use of parameter marker not valid.
### Cause Text:
Parameter markers are not allowed:
- In the SELECT clause of the statement string to be prepared.
- As a value in a VALUES INTO statement.
- As an operand of a concatenation operation.
- As the operand of a scalar function. If the scalar function is VALUE, COALESCE, IFNULL, MIN, MAX, LAND, LOR, or XOR, then the first operand can not be a parameter marker.
- As the left operand of the LIKE predicate.
- As the operand of a unary minus.
- In an SQL statement in embedded SQL or in interactive SQL.
- In an EXECUTE IMMEDIATE statement.
- In a CREATE VIEW, CREATE TABLE, or ALTER TABLE statement.
- In a statement processed by the RUNSQLSTM command.
- In a blocked INSERT statement.

### Recovery Text:
Ensure parameter markers are only specified where they are allowed. A CAST specification can be used in many situations. Correct any errors. Try the request again.

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>-418</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42610</td>
</tr>
</tbody>
</table>

### SQL0419

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Negative scale not valid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>A decimal division operation has produced a negative scale. The scale for decimal division is produced by the algorithm: 31 - NP + NS - DS where NP is the precision of the numerator, NS is the scale of the numerator, and DS is the scale of the denominator.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Change one of the operands to floating point by using the FLOAT scalar function. This will change the result of division to floating point. If a decimal result is desired, use the DECIMAL scalar function in the floating point result. If one of the operands is integer, small integer, or big integer, SQL has converted it to decimal prior to the division. The DECIMAL function can be used to explicitly convert the integer, small integer, and big integer to a precision that will not cause the division to produce a negative scale. Try the request again.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-419</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42911</td>
</tr>
</tbody>
</table>

### SQL0420

<p>| Message Text: | Character in CAST argument not valid. |</p>
<table>
<thead>
<tr>
<th>Cause Text:</th>
<th>A character in the argument for the CAST function was not correct.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recovery Text:</td>
<td>Change the result data type to one that recognizes the characters in the CAST argument, or change the argument to contain a valid representation of a value for the result data type. Try the request again.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>+420 -420</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>01565 22018</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SQL0421</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Message Text:</strong></td>
</tr>
<tr>
<td><strong>Cause Text:</strong></td>
</tr>
<tr>
<td><strong>Recovery Text:</strong></td>
</tr>
<tr>
<td><strong>SQLCODE or SQLCODEs:</strong></td>
</tr>
<tr>
<td><strong>SQLSTATE or SQLSTATEs:</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SQL0423</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Message Text:</strong></td>
</tr>
<tr>
<td><strong>Cause Text:</strong></td>
</tr>
<tr>
<td><strong>Recovery Text:</strong></td>
</tr>
<tr>
<td><strong>SQLCODE or SQLCODEs:</strong></td>
</tr>
<tr>
<td><strong>SQLSTATE or SQLSTATEs:</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SQL0428</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Message Text:</strong></td>
</tr>
<tr>
<td><strong>Cause Text:</strong></td>
</tr>
<tr>
<td><strong>Recovery Text:</strong></td>
</tr>
<tr>
<td><strong>SQLCODE or SQLCODEs:</strong></td>
</tr>
<tr>
<td><strong>SQLSTATE or SQLSTATEs:</strong></td>
</tr>
</tbody>
</table>
### SQL0429
**Message Text:**
The maximum number of concurrent LOB locators has been reached.

**Cause Text:**
The LOB locator could not be generated because there are already 65535 valid locators for this process.

**Recovery Text:**
Use the FREE LOCATOR statement to free LOB locators.

**SQLCODE or SQLCODEs:**
-429

**SQLSTATE or SQLSTATEs:**
54028

### SQL0432
**Message Text:**
A parameter marker cannot have the user-defined type name &1.

**Cause Text:**
A parameter marker in the statement has been determined as having the user-defined type &1 based on the context in which it is used. A parameter marker cannot have a user-defined type as its data type unless it is part of an assignment (VALUES clause of INSERT or SET clause of UPDATE) or it is being explicitly cast to a user-defined type using the CAST specification.

**Recovery Text:**
Use an explicit cast to the user-defined distinct type for the parameter marker or cast the columns that are user-defined types to their corresponding source data type.

**SQLCODE or SQLCODEs:**
-432

**SQLSTATE or SQLSTATEs:**
42841

### SQL0433
**Message Text:**
Significant digits truncated during CAST from numeric to character.

**Cause Text:**
The length of the resulting character string is not large enough to hold the character representation of the numeric value.

**Recovery Text:**
Change the result data type to a character string long enough to hold the result. Try the request again.

**SQLCODE or SQLCODEs:**
-433

**SQLSTATE or SQLSTATEs:**
22001

### SQL0440
**Message Text:**
Routine &1 in &2 not found with specified parameters.
### SQL0441

**Message Text:** Clause or keyword &1 not valid where specified.

**Cause Text:** One of the following errors has occurred:
- AS LOCATOR is specified for a parameter in a procedure or as a parameter or in the returns clause of a function and the parameter is not defined as BLOB, CLOB, or DBCLOB. If the parameter is defined as BLOB, CLOB, or DBCLOB, a length, a CCSID value, or a FOR BIT DATA, FOR MIXED DATA, or FOR SBCS DATA clause was specified.
- ALL or DISTINCT is specified in a function that is not a column function.

**Recovery Text:** Specify the type as BLOB, CLOB, or DBCLOB or remove the AS LOCATOR clause. Remove the ALL or DISTINCT keyword from the function.

**SQLCODE or SQLCODEs:** -441

**SQLSTATE or SQLSTATEs:** 42601

### SQL0442

**Message Text:** Too many parameters for procedure &1 in &2 on CALL statement.

**Cause Text:** Only 255 parameters are allowed on the CALL statement. If the procedure is a REXX procedure, only 32766 bytes of data can be passed on the CALL statement.

**Recovery Text:** Reduce the number of parameters specified to the maximum of 255. If calling a REXX procedure, limit the total number of bytes of parameter data to be less than 32766. Try the request again.

**SQLCODE or SQLCODEs:** -442

**SQLSTATE or SQLSTATEs:** 54023

### SQL0443

**Message Text:** Trigger program or external routine detected an error.
### Cause Text:
Either a trigger program, external procedure, or external function detected and returned an error to SQL. If the error occurred in a trigger program, the trigger was on file &4 in library &5. If the error occurred in an external procedure or function, the external name is &4 in library &5. The associated text is &6. If the error occurred in a trigger program, the associated text is the type of trigger program. If the error occurred in an external function, the associated text is the text of the error message returned from the external function.

### Recovery Text:
Refer to the joblog for more information regarding the detected error. Correct the error and try the request again.

### SQLCODE or SQLCODEs:
-443

### SQLSTATE or SQLSTATEs:
38501 38xxx

---

### SQL0444

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>External program &amp;4 in &amp;5 not found.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>An attempt was made to CALL a procedure or invoke a function. External program or service program &amp;4 in library &amp;5 was not found.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>The external program or service program associated with the procedure or function cannot be found. Ensure that the an object exists with the name specified on the DECLARE PROCEDURE, CREATE PROCEDURE, or CREATE FUNCTION statement. If no name was specified, ensure that an object with a name which matches the procedure name specified exists. If a program name was specified, a program object must exist. If an entry point name was specified, then a service program object must exist. Try the request again.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-444</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42724</td>
</tr>
</tbody>
</table>

---

### SQL0445

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Value of parameter &amp;4 in procedure &amp;1 in &amp;2 too long.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>Parameter &amp;4, which is declared as OUT or INOUT, contains a value that is longer than the maximum length string that can be stored in host variable &amp;8. Parameter &amp;4 is being returned from procedure &amp;1 in &amp;2 to host variable &amp;8. Trailing blanks are not included in the length of the string. The length of the parameter is &amp;6 and the length of the host variable is &amp;7.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Increase the length of the host variable from &amp;7 to &amp;6. Try the request again.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>+445</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>01004</td>
</tr>
</tbody>
</table>
### SQL0446

**Message Text:** Conversion error in assignment of argument &2.

**Cause Text:**
During an attempt to assign input argument number &1 on a CALL statement to the corresponding parameter for the call, error type &3 occurred. A list of the error types follows:

- Error type 1 is overflow.
- Error type 2 is floating point overflow.
- Error type 3 is floating point underflow.
- Error type 4 is a floating point conversion error.
- Error type 5 is not an exact result.
- Error type 6 is numeric data that is not valid.
- Error type 7 is double-byte character set (DBCS) data that is not valid.

The parameter name is &2.

**Recovery Text:**
Change the attribute declaration for parameter &1 in the DECLARE PROCEDURE statement to match the attributes of argument &1 in the CALL statement or correct the data that is not valid. Try the request again.

**SQLCODE or SQLCODEs:** -446

**SQLSTATE or SQLSTATEs:** 22003

### SQL0448

**Message Text:** Too many parameters or result sets for routine &1 in &2.

**Cause Text:**
One of the following limits has been exceeded:

- 255 parameters in a DECLARE PROCEDURE or CREATE PROCEDURE statement. The actual number may be less and depends on the language.
- 254 parameters if GENERAL WITH NULLS is specified.
- 90 parameters if PARAMETER STYLE SQL is specified.
- 253 parameters for an SQL procedure.
- 90 parameters in a CREATE FUNCTION statement.
- 32767 result sets.

**Recovery Text:**
Reduce the number of parameters defined to the maximum or change the value for the number of result sets to be less than or equal to 32767. Try the request again.

**SQLCODE or SQLCODEs:** -448

**SQLSTATE or SQLSTATEs:** 54023
<table>
<thead>
<tr>
<th><strong>Message Text:</strong></th>
<th>External program name for routine &amp;1 in &amp;2 not valid.</th>
</tr>
</thead>
</table>
| **Cause Text:**   | The external program name specified on a DECLARE PROPERTY, CREATE PROCEDURE, or CREATE FUNCTION statement is not valid for the routine or the language specified.  
  • The external program name for a procedure must be of the form /library-name/program-name/.  
  • The external program name for a function must be of the form /library-name/program-name/ or /library-name/program-name(entry-point-name)/.  
  • The external program name for a JAVA procedure or function must be /class-name!method-name/ or /class-name.method-name/.  
  • The external program name for a REXX procedure must be /library-name/source-file-name(member-name)/. |
| **Recovery Text:** | Specify the correct form of the external program name.  
  Try the request again. |
| **SQLCODE or SQLCODEs:** | -449 |
| **SQLSTATE or SQLSTATEs:** | 42878 |

<table>
<thead>
<tr>
<th><strong>SQL0451</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Message Text:</strong></td>
</tr>
<tr>
<td>Cause Text:</td>
</tr>
<tr>
<td>------------</td>
</tr>
<tr>
<td>The data type, length, or value of parameter &amp;1 is not valid for the language specified for procedure or function &amp;3 in &amp;4. The parameter name is &amp;2. A list of conditions for the parameters follows:</td>
</tr>
<tr>
<td>- For C: NUMERIC is not a valid data type.</td>
</tr>
<tr>
<td>- For PL/I: NUMERIC, BIGINT, GRAPHIC, VARGRAPHIC, CLOB, BLOB, and DBCLOB are not valid data types.</td>
</tr>
<tr>
<td>- For COBOL: precision for DECIMAL or NUMERIC cannot be greater than 18. FLOAT, GRAPHIC, BIGINT, VARGRAPHIC, CLOB, BLOB, and DBCLOB are not valid data types.</td>
</tr>
<tr>
<td>- For ILE COBOL: precision for DECIMAL or NUMERIC cannot be greater than 18.</td>
</tr>
<tr>
<td>- For REXX: SMALLINT, BIGINT, NUMERIC, UCS-2 graphic, CLOB, BLOB, and DBCLOB are not valid data types. FLOAT is not valid if the precision is from 1 to 24.</td>
</tr>
<tr>
<td>- For RPG: FLOAT, BIGINT, VARCHAR, GRAPHIC, VARGRAPHIC, CLOB, BLOB, and DBCLOB are not valid data types.</td>
</tr>
<tr>
<td>- For ILE RPG: FLOAT, VARCHAR, and VARGRAPHIC are not valid data types.</td>
</tr>
<tr>
<td>- For CL: INTEGER, SMALLINT, BIGINT, NUMERIC, VARCHAR, FLOAT, GRAPHIC, VARGRAPHIC, CLOB, BLOB, and DBCLOB are not valid data types. GENERAL WITH NULLS cannot be specified for CL.</td>
</tr>
<tr>
<td>- DataLinks are not valid data types for parameters unless the routine is an SQL procedure or function.</td>
</tr>
<tr>
<td>- LOBs with AS LOCATOR are not valid data types for parameters of an SQL procedure or function.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Recovery Text:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correct the data type or precision specified for the parameter on the DECLARE PROCEDURE, CREATE PROCEDURE, or CREATE FUNCTION statement. Try the request again.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
</tr>
</thead>
<tbody>
<tr>
<td>-451</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SQLSTATE or SQLSTATEs:</th>
</tr>
</thead>
<tbody>
<tr>
<td>42815</td>
</tr>
</tbody>
</table>

---

**SQL0452**

<table>
<thead>
<tr>
<th>Message Text:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unable to access a file that is referred to by a file reference variable.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cause Text:</th>
</tr>
</thead>
<tbody>
<tr>
<td>The file referred to by the file reference variable (host variable &amp;1) could not be accessed because of reason code &amp;2. The reason codes and their meanings are:</td>
</tr>
<tr>
<td>- 1 - The file name or path has a format that is not valid.</td>
</tr>
<tr>
<td>- 2 - The length of the file name is greater than the maximum allowed length.</td>
</tr>
<tr>
<td>- 3 - The file option is not valid.</td>
</tr>
<tr>
<td>- 4 - The file cannot be found.</td>
</tr>
<tr>
<td>- 5 - A file already exists with the same name as that specified for a file that has the NEW option.</td>
</tr>
</tbody>
</table>
Recovery Text:

Do one of the following:

- If the reason code is 1, correct the format of the filename or path and then try the request again.
- If the reason code is 2, correct the file name and then try the request again.
- If the reason code is 3, correct the file option and then try the request again.
- If the reason code is 4, specify `SQL_FILE_CREATE` for the file option and then try the request again.
- If the reason code is 5, specify `SQL_FILE_OVERWRITE` or `SQL_FILE_APPEND` and then try the request again.

**SQLCODE or SQLCODEs:** -452
**SQLSTATE or SQLSTATEs:** 428A1
Message Text: Library &2 for specific name not same as routine library &3.

Cause Text: The specific name library &2 specified on a CREATE PROCEDURE, DECLARE PROCEDURE, or CREATE FUNCTION statement is not the same as library &3 for procedure or function &1.

Recovery Text: Specify the same library for the specific name as for the procedure or function name.

SQLCODE or SQLCODEs: -455
SQLSTATE or SQLSTATEs: 42882

---

Message Text: Specific name &3 in &2 already exists.

Cause Text: An attempt was made to create a function or procedure &1 in &2 with specific name &3, but specific name &3 already exists in the library. All routines (functions and procedures) in the same library must have unique specific names.

Recovery Text: Specify a SPECIFIC NAME that does not exist or do not specify a SPECIFIC NAME and a unique name will be generated for you. Otherwise, delete the existing routine. Try the request again.

SQLCODE or SQLCODEs: -456
SQLSTATE or SQLSTATEs: 42710

---

Message Text: Name &1 in &2 not allowed for function.

Cause Text: Function &1 in &2 cannot be created. Either the function name is a reserved word or the library is specified as QSYS, QSYS2, or QTEMP. Functions cannot be created in QSYS, QSYS2, or QTEMP.

Recovery Text: Change the name of the function to one that is not reserved or specify a different library. Try the request again.

SQLCODE or SQLCODEs: -457
SQLSTATE or SQLSTATEs: 42939

---

Message Text: Function &1 in &2 not found with matching signature.

Cause Text: Function &1 is specified in library &2. The name of the function and the number and data types of the parameters make up the function signature. A function with a matching signature was not found.
<table>
<thead>
<tr>
<th>Recovery Text:</th>
<th>Ensure that the function name specified exists and that the number and data types of the parameters match those in the function definition. Try the request again.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-458</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42883</td>
</tr>
</tbody>
</table>

---

### SQL0460

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Truncation of data may have occurred for ALTER TABLE of &amp;1 in &amp;2.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>Table &amp;1 in &amp;2 has been altered. The length of column &amp;3 has been reduced and data may have been truncated.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>No recovery is necessary.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>+460</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>01593</td>
</tr>
</tbody>
</table>

---

### SQL0461

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>CAST from &amp;1 to &amp;2 not supported.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>CAST is not supported from data type &amp;1 to data type &amp;2. If the CAST is from date, time, or timestamp to character, the length of the character result is too small.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Change the result data type or length to one that is supported for the CAST function or change the expression to have a data type that can be cast to &amp;2. Try the request again.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-461</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42846</td>
</tr>
</tbody>
</table>

---

### SQL0462

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Procedure or user defined function &amp;1 in &amp;2 returned a warning SQLSTATE.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>An SQLSTATE of the form 01Hxx was returned by the procedure or user defined function &amp;1 in &amp;2 (with specific name &amp;3), along with message text &amp;4.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>The user must understand the meaning of the warning. See your database administrator, or the author of the UDF or procedure.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>+462</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>01Hxx</td>
</tr>
</tbody>
</table>

---

### SQL0463
**Message Text:** SQLSTATE &4 returned from routine &1 in &2 not valid.

**Cause Text:** SQLSTATE &4 cannot be returned from an external routine if PARAMETER STYLE SQL or DB2SQL is specified. Routine &1 in &2 is either an external procedure that was called or an external function that was invoked. The specific name is &3. The diagnostic text is &5.

**Recovery Text:** Change the external routine to only return a SQLSTATE that is valid for the PARAMETER STYLE SQL or DB2SQL. Try the request again.

**SQLCODE or SQLCODEs:** -463
**SQLSTATE or SQLSTATEs:** 39001

---

**SQL0464**

**Message Text:** Procedure &1 returned &3 result sets, which exceeds the defined limit of &4.

**Cause Text:** The stored procedure &1 in &2 completed normally. However, the stored procedure exceeded the defined limit on the number of result sets a procedure can return. Only &4 result sets are returned to the SQL program that issued the SQL CALL statement.

The possible causes are:
- The number of result sets is greater than the maximum specified when the procedure was created.
- The stored procedure is unable to return &3 result sets due to DRDA limitations imposed by the client.

**Recovery Text:** The SQL statement is successful. The SQLWARN9 field of the SQLCA is set to /Z/.

**SQLCODE or SQLCODEs:** +464
**SQLSTATE or SQLSTATEs:** 0100E

---

**SQL0466**

**Message Text:** &3 result sets are available from procedure &1 in &2.

**Cause Text:** An SQL CALL statement was executed for procedure &1 in &2. It has returned one or more result sets.

**Recovery Text:** None.

**SQLCODE or SQLCODEs:** +466
**SQLSTATE or SQLSTATEs:** 0100C

---

**SQL0467**

**Message Text:** Another result set exists for procedure &1 in &2.
<table>
<thead>
<tr>
<th>Cause Text</th>
<th>Recovery Text</th>
<th>SQLCODE or SQLCODEs:</th>
<th>SQLSTATE or SQLSTATEs:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A result set was closed for &amp;1 in &amp;2. Another result set exists for the stored procedure. A maximum of &amp;3 result sets are possible for this procedure.</td>
<td>None.</td>
<td>+467</td>
<td>0100D</td>
</tr>
</tbody>
</table>

SQL0469

<table>
<thead>
<tr>
<th>Message Text</th>
<th>Cause Text</th>
<th>Recovery Text</th>
<th>SQLCODE or SQLCODEs:</th>
<th>SQLSTATE or SQLSTATEs:</th>
</tr>
</thead>
</table>
| IN, OUT, or INOUT not valid for parameter &4 in procedure &1 in &2. | The IN, INOUT, or OUT attribute specified for parameter &4 on the DECLARE PROCEDURE or CREATE PROCEDURE statement is not valid. The parameter name is &5. One of the following errors occurred:  
  - The attribute is not consistent with the parameter on the CALL statement. If the parameter was declared INOUT or OUT, the parameter on the CALL statement must be specified as a host variable.  
  - The attribute was specified as INOUT or OUT and REXX was specified as the language. The attribute must be IN if REXX is specified.  
  - A parameter in an SQL procedure is declared as OUT and is used as input in the routine body or is declared as IN and is modified in the routine body.  
  - A parameter in an SQL function is modified in the routine body. | Either change the attribute of the parameter on the DECLARE PROCEDURE or CREATE PROCEDURE statement or change the parameter. Do not modify parameters in an SQL function. Try the request again. | -469 | 42886 |

SQL0470

<table>
<thead>
<tr>
<th>Message Text</th>
<th>Cause Text</th>
<th>Recovery Text</th>
<th>SQLCODE or SQLCODEs:</th>
<th>SQLSTATE or SQLSTATEs:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Null values not allowed for parameter &amp;4 in procedure &amp;1 in &amp;2.</td>
<td>Null values are not allowed on the CALL statement for procedure &amp;1 because the procedure was declared with GENERAL specified. The null value was specified as either the NULL keyword or a host variable with an associated indicator variable that contains a negative value. The parameter number is &amp;4 and the parameter name is &amp;5.</td>
<td>Specify GENERAL WITH NULLS on the CREATE PROCEDURE or DECLARE PROCEDURE statement or pass a value other than the null value on the CALL statement. Try the request again.</td>
<td>-470</td>
<td></td>
</tr>
</tbody>
</table>
SQL0473
Message Text: User-defined type &1 cannot be created.
Cause Text: Name &1 specified for a user-defined type is the same as a system predefined type or is a function name that is reserved. Function names that cannot be used include CAST, NODENAME, NODENUMBER, PARTITION, POSITION, RRN, STRIP, SUBSTRING, and TRIM.
Recovery Text: Change the name for the user-defined type. Try the request again.
SQLCODE or SQLCODEs: -473
SQLSTATE or SQLSTATEs: 42918

SQL0475
Message Text: RETURNS data type for function &3 in &4 not valid.
Cause Text: The data type specified for the RETURNS clause or the CAST FROM clause for function &3 in library &4 is not appropriate for the data type returned from the sourced function or the value specified on the RETURN statement in the SQL function body. The data type specified in the RETURNS clause is &1 and the data type returned from the sourced function or SQL function is &2.
Recovery Text: Correct the data types specified or specify another sourced function. Try the request again.
SQLCODE or SQLCODEs: -475
SQLSTATE or SQLSTATEs: 42866

SQL0476
Message Text: Routine &1 in &2 not unique.
Cause Text: Function or procedure &1 in &2 was specified, not by signature or specific name, and more than one specific instance of the routine was found.
Recovery Text: Request the routine either by its specific name, or by its signature (function or procedure name with parameter types). Try the request again.
SQLCODE or SQLCODEs: -476
SQLSTATE or SQLSTATEs: 42725

SQL0478
Message Text: Object &1 in &2 of type &3 cannot be dropped.
### Cause Text:
The base object &1 cannot be dropped because another object depends on it. The dependent object &4 in &5 is of type &6.
- If type is *N, the object being dropped is a function. When dropping a function, the dependent object is sourced on the base object. For objects other than functions, it may be that the dependency is indirect. That is, the named object is dependent on another object which is dependent on the object being dropped.
- If the base object is a table and if there are other tables with triggers or foreign key constraints dependent on the base table, then the RESTRICT clause of the DROP statement will prevent the base table from being dropped.
- If the object type is *LIB and if there are tables, functions, procedures, distinct types, aliases, or triggers in the collection, then the RESTRICT clause of the DROP statement will prevent the collection from being dropped. A trigger can be defined in one collection on a table that exists in a different collection.

### Recovery Text:
Drop the dependent objects first. Try the request again.

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>-478</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42893</td>
</tr>
</tbody>
</table>

### SQL0483

**Message Text:**
Parameters for function &1 in &2 not same as sourced function.

**Cause Text:**
The number of parameters specified for function &1 in library &2 is not the same as the number of parameters specified for the sourced function.

**Recovery Text:**
Specify the correct number of parameters for the function or specify another sourced function. If not qualified, ensure the correct sourced function exists in the current path. Try the request again.

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>-483</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42885</td>
</tr>
</tbody>
</table>

### SQL0484

**Message Text:**
Routine &1 in &2 already exists.

**Cause Text:**
An attempt was made to create routine &1 in &2, but &1 already exists. All procedures and functions in the same library must have unique specific names.

**Recovery Text:**
Specify a SPECIFIC name that does not exist or do not specify a SPECIFIC name and a unique name will be generated for you. Otherwise, delete the existing routine. Try the request again.

| SQLCODE or SQLCODEs: | -484 |
| SQLSTATE or SQLSTATEs: | 42733 |

**SQL0487**

**Message Text:** SQL statements not allowed.

**Cause Text:** One of the following errors has occurred:
- A procedure was called or a function was invoked that was created with NO SQL specified as the data access attribute. A routine created with NO SQL, or any subsequent routines, cannot contain SQL statements and cannot invoke a routine that has the CONTAINS SQL DATA, READS SQL DATA, or MODIFIES SQL DATA attribute.
- NO SQL cannot be specified when creating an SQL procedure or function.
- A trigger containing SQL statements was activated.

If the error occurred in a procedure or function, the routine name is &1 and the specific name is &2.

**Recovery Text:** Ensure routines created as NO SQL only invoke routines that do not contain SQL statements. Do not specify NO SQL for an SQL procedure or function.

| SQLCODE or SQLCODEs: | -487 |
| SQLSTATE or SQLSTATEs: | 38001 |

---

**SQL0490**

**Message Text:** Numeric value &1 not valid.

**Cause Text:** &1 was specified, but it is not in the valid range of values for its use. The valid range of values are &2 through &3.

**Recovery Text:** Change the value and try the request again.

| SQLCODE or SQLCODEs: | -490 |
| SQLSTATE or SQLSTATEs: | 428B7 |

---

**SQL0491**

**Message Text:** Clause not correct for CREATE FUNCTION or CREATE PROCEDURE.
| Cause Text: | A clause for CREATE PROCEDURE or CREATE FUNCTION is missing or not allowed.  
|            | • For CREATE FUNCTION, the RETURNS clause is required.  
|            | • For CREATE FUNCTION, the STATIC DISPATCH clause must be specified if there is a parameter that is a user-defined data type.  
|            | • For CREATE FUNCTION, the DBINFO, FINAL CALL, and SCRATCHPAD clauses cannot be specified if the parameter style is SQL or GENERAL.  
|            | • For CREATE FUNCTION, GENERAL can only be specified if the EXTERNAL NAME specifies a service program.  
|            | • For CREATE PROCEDURE and CREATE FUNCTION, parameter style JAVA or DB2GENERAL can only be specified for LANGUAGE JAVA.  
| Recovery Text: | Add the missing clause or remove the clause that is not allowed. Try the request again.  
| SQLCODE or SQLCODEs: | -491  
| SQLSTATE or SQLSTATEs: | 42601  

### SQL0492

| Message Text: | Data type for function &1 in &2 not valid for source type.  
| Cause Text: | The data type specified for parameter &3 for function &1 in library &2 is not valid for the corresponding type of the SOURCE function.  
| Recovery Text: | Correct the data type specified for parameter &3 or specify another sourced function. Try the request again.  
| SQLCODE or SQLCODEs: | -492  
| SQLSTATE or SQLSTATEs: | 42879  

### SQL0501

| Message Text: | Cursor &1 not open.  

Chapter 3. DB2 Universal Database for iSeries SQL Messages and Codes 99
### SQL0502

**Message Text:** Cursor &1 already open.

**Cause Text:** The cursor specified in an OPEN statement is already open for this call of the program.

**Recovery Text:** Close cursor &1 and then try the OPEN statement again or change the name of the cursor, and then precompile the program again.

**SQLCODE or SQLCODEs:** -502

**SQLSTATE or SQLSTATEs:** 24502
| Cause Text: | An UPDATE statement attempted to update column &3 in table or view &1 in &2. The column cannot be updated because it was not specified in the FOR UPDATE OF clause in the associated DECLARE CURSOR statement. |
| Recovery Text: | Add column &3 to the FOR UPDATE OF clause in the related DECLARE CURSOR statement. Precompile the program again. |
| SQLCODE or SQLCODEs: | -503 |
| SQLSTATE or SQLSTATEs: | 42912 |

<table>
<thead>
<tr>
<th>SQL0504</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message Text:</td>
</tr>
<tr>
<td>Cause Text:</td>
</tr>
<tr>
<td>Recovery Text:</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SQL0507</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message Text:</td>
</tr>
</tbody>
</table>
### Cause Text:
Cursor &1 was specified in an UPDATE or DELETE statement, but the cursor is not open. Cursor &1 has one of the following conditions:
- Cursor &1 was never opened.
- The cursor &1 was opened in another program or another call of this program and the program was created with CLOSQCSR(*ENDPGM).
- The cursor &1 was opened in another module or another call of this module and the module was created with CLOSQCSR(*ENDMOD).
- The cursor &1 was opened in another call of this program and programs which have run SQL statements have ended and the program was created with CLOSQCSR(*ENDSQL).
- The cursor &1 was opened in another call of this module and the activation group was ended between calls. The program was created with CLOSQCSR(*ENDACTGRP).
- The cursor was closed by a CLOSE, COMMIT, or ROLLBACK statement.

### Recovery Text:
Do one of the following and precompile again:
- Make certain that cursor &1 is opened in the same program or module call prior to using the cursor in an UPDATE or DELETE statement.
- Specify either CLOSQCSR(*ENDSQL), CLOSQCSR(*ENDJOB), or CLOSQCSR(*ENDACTGRP) when precompiling the application.
- If the cursor was closed by a COMMIT or ROLLBACK, specify HOLD on the COMMIT or ROLLBACK statement to preserve any open cursors, prepared statements, and locks on tables.

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>-507</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>24501</td>
</tr>
</tbody>
</table>

### SQL0508

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Cursor &amp;1 not positioned on locked row.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>An UPDATE or DELETE statement with a WHERE CURRENT OF &amp;1 was attempted, but the cursor is not positioned on a row or is positioned on a row, but the row is not locked because a COMMIT HOLD or ROLLBACK HOLD statement released the lock on the row. A FETCH statement must be issued to position the cursor on a row and lock the row.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Issue a FETCH statement to position the cursor on a row and lock the row; then, try the request again.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-508</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>24504</td>
</tr>
</tbody>
</table>
### SQL0509

**Message Text:**
Table &2 in &3 not same as table in cursor &1.

**Cause Text:**
An UPDATE or DELETE statement with a WHERE CURRENT OF &1 specified the table &2 in &3, but cursor &1 refers to a different table. The table specified in the UPDATE or DELETE statement and the table referred to by cursor &1 must be the same.

**Recovery Text:**
Change the specified table name to match the table specified in the cursor &1 and precompile the program again.

**SQLCODE or SQLCODEs:**
-509

**SQLSTATE or SQLSTATEs:**
42827

### SQL0510

**Message Text:**
Cursor &1 for file &2 read-only.

**Cause Text:**
An UPDATE or DELETE statement with a WHERE CURRENT OF clause was specified, but the cursor is read only. Either the cursor &1 is read-only or the view &2 in library &3 is read-only.

A view or logical file is read-only if one or more of the following conditions are true:
- The view contains a DISTINCT keyword, GROUP BY clause, HAVING clause, or a column function in the outer-most subselect.
- The view or logical file contains a join function.
- The view contains a subquery that refers to the same table as the table of the outer-most subselect.
- All the columns of the view are expressions, scalar functions, or constants.
- All the columns of the logical file are input only.

A cursor is read only if one or more of the following conditions is true:
- The DECLARE CURSOR statement specified an ORDER BY clause but did not specify a FOR UPDATE OF clause.
- The DECLARE CURSOR statement specified a FOR FETCH ONLY clause.
- The DECLARE CURSOR statement specified the SCROLL keyword without DYNAMIC.
- The cursor referred to a read-only view or logical file in the select list.
- The subselect specified in the DECLARE CURSOR statement contains any of the above restrictions that would make a view read only.
Recovery Text: Do one of the following and precompile the program again:

- If the DECLARE CURSOR statement specified an ORDER BY clause but not a FOR UPDATE OF clause, add a FOR UPDATE OF clause.
- If the DECLARE CURSOR statement specified a FOR FETCH ONLY clause, remove the FOR FETCH ONLY clause.
- If the DECLARE CURSOR statement specified the SCROLL keyword, specify DYNAMIC SCROLL.
- If the referred to view or logical file is read only, remove the UPDATE or DELETE statement.
- If the DECLARE CURSOR statement contains any conditions that make the cursor read only, remove the UPDATE or DELETE statement.

**SQL0511**

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>FOR UPDATE clause not valid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>The FOR UPDATE clause cannot be used for cursor &amp;1 because the result table is read only. The result table is read only if:</td>
</tr>
<tr>
<td></td>
<td>• The first SELECT clause of the statement includes the DISTINCT keyword, a UNION operator, a column function, a GROUP BY clause, or a HAVING clause.</td>
</tr>
<tr>
<td></td>
<td>• The first FROM clause of the SELECT statement identifies more than one table, more than one view, or a read-only view.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Cursor &amp;1 cannot be updated. Remove the FOR UPDATE clause.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-511</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42829</td>
</tr>
</tbody>
</table>

**SQL0513**

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Alias &amp;1 in &amp;2 cannot reference another alias.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>Alias &amp;1 in &amp;2 can only reference a table or a view. It cannot reference another alias.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Change the referenced name and try the request again.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-513</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42924</td>
</tr>
</tbody>
</table>
Prepared statement &2 not found.

An attempt was made to open cursor &1 which referred to prepared statement &2. Statement &2 has one of the following conditions:

- The statement has never been prepared.
- The statement was prepared in another program or another call of this program and the program was created with CLOSQLCSR(*ENDPGM).
- The statement was prepared in another module or another call of this module and the module was created with CLOSQLCSR(*ENDMOD).
- The statement was prepared in another call of this program and programs which have run SQL statements have ended and the program was created with CLOSQLCSR(*ENDSQL).
- The statement was prepared in another call of this module and the activation group ended between calls. The module was created with CLOSQLCSR(*ENDACTGRP).
- A COMMIT or ROLLBACK statement has destroyed all the prepared statements.

Do one of the following and precompile again:

- Prepare the statement &2 (PREPARE statement) before attempting to open cursor &1.
- Make certain that &2 has been prepared in the same program or module call prior to attempting to open cursor &1 or specify either CLOSQLCSR(*ENDSQL) CLOSQLCSR(*ENDJOB), or CLOSQLCSR(*ENDACTGRP) when precompiling the application.
- If the statement was deleted by a COMMIT or ROLLBACK, specify HOLD on the COMMIT or ROLLBACK statement to preserve any open cursors, prepared statements, and locks on tables.

SQLCODE or SQLCODEs: -514
SQLSTATE or SQLSTATEs: 26501
### Cause Text:

&2 is not a valid prepared statement. The statement has one of the following conditions:

- The statement has never been prepared.
- The statement was prepared in another program or another call of this program and the program was created with CLOSQLCSR(*ENDPGM).
- The statement was prepared in another module or another call of this module and the module was created with CLOSQLCSR(*ENDMOD).
- The statement was prepared in another call of this program and programs which have run SQL statements have ended and the program was created with CLOSQLCSR(*ENDSQL).
- The statement was prepared in another call of this module and the activation group ended between calls. The module was created with CLOSQLCSR(*ENDACTGRP).
- A COMMIT or ROLLBACK statement has destroyed all the prepared statements.

### Recovery Text:

Do one of the following and precompile again:

- Make certain that &1 has been prepared in the same program or module call prior to using the DESCRIBE statement or specify either CLOSQLCSR(*ENDSQL), CLOSQLCSR(*ENDJOB), or CLOSQLCSR(*ENDACTGRP) when precompiling the application.
- If the statement was deleted by a COMMIT or ROLLBACK, specify HOLD on the COMMIT or ROLLBACK statement to preserve any open cursors, prepared statements, and locks on tables.

### SQL0517

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>An attempt was made to open cursor &amp;1, which refers to statement &amp;2. Statement &amp;2 is a valid prepared statement, but it is not a SELECT statement. OPEN can only refer to prepared SELECT statements.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Change the OPEN statement to refer to a prepared SELECT statement, or prepare statement &amp;2 using a valid SELECT statement and then try the open.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-517</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>07005</td>
</tr>
</tbody>
</table>

### SQL0518

| Message Text: | Prepared statement &1 not found. |
An EXECUTE statement referred to the statement &1. &1 is not a valid prepared statement. The statement has one of the following conditions:
- The statement has never been prepared.
- The statement identifies a prepared SELECT or DECLARE PROCEDURE statement.
- The statement was prepared in another program or another call of this program and the program was created with CLOSQLCSR(*ENDPGM).
- The statement was prepared in another module or another call of this module and the module was created with CLOSQLCSR(*ENDMOD).
- The statement was prepared in another call of this program and programs which have run SQL statements have ended and the program was created with CLOSQLCSR(*ENDSQL).
- The statement was prepared in another call of this module and the activation group ended between calls. The module was created with CLOSQLCSR(*ENDACTGRP).
- A COMMIT or ROLLBACK statement has destroyed all the prepared statements.

Do one of the following and precompile again:
- If &1 identifies a prepared SELECT or DECLARE PROCEDURE statement, a different prepared statement must be named in the EXECUTE statement.
- Make certain that &1 has been prepared in the same program or module call prior to using the EXECUTE statement or specify either CLOSQLCSR(*ENDSQL), CLOSQLCSR(*ENDJOB), or CLOSQLCSR(*ENDACTGRP) when precompiling the application.
- If the statement was deleted by a COMMIT or ROLLBACK, specify HOLD on the COMMIT or ROLLBACK statement to preserve any open cursors, prepared statements, and locks on tables.
### SQL0520

**Message Text:**
Cannot UPDATE or DELETE on cursor &1.

**Cause Text:**
Cursor &1 is blocking records. An UPDATE or DELETE WHERE CURRENT OF cursor &1 was attempted but cannot be run because blocking was being used for the cursor.

**Recovery Text:**
Do not block records for cursor &1 if UPDATE or DELETE statements will be used against it.

**SQLCODE or SQLCODEs:** -520

**SQLSTATE or SQLSTATEs:** 42828

### SQL0525

**Message Text:**
Statement not valid on application server.

**Cause Text:**
An attempt was made to run statement number &4 of package &2 in library &3. Either the statement is in error, or the statement is not supported by the application server. The section number corresponding to the statement is &1.

**Recovery Text:**
Correct the statement which is in error and verify that it is a valid SQL statement on the application server. If the statement is a multiple-row FETCH, specify a single-row FETCH. If the statement is a multiple-row INSERT, either specify a VALUES clause with only 1 row to insert, or specify a subselect. If the statement is SET TRANSACTION, remove it from the application or prevent it from being issued when connected to a remote database. Try the request again.

**SQLCODE or SQLCODEs:** -525

**SQLSTATE or SQLSTATEs:** 51015

### SQL0527

**Message Text:**
ALWCPYDTA(*NO) specified but temporary result required for &1.

**Cause Text:**
The Allow Copy Data (ALWCPYDTA) parameter was specified on the precompiler command or the STRSQL command with a value of *NO. This value indicates that the queries should always use data directly retrieved from the database, so that the data always reflects the current values. Certain types of SQL queries can not be resolved without making a copy of the data. Examples would be queries using the keywords DISTINCT or UNION. The query being run is a query which requires a copy of the data.

**Recovery Text:**
Specify a different value for the ALWCPYDTA parameter or change the SQL statement so that it can be evaluated without using a temporary result.
SQLCODE or SQLCODEs: -527
SQLSTATE or SQLSTATEs: 42874

SQL0530

Message Text: Operation not allowed by referential constraint &1 in &2.

Cause Text: If this is an INSERT or UPDATE statement, the value is not valid for the foreign key because it does not have a matching value in the parent key. If this is a DELETE statement affected by a SET DEFAULT delete rule, the default value is not valid for the same reason. If this is an ALTER TABLE statement, the result of the operation would violate the constraint &1. Constraint &1 in &2 for table &3 in &4 requires that any non-null value of the foreign key have a matching value in the parent key.

Recovery Text: To conform to the constraint rule, you must either:
• change the INSERT or UPDATE value to match a value in the parent key,
  insert a row in the parent file that matches the foreign key values being inserted or updated.
• insert a row in the parent file that matches the foreign key default values of the dependent rows. Otherwise, you must drop the referential constraint.

SQLCODE or SQLCODEs: -530
SQLSTATE or SQLSTATEs: 23503

SQL0531

Message Text: Update prevented by referential constraint &1 in &2.

Cause Text: Constraint &1 in &2 identifies the table being updated as the parent table in a relationship with dependent table &3 in &4, with an update rule of RESTRICT or NO ACTION. The update of a parent key is prevented when there are rows in the dependent table with matching values.

Recovery Text: In order to perform this update, you must either drop the constraint, or delete the rows in the dependent table that are dependent on this row.

SQLCODE or SQLCODEs: -531
SQLSTATE or SQLSTATEs: 23001 23504

SQL0532

Message Text: Delete prevented by referential constraint &1 in &2.

Cause Text: Constraint &1 in &2 identifies the table being modified as the parent table in a relationship with dependent table &3 in &4, with a delete rule of RESTRICT or NO ACTION. The deletion of a row is prevented when there are rows in the dependent table with matching values.
| Recovery Text: | In order to delete the row, you must either drop the constraint, or delete the rows in the dependent table that are dependent on this row. |
| SQLCODE or SQLCODEs: | -532 |
| SQLSTATE or SQLSTATEs: | 23001 23504 |

**SQL0536**

| Message Text: | Delete not allowed because table &1 in &2 in subquery can be affected. |
| Cause Text: | The delete operation can not be performed because table &1 in &2, which is referenced in a subquery, may be affected by the operation. &1 in &2 is a dependent table in a referential constraint that has a delete rule of CASCADE, SET NULL, or SET DEFAULT. |
| Recovery Text: | Change the statement so that the subquery does not refer to a dependent table, or drop the constraint that defines the relationship between the two tables. |
| SQLCODE or SQLCODEs: | -536 |
| SQLSTATE or SQLSTATEs: | 42914 |

**SQL0537**

| Message Text: | Duplicate column name &1 in definition of key. |
| Cause Text: | Column &1 is specified more than once in the list of columns for a PRIMARY, UNIQUE, or FOREIGN KEY. Columns may only be specified once in the definition of a key. |
| Recovery Text: | Remove the duplicate column from the list of columns for the key. Try the request again. |
| SQLCODE or SQLCODEs: | -537 |
| SQLSTATE or SQLSTATEs: | 42709 |

**SQL0538**

| Message Text: | The FOREIGN key in constraint &1 in &2 not same as the parent key. |
| Cause Text: | The FOREIGN key in constraint &1 in &2 is not the same as the parent key of table &3 in &4. The FOREIGN key must have the same number of columns as the parent key and the data type and attributes of the FOREIGN key must be identical to the data type and attributes of the corresponding column of the parent key. |
| Recovery Text: | Correct the statement so that the description of the FOREIGN key conforms to that of the parent key of the specified table. |
| SQLCODE or SQLCODEs: | -538 |
Chapter 3. DB2 Universal Database for iSeries SQL Messages and Codes
### SQL0544
**Message Text:** CHECK constraint &1 cannot be added.
**Cause Text:** Existing data in the table violates the CHECK constraint rule in constraint &1. The constraint cannot be added.
**Recovery Text:** Change the data in the table so that it follows the constraint specified in &1. Try the request again.
**SQLCODE or SQLCODEs:** -544
**SQLSTATE or SQLSTATEs:** 23511

### SQL0545
**Message Text:** INSERT or UPDATE not allowed by CHECK constraint.
**Cause Text:** The value being inserted or updated does not meet the criteria of CHECK constraint &1. The operation is not allowed.
**Recovery Text:** Change the values being inserted or updated so that the CHECK constraint is met. Otherwise, drop the CHECK constraint &1.
**SQLCODE or SQLCODEs:** -545
**SQLSTATE or SQLSTATEs:** 23512

### SQL0546
**Message Text:** CHECK condition of constraint &1 not valid.
**Cause Text:** The CHECK condition of constraint &1 is not valid for one of the following reasons:
- a column level CHECK condition refers to some other column in the table
- the CHECK condition refers to a column that is not in this table
- the CHECK condition refers to one of the special registers USER, CURRENT SERVER, CURRENT TIMEZONE, or CURRENT PATH
- the CHECK condition uses a column function (such as AVG or COUNT) or user defined function
- the CHECK condition contains a subquery
- the CHECK condition uses the NODENAME scalar function
- the CHECK condition uses a derived field involving LOBs.
**Recovery Text:** Correct the error. Try the request again.
**SQLCODE or SQLCODEs:** -546
**SQLSTATE or SQLSTATEs:** 23513
### SQL0551

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Not authorized to object &amp;1 in &amp;2 type *&amp;3.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>An operation was attempted on object &amp;1 in &amp;2 type *&amp;3. This operation cannot be performed without the required authority.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Obtain the required authority from either the security officer or the object owner. If you are not authorized to a logical file, obtain the authority to the based-on files of the logical file. Try the operation again.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>+551 -551</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>01548 42501</td>
</tr>
</tbody>
</table>

### SQL0552

| Message Text: | Not authorized to &1. |
### Cause Text:

The operation cannot be performed without the required authority. See the following for the authority required:

- If this is a CREATE TABLE statement, the `*USE authority to the Create Physical File (CRTPF)` command is required in order to create tables.
- If this is either a CREATE VIEW or CREATE INDEX statement, the `*USE authority to the Create Logical File (CRTLF)` command is required in order to create views or indexes.
- If this is CREATE COLLECTION, the `*USE authority to the Create Library (CRTLIB)` command is required. If WITH DATA DICTIONARY is specified then the `*USE authority to the Create Data Dictionary (CRTDTADCT)` command is also required.
- If this is an ALTER TABLE statement, the `*USE authority to the Add Physical File Constraint (ADDPFCST)` command is required in order to add constraints, and the `*USE authority to the Remove Physical File Constraint (RMVPFCST)` command is required in order to drop constraints.
- If this is a CREATE PROCEDURE or CREATE FUNCTION statement, `*OBJOPR` and `*ADD authority to the catalog table SYSROUTINES in QSYS2` is required.
- If this is a DROP PROCEDURE or DROP FUNCTION statement, `*OBJOPR` and `*DLT authority to the catalog table SYSROUTINES in QSYS2` is required.
- If this is a COMMENT ON PROCEDURE or COMMENT ON FUNCTION statement, `*OBJOPR`, `*READ`, and `*UPD authority to the catalog table SYSROUTINES in QSYS2` is required.
- If this is a CREATE DISTINCT TYPE statement, `*OBJOPR` and `*ADD authority to the catalog table SYSTYPES in QSYS2` is required.
- If this is a DROP DISTINCT TYPE statement, `*OBJOPR` and `*DLT authority to the catalog table SYSTYPES in QSYS2` is required.
- If this is a COMMENT ON DISTINCT TYPE statement, `*OBJOPR`, `*READ`, and `*UPD authority to the catalog table SYSTYPES in QSYS2` is required.
- If this is a CREATE TRIGGER statement, the `*USE authority to the Add Physical File Trigger (ADDPFTRG)` command is required to add triggers.
- If this is a DROP of a trigger, the `*USE authority to the Remove Physical File Trigger (RMVPFTRG)` command is required to remove triggers.
- If this is a COMMENT ON TRIGGER statement, `*OBJOPR`, `*READ` and `*UPD authority to the catalog table SYSTRIGGERS in QSYS2` is required.

### Recovery Text:

Obtain authority from the security officer and try the operation again.

### SQLCODE or SQLCODEs:

+552 -552

### SQLSTATE or SQLSTATEs:

01542 42502
### SQL0557

**Message Text:** Privilege not valid for table or view &1 in &2.

**Cause Text:** The specified privilege is not valid for one of the following reasons:
- An INDEX privilege is valid for tables and physical files but not for views. An index cannot be created on a view.
- The specified privilege is not valid because table or view &1 in &2 does not have that capability. For example: DELETE, INSERT, and UPDATE privileges are not valid for a read-only view.

**Recovery Text:** Specify a table or view that has the correct capability or remove the privilege that is not valid from the SQL statement.

**SQLCODE or SQLCODEs:** -557

**SQLSTATE or SQLSTATEs:** 42852

### SQL0569

**Message Text:** Not all requested privileges revoked from object &1 in &2 type *&3.

**Cause Text:** A REVOKE operation was attempted on object &1 in &2 type *&3, but the privilege was not revoked. Either you do not have the specified privilege to object &1, or you tried to revoke the privilege from someone who does not currently have that privilege.

All valid requested privileges were revoked.

**Recovery Text:** If revoking a privilege from someone who does not currently have that privilege, then no action is required. If you do not have the privilege, change the REVOKE statement to specify valid privileges.

**SQLCODE or SQLCODEs:** +569

**SQLSTATE or SQLSTATEs:** 01006

### SQL0570

**Message Text:** Not all requested privileges to object &1 in &2 type *&3 granted.

**Cause Text:** A GRANT operation was attempted on object &1 in &2 type *&3 but the privilege was not granted. Either you do not have all of the privileges to be granted or you are attempting to perform a GRANT statement using WITH GRANT OPTION, but are not the object owner or do not have *ALLOBJ special authority.

All valid requested privileges were granted.
Recovery Text: Obtain the required authority from either the security officer or the object owner. Try the operation again.

SQLCODE or SQLCODEs: +570
SQLSTATE or SQLSTATEs: 01007

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SQL0573

Message Text: Table &1 in &2 does not have a matching parent key.

Cause Text: A referencing column list was specified in the FOREIGN KEY clause for constraint &3 in &4. The parent table &1 in &2 does not have a matching PRIMARY or UNIQUE key. The constraint cannot be added.

Recovery Text: Do one of the following and try the request again:

- Specify a table in the FOREIGN KEY clause that has a PRIMARY or UNIQUE key that matches the referencing column list.
- Change the referencing column list to match the definition of the PRIMARY or UNIQUE key defined on the parent table.

SQLCODE or SQLCODEs: -573
SQLSTATE or SQLSTATEs: 42890

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SQL0574

Message Text: DEFAULT value not valid for column &3 in &1 in &2.

Cause Text: The DEFAULT value for column &3 is not valid. The default value may either be specified in this statement or it may already be defined for the column and is not compatible with the attributes specified on the ALTER TABLE statement.

- The DEFAULT value must be compatible with the data type of the column. A floating-point constant can only be a default value for a floating-point column.
- The DEFAULT value must not be too long for the column.
- If the column is defined as a date, time, or timestamp the DEFAULT value must be a valid string representation of that type.
- If the DEFAULT value is defined as the value of the USER special register, the column must be defined as a CHAR or VARCHAR and the length attribute must be greater than or equal to 18.
- The CCSID of the DEFAULT value must be compatible with the CCSID of the column.
- The DEFAULT value for a column that is a user-defined type must either be promotable to the source type or must be cast to the user-defined type using the cast function for the type.
- A DEFAULT value cannot be specified for a Datalink column.
<table>
<thead>
<tr>
<th>Recovery Text:</th>
<th>Change the DEFAULT value to one that is valid for the column. Try the request again.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-574</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42894</td>
</tr>
</tbody>
</table>

---

**SQL0577**

- **Message Text:** Modifying SQL data not permitted.
- **Cause Text:**
  - One of the following errors has occurred:
    - A procedure was called or a function was invoked that was created with READS SQL DATA or CONTAINS SQL DATA specified as the data access attribute. A procedure or function created with READS SQL DATA or CONTAINS SQL DATA, or any procedure or function that is called by the procedure or function, cannot change data and cannot call a procedure or function that has the MODIFIES SQL DATA attribute.
    - READS SQL DATA and CONTAINS SQL DATA cannot be specified on the CREATE PROCEDURE or CREATE FUNCTION statements for an SQL procedure or function if the routine body contains statements that change data.
    - A BEFORE trigger was activated that contains statements that change data.

  Statements that change data include INSERT, UPDATE, DELETE, GRANT, REVOKE, LABEL, COMMENT, and any CREATE or DROP statements. If the error occurred in a procedure or function, the routine name is &1 and the specific name is &2.

- **Recovery Text:** Ensure procedures or functions created with READS SQL DATA or CONTAINS SQL DATA do not call procedures or functions that change SQL data. Specify MODIFIES SQL DATA when creating functions that change SQL data.

- **SQLCODE or SQLCODEs:** -577
- **SQLSTATE or SQLSTATEs:** 2F002 38002 42985

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**SQL0578**

- **Message Text:** RETURN statement not executed for SQL function &1 in &2.
- **Cause Text:** During the execution of SQL function &1 in &2, the end of the routine body was reached without executing a RETURN statement.
- **Recovery Text:** Add a RETURN statement to the end of the function routine body. Try the request again.

- **SQLCODE or SQLCODEs:** -578
- **SQLSTATE or SQLSTATEs:** 2F005
### SQL0579

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Reading SQL data not permitted.</th>
</tr>
</thead>
</table>
| Cause Text:  | One of the following errors has occurred:  
• A procedure was called or a function was invoked that was created with CONTAINS SQL DATA as the data access attribute. A procedure or function created with CONTAINS SQL DATA or any procedure or function that is called by the procedure or function, cannot read data and cannot call a procedure or function that has the READS SQL DATA attribute.  
• CONTAINS SQL DATA cannot be specified on the CREATE PROCEDURE or CREATE FUNCTION statements for an SQL procedure or function if the routine body contains statements that read data.  
• A trigger containing SQL statements was activated.  
If the error occurred in a procedure or function, the routine name is &1 and the specific name is &2. |
| Recovery Text: | Ensure procedures and functions created with CONTAINS SQL DATA do not call procedures or functions that read SQL data. |
| SQLCODE or SQLCODEs: | -579 |
| SQLSTATE or SQLSTATEs: | 2F004 38004 42985 |

### SQL0580

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>At least one result in CASE expression must be not NULL.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>The NULL value or a parameter marker is specified for all results in a CASE expression. At least one result in a CASE expression must be a value other than NULL or a parameter marker.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Change the CASE expression to have at least one result expression following a THEN or ELSE keyword to be some value other than NULL or a parameter marker. Try the request again.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-580</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42625</td>
</tr>
</tbody>
</table>

### SQL0581

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>The results in a CASE expression are not compatible.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>The expressions specified as the result values of a CASE expression are not compatible.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Change the results in the CASE expression to values that are compatible. Try the request again.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-581</td>
</tr>
</tbody>
</table>
SQLSTATE or SQLSTATEs: 42804

SQL0583
Message Text: Use of function &1 in &2 not valid.
Cause Text: Function &1 in &2 cannot be invoked where specified because it is defined to be not deterministic. Functions that are not deterministic cannot be specified in a GROUP BY clause or in a JOIN clause.
Recovery Text: Remove the function from the GROUP BY clause or JOIN clause. Try the request again.
SQLCODE or SQLCODEs: -583
SQLSTATE or SQLSTATEs: 42845

SQL0585
Message Text: Collection &1 used incorrectly in the specified path.
Cause Text: An incorrect path was specified on the SET PATH or the SET OPTION SQLPATH statement. One of the following errors has occurred:
- &1 is specified more than once in the path.
- *LIBL is not the only value specified in the path.
- If the collection name is *N, one of USER, CURRENT PATH, or SYSTEM PATH is specified more than one time in the path.
Recovery Text: Specify a valid path. Try the request again.
SQLCODE or SQLCODEs: -585
SQLSTATE or SQLSTATEs: 42732

SQL0590
Message Text: Name &1 specified in procedure or function &2 not unique.
Cause Text: &1 is specified as a parameter, SQL variable, condition, or label in SQL procedure or function &2. The name is not unique.
Recovery Text: Change the name so that it is unique.
SQLCODE or SQLCODEs: -590
SQLSTATE or SQLSTATEs: 42734

SQL0595
Message Text: Commit level *&1 escalated to *&2 lock.
**Cause Text:**

* &1 was specified for the commit level, but &1 was not used. The base tables were locked &2 to satisfy the request for commitment level of &1. If a ROLLBACK HOLD statement is requested, the cursor will remain in the same position.

* &1 was not used for one of the following reasons:
  - A GROUP BY clause, HAVING clause, or a column function was specified in the statement.
  - A DISTINCT keyword was specified in the statement.
  - A UNION keyword was specified in the statement.
  - A join was specified in the statement, but not all of the files are journaled to the same journal.
  - The repeatable read commit level is implemented by DB2 SQL AS/400 by locking the table.

**Recovery Text:**

Change the statement or the requested commit level. If a lock level of share-no-update (*SHRNUP) was granted, but is not acceptable, specify *CHG or *NONE for the commit level.

**SQLCODE or SQLCODEs:** +595

**SQLSTATE or SQLSTATEs:** 01526

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### SQL0596

**Message Text:** Error occurred during DISCONNECT of relational database &1.

**Cause Text:** An error occurred during DISCONNECT of relational database &1. However, this did not prevent the successful disconnect of relational database &1. Refer to the previous messages for a description of the error.

**Recovery Text:** None required.

**SQLCODE or SQLCODEs:** +596

**SQLSTATE or SQLSTATEs:** 01002

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### SQL0601

**Message Text:** &1 in &2 type &3 already exists.

**Cause Text:** An attempt was made to create &1 in &2 or to rename a table, view, alias, or index to &1, but &1 already exists. All tables, views, aliases, indexes, SQL packages, constraints, triggers, and user-defined types in the same library must have unique names. If the library name is *N, this is a CREATE COLLECTION statement. If this is a CREATE TABLE or ALTER TABLE statement and the type is *N, &1 is a constraint.

**Recovery Text:** Change &1 to a name that does not exist, or delete, move, or rename the existing object. If creating an SQL package, specify REPLACE(*YES) on CRTSQLPKG. Try the request again.
### SQL0602

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message Text</td>
<td>More than 120 columns specified for CREATE INDEX.</td>
</tr>
<tr>
<td>Cause Text</td>
<td>Only 120 columns are allowed in the CREATE INDEX statement.</td>
</tr>
<tr>
<td>Recovery Text</td>
<td>Reduce the number of column names in the column list to the maximum of 120 names. Try the request again.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs</td>
<td>-602</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs</td>
<td>42710</td>
</tr>
</tbody>
</table>

### SQL0603

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message Text</td>
<td>Unique index cannot be created because of duplicate keys.</td>
</tr>
<tr>
<td>Cause Text</td>
<td>An attempt was made to create unique index &amp;1 in &amp;2 or add unique constraint &amp;1 in &amp;2. The operation cannot be performed because the rows in table &amp;3 in &amp;4 contain one or more duplicate values in the columns used to create the index.</td>
</tr>
</tbody>
</table>
| Recovery Text                 | Do one of the following and try the request again:  
- Remove the UNIQUE attribute from the CREATE INDEX statement.  
- Remove the UNIQUE constraint from the ALTER TABLE statement.  
- Change the data in the related table so that all key values are unique.  
- Specify UNIQUE WHERE NOT NULL on the CREATE INDEX statement if the duplicate keys contain nulls. The uniqueness restriction would not apply when the key value contains nulls.  
For information on what rows contain the duplicate key values, see the previously listed messages in the job log. |
| SQLCODE or SQLCODEs           | -603                       |
| SQLSTATE or SQLSTATEs        | 23515                      |

### SQL0604

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message Text</td>
<td>Attributes not valid.</td>
</tr>
</tbody>
</table>
One of the following contains a length, precision, scale, or an ALLOCATE attribute that is not valid.

- A column in the CREATE TABLE or ALTER TABLE statement.
- A parameter or an SQL variable in the DECLARE PROCEDURE, CREATE PROCEDURE, CREATE FUNCTION, or CREATE TRIGGER statement.
- The CAST scalar function.
- A CREATE TYPE source data type.

The definition is not valid for one of the following reasons:

- If a DECIMAL or NUMERIC data type is specified, precision must be from 1 through 31 and the scale must be between 0 and the precision.
- If CHARACTER is specified, the length must be from 1 through 32766 for a parameter or for a column that does not allow null values or from 1 through 32765 for a column that allows null values.
- If VARCHAR is specified, the length must be from 1 through 32740 for a parameter or for a column that does not allow null values or from 1 through 32739 for a column that allows null values.
- If the FOR MIXED DATA clause or a mixed CCSID is specified, the length cannot be less than 4.
- If GRAPHIC is specified, the length must be from 1 through 16383 for a parameter or for a column that does not allow null values and from 1 through 16382 for a column that allows null values. The length specified is the number of DBCS characters.
- If VARGRAPHIC is specified, the length must be from 1 through 16370 for a parameter or for a column that does not allow null values or from 1 through 16369 for a column that allows null values. The length specified is the number of DBCS characters.
- If BLOB or CLOB is specified, the length must be from 1 through 2G (2048 M or 2,097,152 K or 2,147,483,647 bytes). If DBCLOB is specified, the length must be from 1 through 1073741823.
- If DATALINK is specified, the length must be from 1 through 32718.
- If VARCHAR, CLOB, BLOB, DBCLOB, DATALINK, or VARGRAPHIC is specified the ALLOCATE attribute must be less than or equal to both the length attribute specified and 32766.

Correct the length, precision, scale, or ALLOCATE attribute. Try the request again.

SQLCODE or SQLCODEs: -604
SQLSTATE or SQLSTATEs: 42611
<table>
<thead>
<tr>
<th>Cause Text:</th>
<th>The table or view &amp;1 in &amp;2 is a catalog or system table. Catalog and system tables cannot be changed or locked by the user.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recovery Text:</td>
<td>Change the SQL statement to refer to a table that is not a system table. Try the request again.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-607</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42832</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SQL0612</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message Text:</td>
</tr>
<tr>
<td>Cause Text:</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Recovery Text:</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SQL0613</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message Text:</td>
</tr>
<tr>
<td>Cause Text:</td>
</tr>
<tr>
<td>Recovery Text:</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
</tr>
</tbody>
</table>
### SQL0614

**Message Text:** Length of columns for CREATE INDEX too long.

**Cause Text:**
The sum of the lengths of the columns specified in a CREATE INDEX exceeds the maximum of 2000 bytes. If the list contains null capable columns then an additional byte is required for each null capable column. If the index contains variable length columns, then the 2-byte length of the columns is included in the total length.

**Recovery Text:** Reduce the length by deleting some of the columns from the CREATE INDEX column list. Try the request again.

**SQLCODE or SQLCODEs:** -614

**SQLSTATE or SQLSTATEs:** 54008

### SQL0615

**Message Text:** Object &1 in &2 type *&3 not dropped. It is in use.

**Cause Text:**
Object &1 in &2 type *&3 was not dropped because it is already being used by the same application process. If the object is a table, it may be in use by an open cursor. If the object is an SQL package, the package may currently be running.

**Recovery Text:**
If the object is a table, the cursor must be closed. If the object is an SQL package, the SQL package cannot drop itself. Try the drop request again.

**SQLCODE or SQLCODEs:** -615

**SQLSTATE or SQLSTATEs:** 55006 55006

### SQL0616

**Message Text:** &1 in &2 type &3 cannot be dropped with RESTRICT.

**Cause Text:**
An attempt was made to drop &1 in &2 with the RESTRICT option. &1 cannot be dropped because a view, a constraint, or an index is dependent on it.

**Recovery Text:**
Specify CASCADE on the ALTER TABLE statement to drop &1 and the views, constraints, or indexes that are dependent on it. Try the request again.

**SQLCODE or SQLCODEs:** -616

**SQLSTATE or SQLSTATEs:** 42893

### SQL0624

**Message Text:** Table &1 in &2 already has a primary key.
### SQL0628

**Message Text:** Clauses not valid in same definition.

**Cause Text:**
Clauses specified to define the attributes of a column, a sourced function, or a trigger are not valid. One of the following has occurred:

- More than one of the clauses FOR BIT DATA, FOR SBCS DATA, FOR MIXED DATA, or CCSID was specified for a column definition.
- READ PERMISSION FS and WRITE PERMISSION BLOCKED was specified for a DataLink column.
- READ PERMISSION DB and WRITE PERMISSION FS was specified for a DataLink column.
- WRITE PERMISSION FS and the ON UNLINK clause was specified for a DataLink column.
- A clause was specified that is not valid when creating a sourced function.
- FOR EACH STATEMENT is specified for a BEFORE trigger or is specified with MODE DB2ROW.
- MODE DB2SQL is specified for a BEFORE trigger and the trigger contains a reference to the trigger table.

**Recovery Text:** Change or remove a clause so that the definition is valid. Try the request again.

**SQLCODE or SQLCODEs:** -628

**SQLSTATE or SQLSTATEs:** 42613

### SQL0629

**Message Text:** SET NULL not allowed for referential constraint &1 in &2.

**Cause Text:**
SET NULL was specified in the REFERENCES clause for referential constraint &1. None of the columns in the foreign key allows null values.

**Recovery Text:** Create the table so that at least one of the columns in the foreign key allows null values or specify a different default action on the ON DELETE clause. Try the request again.

**SQLCODE or SQLCODEs:** -629
<table>
<thead>
<tr>
<th>SQLSTATE or SQLSTATEs:</th>
<th>42834</th>
</tr>
</thead>
</table>

**SQL0631**

**Message Text:** Foreign key for referential constraint &1 in &2 too long.

**Cause Text:** The FOREIGN key cannot be created for constraint &1 in &2. Either more than 120 columns were specified in a FOREIGN KEY clause or the sum of the lengths of the columns specified in the key exceeds the maximum of 2000 bytes. If the list contains null capable columns then an additional byte is required for the length of each null capable column. If the list contains variable length columns, then the 2-byte length of the columns is included in the total length.

**Recovery Text:** Remove some of the columns from the FOREIGN KEY clause. Try the request again.

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>-631</th>
</tr>
</thead>
</table>

**SQLSTATE or SQLSTATEs:** 54008

<table>
<thead>
<tr>
<th>SQL0637</th>
</tr>
</thead>
</table>

**Message Text:** Keyword &1 not valid.

**Cause Text:** Keyword &1 is not valid for one of the following reasons:
- DEFAULT, UNIQUE, and PRIMARY, and each DataLink option can only be specified once in a column definition on a CREATE TABLE statement.
- UNIQUE and PRIMARY cannot both be specified for the same column definition.
- PRIMARY can only be specified once on a CREATE TABLE statement.

**Recovery Text:** Remove all but one specification for each keyword. Try the request again.

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>-637</th>
</tr>
</thead>
</table>

**SQLSTATE or SQLSTATEs:** 42614

<table>
<thead>
<tr>
<th>SQL0642</th>
</tr>
</thead>
</table>

**Message Text:** Maximum number of constraints exceeded for &1 in &2.

**Cause Text:** A constraint cannot be added to table &1 in &2 because the table is already associated with 300 constraints. This limit includes all constraints defined on the table and all referential constraints where the table is defined as a parent.

**Recovery Text:** Drop one of the other 300 constraints, if possible, and try the request again.

| SQLCODE or SQLCODEs: | -642 |
### SQL0645

**Message Text:** WHERE NOT NULL clause ignored for index &1 in &2.

**Cause Text:** UNIQUE WHERE NOT NULL was specified when creating index &1 in &2. However, none of the columns in the index allow null values. The index is created as a unique index.

**Recovery Text:** Remove the WHERE NOT NULL clause from the CREATE INDEX statement.

**SQLCODE or SQLCODEs:** +645

**SQLSTATE or SQLSTATEs:** 01528

### SQL0658

**Message Text:** Function &1 in &2 cannot be dropped.

**Cause Text:** Function &1 in library &2 cannot be dropped because it was implicitly generated by the CREATE DISTINCT TYPE statement.

**Recovery Text:** To drop the function, you must drop the distinct type with which this function is associated.

**SQLCODE or SQLCODEs:** -658

**SQLSTATE or SQLSTATEs:** 42917

### SQL0666

**Message Text:** Estimated query processing time &1 exceeds limit &2.

**Cause Text:** The database query time limit attribute has been specified by the CHGQRYA CL command. The limit is &2 seconds. An SQL query was about to be started which was estimated to require a longer elapsed time to run than that allowed by the query time limit attribute. The estimated elapsed time was &1 seconds.
The following changes to the query could reduce the estimated elapsed time to be less than the query time limit.

- Change the query so that fewer records are returned by adding more restrictive record selection specifications.
- Change the record selection of the query so that an existing access path can be used to process the records more quickly.
- Create an access path with keys that match the record selection of the query using the CRTLF CL command or the SQL CREATE INDEX statement.
- Change the ordering specification so neither a temporary access path needs to be built nor a sort performed.
- Change the grouping field specification to match the left-most key fields of an existing access path.
- Specify the OPTIMIZE FOR NN ROWS clause where NN represents the actual number of records which are to be retrieved before the query is ended. This clause will cause the query optimizer to assume that the query will not be run to completion and consequently reduce the time estimate.
- Change the output type of your query to produce the results on the display.
- Specify a new value for the query time limit with the QRYTIMLMT parameter of the CHGQRYA CL command.
- Examine the query debug messages contained in the job log for performance information and suggestions. These messages will precede this message in the job log and will provide additional information and suggestions.

SQLCODE or SQLCODEs: -666
SQLSTATE or SQLSTATEs: 57005

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**SQL0667**

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>FOREIGN key value does not match a value in the parent key of constraint &amp;1 in &amp;2.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>Every value in the FOREIGN key of the dependent table must have a matching value in the parent key of the parent table. For constraint &amp;1 in &amp;2, there is an existing value in FOREIGN key of table &amp;3 in &amp;4 that does not have a matching value in the parent table. The constraint cannot be added.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Update the rows in either the dependent table or parent table so that all values of the FOREIGN key have matching values in the parent key, or modify the definition of the keys in the referential constraint. Try the request again.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-667</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>23520</td>
</tr>
</tbody>
</table>
### SQL0675

**Message Text:** Specified delete rule not allowed with trigger on table &1 in &2.

**Cause Text:** The delete rule specified in referential constraint &3 in &4 on table &1 in &2 is not allowed for the specified trigger. Constraint rule DELETE CASCADE is not allowed with a delete trigger. Constraint rules DELETE SET NULL and DELETE SET DEFAULT are not allowed with an update trigger.

**Recovery Text:** Either use the RMVPFTRG command to remove the trigger, use the RMVPFCST command to remove the constraint, define the constraint with a valid delete rule, or define the trigger with a different event.

**SQLCODE or SQLCODEs:** -675

**SQLSTATE or SQLSTATEs:** 42892

### SQL0679

**Message Text:** Object &1 in &2 type *&3 not created due to pending operation.

**Cause Text:** The object &1 has an outstanding DROP or CREATE under commitment control which is preventing the create. This could have occurred in one of the following ways:

- This application process has performed a DROP under commitment control which has not been committed and is now trying to create the same object using commitment control level *NONE.
- A different application process has performed a DROP under commitment control which has not been committed.
- This application process has performed a DROP under commitment control using a different commit definition and the DROP has not been committed.
- This application process has performed a CREATE under commitment control which has not been committed and is now trying to use the object on a subsequent CREATE under commitment control level *NONE.
**Recovery Text:**

Do one of the following and try the request again:

- If it was your application process which issued the uncommitted DROP or CREATE statement then issue a COMMIT before attempting the creation of the object or issue the CREATE statement from a program using a commitment control level other than "NONE."
- If the application process that issued the DROP on this object is not your application, then that application process must perform a COMMIT or a ROLLBACK of the DROP statement.
- If your application process issued the uncommitted DROP or CREATE statement under a different commit definition, issue a COMMIT or ROLLBACK for that commit definition.

**SQLCODE or SQLCODEs:** -679

**SQLSTATE or SQLSTATEs:** 57006

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**SQL0683**

**Message Text:** FOR DATA or CCSID clause not valid for specified type.

**Cause Text:** Either the FOR BIT DATA, the FOR MIXED DATA, the FOR SBCS DATA, or the CCSID clause was specified for the CAST scalar function, for a CREATE DISTINCT TYPE source data type, or for column or parameter &1. These clauses are not valid if the type is integer, decimal, numeric, floating point, date, time, timestamp, BLOB, or a user defined type. The FOR BIT DATA, FOR MIXED DATA, or FOR SBCS DATA clause is not valid if the type is graphic, varying-length graphic, DBCLOB, or DATALINK.

**Recovery Text:** If the CCSID clause is specified, change the specified type to be character, varying-length character, CLOB, graphic, varying-length graphic, DBCLOB, or DATALINK. If the FOR BIT DATA, FOR MIXED DATA, FOR SBCS DATA clause is specified, change the type to be character, varying-length character, CLOB, or BLOB. If the type is correct, remove the clause.

**SQLCODE or SQLCODEs:** -683

**SQLSTATE or SQLSTATEs:** 42842

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**SQL0696**

**Message Text:** Correlation name or table &3 not valid.
### SQL0697

**Message Text:** REFERENCING OLD or NEW not valid for statement trigger.

**Cause Text:** REFERENCING OLD or NEW was specified for an SQL trigger. Old and new correlation variables are not valid for statement triggers.

**Recovery Text:** Remove the REFERENCING clause or specify FOR EACH ROW on the CREATE TRIGGER statement. Try the request again.

**SQLCODE or SQLCODEs:** -697

**SQLSTATE or SQLSTATEs:** 42899

### SQL0707

**Message Text:** Name &1 in &2 not allowed for distinct type.

**Cause Text:** Distinct type &1 in &2 cannot be created. Either the name is a reserved word or the library is specified as QSYS, QSYS2, or QTEMP. Distinct types cannot be created in QSYS, QSYS2, or QTEMP.

**Recovery Text:** Create the User-Defined Type in a library other than QSYS, QSYS2, or QTEMP.

**SQLCODE or SQLCODEs:** -707

**SQLSTATE or SQLSTATEs:** 42939

### SQL0713

**Message Text:** Host variable for &2 is NULL.

**Cause Text:** A host variable with a NULL value cannot be used to set &2. &2 can only be set using a character or UCS-2 graphic string.
### SQL0723

<table>
<thead>
<tr>
<th>Recovery Text:</th>
<th>Specify a character or UCS-2 graphic string that does not have a NULL value. Try the request again.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-713</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42815</td>
</tr>
</tbody>
</table>

**Message Text:**

SQL trigger &1 in &2 failed with SQLCODE &3 SQLSTATE &4.

**Cause Text:**

An error has occurred in a triggered SQL statement in trigger &1 in library &2. The SQLCODE is &3, the SQLSTATE is &4, and the message is &5.

**Recovery Text:**

Refer to the joblog for more information regarding the detected error. Correct the error and try the request again.

| SQLCODE or SQLCODEs: | -723                                                                                          |
| SQLSTATE or SQLSTATEs: | 09000                                                                                          |

### SQL0724

<table>
<thead>
<tr>
<th>Recovery Text:</th>
<th>Remove any trigger that is causing repeated trigger programs to be called for the same table.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-724</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>54038</td>
</tr>
</tbody>
</table>

### SQL0751

<table>
<thead>
<tr>
<th>Recovery Text:</th>
<th>SQL statement &amp;1 not allowed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td></td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td></td>
</tr>
</tbody>
</table>
The statement &1 is not allowed in a stored procedure, user-defined function, or trigger.

- Statements not allowed in a trigger program are CONNECT, SET CONNECTION, RELEASE, DISCONNECT, and SET RESULT SETS.
- RUNSQLSTM is not allowed in a trigger program.
- COMMIT and ROLLBACK are not allowed in a trigger program if the trigger program is running in the same activation group as the triggering program. COMMIT and ROLLBACK are not allowed in an SQL trigger.
- ALTER TABLE is not allowed in a trigger program when commitment control is active.
- Statements not allowed in a stored procedure or user-defined function that is running on a remote application server are CONNECT, SET CONNECTION, RELEASE, DISCONNECT, COMMIT, ROLLBACK and SET TRANSACTION.
- Statements not allowed in an SQL BEFORE trigger are INSERT, UPDATE, DELETE, ALTER TABLE, COMMENT ON, CREATE, DROP, GRANT, LABEL ON, RENAME, and REVOKE.
- The RETURN statement is not allowed in an SQL trigger.

Remove the statement &1 from your trigger program, user-defined function, or stored procedure. Try the request again.

SQLCODE or SQLCODEs: -751
SQLSTATE or SQLSTATEs: 2F003 38003 42985 42987

Connection cannot be changed. Reason code is &1.
**Cause Text:**

Connection cannot be made because the application process is not in a connectable state. The reason code is &1. A list of reason codes follows:

- Code 1 indicates that SQL is not in a connectable state. SQL enters the connectable state after a COMMIT or ROLLBACK. SQL leaves the connectable state when any SQL statement except a COMMIT, ROLLBACK, or CONNECT statement is run.
- Code 2 indicates that there are pending changes or open files under commitment control at the current server and the relational database specified on the CONNECT request is not the current server.
- Code 3 indicates that a create SQL package request is being processed when not on a commit boundary.
- Code 4 indicates that the connection is locked by another invocation of Interactive SQL, or there is a level mismatch between the Interactive SQL product and the DB2 UDB for AS/400 product.
- Code 5 indicates that the connection cannot be changed due to restrictions with remote connections and the job level commitment definition.
- Code 6 indicates that the connection cannot be changed to a remote system due to a SET TRANSACTION statement.
- Code 7 indicates that the connection cannot be changed using *RUW connection management because a previous connection is protected.

**Recovery Text:**

A list of corrective actions follow:

- If this is reason code 1, issue a COMMIT or ROLLBACK statement to enter the connectable state.
- If this is reason code 2, close all files open under commitment control and issue a COMMIT or ROLLBACK statement.
- If this is reason code 3, issue a COMMIT or ROLLBACK statement.
- If this is reason code 4, exit Interactive SQL and try the request again. If Interactive SQL is active, the current server can only be changed using Interactive SQL.
- If this is reason code 5, all activation groups associated with the job level commitment definition must be local; or only one remote connection and no local connections can be associated with the job level commitment definition.
- If this is reason code 6, issue a COMMIT or ROLLBACK statement.
- If this is reason code 7, release the protected conversation followed by a COMMIT.

**SQLCODE or SQLCODEs:** -752

**SQLSTATE or SQLSTATEs:** 0A001

**SQL0773**

Message Text: Case not found for CASE statement.
### SQL0774

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Statement cannot be executed within a compound SQL statement.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td></td>
</tr>
<tr>
<td>Recovery Text:</td>
<td></td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-774</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>2D522</td>
</tr>
</tbody>
</table>

### SQL0775

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Statement not allowed in specified SQL routine.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>A statement specified in the routine body of an SQL procedure or function is not allowed. A list of restrictions follows:</td>
</tr>
<tr>
<td></td>
<td>• A COMMIT or ROLLBACK statement cannot be specified in an atomic compound statement in an SQL procedure.</td>
</tr>
<tr>
<td></td>
<td>• An ATOMIC compound statement cannot be specified in an SQL function.</td>
</tr>
<tr>
<td></td>
<td>• COMMIT, ROLLBACK, CONNECT, DISCONNECT, SET CONNECTION, SET RESULT SETS, and SET TRANSACTION statements cannot be specified in an SQL function.</td>
</tr>
<tr>
<td></td>
<td>• The SET RESULT SETS statement cannot be specified in an SQL routine body unless RESULT SET is specified for the procedure.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Remove the statement from the SQL function or procedure.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-775</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42910</td>
</tr>
</tbody>
</table>

### SQL0776

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Cursor &amp;1 specified in FOR statement not allowed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>Cursor &amp;1 is specified as the cursor name on a FOR statement in an SQL procedure. The cursor cannot be specified on a FETCH, OPEN, or CLOSE statement within the FOR statement.</td>
</tr>
<tr>
<td>Message ID</td>
<td>Description</td>
</tr>
<tr>
<td>------------</td>
<td>-------------</td>
</tr>
<tr>
<td>SQL0777</td>
<td>Nested compound statements not allowed.</td>
</tr>
<tr>
<td>Cause Text</td>
<td>Compound statements in the routine body of an SQL procedure or function cannot be nested.</td>
</tr>
<tr>
<td>Recovery Text</td>
<td>Ensure the end label is the same as the begin label for compound, IF, FOR, WHILE, REPEAT, and LOOP statements.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-777</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42919</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Message ID</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQL0778</td>
<td>End label &amp;1 not same as begin label.</td>
</tr>
<tr>
<td>Cause Text</td>
<td>Label &amp;1 specified at the end of a compound, IF, WHILE, REPEAT, or LOOP statement in an SQL procedure or function is not the same as the label at the beginning of the statement. The end label cannot be specified if the begin label is not specified.</td>
</tr>
<tr>
<td>Recovery Text</td>
<td>Ensure the end label is the same as the begin label for compound, IF, FOR, WHILE, REPEAT, and LOOP statements.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-778</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>428D5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Message ID</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQL0779</td>
<td>Label &amp;1 specified not valid.</td>
</tr>
<tr>
<td>Cause Text</td>
<td>Label &amp;1 is specified on a LEAVE or a GOTO statement in an SQL procedure or function. The label is not a valid label or is not in the same scope as the current statement.</td>
</tr>
<tr>
<td>Recovery Text</td>
<td>Specify a valid label that is within the same scope. Try the request again.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-779</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42736</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Message ID</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQL0780</td>
<td>UNDO specified for a handler not valid.</td>
</tr>
</tbody>
</table>
UNDO is specified for a handler in a compound statement in an SQL procedure, function, or trigger. UNDO cannot be specified unless the compound statement is ATOMIC. UNDO cannot be specified in a trigger.

Either specify an ATOMIC compound statement or specify EXIT or CONTINUE on the handler.

SQLCODE or SQLCODEs: -780
SQLSTATE or SQLSTATEs: 428D6

---

Condition &1 specified in handler not defined.

Condition &1 specified in a handler in an SQL procedure or function is not defined.

Define the condition using the DECLARE CONDITION statement or remove the condition from the handler.

SQLCODE or SQLCODEs: -781
SQLSTATE or SQLSTATEs: 42737

---

Condition value &1 specified in handler not valid.

Condition &1 specified in a handler in an SQL procedure or function is not valid for one of the following reasons.

- The condition value has already been specified by another handler in the same scope.
- The condition or SQLSTATE was specified in the same handler as SQLEXCEPTION, SQLWARNING, or NOT FOUND.

Remove the condition from the handler.

SQLCODE or SQLCODEs: -782
SQLSTATE or SQLSTATEs: 428D7

---

Select list for cursor &1 in FOR statement not valid.

The select list in the FOR statement must contain unique column names. The select list specified either contains duplicate column names or unnamed expressions. If two column names are the same, the column name is &2.

Specify unique column names in the select list specified in the FOR statement.

SQLCODE or SQLCODEs: -783
SQLSTATE or SQLSTATEs: 42738
### SQL0784

**Message Text:** CHECK constraint &1 cannot be dropped.

**Cause Text:** Constraint &1 is a CHECK constraint and cannot be dropped because it is enforcing a primary key to be not null.

**Recovery Text:** Drop the primary key which this CHECK constraint is enforcing to be not null. If the primary key is needed, change the attributes of the columns that make up the primary key to be NOT NULL, and then add the primary key again.

**SQLCODE or SQLCODEs:** -784

**SQLSTATE or SQLSTATEs:** 42860

---

### SQL0785

**Message Text:** Use of SQLCODE or SQLSTATE not valid.

**Cause Text:** SQLCODE or SQLSTATE was used as a variable in the routine body of an SQL procedure, but is not valid for one of the following reasons:
- SQLCODE is not declared as INT.
- SQLSTATE is not declared as CHAR(5).
- The variable is set to NULL.

**Recovery Text:** Declare the SQLCODE variable as INT and the SQLSTATE variable as CHAR(5). Set the variable to a valid value.

**SQLCODE or SQLCODEs:** -785

**SQLSTATE or SQLSTATEs:** 428D8

---

### SQL0802

**Message Text:** Data conversion or data mapping error.
Cause Text:

Error type &3 has occurred.
- Error type 1 is arithmetic overflow.
- Error type 2 is floating point overflow.
- Error type 3 is floating point underflow.
- Error type 4 is floating point conversion error.
- Error type 5 is not an exact result.
- Error type 6 is numeric data that is not valid.
- Error type 7 is double-byte character set (DBCS) data that is not valid.
- Error type 8 is division by zero.
- Error type 9 is hash value cannot be computed for the requested query.
- Error type 10 is user-defined function returned a mapping error.
- Error type 11 is invalid length found in a varying-length column returned from an array result set.

If the error occurred when assigning a value to a host variable of a FETCH, embedded SELECT, SET or VALUES INTO statement, the host variable name is &2 and the relative position of the host variable in the INTO clause is &1. If the host variable name is *N, the error occurred when attempting to resolve a search condition.

If more than one data mapping error occurred, this is a description of the first error that occurred. For a description of any other data mapping errors, see the previously listed messages in the job log.

Recovery Text:

The error was caused by data that was not valid or that was too large. Look at the previously listed messages in the job log (DSPJOBLOG command) or press F10 (Display messages in job log) on this display to determine what row and columns were involved in the error. Correct the data and then try the request again.

SQLCODE or SQLCODEs: +802 -802
SQLSTATE or SQLSTATEs: 01519 01547 01564 01565 22003 22012 22023 22504

---

SQL0803

Message Text: Duplicate key value specified.

Cause Text: An INSERT, UPDATE or ALTER TABLE statement was issued. Unique index or unique constraint &1 in &2 exists over one or more columns of table &3 in &4. The operation cannot be performed because one or more values would have produced a duplicate key in the unique index or constraint.

Recovery Text: Change the statement so that duplicate keys are not produced. For information on what rows contain the duplicate key values, look at the previously listed messages in the job log (DSPJOBLOG command) or press F10 (Display messages in job log) on this display.

SQLCODE or SQLCODEs: -803
### SQLSTATE or SQLSTATEs:

23505

<table>
<thead>
<tr>
<th>SQL00804</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Message Text:</strong></td>
<td>SQLDA not valid.</td>
</tr>
<tr>
<td><strong>Cause Text:</strong></td>
<td>If the error type is 2, 3 or 9, the entry in error is &amp;2, the value of SQLTYPE is &amp;3, and the value of SQLLEN or SQLLONGLEN is &amp;4. The specified SQLDA is not valid because of error type &amp;1. A list of the error types follows:</td>
</tr>
<tr>
<td></td>
<td>• Error type 1 indicates that the value of SQLN is less than zero, the value of SQLD is not between 0 and 8000, the value of SQLD is greater than the value of SQLN, or that the value of SQLD has not been initialized in REXX.</td>
</tr>
<tr>
<td></td>
<td>• Error type 2 indicates that the value of SQLTYPE is not valid or that the value of SQLTYPE is not supported or has not been initialized in REXX. The types that are not supported in REXX are NUL-terminated graphic string, NUL-terminated character string, PASCAL L-string, sign leading separate, and binary with precision and scale.</td>
</tr>
<tr>
<td></td>
<td>• Error type 3 indicates that the value of SQLLEN or SQLLONGLEN is not valid or that the value of SQLLEN, SQLPRECISION, or SQLSCALE has not been initialized in REXX. If REXX and SQLTYPE is decimal or numeric, then either SQLPRECISION or SQLSCALE has not been initialized. Otherwise, SQLLEN has not been initialized. If SQLTYPE is a LOB variable, then SQLLONGLEN is not valid.</td>
</tr>
<tr>
<td></td>
<td>• Error type 4 indicates that size of the SQLDA area was not large enough for the number of entries specified in SQLN statement.</td>
</tr>
<tr>
<td></td>
<td>• Error type 5 indicates that the SQLDA area was not on a 16-byte boundary.</td>
</tr>
<tr>
<td></td>
<td>• Error type 6 indicates that the value specified for SQLDABC is not valid. The value is either not large enough for the number of entries specified in SQLN or the value is greater than the maximum allowed.</td>
</tr>
<tr>
<td></td>
<td>• Error type 7 indicates that the value of SQLN was not at least twice the size of SQLD and LOB host variables were found in the SQLDA.</td>
</tr>
<tr>
<td></td>
<td>• Error type 8 indicates that the seventh byte of SQLDAID was not a /2/, /3/ or /4/ and LOB host variables were found in the SQLDA.</td>
</tr>
<tr>
<td></td>
<td>• Error type 9 indicates that the SQLDATAL pointer was not null for a DBCLOB host variable, but the length value referenced by the SQLDATAL pointer had an odd value.</td>
</tr>
<tr>
<td></td>
<td>• Error type 10 indicates the SQLTYPE for a LOB locator did not match the type associated with LOB locator.</td>
</tr>
<tr>
<td><strong>Recovery Text:</strong></td>
<td>Correct the error in the SQLDA and try the request again.</td>
</tr>
<tr>
<td><strong>SQLCODE or SQLCODEs:</strong></td>
<td>-804</td>
</tr>
<tr>
<td><strong>SQLSTATE or SQLSTATEs:</strong></td>
<td>07002</td>
</tr>
</tbody>
</table>
### SQL0805

**Message Text:**
SQL package &1 in &2 not found at DRDA Server.

**Cause Text:**
A remote request was attempted to &4 for SQL package &1 in &2. The SQL package was not found. If you are using Interactive SQL or Query Manager, an attempt to create a package on the remote system failed (see common cause below) and the package requested does not exist.

**Recovery Text:**
The most common cause of this problem in an Interactive SQL session to a non-AS/400 server is that the connection is not updateable. In that case the package cannot be automatically created. To ensure the connection is updateable, do a RELEASE ALL command followed by a COMMIT before connecting to the remote system.

In other cases, the SQL package can be created by using the CRTSQLPKG command. Also, precompiling an SQL program with the RDB parameter specified will create an SQL package on the remote system. Create or restore the SQL package. Run the application again.

If you are using Interactive SQL or Query Manager, exit the product and enter a CL COMMIT or ROLLBACK command. This will enable you to continue processing at the local system. Determine why the package creation failed by examining the job log. Correct the problem and attempt the Interactive SQL or Query Manager session again.

**SQLCODE or SQLCODEs:** -805

**SQLSTATE or SQLSTATEs:** 51002

### SQL0811

**Message Text:**
Result of SELECT more than one row.

**Cause Text:**
The result table of a SELECT INTO statement, a subquery, or a subselect of a SET statement contains more than one row. The error type is &1. If the error type is 1 then a SELECT INTO statement attempted to return more than one row. If the error type is 2 then a subselect of a basic predicate has produced more than one row. Only one row is allowed.

**Recovery Text:**
Change the selection so that only one result row is returned and then try the request again. The DECLARE CURSOR, OPEN, and FETCH statements must be used to process more than one result row. For a subquery the IN, EXISTS, ANY or ALL predicates can be used to process more than one result row. If one row was expected, there may be data errors, such as duplicate rows, that are causing more than one row to be returned.

**SQLCODE or SQLCODEs:** -811

**SQLSTATE or SQLSTATEs:** 21000
### SQL0818

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Consistency tokens do not match.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>Package &amp;3 in &amp;4 on application server &amp;5 cannot be run with the current application program because either the application program has been recompiled without rebuilding the package or the package has been restored from a back level version.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Rebuild the package by using the CRTSQLPKG command or by using a CRTSQLxxx command specifying the correct relational database. Otherwise, restore the package from a version which matches the application program being run.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-818</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>51003</td>
</tr>
</tbody>
</table>

### SQL0822

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Address in the SQLDA not valid.</th>
</tr>
</thead>
</table>
| Cause Text:           | The SQLDA contains an address, SQLDATA value, or SQLIND value in entry number &1 that is not valid. The incorrect address or value is type &2.  
  - Type 1 indicates that the SQLDATA address is not valid.  
  - Type 2 indicates that the SQLIND address is not valid.  
  - Type 3 indicates that the SQLDA address is not valid.  
  - Type 4 indicates that the row storage area is not large enough.  
  - Type 5 indicates that the indicator area for a blocked FETCH statement is not large enough.  
  - Type 6 indicates that the SQLDATA field was not initialized to a value in a REXX procedure.  
  - Type 7 indicates that the SQLIND field was not initialized to a value in a REXX procedure.  
  - Type 8 indicates that the SQLDATAL address is not valid. |
| Recovery Text:        | For types 1, 2, 3, or 8, change the address in entry &1 to a valid address. For types 4 and 5, allocate enough area for all of the rows being requested. For types 6 and 7, initialize the SQLDATA or SQLIND fields to a valid value. Try the request again. |
| SQLCODE or SQLCODEs:  | -822                              |
| SQLSTATE or SQLSTATEs:| 51004                             |

### SQL0827

<p>| Message Text:          | &amp;1 in &amp;2 type &quot;SQLPKG cannot be accessed. |</p>
<table>
<thead>
<tr>
<th><strong>Cause Text:</strong></th>
<th>SQL Package &amp;1 in &amp;2 was not created using the QSQPRCED API and cannot be accessed by the QSQPRCED API. *SQLPKG objects created using CRTSQLPKG or the CRTSQLxxx commands cannot be used by the QSQPRCED API.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recovery Text:</strong></td>
<td>Use the QSQPRCED API to create a new *SQLPKG object. Change your request to use the package created by the API.</td>
</tr>
<tr>
<td><strong>SQLCODE or SQLCODEs:</strong></td>
<td>-827</td>
</tr>
<tr>
<td><strong>SQLSTATE or SQLSTATEs:</strong></td>
<td>42862</td>
</tr>
</tbody>
</table>

---

### SQL0840

<table>
<thead>
<tr>
<th><strong>Message Text:</strong></th>
<th>Number of selected items exceeds 8000.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cause Text:</strong></td>
<td>The number of items returned in a select list or presented in the insert list exceeds the maximum of 8000.</td>
</tr>
<tr>
<td><strong>Recovery Text:</strong></td>
<td>Reduce the number of selected items and try the request again.</td>
</tr>
<tr>
<td><strong>SQLCODE or SQLCODEs:</strong></td>
<td>-840</td>
</tr>
<tr>
<td><strong>SQLSTATE or SQLSTATEs:</strong></td>
<td>54004</td>
</tr>
</tbody>
</table>

---

### SQL0842

<table>
<thead>
<tr>
<th><strong>Message Text:</strong></th>
<th>Connection to relational database &amp;1 already exists.</th>
</tr>
</thead>
</table>
| **Cause Text:** | An attempt was made to do one of the following:  
• CONNECT to a relational database when the connection is active.  
• CONNECT to a relational database that has the same communication information as a connection to a relational database that is active.  
The active relational database is &1. |
<p>| <strong>Recovery Text:</strong> | If CONNECT was specified, either use the SET CONNECTION statement to make relational database &amp;1 the current connection or change the RDB directory entry (CHGRDDBDIRE) for the relational database you are connecting to so that at least part of the communication information is different from what is specified in the entry for &amp;1. For APPC connections, the communication information is the remote location, device description, local location, remote network identifier, mode, and transaction program. For TCP/IP connections, the communication information is the remote location and port identification. |
| <strong>SQLCODE or SQLCODEs:</strong> | -842 |
| <strong>SQLSTATE or SQLSTATEs:</strong> | 08002 |</p>
<table>
<thead>
<tr>
<th>SQL0843</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Message Text:</strong></td>
</tr>
<tr>
<td><strong>Cause Text:</strong></td>
</tr>
<tr>
<td><strong>Recovery Text:</strong></td>
</tr>
<tr>
<td><strong>SQLCODE or SQLCODEs:</strong></td>
</tr>
<tr>
<td><strong>SQLSTATE or SQLSTATEs:</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SQL0858</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Message Text:</strong></td>
</tr>
<tr>
<td><strong>Cause Text:</strong></td>
</tr>
<tr>
<td><strong>Recovery Text:</strong></td>
</tr>
<tr>
<td><strong>SQLCODE or SQLCODEs:</strong></td>
</tr>
<tr>
<td><strong>SQLSTATE or SQLSTATEs:</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SQL0862</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Message Text:</strong></td>
</tr>
<tr>
<td><strong>Cause Text:</strong></td>
</tr>
<tr>
<td><strong>Recovery Text:</strong></td>
</tr>
<tr>
<td><strong>SQLCODE or SQLCODEs:</strong></td>
</tr>
<tr>
<td><strong>SQLSTATE or SQLSTATEs:</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SQL0863</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Message Text:</strong></td>
</tr>
<tr>
<td><strong>Cause Text:</strong></td>
</tr>
</tbody>
</table>
### SQL0871

**Message Text:**
Too many CCSID values specified.

**Cause Text:**
More than 80 unique combinations of character data type and Coded Character Set Identifier (CCSID) were used. When accessing remote data, there is a limit of 80 different CCSID values.

**Recovery Text:**
Change that request to only access 80 different combinations of character data type and CCSID.

**SQLCODE or SQLCODEs:** `-871`

**SQLSTATE or SQLSTATEs:** `54019`

---

### SQL0900

**Message Text:**
Application process not in a connected state.

**Cause Text:**
One of the following occurred:
- The current connection was disconnected using the DISCONNECT statement.
- The current connection was released and a commit occurred.
- A previous error has left the application process in an unconnected state. Use the Display Job Log (DSPJOBLOG) command to see previous errors.

**Recovery Text:**
Issue CONNECT statement with the TO or RESET clause or the SET CONNECTION statement to enter the connected state.

**SQLCODE or SQLCODEs:** `-900`

**SQLSTATE or SQLSTATEs:** `08003`

---

### SQL0901

**Message Text:**
SQL system error.

**Cause Text:**
An SQL system error has occurred. The current SQL statement cannot be completed successfully. The error will not prevent other SQL statements from being processed. Previous messages may indicate that there is a problem with the SQL statement and SQL did not correctly diagnose the error. The previous message identifier was &1. Internal error type &2 has occurred. If precompiling, processing will not continue beyond this statement.
### SQL0904

**Message Text:**  
Resource limit exceeded.

**Cause Text:**  
Resource limit type &1 exceeded. A list of the limit types follows:

- Type 1 indicates that the user profile storage limit or the machine storage limit was exceeded.
- Type 2 indicates that the machine lock limit was exceeded.
- Type 3 indicates that the query resource limit was exceeded. For more information see the previously listed message CPD4365.
- Type 4 indicates that a journal error has occurred.
- Type 5 indicates that the commit lock limit was exceeded.
- Type 6 indicates that the maximum size of the table has been reached.
- Type 7 indicates that the maximum size of the prepared statement area has been reached.
- Type 8 indicates that the maximum number of cursors have been opened for this job.
- Type 12 indicates that the maximum DRDA communications buffer size was exceeded.

**Recovery Text:**  
Do one of the following:

- If this is error type 1, contact the security officer to increase the user profile storage limit, or delete some objects to free up storage and then try the request again.
- If this is error type 2, then try the operation when the number of machine locks held has decreased.
- If this is error types 3, 4, or 5, see previously listed messages in the job log for recovery information.
- If this is error type 6, Some of the rows from this table must be moved to another table.
- If this is error type 7, issue a COMMIT or ROLLBACK without the HOLD clause before issuing anymore PREPARE statements.
- If this is error type 8, issue a CLOSE before issuing anymore OPEN statements.
- If this is error type 12, reduce the total size of column data supplied with the SQL request.
<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>-904</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>57011</td>
</tr>
</tbody>
</table>

**SQL0906**

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Operation not performed because of previous error.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>A previous error has made cursor &amp;1 not usable.</td>
</tr>
</tbody>
</table>
| Recovery Text:| The cursor is not usable. Perform the following steps:  
1) Close the cursor. 
2) Open the cursor. 
3) Try the operation again. |

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>-906</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>24514</td>
</tr>
</tbody>
</table>

**SQL0907**

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Data change violation occurred.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>The row referenced by the statement which caused a trigger program to be invoked was referenced again in the trigger program. The reference in the trigger program attempted to update or delete the row. This is called a destructive data change and is not allowed.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Remove the statement which caused the error from your trigger program and attempt the request again.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>-907</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>27000</td>
</tr>
</tbody>
</table>

**SQL0910**

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Object &amp;1 in &amp;2 type *&amp;3 has a pending change.</th>
</tr>
</thead>
</table>

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Cause Text:
Object &1 has an outstanding change made under commitment control that is preventing this operation. One of the following may have occurred:

- This application process performed an operation on this object under commitment control. The operation has not been committed. The application process is now attempting to change the same object using commitment control level *NONE.
- A different application process has performed an operation on this object under commitment control. The operation has not been committed.
- This application process has performed an operation on this object under commitment control using a different commit definition. The operation has not been committed.
- This application process has performed an operation on this object under commitment control. The operation has not been committed. The table cannot be altered until the changes are committed or rolled back.

Recovery Text:
Do one of the following and try the request again:

- If your application process issued the uncommitted operation, either issue a COMMIT or ROLLBACK before attempting any other operations on this object, or issue the statement from a program using a commitment control level other than *NONE.
- If the application process that issued the uncommitted operation on this object is not your application process, then that application process must perform a COMMIT or a ROLLBACK.
- If your application process issued the uncommitted operation using a different commit definition, issue a COMMIT or ROLLBACK for that commit definition.
- Issue either a COMMIT or ROLLBACK before attempting an ALTER TABLE statement on this object.

SQLCODE or SQLCODEs: -910
SQLSTATE or SQLSTATEs: 57007 57007

SQL0913
Message Text: Row or object &1 in &2 type *&3 in use.
Cause Text: The requested object &1 in &2 type *&3 is either in use by another application process or a row in the object is in use by either another application process or another cursor in this application process.
Recovery Text: Look at the previously listed messages in the job log (DSPJOBLOG command) or from interactive SQL press F10 (Display messages in job log) on this display to determine if this is an object or record lock wait time out.

Do one of the following:

- If the object is locked by another application process, try the Structured Query Language (SQL) statement again when the object is not in use. Use the Work with Object Locks (WRKOBJLCK) command to determine who is currently using the object.
- If the object is a library and an attempt was made to create a table, view, or index into this library under commitment control, a save-while-active operation may be in progress on the same library by another job in the system. Try the request again when the save-while-active processing is complete.
- If a record is locked by another application process, try the SQL statement again when the record is not in use. The Display Record Locks (DSPRCDLCK) command will determine who is currently using the record.
- If this is a record lock held by another cursor in the same application process, you must issue a COMMIT, ROLLBACK, or another FETCH statement on the cursor that is holding the lock before issuing this SQL statement.

If this error occurs frequently, use the Change Physical File (CHGPF), Change Logical File (CHGLF), or Override Data Base File (OVRDBF) command to change the object or record wait time out.

SQLCODE or SQLCODEs: -913
SQLSTATE or SQLSTATEs: 57033

SQL0918

Message Text: ROLLBACK is required.
Cause Text: The activation group requires a ROLLBACK to be performed prior to running any other SQL statements.
Recovery Text: Issue a ROLLBACK CL command or an SQL ROLLBACK statement and then continue.
SQLCODE or SQLCODEs: -918
SQLSTATE or SQLSTATEs: 51021

SQL0950

Message Text: Relational database &1 not in relational database directory.
| Cause Text: | A request for relational database &1 was made. However the relational database name was not found in the relational database directory. |
| Recovery Text: | Do one of the following: |
| | • Change the name of the relational database specified on the CONNECT, SET CONNECTION, RELEASE, or DISCONNECT statement or the RDB parameter of the SQL precompile commands. |
| | • Add the relational database name to the relational database directory using the Add Relational Database Directory Entry (ADDRDBDIRE) command. |
| SQLCODE or SQLCODEs: | -950 |
| SQLSTATE or SQLSTATEs: | 42705 55006 |

### SQL0951

| Message Text: | Object &1 in &2 not altered. |
| Cause Text: | Object &1 in &2 was not altered because it, or a table related in a referential constraint relationship with this table, is being used by the same application process. |
| Recovery Text: | Close the cursor and try the alter request again. |
| SQLCODE or SQLCODEs: | -951 |
| SQLSTATE or SQLSTATEs: | 55007 |

### SQL0952

| Message Text: | Processing of the SQL statement ended by ENDRDBRQS command or a cancel request. |
| Cause Text: | Either an ENDRDBRQS was encountered and processed, or an inquiry message was answered with a request to cancel the operation. |
| Recovery Text: | |
| SQLCODE or SQLCODEs: | -952 |
| SQLSTATE or SQLSTATEs: | 57014 |

### SQL0969

<p>| Message Text: | Error occurred while passing request to application requester driver program. |
| Cause Text: | An unexpected error occurred while passing the SQL request to the application requester driver program for relational database &amp;1. See previously listed messages in the job log for the cause of the failure. |
| Recovery Text: | Correct any problems and try the request again. |
| SQLCODE or SQLCODEs: | -969 |</p>
<table>
<thead>
<tr>
<th>SQLSTATE or SQLSTATEs:</th>
<th>58033</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SQL0971</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Message Text:</strong></td>
<td>Constraint &amp;4 in check pending state.</td>
</tr>
</tbody>
</table>
| **Cause Text:**        | The operation being performed on table &2 in &3 failed. Constraint &4 in &5 could not be enforced because of reason code &1. The reason codes and their meanings are:  
  1 — The dependent file is in check pending status due to a referential constraint violation.  
  2 — The dependent or parent file/s access path is not valid.  
  3 — The file is in check pending status due to a check constraint violation. |
<p>| <strong>Recovery Text:</strong>     | For reason codes 1 and 3, use the CHGPFCST command to disable the constraint. Then use the DSPCPCST command to see the records causing the check pending status. Correct the data in the file and then use the CHGPFCST command to enable the constraint. For reason code 2, use the EDTRDBAP command to rebuild the file/s access path. |
| <strong>SQLCODE or SQLCODEs:</strong> | -971 |</p>
<table>
<thead>
<tr>
<th><strong>SQLSTATE or SQLSTATEs:</strong></th>
<th>57011</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SQL0990</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Message Text:</strong></td>
<td>Outcome unknown for the unit of work.</td>
</tr>
<tr>
<td><strong>Cause Text:</strong></td>
<td>The unit of work completed but the outcome is not fully known at all sites. Either a conversation failure occurred and resynchronization is occurring to correct the problem, or a ROLLBACK occurred at one of the resources.</td>
</tr>
<tr>
<td><strong>Recovery Text:</strong></td>
<td>No user action is necessary.</td>
</tr>
<tr>
<td><strong>SQLCODE or SQLCODEs:</strong></td>
<td>+990</td>
</tr>
<tr>
<td><strong>SQLSTATE or SQLSTATEs:</strong></td>
<td>01587</td>
</tr>
<tr>
<td>------------------------</td>
<td>-------</td>
</tr>
<tr>
<td><strong>SQL4300</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Message Text:</strong></td>
<td>Java support is not installed or properly configured on this platform.</td>
</tr>
<tr>
<td><strong>Cause Text:</strong></td>
<td>Support for Java stored procedures and user-defined functions is not installed and configured on this server.</td>
</tr>
<tr>
<td><strong>Recovery Text:</strong></td>
<td>Ensure that a compatible Java Development Kit is installed.</td>
</tr>
<tr>
<td><strong>SQLCODE or SQLCODEs:</strong></td>
<td>-4300</td>
</tr>
<tr>
<td><strong>SQLSTATE or SQLSTATEs:</strong></td>
<td>42742</td>
</tr>
</tbody>
</table>
### SQL4301

**Message Text:** Java interpreter startup or communication failed for reason code &1.

**Cause Text:** An error occurred while attempting to start or communicate with a Java interpreter. The reason codes and their meanings follow:
- 1 — Java environment variables or Java database configuration parameters are invalid.
- 2 — A Java Native Interface call to the Java interpreter failed.
- 4 — The Java interpreter has terminated itself and cannot be restarted.

**Recovery Text:** Ensure that Java environment variables or Java database configuration parameters are valid. Ensure that a Java method called by the Java interpreter does not use System.out. Ensure that internal DB2 classes (com.ibm.db2) are not overridden by user classes.

**SQLCODE or SQLCODEs:** -4301

**SQLSTATE or SQLSTATEs:** 58004

---

### SQL4302

**Message Text:** Java stored procedure or user-defined function &1, specific name &2 aborted with an exception "&3".

**Cause Text:** The Java stored procedure or user-defined function aborted with a Java exception. If SQJAVA component trace is on, then the component trace for the job contains a Java stack traceback for the aborted method.

**Recovery Text:** Debug the Java method to eliminate the exception.

**SQLCODE or SQLCODEs:** -4202

**SQLSTATE or SQLSTATEs:** 38501

---

### SQL4303

**Message Text:** Java stored procedure or user-defined function &1, specific name &2, could not be identified from external name &3.

**Cause Text:** The CREATE PROCEDURE or CREATE FUNCTION statement that declared this stored procedure or user-defined function had a badly formatted EXTERNAL NAME clause. The external name must be formatted as follows: "package.subpackage.class.method".

**Recovery Text:** Submit a corrected CREATE PROCEDURE or CREATE FUNCTION statement.

**SQLCODE or SQLCODEs:** -4303

**SQLSTATE or SQLSTATEs:** 42724
### SQL4304

**Message Text:** Java stored procedure or user-defined function &1, specific name &2 could not load Java class &3 for reason code &4.

**Cause Text:** The Java class given by the EXTERNAL NAME clause of a CREATE PROCEDURE or CREATE FUNCTION statement could not be loaded. The reason codes and their meanings follow:
- 1 — The class was not found on the CLASSPATH.
- 2 — The class did not implement the required interface (“com.ibm.db2.app.StoredProcedure” or “com.ibm.db2.app.UDF”) or lacked the Java “public” access flag.
- 3 — The default constructor failed or was unavailable.

**Recovery Text:** Ensure that the compiled “.class” file is installed in the CLASSPATH, for example under “/QIBM/UserData/OS400/SQLLib/Function”. Ensure it implements the required Java interfaces and is “public”.

**SQLCODE or SQLCODEs:** -4304

**SQLSTATE or SQLSTATEs:** 42724

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### SQL4306

**Message Text:** Java stored procedure or user-defined function &1, specific name &2 could not call Java method &3, signature &4.

**Cause Text:** The Java method given by the EXTERNAL NAME clause of a CREATE PROCEDURE or CREATE FUNCTION statement could not be found. Its declared argument list may not match what the database expects, or it may not be a “public” instance method.

**Recovery Text:** Ensure that a Java instance method exists with the “public” flag and the expected argument list for this call.

**SQLCODE or SQLCODEs:** -4306

**SQLSTATE or SQLSTATEs:** 42724

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### SQL5001

**Message Text:** Column qualifier or table &2 undefined.
| Cause Text: | Name &2 was used to qualify a column name or was specified as the operand of the RRN, PARTITION, NODENAME, or NODENUMBER scalar function. The name is not defined to be a table designator in this SQL statement. If a correlation name is specified following the table name in a FROM clause, the correlation name is considered to be the table designator. If a correlation name is not specified, the table name is considered to be the table designator. If using SQL naming and the table is qualified with authorization name, then the table designator is authorization-name.table-name. If the authorization name is not specified, the table designator is the implicit authorization name followed by the table name. |
| Recovery Text: | Ensure all column names are qualified with the proper table designator. If the RRN, PARTITION, NODENAME, or NODENUMBER function is specified, ensure the correct name is specified in the function. Try the request again. |
| SQLCODE or SQLCODEs: | -5001 |
| SQLSTATE or SQLSTATEs: | 42703 |

| SQL5002 |
| Message Text: | Collection must be specified for table &1. |
| Cause Text: | Table &1 is not implicitly or explicitly qualified by a collection name. A collection name is required for the CREATE TABLE statement in system naming mode. |
| Recovery Text: | Explicitly qualify the table &1 with the collection name. The correct form of a qualified table name in system naming is collection-name/table-name. For a program, the table name can be implicitly qualified with the default collection by specifying the DFTRDBCOL parameter on the CRTSQLxxx command. Try the request again. |
| SQLCODE or SQLCODEs: | -5002 |
| SQLSTATE or SQLSTATEs: | 42812 |

| SQL5003 |
| Message Text: | Cannot perform operation under commitment control. |
| Cause Text: | The following operations cannot be performed under commitment control with COMMIT(*CHG), COMMIT(*CS), or COMMIT(*ALL) specified: |
| Recovery Text: | Specify COMMIT(*NONE), and try the statement again. |
| - DROP COLLECTION statement. |
| - GRANT or REVOKE statement to an object that has an authority holder. |
| - CREATE statement in SQL naming mode of an object that has an authority holder. |
| - These operations cannot be committed or rolled back. |
### SQL5005

**Message Text:** Operator &4 not consistent with operands.

**Cause Text:**
- The operator specified is not consistent with the previous operands. The arithmetic operators (*, /, and **) are not valid with concatenation operators or with the DIGITS and SUBSTR scalar functions.
- The concatenation operator is not valid with other operations or functions that result in a numeric value, such as the arithmetic operators (* and /) or the LENGTH, DECIMAL, FLOAT, or INTEGER scalar functions.

**Recovery Text:** Change the SQL statement so all expressions are valid numeric expressions, string expressions, or date/time expressions.

**SQLCODE or SQLCODEs:** -5003

**SQLSTATE or SQLSTATEs:** 42922

### SQL5012

**Message Text:** Host variable &1 not numeric with zero scale.

**Cause Text:**
- Host variable &1 was specified in a RELATIVE position specification of a FETCH statement, or in a ROWS clause of a FETCH, INSERT, or SET RESULT SETS statement. The host variable was not usable for one of the following reasons:
  - It is not numeric.
  - The scale is not zero.

**Recovery Text:** Change the host variable to a numeric type with zero scale.

**SQLCODE or SQLCODEs:** -5012

**SQLSTATE or SQLSTATEs:** 42618

### SQL5016

**Message Text:** Qualified object name &1 not valid.
<table>
<thead>
<tr>
<th>Cause Text:</th>
<th>One of the following has occurred:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• The syntax used for the qualified object name is not valid for the naming option specified. With system naming, the qualified form of an object name is collection-name/object-name. With SQL naming the qualified form of an object name is authorization-name.object-name.</td>
</tr>
<tr>
<td></td>
<td>• The syntax used for the qualified object name is not allowed. User-defined types cannot be qualified with the library in the system naming convention on parameters and SQL variables of an SQL procedure or function.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Recovery Text:</th>
<th>Do one of the following and try the request again:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• If you want to use the SQL naming convention, verify the SQL naming option in the appropriate SQL command and qualify the object names in the form authorization-id.object-name.</td>
</tr>
<tr>
<td></td>
<td>• If you want to use the system naming convention, specify the system naming option in the appropriate SQL command and qualify the object names in the form collection-name/object-name.</td>
</tr>
<tr>
<td></td>
<td>• With the system naming convention, ensure the user-defined types specified for parameters and variables in an SQL routine can be found in the current path.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>-5016</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42833</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Remove the duplicate column from one of the clauses. If no columns were specified in the FOR UPDATE clause, remove either the FOR UPDATE clause or the ORDER BY clause. Try the request again.</td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-5021</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42930</td>
</tr>
</tbody>
</table>

**SQL5023**

**Message Text:** Statement name &1 previously referred to.

**Cause Text:** The statement name &1 referred to in this DECLARE CURSOR statement has already been referred to in a previous DECLARE CURSOR. A statement name can only be associated with one cursor.

**Recovery Text:** Check the statement names specified on all DECLARE CURSOR statements in an application program or REXX procedure to make sure they are unique. Try the request again.

**SQLCODE or SQLCODEs:** -5023

**SQLSTATE or SQLSTATEs:** 26510

**SQL5024**

**Message Text:** Host variable &1 not character or UCS-2 graphic.

**Cause Text:** Host variable &1 is not defined as character or UCS-2 graphic. Host variables in a precompiled program or REXX procedure must be character or UCS-2 graphic if used:

- As the statement string in a PREPARE statement.
- As the statement string in an EXECUTE IMMEDIATE statement.
- As the table name in a DESCRIBE TABLE statement.
- As the server name, authorization name, or password on a CONNECT, SET CONNECTION, RELEASE, or DISCONNECT statement.
- As the path string in a SET PATH statement.

**Recovery Text:** Specify a host variable that is character or UCS-2 graphic. Try the request again.

**SQLCODE or SQLCODEs:** -5024

**SQLSTATE or SQLSTATEs:** 42618

**SQL5047**

**Message Text:** Error processing SRTSEQ or LANGID parameter. Message is &3, &4.
| Cause Text: | An error occurred during an attempt to retrieve the sort sequence table for the SRTSEQ parameter &1 and LANGID parameter &2. Message &3 was returned. |
| Recovery Text: | Correct the errors as indicated by message &3 and issue the request again. If a sort sequence table is not required, specify *HEX as the SRTSEQ parameter. |
| SQLCODE or SQLCODEs: | -5047 |
| SQLSTATE or SQLSTATEs: | 42616 |

---

<table>
<thead>
<tr>
<th>SQL5051</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Message Text:</strong></td>
</tr>
<tr>
<td><strong>Cause Text:</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Recovery Text:</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>SQL7001</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Message Text:</strong></td>
</tr>
<tr>
<td><strong>Cause Text:</strong></td>
</tr>
<tr>
<td><strong>Recovery Text:</strong></td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>SQL7002</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Message Text:</strong></td>
</tr>
<tr>
<td>Cause Text:</td>
</tr>
<tr>
<td>Recovery Text:</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
</tr>
</tbody>
</table>

**SQL7003**

| Message Text: | File &1 in &2 has more than one format. |
| Cause Text: | SQL cannot process a file unless it has only one format. |
| Recovery Text: | Make certain that the correct filename was specified. Try the request again. |
| SQLCODE or SQLCODEs: | -7003 |
| SQLSTATE or SQLSTATEs: | 42857 |

**SQL7006**

| Message Text: | Cannot drop collection &1. |
| Cause Text: | &1 is a collection that is in the library list. |
| Recovery Text: | Remove &1 from the library list before attempting the DROP. Try the request again. |
| SQLCODE or SQLCODEs: | -7006 |
| SQLSTATE or SQLSTATEs: | 55018 |

**SQL7007**

| Message Text: | COMMIT or ROLLBACK not valid. |
| Cause Text: | A COMMIT or ROLLBACK statement was issued, but commitment control is not active. |
| Recovery Text: | Change the commitment control level *NONE to *CHG, *CS, or *ALL. The SET TRANSACTION statement can be used to change the isolation level to something other than *NONE. Try the request again. |
| SQLCODE or SQLCODEs: | -7007 |
| SQLSTATE or SQLSTATEs: | 51009 |

**SQL7008**
<table>
<thead>
<tr>
<th>Message Text:</th>
<th>&amp;1 in &amp;2 not valid for operation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>The reason code is &amp;3:</td>
</tr>
<tr>
<td></td>
<td>• Code 1 — &amp;1 has no members.</td>
</tr>
<tr>
<td></td>
<td>• Code 2 — &amp;1 has been saved with storage free.</td>
</tr>
<tr>
<td></td>
<td>• Code 3 — &amp;1 not journaled, or no authority to the journal. Files with an RI constraint action of CASCADE, SET NULL, or SET DEFAULT must be journaled to the same journal.</td>
</tr>
<tr>
<td></td>
<td>• Code 4 and 5 — &amp;1 is in or being created into production library but the user has debug mode UPDPROD(*NO).</td>
</tr>
<tr>
<td></td>
<td>• Code 6 — collection being created, but user in debug mode with UPDPROD(*NO).</td>
</tr>
<tr>
<td></td>
<td>• Code 7 — a based-on table used in creation of a view is not valid. Either the table is program described table or it is in a temporary library.</td>
</tr>
<tr>
<td></td>
<td>• Code 8 — a user attempted to create an object. The based-on table resides in an ASP which is different than the ASP of the object.</td>
</tr>
<tr>
<td></td>
<td>• Code 9 — index is currently held or is not valid.</td>
</tr>
<tr>
<td></td>
<td>• Code 10 — a constraint or trigger is being added to a table that is not valid. The table is in QTEMP, has ASP/s that are not the same, or is not an externally described file, or is not write, update, or delete capable. For a constraint, the table is a source file or the parent does not have a member. For a trigger, maximum number of triggers reached.</td>
</tr>
<tr>
<td></td>
<td>• Code 11 — distributed table is being created in library QTEMP, or a view is being created over more than one distributed table.</td>
</tr>
<tr>
<td></td>
<td>• Code 12 — table could not be created in QTEMP, QSYS or QSYS2 because it contains a column of type DATALINK having the FILE LINK CONTROL option.</td>
</tr>
<tr>
<td></td>
<td>• Code 13 — table could not be created in a collection containing a data dictionary. The table contains a DATALINK column or a LOB column that conflicts with the data dictionary.</td>
</tr>
<tr>
<td></td>
<td>• Code 14 — a DATALINK or LOB column could not be added to a non SQL table.</td>
</tr>
</tbody>
</table>
### Recovery Text:

A list of corrective actions follow:

- If code 1, add a member to &1 (ADDPFM command).
- If code 2, restore &1 (RSTOBJ command).
- If code 3, start journaling on &1 (STRJRNPF command), or get access to the journal.
- If this is reason code 4, 5, or 6, perform a CHGDBG command with UPDPROD(*YES).
- If code 7, remove table names which identify files in QTEMP or program described files.
- If code 8, use tables in the same ASP.
- If code 9, use the edit rebuild of access path (EDTRBDAP) command and change the sequence of the access path from HELD to 1-99 or *OPN, or rebuild or delete the unique index or constraint.
- If code 10, specify tables that are valid for constraints or triggers.
- If code 11, specify a library other than QTEMP, or create the view over only one distributed table.
- If code 12, specify a library other than QTEMP, QSYS or QSYS2.
- If code 13, specify a library that does not contain a data dictionary or remove all DATALINK and LOB columns.
- If code 14, specify SQL table for adding the DATALINK or LOB column.

#### SQLCODE or SQLCODEs:
- -7008

#### SQLSTATE or SQLSTATEs:
- 55019

---

### SQL7010

**Message Text:** Logical file &1 in &2 not valid for CREATE VIEW.

**Cause Text:** Logical file &1 in &2 is specified in the subselect clause of a CREATE VIEW. Views cannot be created over logical files.

**Recovery Text:** Remove logical file &1 from the CREATE VIEW statement and try the request again.

#### SQLCODE or SQLCODEs:
- -7010

#### SQLSTATE or SQLSTATEs:
- 42850

---

### SQL7011

**Message Text:** &1 in &2 not table, view, or physical file.

**Cause Text:** The SQL statement &3 cannot be performed on a file which is not a table, view, single format logical file, or physical file.
<table>
<thead>
<tr>
<th>Recovery Text:</th>
<th>Do one of the following:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Use a control language (CL) command to do the function.</td>
</tr>
<tr>
<td></td>
<td>• Select the correct table, view, logical, or physical file.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>-7011</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42851</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SQL7017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message Text:</td>
</tr>
<tr>
<td>Cause Text:</td>
</tr>
<tr>
<td>Recovery Text:</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SQL7018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message Text:</td>
</tr>
<tr>
<td>Cause Text:</td>
</tr>
<tr>
<td>Recovery Text:</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SQL7021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message Text:</td>
</tr>
<tr>
<td>Cause Text:</td>
</tr>
<tr>
<td>Recovery Text:</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SQL7022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message Text:</td>
</tr>
</tbody>
</table>
### SQL7022

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>CCSIDs are not compatible.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>An attempt was made to create an index or to group columns, but the columns have incompatible CCSIDs. The sort sequence is not *HEX. If the statement is CREATE INDEX, index &amp;1 in library &amp;2 was not created. The CCSIDs of character key columns or character columns in a GROUP BY clause must be associated CCSIDs when the sort sequence is not *HEX. Associated CCSIDs all have the same single-byte code page.</td>
</tr>
</tbody>
</table>
| Recovery Text: | Do one of the following:  
|               | • Change the sort sequence to *HEX and try the statement again.  
|               | • Change the CCSIDs of the columns so that they are either 65535 or associated CCSIDs and try the statement again. |
| SQLCODE or SQLCODEs: | -7022 |
| SQLSTATE or SQLSTATEs: | 42977 |

### SQL7024

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>CCSIDs are not compatible.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>An attempt was made to create an index or to group columns, but the columns have incompatible CCSIDs. The sort sequence is not *HEX. If the statement is CREATE INDEX, index &amp;1 in library &amp;2 was not created. The CCSIDs of character key columns or character columns in a GROUP BY clause must be associated CCSIDs when the sort sequence is not *HEX. Associated CCSIDs all have the same single-byte code page.</td>
</tr>
</tbody>
</table>
| Recovery Text: | Do one of the following:  
|               | • Change the sort sequence to *HEX and try the statement again.  
|               | • Change the CCSIDs of the columns so that they are either 65535 or associated CCSIDs and try the statement again. |
| SQLCODE or SQLCODEs: | -7024 |
| SQLSTATE or SQLSTATEs: | 42876 |

### SQL7026

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Auxiliary storage pool &amp;4 not found.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>Object &amp;1 in &amp;2 type *&amp;3 was not created because auxiliary storage pool &amp;4 does not exist on the system.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Specify a correct auxiliary storage pool identifier and try the request again.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-7026</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42896</td>
</tr>
</tbody>
</table>
### SQL7027

**Message Text:** Cannot GRANT specified privileges on object &1 in &2 type *&3.

**Cause Text:** A GRANT operation was attempted on view &1 in &2 type *&3. This operation cannot be performed because it would give the user specified additional privileges to the underlying file &4 in &5. The user has *OBJOPR or *OBJMGT system privileges to the underlying file.

**Recovery Text:** One of the following may be done:
- Grant the specified privileges to &4
- Obtain the required authority from either the security officer or the object owner
- Delete the current authority to &4.

Try the operation again.

**SQLCODE or SQLCODEs:** -7027

**SQLSTATE or SQLSTATEs:** 42984

### SQL7028

**Message Text:** Owner and primary group cannot be the same.

**Cause Text:** While attempting to create an object, SQL attempted to change the owner of the object. The new owner was the same as the primary group for that object. This is not allowed.

**Recovery Text:** Change the primary group for the user profile and try the request again.

**SQLCODE or SQLCODEs:** -7028

**SQLSTATE or SQLSTATEs:** 42944

### SQL7029

**Message Text:** New name &3 is not valid.

**Cause Text:** An attempt was made to rename &1 in &2, but the new name is not valid. Both the new name and the new system name are valid system names. If both names are specified in the RENAME statement, only the name following SYSTEM NAME can be a valid system name.

**Recovery Text:** Do one of the following and try the request again:
- Specify either the new name or the new system name.
- Change the first name to be a name that is not valid as a system name.

**SQLCODE or SQLCODEs:** -7029

**SQLSTATE or SQLSTATEs:** 428B8
SQL7031

**Message Text:** Sort sequence table &1 too long.

**Cause Text:** Sort sequence table &1 in &2 is a UCS-2 sort sequence table that is greater than 31560 bytes long. It cannot be used with Distributed Relational Database Architecture (DRDA).

**Recovery Text:** Specify a different sort sequence table to be used with Distributed Relational Database Architecture (DRDA).

**SQLCODE or SQLCODEs:** -7031

**SQLSTATE or SQLSTATEs:** 54044

---

SQL7032

**Message Text:** SQL procedure, function, or trigger &1 in &2 not created.

**Cause Text:** SQL procedure, function, or trigger &1 in &2 was not created. One of the following has occurred:
- The DB2 UDB product is not on the system. SQL requires the DB2 UDB for AS/400 product to be installed in order to create SQL procedures, functions or triggers.
- The compile was not successful. SQL creates an SQL procedure, function, or trigger as a C program that contains embedded SQL. Errors not found during the initial parsing of the CREATE PROCEDURE, CREATE FUNCTION, and CREATE TRIGGER statements, can be found during the precompile.

**Recovery Text:** Install the ILE C for AS/400 product, if not installed. Install the DB2 UDB for AS/400 product, if not installed. Install the OS/400 Option 13, System Openness Includes, if not installed. If a compile error occurred, see the precompiler listing in QSYSPRT.

**SQLCODE or SQLCODEs:** -7032

**SQLSTATE or SQLSTATEs:** 42904

---

SQL7033

**Message Text:** Alias name &1 in &2 not allowed.

**Cause Text:** Alias name &1 cannot be used. This program was compiled on a release before alias names were supported. The table name it is using has now been defined as an alias name.

**Recovery Text:** Recompile the program on a release that supports alias names or remove the alias from the system.

**SQLCODE or SQLCODEs:** -7033

**SQLSTATE or SQLSTATEs:** 42923
### SQL7034
**Message Text:** LOB locators are not allowed with COMMIT(*NONE).
**Cause Text:** A LOB locator cannot be used with commitment control level of *NONE or *NC.
**Recovery Text:** Use a commitment control level of *CHG, *UR, *CS, *ALL, *RS, or *RR.
**SQLCODE or SQLCODEs:** -7034
**SQLSTATE or SQLSTATEs:** 42926

### SQL7036
**Message Text:** System User-Defined Type name used in SQLDA.
**Cause Text:** A User-Defined Type name returned in the extended SQLVAR entry of the SQLDA is longer than 19 characters. Since there is not room in the SQLNAME entry, the system name is substituted instead. The system name is 10 characters.
**Recovery Text:**
**SQLCODE or SQLCODEs:** +7036
**SQLSTATE or SQLSTATEs:** 01634

### SQL7037
**Message Text:** Data in a distributed file &1 in &2 cannot be redistributed.
**Cause Text:** An attempt was made to change the node group, partitioning file, partitioning key, or an attribute of a partitioning key. These changes can cause data to be redistributed, but data in file &1 in &2 cannot be redistributed because it contains a DataLink with FILE LINK CONTROL.
**Recovery Text:** Change the request so that data will not be redistributed, and try the function again.
**SQLCODE or SQLCODEs:** -7037
**SQLSTATE or SQLSTATEs:** 429B6

### SQL7038
**Message Text:** Delete cascade not valid for &1 in &2.
**Cause Text:** A delete cascade rule cannot be added to &1 in &2 as it contains a DataLink column.
**Recovery Text:** Either remove the DataLink column or remove the specified delete cascade rule.
**SQLCODE or SQLCODEs:** -7038
### SQL7048

**Message Text:** Operation not allowed because trigger is inoperative.

**Cause Text:** An open of an SQL table or view failed as a result of inoperative trigger &1 in library &2. The open could be due to an insert, update, delete, or open cursor statement.

**Recovery Text:** Drop and recreate trigger &1 in &2. See the previous CPF418A escape message for the name of the file that failed to open. Preceding the CPF418A will be CPD502B messages for each inoperative trigger found. The SYSTRIGGERS catalog can also be used to determine the SQL table an inoperative trigger is attached to.

**SQLCODE or SQLCODEs:** -7048

**SQLSTATE or SQLSTATEs:** 51037

### SQL7050

**Message Text:** Result sets are not available from procedure &1 in &2.

**Cause Text:** An SQL CALL statement was executed for procedure &1 in &2. It opened &3 result sets, but all were closed before they could be processed. This can be caused by the ending of an activation group, or by some other function that closes SQL cursors, such as a Reclaim Resources (RCLRSC) CL command. This can also happen if the procedure contains a SET RESULT SETS statement, and an error occurred on that statement.

**Recovery Text:** If the procedure was created with *NEW as the activation group, change it to *CALLER or a named activation group. Remove any functions that might be closing SQL cursors. If the procedure contains the SET RESULT SETS statement, make sure it completes successfully and does not identify cursors that are not open.

**SQLCODE or SQLCODEs:** +7050

**SQLSTATE or SQLSTATEs:** 01646

### SQL7051

**Message Text:** MODE DB2SQL before trigger converted to MODE DB2ROW.

**Cause Text:** MODE DBSQL before triggers are not supported. The SQL trigger &1 in &2 will be converted from MODE DB2SQL to MODE DB2ROW.

**Recovery Text:** MODE DB2ROW should be specified for all BEFORE triggers. Change the statement and try the request again.

**SQLCODE or SQLCODEs:** -7051
**SQL7905**

Message Text: Table &1 in &2 created but could not be journaled.

Cause Text: The table &1 was created in &2, but the table could not be journaled. The journal QSQJRN in &2 may be damaged, removed, unable to accept journal entries, or may not be created. The SQL name for the table is &1 and the system name for the table is &3. For a distributed table, journaling could not be started on all of the systems. The journal QSQJRN in &2 must exist, and be able to accept journal entries, on each of the systems in the node group.

Recovery Text: The table was created, but until the table is journaled, COMMIT(*CHG), COMMIT(*CS), and COMMIT(*ALL) will not be allowed for table &1.
- If journal QSQJRN does not exist in &2, create the journal (CRTJRN command) and start journaling (STRJRNPF command).
- If the journal is in error, correct the problem to the journal.
- If the table is distributed, correct the problems on all the systems in the node group and start journaling (STRJRNPF command).

**SQL9012**

Message Text: DB2 Query Manager and SQL Development Kit for AS/400 not available.

Cause Text: Either DB2 Query Manager and SQL Development Kit for AS/400 is not installed, or the limit for the number of concurrent licensed users has been reached. Refer to the job log for details.
Recovery Text: Do one of the following and try the request again.  
- Install DB2 Query Manager and SQL Development Kit for AS/400.  
- Request that a current user discontinue use of the product.  
- Ask your system administrator to contact the software vendor to increase the limit for the number of licensed users.  

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>-9012</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42968</td>
</tr>
</tbody>
</table>

### SQ20054

**Message Text:** File has DataLinks in link pending mode.  

**Cause Text:** The file that was accessed has DataLinks in link pending mode. This means that the status of the DataLinks cannot be verified. A file cannot be used for INSERT and UPDATE statements while in link pending mode.  

**Recovery Text:** Use the WRKPFDL (Work with Physical File Datalinks) command to determine which files have DataLinks in link pending mode. Resolve the pending links and try the request again.  

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>-20054</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>50019</td>
</tr>
</tbody>
</table>

### SQ20200

**Message Text:** The install or replace of &1 in &2 failed because &3 could not be located.  

**Cause Text:** The URL specified on the install or replace jar procedure did not identify a valid jar file.  

**Recovery Text:** Reissue the install or replace jar procedure with a URL that identifies a valid jar file.  

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>-20200</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>46001</td>
</tr>
</tbody>
</table>

### SQ20201

**Message Text:** The install, replace, or remove of &1 in &2 failed because the jar name is not valid.  

**Cause Text:** The jar name specified on the install, replace, or remove jar procedure is not valid. For example, the jar id may be of the improper format, may not exist to be replaced or removed, or can not be installed as it already exists.
Ensure the jar name is of the correct format. If the jar id exists, it may need to be removed before it can be installed. For the remove or replace procedures, ensure the jar id exists.

SQLCODE or SQLCODEs: -20201
SQLSTATE or SQLSTATEs: 46002

**SQ20202**

**Message Text:** The replace or remove of &1 in &2 failed because &3 is in use.

**Cause Text:** The specified class in the jar file is currently in use by a defined procedure, or the replacement jar file does not contain the specified class for which a procedure is defined.

**Recovery Text:** Ensure all procedures referencing the classes being removed are dropped and resubmit the replace or remove procedure.

SQLCODE or SQLCODEs: -20202
SQLSTATE or SQLSTATEs: 46003

**SQ20203**

**Message Text:** Signature not valid for Java method in user defined function or procedure &1 in &2.

**Cause Text:** The signature of the Java method used to implement the function or procedure is not valid. For example, the method may have parameters that are not compatible with the parameters on the corresponding CREATE statement or the method for a procedure may specify a return value.

**Recovery Text:** Reissue the corresponding CREATE statement specifying parameters that match the Java method, or correct the parameters or return type of the Java method and rebuild the class.

SQLCODE or SQLCODEs: -20203
SQLSTATE or SQLSTATEs: 46007

**SQ20204**

**Message Text:** The user defined function or procedure &1 in &2 was unable to map to a single Java method.

**Cause Text:** The identified function or procedure either failed to find a matching Java method, or found more than 1 matching Java method.
<table>
<thead>
<tr>
<th>Recovery Text:</th>
<th>Correct either the Java method or corresponding create statement so that the function or procedure call resolves to a single Java method.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-20204</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>46008</td>
</tr>
</tbody>
</table>

**SQ20205**

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>User defined function or procedure &amp;1 in &amp;2 has an input argument with a null value.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>A function created with CALLED ON NULL INPUT or a procedure has an input parameter with a null value but the Java data type for this argument does not support null values. Examples of Java data types that do not support null values are BOOLEAN, BYTE, SHORT, INT, LONG, or DOUBLE.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>If the method is to be called with null values, ensure the input Java types are capable of accepting a null value. If &amp;1 is a function, RETURNS NULL ON NULL INPUT may be specified on the CREATE FUNCTION statement.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-20205</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>39004</td>
</tr>
</tbody>
</table>

**SQ20206**

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>The procedure &amp;1 in &amp;2 returned too many result sets.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>The specified procedure returned more result sets than were specified on the procedure definition.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Modify the procedure to return fewer result sets, or drop and recreate the procedure specifying the correct number of result sets.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>+20206</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>0100E</td>
</tr>
</tbody>
</table>

**SQ20207**

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>The install or remove jar procedure for &amp;1 in &amp;2 specified the use of a deployment descriptor.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>The DEPLOY or UNDEPLOY parameter of the install or replace jar procedure was non-zero; this parameter is not supported and must be zero.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Reissue the procedure with the DEPLOY or UNDEPLOY parameter set to zero.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-20207</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>46501</td>
</tr>
</tbody>
</table>
SQ30000

Message Text: Distributed Relational Database Architecture (DRDA) protocol error.

Cause Text: Command or SQL statement failed due to a distribution protocol error that will not affect subsequent commands or SQL statements. The protocol error is &1 with a location code of &2. The location codes are:

- /01/X — The error was detected at the application requester.
- /02/X — The error was detected at the application server.

A possible list of protocol errors is:

- /1245/X — Conversation protocol error. The error code is &3.
- /121C/X — Not authorized to command.
- /124C/X — Distributed Data Management (DDM) data stream syntax error. The error code is &3.
- /1254/X — Unexpected error condition. The error code is &3.
- /125F/X — Application server does not support function requested.
- /2202/X — Cursor not open.
- /2203/X — Not authorized to RDB (for DB2 UDB for AS/400, this indicates a DDM user exit program blocked the connect).
- /2204/X — Relational database not connected.
- /2207/X — Relational database already connected.
- /220A/X — Data descriptor not valid.
- /220E/X — Data descriptor did not match data.
- /220F/X — Cursor already open.
- /221D/X — Command not valid for conversation type.

If the protocol error does not appear in the list, refer to the DDM Architecture Reference for DDM code point &1.

Recovery Text: If the protocol error is /121C/X, then obtain the authorization required to use this command or SQL statement at the application server. If the protocol error is not /121C/X, then report the problem using Analyze Problem (ANZPRB).

SQLCODE or SQLCODEs: -30000
SQLSTATE or SQLSTATEs: 58008

SQ30001

Message Text: Call to distributed SQL program not allowed.

Cause Text: An attempt was made to use Submit Remote Command (SBMRMTCMD) to call a distributed SQL program from a Distributed Data Management (DDM) target job.
### SQ30020

<table>
<thead>
<tr>
<th>Recovery Text:</th>
<th>Call the SQL program from a job that is not a DDM target job.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SQLCODE or SQLCODEs:</strong></td>
<td>-30001</td>
</tr>
<tr>
<td><strong>SQLSTATE or SQLSTATEs:</strong></td>
<td>57042</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Distributed Relational Database Architecture (DRDA) protocol error.</th>
</tr>
</thead>
</table>
| **Cause Text:** | Command or SQL statement failed due to a distribution protocol error that will affect subsequent SQL statements or commands. The application has been disconnected and the process is in an unconnected state. The protocol error is \&1 with a location code of \&2. The location codes are:  
- /01/X — The error was detected at the application requester.  
- /02/X — The error was detected at the application server.  
A possible list of protocol errors is:  
- /113F/X — Conversation protocol error. The error code is \&3.  
- /121C/X — Not authorized to command.  
- /1232/X — Unexpected permanent error.  
- /124C/X — Distributed Data Management (DDM) data stream syntax error. The error code is \&3.  
- /1254/X — Unexpected error condition. The error code is \&3.  
- /125F/X or /1218/X — Application server does not support function requested.  
- /2202/X — Cursor not open.  
- /2204/X — Relational database not connected.  
- /2207/X — Relational database already connected.  
- /220A/X — Data descriptor not valid.  
- /220E/X — Data descriptor did not match data.  
- /220F/X — Cursor already open.  
If the protocol error does not appear in the list, refer to the DDM Architecture Reference for DDM code point \&1. |
| **Recovery Text:** | If the protocol error is /121C/X, then obtain the authorization required to use this command or SQL statement at the application server. If the protocol error is not /121C/X, then report the problem using Analyze Problem (ANZPRB). |
| **SQLCODE or SQLCODEs:** | -30020 |
| **SQLSTATE or SQLSTATEs:** | 58009 |
### SQ30021

**Message Text:** Distributed relational database not supported by the remote system.

**Cause Text:** An attempt was made to connect to a Distribute Data Management (DDM) server that does not support Distributed Database Architecture (DRDA). On OS/400, DRDA is only supported at V2R1M1 or later.

On the remote system, the DDM manager class was &1 with manager level &2.

**Recovery Text:** Change the program to connect to a relational database which supports DRDA.

**SQLCODE or SQLCODEs:** -30021

**SQLSTATE or SQLSTATEs:** 58010

### SQ30040

**Message Text:** DDM resource &2 at relational database &1 unavailable.

**Cause Text:** SQL statement or command failed due to an unavailable Distributed Data Management (DDM) resource &2 that will not affect subsequent SQL statements and commands. '/1409/X indicates storage limit was reached. DDM resource is unavailable at relational database &1 with location code &3. The location codes are:

- '/01/X — Application requester or the local system.
- '/02/X — Application server.

**Recovery Text:** Free the DDM resource and try the request again.

**SQLCODE or SQLCODEs:** -30040

**SQLSTATE or SQLSTATEs:** 57012

### SQ30041

**Message Text:** DDM resources at relational database &1 unavailable.

**Cause Text:** SQL statement or command failed due to an unavailable Distributed Data Management (DDM) resource &2 that will affect subsequent commands and SQL statements. The application has been disconnected and the process is in an unconnected state. '1409'X indicates storage limit was reached. DDM resource is unavailable at relational database &1 with location code &3. The location codes are:

- '01'X — Application requester or the local system.
- '02'X — Application server.

**Recovery Text:** Free the DDM resource and try the request again.

**SQLCODE or SQLCODEs:** -30041

**SQLSTATE or SQLSTATEs:** 57013
### SQ30050

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>DDM command &amp;1 not valid while bind process in progress.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>An attempt was made to run Distributed Data Management (DDM) command &amp;1. This command is not valid while a bind process is in progress. BNDSQLSTT, RDBCMM, ENDBND, and RDBRLLBCK are the only valid DDM commands while a bind process is in progress.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Report this problem using the Analyze Problem (ANZPRB) command.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-30050</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>58011</td>
</tr>
</tbody>
</table>

### SQ30051

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Bind process for specified package name and consistency token not active.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>Attempted to run a BNDSQLSTT or ENDBND Distributed Data Management (DDM) command for a bind process that was not active.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Report this problem using the Analyze Problem (ANZPRB) command.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-30051</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>58012</td>
</tr>
</tbody>
</table>

### SQ30052

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Program preparation assumptions not correct.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>The application requester did not understand the SQL statement and assumed all host variables were input, but this assumption was not correct.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>Refer to the CRTSQLxxx (where xxx=CBL, FTN, PKG, PLI, RPG, CI, RPGI, or CBLI) listing to find all SQL statements that were not recognized. Remove all unrecognized SQL statements that contain output host variables. Precompile the program again.</td>
</tr>
<tr>
<td>SQLCODE or SQLCODEs:</td>
<td>-30052</td>
</tr>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>42932</td>
</tr>
</tbody>
</table>

### SQ30053

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Not authorized to create package for owner &amp;1.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>Attempt to create the package failed because you are not authorized to owner &amp;1.</td>
</tr>
</tbody>
</table>

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### SQ30060

**Message Text:** User is not authorized to relational database &1.

**Cause Text:** If relational database &1 is DB2 UDB for AS/400, a user exit program denied access to the user, or a failure in the user exit program occurred.

**Recovery Text:** Obtain authorization to relational database &1 and try the request again.

**SQLCODE or SQLCODEs:** -30060

**SQLSTATE or SQLSTATEs:** 08004

### SQ30061

**Message Text:** Relational database &1 not found.

**Cause Text:** Relational database &1 was not found at the remote system.

**Recovery Text:** Do one of the following:
- Use the Add Relational Database Directory Entry (ADDRDBDIRE) command to add the relational database name of the remote system to the relational database directory of the application requester.
- Change the relational database name on the remote system to match the relational database directory entry of the application requester.

**SQLCODE or SQLCODEs:** -30061

**SQLSTATE or SQLSTATEs:** 08004

### SQ30070

**Message Text:** Distributed Data Management (DDM) command &1 not supported.

**Cause Text:** The remote system does not support the DDM command &1.

If the DDM command is /2012/X, the remote system does not support the SQL DESCRIBE TABLE statement. If the DDM command is not /2012/X, to determine which command is not supported, see the DDM Architecture Reference. To determine which commands are supported, see Appendix A of the Distributed Relational Database Guide.

**Recovery Text:** Remove the SQL statement from the program and precompile the program.
<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>-30070</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>58014</td>
</tr>
</tbody>
</table>

**SQ30071**

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Distributed Data Management (DDM) object &amp;1 not supported.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause Text:</td>
<td>DDM object &amp;1 was not supported.</td>
</tr>
<tr>
<td>Recovery Text:</td>
<td>See previous messages for more information. See the DDM Architecture Reference for additional information about code point &amp;1.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>-30071</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>58015</td>
</tr>
</tbody>
</table>

**SQ30072**

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Distributed Data Management (DDM) parameter &amp;1 not supported.</th>
</tr>
</thead>
</table>
| Cause Text:  | DDM parameter &1 is not supported. The location code is &2 with an error code of &3. The location code are:  
• /01/X — The error was detected at the application requester.  
• /02/X — The error was detected at the application server. |
| Recovery Text: | See previous messages for more information. See the DDM Architecture Reference for additional information about DDM parameter &1. |

<table>
<thead>
<tr>
<th>SQLCODE or SQLCODEs:</th>
<th>-30072</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQLSTATE or SQLSTATEs:</td>
<td>58016</td>
</tr>
</tbody>
</table>

**SQ30073**

<table>
<thead>
<tr>
<th>Message Text:</th>
<th>Distributed Data Management (DDM) parameter value &amp;1 not supported.</th>
</tr>
</thead>
</table>

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Cause Text:

DDM parameter value &1 is not supported. The location code is &2 with an error code of &3. The location code are:
• /01/X — The error was detected at the application requester.
• /02/X — The error was detected at the application server.

A possible list of DDM parameter values is:
• /0035/X — The SBCS CCSID is not supported.
• /119C/X — The SBCS CCSID is not supported.
• /2112/X — The collection name or package name is longer than the maximum supported by the application server.
• /2120/X — The string delimiter is not supported.
• /2121/X — The decimal delimiter is not supported.
• /2128/X — The collection name is longer than the maximum supported by the application server.
• /2131/X — The userid is longer than the maximum supported by the application server.

If &1 is not in the list above, refer to the DDM Architecture Reference for a description of the parameter value that was not supported.

Recovery Text:

See previous messages for more information. Change your job or SQL program to send a value that is supported by the application server and try again.

SQLCODE or SQLCODEs: -30073
SQLSTATE or SQLSTATEs: 58017

SQ30074
Message Text: Distributed Data Management (DDM) reply message &1 not supported.
Cause Text: DDM reply message &1 was not supported.
Recovery Text: See previous messages for more information. See the DDM Architecture Reference for additional information about code point &1.
SQLCODE or SQLCODEs: -30074
SQLSTATE or SQLSTATEs: 58018

SQ30080
Message Text: Communication error occurred during distributed database processing.
A communication error occurred. Possible reasons include:

- The remote system is not available.
- The communications network is not available.
- The userid used to start the connection may not exist on the remote system.
- The remote system may require the password to be encrypted.
- The password may not be valid for the userid. The characters and case of the password specified must match exactly the password on the remote system. An AS/400 Application Server requires that passwords be specified in uppercase.
- A server authorization entry for the remote system, if used, may be incorrect. Server names must be in upper case. The QRETSVRSEC system value must be set to /1/ to retain passwords.

If message CPE3425 (connection refused) precedes this message, the cause may be:

- The DDM/DRDA TCP/IP server is not started on the remote system.
- An incorrect port was specified for the remote system.
- The remote system is restricting DRDA ports.
- The SOCKS server, if used, is not configured properly.

The APPC major return code is &1 and the minor return code is &2. For TCP/IP, both return codes will be 00. If the return codes are not both 00, their meaning can be found in the APPC Programmer/s Guide.

See previous messages for more information. Check the status of the remote system and the communications network for possible problems. If the application server is an AS/400, check QSYSOPR message queue for error messages.

Authorization failure on distributed database connection attempt.
**Cause Text:**

A connection attempt failed with reason code &2. The reason codes and their meanings are as follows:

- 0 — Unknown cause.
- 1 — Password expired.
- 2 — Password not valid.
- 3 — Password missing.
- 4 — Protocol violation.
- 5 — User ID not found.
- 6 — User ID not valid. For a DB2 UDB for AS/400 server, this could mean a damaged user profile or PASSWORD(*NONE).
- 7 — User ID revoked or disabled.
- 15 — Security processing at the server failed.
- 16 — The new password is not valid.
- 17 — The security mechanism requested by the client is not supported or allowed at the server. See recovery information below.
- 22 — Security processing at the client failed.
- 23 — CCSID conversion of the password failed.

**Recovery Text:**

Correct the problem indicated by the reason code, if possible, and attempt to connect again. A common cause for reason code 17 is that the server requires a password, but because the client does not have a password to send, sends only a user ID. Or, the server requires an encrypted password and the client did not send an encrypted password. A password can be supplied by the user in two ways:

- By using the USER ... USING ... clause on the SQL CONNECT statement, or
- By using the ADDSVRAUTE CL command to add a server authorization entry for the remote server under the user/s profile.

The server name (DRDA RDB NAME) must be entered in UPPER CASE. The AS/400 DRDA server can be configured with the CHGDDMTCPA CL command to not require a password, or to not require an encrypted password.

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