

Linkway[®] BridgeMaster

-The MPE to Anywhere Integration Tool -

Linkway[®] BridgeMaster allows an HP e3000 program access to any external data source as though it were resident on the HP e3000.

Linkway[®] BridgeMaster operates by allowing the HP e3000 application to open a thread (or multi-threads) to a Remote Database Access Controller (RDAC). The RDAC manages the multiple connections to a variety of data sources. These data sources can include, but are not limited to SQL Server, Oracle, DB2, Sybase, MS-Access, etc. An ODBC Driver is required on the RDAC to reach the targeted external database.

For further details contact Sales@CSLink.com or call +44 (0) 1905 794400, today.



**Computing Solutions Limited,
10 St. Andrews Road,
Droitwich Spa,
Worcestershire,
United Kingdom WR9 8DN**

**Telephone: +44 (0) 1905 794 400
FAX: +44 (0) 1905 794 464
www.cslink.com**

Sample BridgeMaster Application Program

```
001000 IDENTIFICATION DIVISION.
001100 PROGRAM-ID. BRDGMST.
001200 AUTHOR. CSL.
001300 REMARKS.
001400 ENVIRONMENT DIVISION.
001500 CONFIGURATION SECTION.
001600 SOURCE-COMPUTER. HP-3000.
001700 OBJECT-COMPUTER. HP-3000.
001800 INPUT-OUTPUT SECTION.
001900 FILE-CONTROL.
002000     SELECT INFILE     ASSIGN  "BRDGFILE".
002100 DATA DIVISION.
002200 FILE SECTION.
002300 FD  INFILE.
002400 01  IN-REC                               PIC X(80).
002500 WORKING-STORAGE SECTION.
002600 01  W10-DSN                               PIC X(80).
002700 01  W10-IP-ADDRESS                       PIC X(80).
002800 01  W10-PORT-NUMBER                     PIC X(9).
002900 01  W10-PORT-NUMBER-9                   REDEFINES
003000     W10-PORT-NUMBER                     PIC 9(9).
003100
003200 01  W10-PORTNO                           PIC S9(9) COMP.
003300
003400 01  W10-CONNECTION                       PIC S9(9) COMP.
003500 01  W10-COLUMN                           PIC S9(9) COMP.
003600 01  W10-ERRORTEXT                       PIC X(400).
003700 01  W10-SQL-COMMAND                     PIC X(400).
003800 01  W10-COL-DATA                        PIC X(80).
003900 01  W10-STATUS                          PIC S9(9) COMP.
004000     88  COMMAND-SUCCEEDED                VALUE 1.
004100     88  NO-DATA-RETURNED                 VALUE 2.
004200
004300 01  W50-SQL-STATEMENT                   PIC X(400).
004400
004500 01  W50-SQL-1.
004600     03  W50-SQL1                         PIC X(400).
004700     03  W50-FILLER1                     PIC X(5).
004800
004900 01  W50-SQL-2.
005000     03  W50-SQL2                         PIC X(400).
005100     03  W50-FILLER2                     PIC X(5).
005200
005300 01  W50-ACCOUNT                          PIC X(8).
005400 01  W50-CUSTOMER-NAME                   PIC X(40).
005500 01  W50-VALUE                           PIC X(16).
005600
005700 PROCEDURE DIVISION.
005800 BRDGMST-BA SECTION.
005900 A0BA.
006000*****
006100*                                           *
006200*     Search for order total             *
006300*     for an account.                   *
006400*                                           *
006500*****
```

```

006600 A1BA.
006700     OPEN INPUT INFILE.
006800
006900     READ INFILE AT END DISPLAY "NO DSN".
007000     MOVE IN-REC  TO  W10-DSN.
007100
007200     READ INFILE AT END DISPLAY "NO IP ADDRESS".
007300     MOVE IN-REC  TO  W10-IP-ADDRESS.
007400
007500     READ INFILE AT END DISPLAY "NO PORT NUMBER".
007600     MOVE IN-REC  TO  W10-PORT-NUMBER.
007700
007800     MOVE W10-PORT-NUMBER-9  TO  W10-PORTNO.
007900
008000     CLOSE INFILE.
008100
008200 B1BA.
008300***** Open connection *****
008400
008500     PERFORM BRDGMST-XA.
008600
008700     IF W10-CONNECTION = 0
008800         DISPLAY "CONNECTION FAILED"
008900         GO TO Z9BA.
009000
009100 C1BA.
009200***** Prompt for Account code *****
009300
009400     MOVE SPACES  TO  W50-ACCOUNT.
009500
009600     DISPLAY "Enter Account Code"
009700     " >_____< &a-9c+0Y"
009800         NO ADVANCING.
009900
010000     ACCEPT W50-ACCOUNT.
010100
010200     IF W50-ACCOUNT = SPACES
010300         GO TO X1BA.
010400
010500 D1BA.
010600***** Build SQL statement *****
010700
010800     INITIALIZE W50-SQL-1 W50-SQL-2.
010900
011000     MOVE "SELECT Cu.CompanyName, Sum(Od.UnitPrice *
Od.Quantity)
011100-     "AS OrdVal FROM (Customers Cu INNER JOIN
Orders Ord ON C
011200-     "u.CustomerID = Ord.CustomerID) INNER JOIN
[Order Detai"
011300         TO  W50-SQL1.
011400
011500     MOVE "ls] Od ON Ord.OrderID = Od.OrderID GROUP BY
Cu.CompanyN
011600-     "ame, Cu.CustomerID HAVING Cu.CustomerID = '"
011700         TO  W50-SQL2.
011800
011900     PERFORM BRDGMST-XF.
012000

```

```

012100      INITIALIZE W50-SQL-1 W50-SQL-2.
012200
012300      MOVE W50-SQL-STATEMENT TO W50-SQL1.
012400      MOVE W50-ACCOUNT      TO W50-SQL2.
012500
012600      PERFORM BRDGMST-XF.
012700
012800      INITIALIZE W50-SQL-1 W50-SQL-2.
012900
013000      MOVE W50-SQL-STATEMENT TO W50-SQL1.
013100      MOVE " "; "          TO W50-SQL2.
013200
013300      PERFORM BRDGMST-XF.
013400
013500 E1BA.
013600***** Execute the SQL statement *****
013700
013800      MOVE W50-SQL-STATEMENT TO W10-SQL-COMMAND.
013900
014000      PERFORM BRDGMST-XB.
014100
014200      IF NOT COMMAND-SUCCEEDED
014300          DISPLAY "Execute COMMAND FAILED"
014400          GO TO C1BA.
014500
014600 F1BA.
014700***** Fetch Data *****
014800
014900      PERFORM BRDGMST-XC.
015000
015100      IF NO-DATA-RETURNED
015200*          No data found
015300          GO TO C1BA.
015400
015500      IF NOT COMMAND-SUCCEEDED
015600          DISPLAY "Fetch returns ERROR"
015700          GO TO C1BA.
015800
015900 G1BA.
016000***** Get Name (column 1) *****
016100
016200      MOVE 1 TO W10-COLUMN.
016300
016400      PERFORM BRDGMST-XD.
016500
016600      IF NOT COMMAND-SUCCEEDED
016700          DISPLAY "GetCol FAILED"
016800          GO TO C1BA.
016900
017000      MOVE W10-COL-DATA TO W50-CUSTOMER-NAME.
017100
017200 H1BA.
017300***** Get value (column 2) *****
017400
017500      MOVE 2 TO W10-COLUMN.
017600
017700      PERFORM BRDGMST-XD.
017800
017900      IF NOT COMMAND-SUCCEEDED

```

```

018000      DISPLAY "GetCol FAILED"
018100      GO TO C1BA.
018200
018300      MOVE W10-COL-DATA TO W50-VALUE.
018400
018500 I1BA.
018600      DISPLAY " ".
018700      DISPLAY
018800      "Customer Name
Value".
018900      DISPLAY
019000      "-----
-----
019100-     "----".
019200      DISPLAY W50-ACCOUNT " " W50-CUSTOMER-NAME " "
W50-VALUE.
019300      DISPLAY " "
019400
019500      GO TO F1BA.
019600
019700 X1BA.
019800      PERFORM BRDGMST-XE.
019900
020000     IF NOT COMMAND-SUCCEEDED
020100         DISPLAY "Close FAILED".
020200
020300 Z9BA.
020400      STOP RUN.
020500*
020600*
020700 BRDGMST-XA SECTION.
020800 A0XA.
020900*****
021000*                                     *
021100*      Open Connection                                     *
021200*                                     *
021300*****
021400 A1XA.
021500     CALL "LWAYOPEN" USING W10-IP-ADDRESS,
021600                                     \80\,
021700                                     W10-DSN,
021800                                     \80\,
021900                                     \W10-PORTNO\,
022000                                     W10-ERRORTXT,
022100                                     \400\
022200                                     GIVING W10-CONNECTION.
022300
022400 Z9XA.
022500     EXIT.
022600*
022700*
022800 BRDGMST-XB SECTION.
022900 A0XB.
023000*****
023100*                                     *
023200*      Execute SQL statement                                     *
023300*                                     *
023400*****
023500 A1XB.

```

```

023600 CALL "LWAYEXECUTE" USING \W10-CONNECTION\,
023700 W10-SQL-COMMAND,
023800 \400\
023900 W10-ERRORTTEXT,
024000 \400\
024100 GIVING W10-STATUS.
024200
024300 Z9XB.
024400 EXIT.
024500*
024600*
024700 BRDGMST-XC SECTION.
024800 A0XC.
024900*****
025000* *
025100* Fetch data *
025200* *
025300*****
025400 A1XC.
025500 CALL "LWAYFETCH" USING \W10-CONNECTION\,
025600 W10-ERRORTTEXT,
025700 \400\
025800 GIVING W10-STATUS.
025900
026000 Z9XC.
026100 EXIT.
026200*
026300*
026400 BRDGMST-XD SECTION.
026500 A0XD.
026600*****
026700* *
026800* Get columns *
026900* *
027000*****
027100 A1XD.
027200 CALL "LWAYGETCOL" USING \W10-CONNECTION\,
027300 \W10-COLUMN\,
027400 W10-COL-DATA,
027500 \70\,
027600 W10-ERRORTTEXT,
027700 \400\
027800 GIVING W10-STATUS.
027900
028000 Z9XD.
028100 EXIT.
028200*
028300*
028400 BRDGMST-XE SECTION.
028500 A0XE.
028600*****
028700* *
028800* Close Connection *
028900* *
029000*****
029100 A1XE.
029200 CALL "LWAYCLOSE" USING \W10-CONNECTION\,
029300 W10-ERRORTTEXT,
029400 \400\

```

```
029500                                GIVING W10-STATUS.
029600
029700 Z9XE.
029800     EXIT.
029900*
030000*
030100 BRDGMST-XF SECTION.
030200 A0XF.
030300*****
030400*
030500*     Create SQL statement      *
030600*
030700*****
030800 A1XF.
030900     MOVE SPACES TO W50-SQL-STATEMENT.
031000
031100     STRING W50-SQL-1, W50-SQL-2 DELIMITED BY "      "
031200     INTO W50-SQL-STATEMENT.
031300
031400 Z9XF.
031500     EXIT.
```

Linkway® BridgeMaster – The MPE to Anywhere Integration Tool – allows an HP e3000 program access to any external data source as though it were resident on the HP e3000. Users of e3000 based integrated applications have secure and controlled access to the external databases in multi-user mode. The remote data sources can execute their own procedures, allowing the e3000 to become controller of the distributed applications.

Linkway® BridgeMaster operates by allowing the HP e3000 application to open a thread (or multi-threads) to a Remote Database Access Controller (RDAC). The RDAC manages the multiple connections to a variety of data sources. These data sources can include, but are not limited to SQL Server, Oracle, DB2, Sybase, MS-Access, etc. An ODBC Driver is required on the RDAC to reach the targeted external database. Instructions will be issued by the HP e3000 program for the RDAC to execute against the target database.

Who should use Linkway® BridgeMaster

Users who need seamless integration with remote data from an HP e3000 application e. g.

- Transfer of contact details from Windows Contact Management systems to HP e3000 as prospects become customers.

- Integration to MS-SQL Server financial systems looking up data such as Nominal codes.

- HP e3000 back office systems (production, assembly, picking, despatch) collecting new activity requests.

- Checking data on large PC databases e. g. ZIP/POST codes.

- Creating a consolidated corporate data-warehouse on the HP e3000.

- Executing PC based reports that are dependent upon HP e3000 based data, in a controlled sequence e. g. creating month-end accounting reports, once the HP e3000 has completed certain procedures, and before the HP e3000 moves into the next period.

Strengths of Linkway® BridgeMaster:

- Live HP e3000 access to heterogeneous Database Environments.

- Builds on existing HP e3000 skills.

- Fully Multi-Threaded.

- Fast.

- Robust & Resilient.

- Scaleable.

- Puts the HP e3000 at the centre of the IT infrastructure.

What Linkway® BridgeMaster includes:

- MPE based sub-routines. Windows based Integration software (for Remote Database Access Controller). Web and Telephone based product support.