



tcACCESS 8.0 Release note

Last review: 2008-04-28

This document provides an overview of the most important new functions that are available with tcACCESS Version 8.0.

Introduction

Ease of use and ultimate flexibility has been the overall goal for Version 8. The start with the new version as well as the migration to the new version should be as simple as possible. The inclusion of UNICODE codetables are a direct result of customer requirements and recommendations.

UNICODE Support

The tcACCESS Global Language Pack

The *tcACCESS Global Language Pack* enables the tcACCESS SQL-Engine to use multi byte and double byte code tables. Nearly all available characters can be used as part of the SQL statements and as part of the returned data.

Data stored in a data source that is being processed by tcACCESS can now be queried and maintained based upon their required code table. Every field of a table can be assigned to a unique CCSID. The data of the field are interpreted based upon this CCSID.

As of current the code tables listed in appendix A are supported.

The supplied code tables can be used as a base for user defined tables. An editor is provided to create and maintain the user defined code tables.

The changes also affect DB2 and external Workstation-data sources (Open System Transparency).

UTF-8 coding of output files

tcACCESS Version 8.0 generally uses the UTF-8 character set to create output files of format "XML, structured textfiles and preview" for transfer type "Host SQL-Query".

ODBC driver as UNICODE driver

With Version 8 two ODBC driver will be distributed: an ANSI driver for compatibility reasons and a UNICODE driver. When the *tcACCESS Global Language Pack* is used it is strongly recommended to use the UNICODE driver.

Open Systems Transparency Server component

The new tcACCESS component supports the access to databases that become more and more important in the area of PCs and UNIX workstations.

The component consists of a new server that has been designed to work closely with the tcACCESS SQL-Engine like any other of the tcACCESS data servers. The OST server represents a reliable, stable and fine performing partner to the SQL-Engine in an Open System environment.

The server enables the tcACCESS SQL-Engine as well as other host programs to directly access ODBC data sources, DB2/UDB databases and Oracle¹.

SQL access statistics and Profiler

In today's IT environment it is becoming more and more important to execute SQL statements in the fastest and most efficient way. At the same time the impact on the

1 As of version 9i

mainframe must be minimized. To accomplish this, it is mandatory to have detailed information about the applications used and their data accesses. Only if this information is available and understood existing applications can be optimized.

tcACCESS Version 8 contains a powerful tool that helps in the analysis process of SQL statements. The tool contains enhanced functions that assist in the analysis of the executed queries and helps to improve the performance of the applications.

Using the access statistics and the information provided applications and queries can be identified over a period of time that have potential for improvements. The access type is one criteria but not the only one, also the frequency of the queries is an important factor that must be considered for the overall performance improvement. The current version of tcACCESS provides easy to understand graphics as well as detailed information about every part of the access and about the access efficiency.

Stored Procedure GUI

There is a new implementation of the mechanism to call existing programs without the need to have an adapter program to maintain the Commarea formats. A comfortable importing tool and an editor has been provided to import the Commarea structure. Default values can be defined, multiple calls and multiple result sets are supported. These result sets must not necessarily depend upon the Commarea. Also virtual tables are supported.

General

SQL-Syntax display in the front end

Moving the mouse cursor over an SQL statement displays the syntax of the clause or the statement in form of a tool tip. This feature can be used to determine what clauses and statements are supported by the SQL-Engine and what their syntax is.

tcACCESS JDBC Component

The tcACCESS JDBC component can now run under the current Java Runtime Environment Version 6. This allows the usage of the new database access methods of standard JDBC 4.0 for user written applications and the most current J2EE Application Servers.

Remarks

In order to use all of the functions of the new tcACCESS mainframe component you must use the client component of tcACCESS Version 8.0. However, it is still possible to use an older mainframe component with the Version 8.0 clients or an older client with the Version 8.0 mainframe components.

Appendix A

<i>CCSID</i>	<i>Description</i>
37	CECP: USA, Canada (ESA*), Netherlands, Portugal, Brazil, Australia, New Zealand
256	WP Netherlands
259	Symbols Set 7

<i>CCSID</i>	<i>Description</i>
273	CECP: Austria, Germany
274	Old Belgium CECP
275	Brazil, old CECP
277	CECP: Denmark, Norway
278	CECP: Finland, Sweden
280	CECP: Italy
282	Previous CECP Portugal Superseded by 037
284	CECP: Spain, Latin America (Spanish)
285	CECP: United Kingdom
286	Alternate (3270) Austria and Germany
290	Japanese Katakana Host Extended SBCS, default string type 0.
293	APL (USA)
297	CECP: France
300	Japanese Latin Host Double-Byte including 4370 UDC
301	Japanese PC Data Double-Byte including 1880 UDC
367	ANSI X3.4 ASCII Standard USA
420	Arabic (all presentation shapes) (String type 4)
423	Greek
424	Hebrew (Old IDs: CS 941/2, CP 424/2) (String type 4)
425	Arabic/Latin EBCDIC, string type 5
437	PC Data PC Base USA, many other Countries and Regions
500	CECP: Belgium, Canada (AS/400*), Switzerland, International Latin-1
720	MS-DOS Arabic
737	MS-DOS Greek PC-Data
775	MS-DOS Baltic PC-Data
803	Hebrew Set A (old code) (string type 4)
806	PC ISCII-91: Indian (Devanagari) Script Code, maximal set including box drawing characters
808	PC Data, Cyrillic, Russian with euro
813	ISO 8859-7: Greek/Latin
819	ISO 8859-1: Latin Alphabet Number 1Latin-1 countries and regions
833	Korean Host Extended SBCS
834	Korean Host Double-Byte including 1880 UDC
835	T-Ch Host Double-Byte including 6204 UDC
836	S-Ch Host Extended SBCS
837	S-Ch Host Double-Byte including 1880 UDC
838	Thai Host Extended SBCS
848	Cyrillic Ukraine PC-Data with euro
849	Cyrillic Belarus PC-Data with euro
850	PC Data: MLP 222 Latin Alphabet Number 1Latin-1 Countries and Regions
851	PC Data: Greek
852	PC Data: Latin-2 Multilingual
855	PC Data: Cyrillic
856	PC Data: Hebrew (string type 5)
857	PC Data: Turkey Latin 5
858	PC Data: MLP 222 Latin Alphabet Number 1 w/euro Latin-1 Countries and Regions

<i>CCSID</i>	<i>Description</i>
859	PC Data: PC Latin 9 (new code page including euro)
860	PC Data: Portugal
861	PC Data: Iceland
862	PC Data: Hebrew (Migration) (string type 4)
863	PC Data: Canada
864	PC Data: Arabic (string type 5)
865	PC Data: Denmark, Norway
866	PC Data, Cyrillic, Russian
867	PC Data: Hebrew, a modification of code page 862 (string type 4)
869	PC Data: Greek
870	Latin 2 EBCDIC Multilingual
871	CECP: Iceland
872	PC Data: Cyrillic with euro
874	Thai PC Data Extended SBCS
875	Greek
878	Russian Internet koi8-r
880	Cyrillic Multilingual
891	Korean PC Data Single-Byte
895	Japan 7-bit Latin
896	Japan 7-bit Katakana, excl 5 SAA chars
897	Japanses PC Data Single-byte. Note: CP 897 is a subset of CP 1041
901	Baltic, 8-bit with euro
902	Estonia, 8-bit with euro
903	S-Ch PC Data Single-Byte
904	T-Ch PC Data Single-Byte
905	Turkey Latin 3 Multilingual (replaced by Latin 5)
912	Latin 2 ISO 8859-2
913	ISO Latin 3 8859-3
914	Latin 4 ISO 8859-4
915	Cyrillic, 8-Bit, ISO 8859-5
916	ISO 8859-8: Hebrew (string type 5)
918	Urdu
920	ISO 8859-9 Latin 5 (ECMA-128, Turkey TS-5881)
921	Baltic, 8-bit (ISO 8859-13)
922	Estonia, 8-bit
923	ISO 8859-15:Latin Alphabet Number 9 with euro (total of 8 chars replaced from 819)
924	Latin 9 EBCDIC
926	Korean PC Data Double-Byte including 1880 UDC
927	T-Ch PC Data Double-Byte including 6204 UDC
928	S-Ch PC Data Double-Byte including 1880 UDC
930	Japanese Katakana-Kanji Host Mixed including 4370 UDC, Extended SBCS
931	Japanese Latin-Kanji Host Mixed including 4370 UDC (no SBCS Katakana)
932	Japanese PC Data Mixed including 1880 UDC
933	Korean Host Mixed including 1880 UDC, Extended SBCS
935	S-Ch Host Mixed including 1880 UDC, Extended SBCS

<i>CCSID</i>	<i>Description</i>
937	T-Ch Host Mixed including 6204 UDC, Extended SBCS
939	Japanese Latin-Kanji Host Mixed including 4370 UDC, Extended SBCS
941	Japanese DBCS PC for Open environment (Multi-vendor code): 6878 JIS X 0208-1990 chars, 386 IBM sel chars, 1880 IBM UDC (X'F040' to X'F9FC'), other growing chars
942	Japanese PC Data Mixed including 1880 UDC, Extended SBCS
943	Japanese PC Data Mixed for Open environment (Multi-vendor code): 6878 JIS X 0208-1990 chars, 386 IBM selected DBCS chars, 1880 UDC (X'F040' to X'F9FC')
944	Korean PC Data Mixed including 1880 UDC, Extended SBCS
946	S-Ch PC Data Mixed including 1880 UDC, Extended SBCS
947	T-Ch DBCS-PC (IBM BIG-5) including 13493 CNS, 566 IBM selected and 6204 UDC.
948	T-Ch PC Data Mixed including 6204 UDC.
949	IBM KS Code PC Data Mixed including 1880 UDC
950	T-Ch PC Data mixed for IBM BIG-5
951	IBM KS Code PC Data Double-Byte including 1880 UDC
952	Japanese EUC, G1JIS X208-1990 incl 940 UDC
953	Japanese EUC, G3 JIS X 0212-1990 incl 106 IBM sel chars, 940 UDC
954	Japanese EUC G0 JIS X201 Roman set (00895) G1 JIS X208-1990 set (00952) G2 JIS X201 Katakana set (04992) G3 JIS X212 set (00953)
955	Japanese TCP, JIS X208-1978
960	T-Ch EUC, G1CNS 11643 plane 1 primary
963	T-Ch TCP, CNS 11643 plane 2 only
964	T-Chinese EUC G0 ASCII G1 CNS 11643 plane 1 (00960) G2 CNS 11643 plane 2 (00961)
970	Korean EUC G0 ASCII G1 KS C5601-1989 (incl 188 UDC)
971	Korean EUC, G1KS C5601-1989 (incl 188 UDC)
1004	PC-data Latin-1 extended desktop publishing/Windows
1006	Urdu, 8-bit
1008	Arabic 8-bit ISO/ASCII
1009	ISO-7: IRV(prior 1992)
1010	ISO-7: France
1011	ISO-7: Germany
1012	ISO-7: Italy
1013	ISO-7: United Kingdom
1014	ISO-7: Spain
1015	ISO-7: Portugal
1016	ISO-7: Norway
1017	ISO-7: Denmark
1018	ISO-7: Finland and Sweden
1019	ISO-7: Belgium and Netherlands
1020	ISO-7: Canadian (French) Variant
1021	ISO-7: Switzerland Variant
1023	ISO-7: Spain Variant
1025	Cyrillic Multilingual
1026	Turkey Latin 5
1027	Japanese Latin Host Extended SBCS
1040	Korean PC Data Extended SBCS
1041	Japanese PC Data Extended SBCS

<i>CCSID</i>	<i>Description</i>
1042	S-Ch PC Data Extended SBCS
1043	T-Ch PC Data Extended SBCS
1046	Arabic primarily used on AIX and Linux platforms (string type 5)
1047	Latin-1 / Open Systems
1051	HP Emulation(for use with Latin 1). GCGID SF150000 is mapped to a control X'7F'
1089	ISO 8859-6: Arabic (string type 5)
1097	Farsi
1098	Farsi Personal Computer
1100	Multination Emulation
1101	ISO-7: British NRC Set
1102	ISO-7: Dutch NRC Set
1103	ISO-7: Finnish NRC Set
1104	ISO-7: French NRC Set
1105	ISO-7: Norwegian/Danish NRC Set
1106	ISO-7: Swedish NRC Set
1107	ISO-7: Norwegian/Danish NRC Alternate
1112	Baltic, Multilingual
1114	T-Ch PC Data Single-Byte (IBM BIG-5) and S-Ch PC Data Single-Byte (GBK)
1115	S-Ch PC Data Single-Byte (IBM GB) incl. 5 SAA SB characters
1122	Estonia
1123	Cyrillic Ukraine EBCDIC
1124	Cyrillic Ukraine 8-Bit
1125	Cyrillic Ukraine PC-Data
1126	Windows Korean PC Data Single-Byte
1129	ISO-8 Vietnamese
1130	EBCDIC Vietnamese
1131	Cyrillic Belarus PC-Data
1132	EBCDIC Lao
1133	ISO-8 Lao
1137	Devanagari EBCDIC (based on Unicode character set)
1140	ECECP: USA, Canada, Netherlands, Portugal, Brazil, Australia, New Zealand
1141	ECECP: Austria, Germany
1142	ECECP: Denmark, Norway
1143	ECECP: Finland, Sweden
1144	ECECP: Italy
1145	ECECP: Spain, Latin America (Spanish)
1146	ECECP: United Kingdom
1147	ECECP: France
1148	ECECP: International 1
1149	ECECP: Iceland
1153	Latin-2
1154	Cyrillic Multilingual with euro
1155	Turkey Latin 5 with euro
1156	Baltic, Multilingual with euro
1157	Estonia EBCDIC with euro

<i>CCSID</i>	<i>Description</i>
1158	Cyrillic Ukraine EBCDIC with euro
1159	T-Ch Host Extended SBCS including euro
1160	Thai host with euro
1161	Thai PC with euro
1162	Thai MS Windows with euro
1163	ISO-8 Vietnamese with euro
1164	EBCDIC Vietnamese with euro
1165	Latin-2 / Open Systems
1166	Cyrillic Multilingual with euro for Kazakhstan
1167	Belarusian/Ukrainian KOI8-RU
1168	Ukrainian KOI8-U
1200	UTF-16 (UCS2) little endian
1201	UTF-16 (UCS2) big endian
1208	UTF-8
1250	MS Windows Latin-2
1251	MS Windows, Cyrillic
1252	MS Windows, Latin-1
1253	MS Windows, Greek
1254	MS Windows, Turkey
1255	MS Windows, Hebrew (string type 5)
1256	MS Windows, Arabic (string type 5)
1257	MS Windows, Baltic Rim
1258	MS Windows, Vietnamese
1275	Apple Latin-1
1276	Adobe (PostScript) Standard Encoding
1277	Adobe (PostScript) Latin-1
1280	Apple Greek
1281	Apple Turkey
1282	Apple Central European (Latin-2)
1283	Apple Cyrillic
1284	Apple Croatian
1285	Apple Romanian
1350	Japanese EUC (JISeucJP) G0 ASCII G1 JIS X208-1990 set (05048) G2 JIS X201 Katakana set (00896) G3 JIS X212 set (05049)
1351	Japanese DBCS PC for Open environment (HP code): related to CCSID 941, 6878 JIS X 0208-1990 chars & 940 HP UDC (X'EB40' to X'EFFC')
1362	Windows Korean PC DBCS-PC, including 11,172 full hangul
1363	Windows Korean PC Mixed, including 11,172 full hangul
1364	Korean host mixed extended including 11,172 full hangul
1370	T-Ch PC Data mixed for IBM BIG-5 including SBCS & DBCS euro
1371	T-Ch Host Mixed including 6204 UDC, Extended SBCS including SBCS and DBCS euro
1374	Big-5 extension of HKSCS, DBCS portion
1375	Mixed Big-5 extension for HKSCS.
1380	S-Ch DBCS PC (IBM GB) incl. 1880 UDC and 31 IBM selected
1381	S-Ch PC Data mixed (IBM GB) incl. 1880 UDC, 31 IBM sel. and 5 SAA SB chars
1382	S-Ch DBCS PC GB 2312-80 set, including 31 IBM selected and 1360 UDC.

<i>CCSID</i>	<i>Description</i>
1383	S-Ch EUC G0 set, ASCII G1 set, GB 2312-80 set (1382)
1385	S-Ch DBCS-PC GBK, all GBK character set and other growing chars
1386	S-Ch PC Data GBK mixed, all GBK character set and other growing chars
1388	S-Ch DBCS- GB 18030 Host with UDCs and Uygur extension.
1390	Extended Japanese Katakana-Kanji Host Mixed for JIS X0213 including 6205 UDC, Extended SBCS (includes SBCS & DBCS euro)
1399	Extended Japanese Latin-Kanji Host Mixed for JIS X0213 including 6205 UDC, Extended SBCS (includes SBCS & DBCS euro)
4517	Maghreb/French
4899	Hebrew Set A (old code) maximal set including euro and new sheqel (string type 4)
4904	PC Data, Cyrillic, Russian with euro, with MS controls
4909	ISO-8: Greek/Latin with euro
4930	Korean DBCS-Host extended including 11,172 full hangul
4933	S-Ch DBCS Host (GBK), all GBK character set and other growing chars
4944	Cyrillic Ukraine PC-Data with euro, with MS controls
4945	Cyrillic Belarus PC-Data with euro, with MS controls
4948	Latin 2 Personal Computer
4951	Cyrillic Personal Computer
4952	PC Data: Hebrew (string type 5)
4954	PC Data: MLP 222 Latin Alphabet Number 1 w/euro Latin-1 Countries and regions
4955	PC Data: PC Latin 9, with MS controls
4956	PC Data: Portugal, with MS controls
4957	PC Data: Iceland, with MS controls
4958	PC Data: Hebrew (Migration) (string type 4), with MS controls
4959	PC Data: Canada, with MS controls
4960	PC Data: Arabic (all shapes)
4961	PC Data: Denmark, Norway, with MS controls
4962	PC Data, Cyrillic, Russian, with MS controls
4963	PC Data: Hebrew, a modification of code page 862 (string type 4), with MS controls
4971	Greek (including euro)
5012	ISO 8859-8 (1999): Hebrew (string type 5)
5026	Japanese Katakana-Kanji Host Mixed including 1880 UDC, Extended SBCS
5035	Japanese Latin-Kanji Host Mixed including 1880 UDC, Extended SBCS
5039	Japanese PC Data Mixed for Open environment (HP code): related to CCSID 943, 6878 JIS X 0208-1990 chars, 940 HP UDC (X'EB40' to X'EFFC') and 5 optional extended SBCS chars for host interoperability.
5048	Japanese EUC, G1 JIS X208-1990 excl 940 UDC
5049	Japanese EUC, G3 JIS X 0212-1990 excl 106 IBM sel chars, 940 UDC
5050	Japanese EUC G0 JIS X201 Roman set (00895) G1JIS X208-1990 set (00952) G2 JIS X201 Katakana set (00896) G3 JIS X212 set (09145)
5067	Korean EUC, G1 KS C5601-1989 (excl 188 UDC)
5104	Arabic 8-bit ISO/ASCII with euro
5123	Japanese Latin Host Extended SBCS (includes euro)
5142	Arabic (base shapes only) primarily used on AIX and Linux platforms
5210	S-Ch PC Data Single-Byte (GBK), growing CS
5346	MS Windows Latin-2, version 2 (euro)
5347	MS Windows, Cyrillic version 2 (euro)

<i>CCSID</i>	<i>Description</i>
5348	MS Windows, Latin-1, Version 2 (including euro)
5349	MS Windows, Greek version 2 (euro)
5350	MS Windows, Turkey version 2 (euro)
5351	MS Windows, Hebrew version 2 (euro) (string type 5)
5352	MS Windows, Arabic version 2 (euro) (string type 5)
5353	MS Windows, Baltic Rim version 2 (euro)
5354	MS Windows, Vietnamese version 2 (euro)
5478	S-Ch DBCS PC GB 2312-80 set, excluding 31 IBM selected and 1360 UDC. Also used in T-Ch 2022-CN TCP.
5486	Japanese Katakana-Kanji Host Mixed including 6205 UDC, extended SBCS
5487	Simplified Chinese 4 byte PC Data for GB18030
5488	Simplified Chinese PC Data mixed (phase1, fixed) for GB18030
5495	Japanese Katakana-Kanji Host Mixed including 6205 UDC, extended SBCS
8482	Japanese Katakana (includes euro), growing CS
8612	Arabic (base shapes only) (string type 5)
9005	Greek ISO 8859-7:2003
9027	T-Ch Host Double-Byte including 6204 UDC including euro
9030	Thai Host Extended SBCS
9042	PC Data: MLP 222 Latin Alphabet Number 1 Latin-1 Countries and Regions with MS Controls
9044	Latin-2
9048	PC Data: Hebrew, including euro and new sheqel (string type 5)
9049	PC Data: Turkey Latin 5 with euro
9056	PC Data: Arabic PC Storage/Interchange
9061	PC Data: Greek with euro
9064	PC Data: Cyrillic with euro, with MS controls
9066	Thai PC Data Extended SBCS
9067	Greek EBCDIC with Drachma Sign and Greek Ypogegrammeni
9145	Japanese EUC, G3 JIS X 0212-1990 subset 280 incl 106 IBM sel chars, 940 UDC
9238	Arabic primarily used on AIX and Linux platforms (string type 5) with euro
9306	S-Ch PC Data Single-Byte (GBK), growing CS, with MS controls
9444	S-Ch single-byte portion of GB 18030
9447	MS Windows, Hebrew (Win 1255- 12/2001) String type 5
9448	MS Windows, Arabic with euro and 8 additional characters (2001) (string type 5)
9449	MS Windows, Baltic Rim with euro and 7 additional characters
9577	S-Ch DBCS-PC GBK, all GBK character set including 1894 UDCs and the euro
9580	S-Ch Host mixed for GBK, all GBK including 1894 UDCs
12712	Hebrew (max set including euro and new sheqel) (string type 10)
13121	Korean Host Extended SBCS
13124	S-Ch Host Data Single-Byte (GBK) equivalent to S-Ch Host Data Single-Byte (GB) except growing CS
13125	S-Ch Host Double-byte for GBK, including 1894 UDCs
13140	Latin-2 Personal Computer with euro, with MS controls
13143	PC Data: Cyrillic, with MS controls
13145	PC Data: Turkey Latin 5 with euro, with MS controls
13156	PC Data: Urdu, with MS controls
13157	PC Data: Greek with euro, with MS controls

<i>CCSID</i>	<i>Description</i>
13162	Thai PC Data Extended SBCS, with MS controls
13218	Japanese Katakana-Kanji Host Mixed including 1880 UDC (no SBCS a-z)
13676	S-Ch Host mixed for GBK, all GBK including 1894 UDCs, not including Uygur extension
16684	Extended Japanese Latin Host Double-Byte for JIS X0213 including 6295 UDC (includes euro)
16804	Arabic (all presentation shapes) (String type 4) with euro
17221	S-Ch Host Double-byte for GBK, including 1894 UDCs, previously growing 1388
17240	PC Data: Hebrew (string type 5), with MS controls
17248	PC Data: Arabic (string type 5) with euro
20780	Japanese latin Host Double-byte including 6205 UDCs
21344	PC Data: Arabic (string type 5) with euro, with MS controls
21427	T-Ch DBCS-PC (IBM BIG-5) including 13493 CNS, 566 IBM selected, 6204 UDC & euro.
25546	Korean 2022-KR TCP ASCII KS C5601-1989 (incl 188 UDC) (RFC1557 using SO/SI)
28709	T-Ch Host Extended SBCS
33058	Japanese Katakana Host Single-Byte (Katakana PC common set)
33722	Japanese EUC (IBMeucJP) G0 JIS X201 Roman set (00895) G1 JIS X208-1990 set (00952) G2 JIS X201 Katakana set (04992) G3 JIS X212 set (09145)
53685	PC Data PC Base USA, many other Countries and Regions, with MS controls