



DSP® RFC & ODBC Security Requirements

Table of Contents

DSP® RFC & ODBC Security Requirements..... 1

Overview..... 1

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SAP RFC Requirements.....	1
SAP ODBC Requirements.....	1
Collect DBMS Connection Requirements.....	1
ODBCDB2AS400.....	2
ODBCHANA.....	4
ODBCIMS	4
ODBCINFORMIX	4
ODBCMAXDB	5
ODBCMYSQL	5
ODBCPROGRESS	5
ODBCSYBASE.....	6
ODBCTERADATA, OLETERADATA	6
ORACLE, OLEORACLE, ODBCORACLE.....	6
ORACLE8, OLEORACLE8, ODBCORACLE8.....	7
SQLSERVER, ODBCSQLSERVER.....	7
Collect DBMS Data Type Conversions	8
Collect SAP DBMS Downloads.....	8
SAP Tables Commonly used by DSP	8



Overview

This manual outlines the Remote Function Call (RFC) and Open Database Connectivity (ODBC) security requirements for Syniti Solutions.

SAP RFC Requirements

A non-dialog user with a non-expiring password is required for the RFC login. If a more granular security model is desired, create the user so that it only provides access to the required tables per the project scope.

In addition, the following are the minimum RFC Authorization Object requirements for successful operation and data retrieval from SAP in a production SAP client:

- S_RFC (authorization to execute RFC) – This can be filtered to specific RFC's if desired.
- S_TABU_DIS (display of tables)
- For non-production clients, the S_TABU_CLI authorization object may also be needed.

The following are values for the RFC_NAME field within the S_RFC authorization group:

- RFC_READ_TABLE
- RFC_FUNCTION_SEARCH
- RFC_GET_FUNCTION_INTERFACE
- RFC_METADATA_GET
- SDIFRUNTIME
- SDTX
- SYST

SAP ODBC Requirements

The ODBC database login must meet the following requirements:

1. Non-user ID
2. Non-expiring password
3. Read-only login
4. Optional: Give read access to only the list of tables in scope (system tables listed in this document are not optional)

In addition, a port may need to be opened to allow access. Port 1433 is the default port used by SQL Server, but it can be changed to whatever the client wants.

Collect DBMS Connection Requirements

Collect supports any combination of ODBC connections as long as the 32-bit Source DBMS drivers are installed on the application server. Do not install 32-bit drivers on the application server for DSP® unless you are using version 6.5.6 or lower (or you are using a higher version in 32-bit mode). New installs of 6.6 or higher will default to 64-bit operation, while upgrades from versions prior to 6.6 will remain at 32-bit. Further information on this and instructions on how to switch between 32 and 64-bit operation can be found in the appendices of the DSP installation manual (prior to 7.1). You can also submit a request at support.boaweb.com for information on this topic.

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ODBC entries require a DSN to be configured in the ODBC Data Source Administrator on the application server. In most cases, the 64-bit ODBC Data Source Administrator should be used (C:\Windows\System32\odbcad32.exe). If the DSP is running in 32-bit mode then 32-bit drivers will be required and the 32-bit ODBC Data Source Administrator needs to be used (C:\Windows\SysWOW64\odbcad32.exe).

IWAM and IUSR Windows accounts require read and execute permission to the Source DBMS driver DLL files to pull data and test connections.

The list of system tables required for each DBMS to build tables in the target SQL server database is provided below. AS400 DB2 tables may have customized the schema owner of the system tables and could possibly require changes. The following are general requirements for preconfigured DBMS Collect installations.

ODBCDB2

ODBCDB2 is used for mainframe connections and the driver may be changed depending on what the client provides. All drivers must be supplied by the client.

Required System Tables	SELECT access on the following tables: SYSIBM.SYSTABLES SYSIBM.SYSCOLUMNS SYSIBM.SYSKEYS SYSIBM.SYSINDEXES
Commonly-used Driver	driver={IBM DB2 ODBC DRIVER}
SAP Installation requirements	SELECT access on the following tables: DD02L DD03L DD02T DD04T DD05S DD07T DD08L

ODBCDB2AS400

ODBCDB2AS400 is used for AS400 DB2 connections and the driver may be changed depending on what the client provides. All drivers must be supplied by the client.

Required System Tables	SELECT access on the following tables: <ul style="list-style-type: none"> • QSYS2.SYSTABLES • QSYS2.SYSCOLUMNS • QSYS2.SYSKEYS • QSYS2.SYSINDEXES
Commonly-used Driver	driver={iSeries Access ODBC DRIVER}
SAP Installation Requirements	SELECT access on the following tables: <ul style="list-style-type: none"> • DD02L • DD03L • DD02T • DD04T • DD05S • DD07T • DD08L

ODBC HANA

ODBC HANA is used for SAP HANA connections. All drivers must be supplied by the client.

Required System Tables	SELECT access on the following tables: <ul style="list-style-type: none"> • SYS.TABLES • SYS.TABLE_COLUMNS • SYS.INDEX_COLUMNS
Commonly-used Driver	Driver={HDBODBC}; Or Driver for 32-bit Connections: Driver={HDBODBC32}
SAP Installation Requirements	SELECT access on the following tables: <ul style="list-style-type: none"> • DD02L • DD03L • DD02T • DD04T • DD05S • DD07T • DD08L

ODBC IMS

ODBC IMS is used for IMS Hierarchical connections and the driver may be changed depending on what the client provides. All drivers must be supplied by the client.

Required System Tables	SELECT access on the following tables: <ul style="list-style-type: none"> • SYSTEM.SYSTAB • SYSTEM.SYSCOL
Commonly-used Driver	driver={tcACCESS Driver};
SAP Installation Requirements	NA

ODBC INFORMIX

ODBC INFORMIX is used for Informix connections and the driver may be changed depending on what the client provides. All drivers must be supplied by the client.

NOTE: All tables must be entered in lower case.

Required System Tables	SELECT access on the following tables: <ul style="list-style-type: none"> • systables • syscolumns • sysindexes
Commonly-used Driver	Client must provide the Driver used Or Provider for OLE Connections: Provider=Ifxoledbc

SAP Installation Requirements	SELECT access on the following tables: <ul style="list-style-type: none"> • dd02l • dd03l • DD02T • DD04T • DD05S • DD07T • DD08L
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ODBCMAXDB

ODBCMAXDB is used for SAP MAXDB DBMS connections and the driver may be changed depending on what the client provides. All drivers must be supplied by the client.

Required System Tables	SELECT access on the following tables: <ul style="list-style-type: none"> • DOMAIN.TABLES • DOMAIN.COLUMNS
Commonly-used Driver	driver=MaxDB;
SAP Installation Requirements	SELECT access on the following tables: <ul style="list-style-type: none"> • DD02L • DD03L • DD02T • DD04T • DD05S • DD07T • DD08L

ODBCMYSQL

ODBCMYSQL is used for MYSQL DBMS connections and the driver may be changed depending on what the client provides. All drivers must be supplied by the client.

Required System Tables	SELECT access on the following tables: <ul style="list-style-type: none"> • informational_schema.tables • informational_schema.columns
Commonly-used Driver	Driver={MySQL ODBC 5.1 Driver};
SAP Installation Requirements	SELECT access on the following tables: <ul style="list-style-type: none"> • DD02L • DD03L

ODBCPROGRESS

ODBCPROGRESS is used for (MFGPRO) Progress DBMS connections and the driver may be changed depending on what the client provides. All drivers must be supplied by the client.

Required System Tables	SELECT access on the following tables:
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	<ul style="list-style-type: none"> • SYSPROGRESS.SYSTABLES • SYSPROGRESS.SYSCOLUMNS_FULL
Commonly-used Driver	Client must provide the Driver used
SAP Installation Requirements	NA

ODBCSYBASE

ODBCSYBASE is used for Sybase DBMS connections and the driver may be changed depending on what the client provides. All drivers must be supplied by the client.

Required System Tables	SELECT access on the following tables: <ul style="list-style-type: none"> • sysobjects • syscolumn • systypes • sysusers
Commonly-used Driver	Client must provide the Driver used
SAP Installation Requirements	SELECT access on the following tables: <ul style="list-style-type: none"> • DD02L • DD03L • DD02T • DD04T • DD05S • DD07T • DD08L

ODBCTERADATA, OLETERADATA

ODBCTERADATA and OLETERADATA are used for Teradata DBMS connections and the driver may be changed depending on what the client provides. All drivers must be supplied by the client. Leave Driver blank if using the OLE connection type.

Required System Tables	SELECT access on the following table: <ul style="list-style-type: none"> • DBC.COLUMNS
Commonly-used Driver	driver=Teradata; Or Provider for OLE Connections: Provider=TDOLEDB
SAP Installation Requirements	NA

ORACLE, OLEORACLE, ODBCORACLE

ORACLE, OLEORACLE and ODBCORACLE are used for Oracle DBMS (9, 10, and 11) connections and the driver may be changed depending on what the client provides. All drivers must be supplied by the client. Leave Driver blank if using the OLE connection type.

Required System Tables	SELECT access on the following tables: <ul style="list-style-type: none"> • SYS.ALL_TAB_COLS • SYS.ALL_CONSTRAINTS
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	<ul style="list-style-type: none"> • SYS.ALL_IND_COLUMNS • SYS.ALL_INDEXES
Commonly-used Driver	driver=Microsoft ODBC for Oracle; Or Provider for OLE Connections: Provider= OraOLEDB.Oracle
SAP Installation Requirements	SELECT access on the following tables: <ul style="list-style-type: none"> • DD02L • DD03L • DD02T • DD04T • DD05S • DD07T • DD08L

ORACLE8, OLEORACLE8, ODBCORACLE8

ORACLE8, OLEORACLE8 and ODBCORACLE8 are used for Oracle DBMS (7 and 8) connections and the driver may be changed depending on what the client provides. All drivers must be supplied by the client. Leave Driver blank if using the OLE connection type.

Required System Tables	SELECT access on the following tables: <ul style="list-style-type: none"> • SYS.ALL_TAB_COLUMNS • SYS.ALL_CONSTRAINTS • SYS.ALL_IND_COLUMNS • SYS.ALL_INDEXES NOTE: These setting should match Oracle with the exception of the one system view.
Commonly-used Driver	driver=Microsoft ODBC for Oracle; Or Provider for OLE Connections: Provider= OraOLEDB.Oracle
SAP Installation Requirements	SELECT access on the following tables: <ul style="list-style-type: none"> • DD02L • DD03L • DD02T • DD04T • DD05S • DD07T • DD08L

SQLSERVER, ODBCSQLSERVER

SQLSERVER and ODBCSQLSERVER are used for SQLSERVER DBMS connections. The driver is part of the Windows OS when SQL SERVER Client is installed.

Required System Tables	SELECT access on the following tables: <ul style="list-style-type: none"> • sysobjects
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	<ul style="list-style-type: none"> • syscolumns • systypes • sysusers • INFORMATION_SCHEMA.TABLE_CONSTRAINTS • INFORMATION_SCHEMA.KEY_COLUMN_USAGE
Commonly-used Driver	NA
SAP Installation Requirements	SELECT access on the following tables: <ul style="list-style-type: none"> • DD02L • DD03L • DD02T • DD04T • DD05S • DD07T • DD08L

Collect DBMS Data Type Conversions

Collect supports any type of data type conversion completed inside a DTS Package. Collect is delivered preconfigured with the most popular options used at the client sites. However, these mappings can be adjusted to client requirements. For example, the Oracle data type of LONG (binary objects) is filtered out for Data Migration Projects. Collect can be modified to handle these objects. All the SAP Types in DD03L are preconfigured as well to load into a SQL SERVER database as a target.

Collect has been configured to load all columns into NVARCHAR or NCHAR or NTEXT to support Unicode character downloads. This will take up twice as much space than a normal VARCHAR configuration. Calculate the total space used or change the data type mapping to VARCHAR for columns that do not support Unicode characters.

Collect SAP DBMS Downloads

Collect uses SAP DD02L table to determine which tables can be downloaded via ODBC or require an RFC connection type. POOLED and CLUSTERED tables can only be downloaded via an RFC connection or from SAP into a flat file and then loaded into the source database.

Collect uses DD03L for looking at column type conversions and checking for the primary key of the SAP table. It will create the SQL SERVER table with the primary key matching SAP settings.

Verify Collect has access to both of these tables to allow the Build Package process to work.

SAP Tables Commonly used by DSP

ADCP	D020T	ESTRH	KNMT	MKAL	QPGT	T004	T024D
ADR13	DD01L	ESTRI	KNVA	MKPF	QPMK	T004G	T024E
ADR2	DD02L	ESTVA	KNVD	MLAN	QPMT	T004T	T024F
ADR3	DD02T	FAGL_SEGM	KNVH	MLGN	QPMZ	T005	T024I
ADR6	DD03L	HRP1000	KNVI	MLGT	QPRVK	T005E	T024L
ADRC	DD03T	HRP1001	KNVK	MPLA	QPRVKT	T005F	T024W
ADRCT	DD04L	HRP1002	KNVL	MPOS	QPSPT	T005G	T024X
ADRP	DD04T	HRP1005	KNVP	MPRP	RDPR	T005H	T025



ADRREGGRPT	DD05S	HRP1008	KNVS	MSEG	RDTX	T005K	T025T
ADRT	DD07L	HRP1013	KNVT	MVKE	SETCLS	T005O	T027A
AFKO	DD07T	HRP1028	KNVV	NAST	SETCLST	T005Q	T027B
AFPO	DD08L	HRP1050	KNZA	NRIV	SETHEADER	T005R	T030S
ANKA	DD30L	HRT1002	KSML	ONR00	SETHEADERT	T005S	T035
ANLA	DD31S	IDOC SYN	KSSK	PA0000	SETLEAF	T005T	T035T
AUFK	DD32S	IFLOT	LAGP	PA0001	SETNODE	T005U	T036
AUSP	DD35L	IFLOTX	LFA1	PA0002	SKA1	T006	T036T
BNKA	DD36S	ILOA	LFAS	PA0006	SKAT	T006A	T040
BSEG	DDFTX	INDUSTYPE	LFAT	PA0007	SKB1	T006D	T040S
BUSTYPE	DGTM2	INOB	LFB1	PA0008	STAS	T007A	T040T
CABN	DGTMD	J_1AACT	LFB5	PLAB	STKO	T007D	T041C
CABNT	DOKID	J_1AACTT	LFBK	PLAS	STPO	T007S	T042E
CAWN	DOKIL	J_1ADTYP	LFBW	PLFL	STZU	T008	T042F
CAWNT	DOKTL	J_1AFITP	LFM1	PLKO	SWOR	T008T	T042Z
CBPT	EDBAS	J_1AFITPVT	LFM2	PLMK	SXDA0	T009	T043G
CDHDR	EDBAST	J_1AGICD	LFMH	PLMZ	SXDA0T	T009T	T043GT
CDPOS	EDISDEF	J_1AINFSKS	LFZA	PLPO	SXDA1	T012	T043S
CEPC	EDISEG	J_1ATODC	LQUA	PROP	SXDA1T	T012K	T043ST
CEPCT	EDISEGT	J_1ATODCT	MAEX	PVBE	SXDA2	T012T	T044G
CKMLCR	EDPP1	JEST	MAKT	PVKT	SXDA2T	T014	T047
CKMLHD	EINA	KAKO	MAKV	QCVK	SXDA3	T014T	T047M
CKMLPR	EINE	KLAH	MAPL	QCVM	T000	T015L	T047N
COTPL	EKKO	KNA1	MAPR	QCVM T	T001	T015W	T047R
CRCA	EKPO	KNAS	MARA	QDDRT	T001K	T015WT	T047S
CRHD	EORD	KNAT	MARC	QDSVT	T001L	T016	T047T
CRHH	EQKT	KNB1	MARD	QINF	T001P	T016T	T048K
CRTX	EQUZ	KNB5	MARM	QMAT	T001S	T023	T048L
CSKA	ESTMJ	KNBK	MAST	QMSP	T001W	T023T	T049L
CSKS	ESTPH	KNBW	MBEW	QMTB	T002	T024	T052
CSKT	ESTPJ	KNEX	MDIP	QMTT	T002T	T024A	T052A
CSKU	ESTPP	KNKA	MEAN	QPAM	T003	T024B	T052T
CVERS	ESTPS	KNKK	MGEF	QPCT	T003T	T024C	T052U
T053A	T133A	T171T	T401A	T438A	T606R	TAPRF	TCPA
T053B	T133B	T178	T401T	T438M	T606U	TBMOT	TCPAT
T053V	T133K	T178T	T405	T438R	T606V	TBRC	TCURC
T053W	T134	T179	T410T	T438S	T609GP	TBRCT	TCURT
T056	T134M	T179T	T411	T438T	T610CT	TBSG	TCURV
T056X	T134T	T188	T411T	T438W	T615T	TBSL	TCURW

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T059A	T137	T188T	T412	T438X	T616T	TC20T	TDG41
T059B	T137T	T189	T412T	T439A	T618	TC21	TDG42
T059D	T141	T189T	T413	T439G	T618GT	TC21T	TDG74
T059M	T141T	T190S	T413T	T439H	T618M	TC23A	TFACD
T059Q	T142	T190ST	T414	T439L	T618MT	TC24	TFACT
T059T	T142T	T300	T414T	T439P	T618T	TC25	TFKB
T059U	T143	T300T	T415S	T439T	T683	TC26T	TFKBT
T059W	T143T	T301	T415T	T440G	T683T	TC30	TGSB
T059ZT	T144	T301T	T416	T441A	T683U	TC52	TGSBT
T069	T144T	T304T	T416T	T441T	T685T	TCA01	THITT
T069T	T148	T305T	T417	T460A	T686C	TCA02	THIZU
T077D	T149	T306T	T417T	T460T	T691A	TCA08	THM010
T077K	T149A	T307T	T418	T461P	T691C	TCA41	THM018
T077S	T149B	T30AT	T418F	T461T	T691P	TCA4T	THM032
T077X	T149C	T320	T418T	T461X	T691T	TCA53	THM040
T077Y	T149D	T331	T421T	T46AC	T6WFG	TCA55	THM063
T077Z	T149E	T338T	T423T	T46AT	T6WL4	TCC14	TIBAN
T078K	T149T	T351	T425T	T498	T6WL5	TCESSION	TINC
T079D	T151	T352B	T426T	T499P	T6WP1	TCESSIONT	TINCT
T079K	T151T	T352B_T	T428T	T499Q	T6WP3	TCK08	TJ20T
T079M	T156	T353I	T429T	T499S	T6WP4	TCK09	TJ21
T079V	T159C	T357	T430	T500P	T6WSA	TCK14	TJ30
T083L	T161	T357M	T430T	T501	T6WSP	TCK15	TJ30T
T087G	T161T	T370B	T433	T501T	T703K	TCLA	TKA01
T087I	T163	T370C	T434G	T502T	T703M	TCLAT	TKA02
T087K	T163K	T370F	T434H	T503	T777O	TCLO	TKA05
T087U	T163L	T370K	T435	T503T	T778O	TCLT	TKB4A
T092	T163M	T370P	T435T	T512T	T778P	TCLUT	TKB4C
T093C	T163S	T370S	T436A	T528B	T778V	TCME	TKKH1
T094A	T163Y	T370T	T437P	T604	T77VB	TCMGT	TKKH2
T095A	T165R	T377P	T437R	T604N	T856	TCMST	TKT05
T097	T169L	T377P_T	T437S	T604T	T880	TCN00	TKUKL
T098	T169X	T399G	T437T	T606A	T8JA	TCN01	TKUKT
T130D	T16FB	T399I	T437V	T606DT	T8JJ	TCO43	TKUPA
T130F	T16FG	T399P	T437W	T606G	TABW	TCO43T	TKV01
T132	T171	T399W	T437X	T606I	TAIF5	TCO48T	TKV02
TLGR	TQ04S	TSPA	TVKBT	TVTW	WRF12	TLGRT	TQ05
TMABCT	TQ08	TSTL	TVKMT	TVV1	WYT3	TMBWT	TQ08T
TMQ2	TQ32	TTZZT	TVM1T	TVZBT	TMVF	TQ34	TVAK



TPAKD	TQ73T	TVCLKT	TVMST	TWMEG	TPAKL	TQ79	TVCTYT
TPRIT	TSAD12T	TVGFT	TVP8T	TZONE	TPST	TSAD2T	TVGRT
TQ02	TSAPDT	TVK5T	TVSBT	VBWF07	TQ02B	TSFGT	TVK6T
TQ15T	TTXID	TVKOV	TVV4T	TMKK	TQ17U	TTXJ	TVKT
TQ61T	TVBOT	TVM3T	TWBO2T	TNLST	TQ62T	TVBRT	TVM4T
TSAB	TVFCD	TVP3T	TWVMO	TPAUM	TSABT	TVFCDT	TVP4T
TSAD3T	TVK0T	TVPHT	TZUNT	TPVDT	TSAD4	TVK1T	TVPRT
TSKDT	TVK8T	TVSMT	VCNUM	TQ04A	TSKMT	TVK9T	TVTA
TSPAT	TVKBZ	TVTWT	WRF4	TLOGT	TQ05T	TSTC	TVKDT
TTGR	TVKO	TVV1T	TTGR	TVKO	TMFG	TQ11T	TTGRT
TTXOB	TVKWZ	TVWA	TMODU	TQ31T	TTZZ	TVM1	TVWAT
TVBVK	TVM5T	TWEW	TPAER	TQ72T	TVCINT	TVMS	TWEWT
TVFMT	TVP6T	TZGR	TPRFT	TSAD12	TVGF	TVP7T	TZGRT
TVK3T	TVRLT	VBAP	TQ01E	TSADVT	TVK4T	TVSB	VBUK
TVKOS	TVV2T	TMFGT	TQ12T	TTXDT	TVKOT	TVV3T	TMFPFT
TVM2T	TWBB	TMVFT	TQ39L	TVAVT	TVM3	TWBO1	TNLS
TVP0T	TWRVT	TPAR	TQ79T	TVEGRT	TVP2T	TWSPR	TPART
TVP9T	TZONT	TPTM	TSAD3	TVIPT	TVPA	TZUN	TPTMT
TVSD	VBWF08	TQ02T	TSKD	TVK7T	TVSDT	VCKUN	TQ02U
TVTY	WYT1	TMABC	TQ06T	TSTCT	TVKGGT	TVTYT	WYT1T
TVV5T	TMKKT	TQ29T	TTXJT	TVKTT	TVVWT	TMKM1	TQ30T
TWBO3T	TNTP	TQ63T	TVBUR	TVM5	TWBO4T	TNTPB	TQ64T
TWVMOT	TPFKT	TSAC	TVFM	TVP5T	TWYAZT	TPOOL	TSACT
USR03	TQ01B	TSAD5T	TVK2T	TVPVT	VBAK	TQ01C	TSAD7T
VTSGDT							

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