**Functional Specification**

SD031

Basic Document Information:

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| --- | --- |
| Document Number | QHC\_SAP\_FS\_SD031 |
| Document Name | QHC\_SAP\_FS\_SD031\_interface to sales order creation |
| Project Name | QHC SAP Project |
| Development Type | Interface |
| Client | Haier Carrier Refrigeration Equipment Co., Ltd. (Qingdao) |
| Author | Murphy Wang |
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Document Approval

The following is the approval process of the document：

| Approval | Role | Department | [Signature](file:///C:/Program%20Files%20(x86)/Youdao/Dict/7.2.0.0511/resultui/dict/?keyword=signature) |
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|  | Department Director |  |  |
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# **Purpose of this document**

The Specification is the basis for the developments that will be done by SAP. Customer has to verify and approve it formally. Realization starts only after approval.

Within the SAP Custom Development Methodology, the Specification is the link between the business requirements (normally given in the solution proposal) and the technical design (a separate document).

It has the following goals:

* Reference to the business requirements (customer requirements) given in the solution proposal.
* Show the mapping into standard SAP products.
* Describe the solution from an external (user or customer) point of view.

Implementation details (database model, report names, and so on) are generally NOT part of the Specification.

[Customers shall be enabled to recognize that all their requirements are taken into consideration. For approval of the Specification they have to understand the solution.]

# **General Object Overview**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Object Overview | | | | | |
| CPR ID | 17274 | CPR Description | | ZQHC\_SELLING TOOLS INTERFACE | |
| SAP Module | SD | Business Process | | Order Creation | |
| Object Type (Commonly known as WRICEF) | ( ) Workflow  ( ) Report  ( x ) Interface  ( ) Conversion  ( ) Enhancement  ( ) Form | | New/modification | | ( X ) New  ( ) Modification |
| DML ID | Q091 | | Package | | ZQHC\_SELTOOL |
| Object title | Interface of sales order creation  销售订单创建接口 | | | | |
| Object Description | This Interface is used for selling tool to create sales order and billing plan in SAP  接口用于selling tool给SAP创建销售订单 | | | | |
| Translate to (languages) | ZH and EN | | | | |
| FRD/FRO | FRO | | Market (country) | | CN |
| Required Development Completion Date |  | | Priority | | Medium |
| SAP Transaction Name |  | | SAP Program Name | |  |
| Similar SAP Transaction | None | | Similar SAP Program Name | | None |
| FS Control | | | | | |
| Functional Consultant | **Murphy Wang** | | Carrier Process Owner | | **Wang Minglong** |
| Planned Date of FS Completion | 2019/9/11 | | Actual Date of FS Completion | | 2019/9/11 |
| FS Approved By | Wang Minglong | | FS Approval date | | 2019/09/17 |
| Other Contact |  | | | | |

Process Requirements Reference

|  |  |
| --- | --- |
| Process Reference | |
| Gap to be addressed |  |
| Alternative SAP Standard Solution |  |
| Notes |  |

## Generic WRICEF Descriptions

|  |
| --- |
| Justification |
| [Provide a high level description reason for deviation from standard SAP reports or BW reports. |

|  |
| --- |
| Functional Description / Design |
| [Provide a high level description of the Report and the business requirement that will be addressed.]  Example: The report will allow users to display contracts that are due to expire and to view the details of these contracts   * This interface is for sales order creation from Selling tool to SAP. * Users input sales order data in selling tool and data was transferred to SAP via Web-service. * SAP call BAPI to create sales order with data. |
|  |

|  |
| --- |
| Frequency & Timing |
| [Please indicate the frequency that the report should run; i.e. Ad Hoc, Daily, Weekly, and any timing considerations that should be applied; i.e. must be run before 7am Monday morning]  Any time |

|  |
| --- |
| Dependencies |
| [Predecessors and successors] |

|  |
| --- |
| Authorization Requirements |
| [Every authorization object needs to be documented to provide the security administrator information on the purpose and use of the object. The following sections are the minimal documentation requirements.] |

|  |
| --- |
| Related Documentation |
| (Attach OSS notes, emails, download of existing report, etc.) |

# **Object Specific Design**

## Interface(Enchantements,Conversion,Report,Form,Workflow)

<Refer to the WRICEF section in the BPD.>

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Enhancements | | | | | | |
| CPR ID | Description | Data Object (Purchase Order) | Functional Gap | Alternative SAP Standard | Reason | Owner |
| 17274 | ZQHC\_SELLING TOOLS INTERFACE |  |  |  |  |  |

|  |
| --- |
| Functional Design, Validation and Variants |

### Input

### Structure/Table

1. Header input, define structure ZHDR

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Field/字段** | **Description/名称** | **SAP field/SAP字段** | **Type/格式** | **Length/长度** | **Comment/备注** | **Selling tool** |
| AUART | Sales order type/订单类型 | VBAK-AUART | CHAR | 4 |  | 需求类型 |
| VKORG | Sales org./销售组织 | VBAK-VKORG | CHAR | 4 | Fixed value/固定为 0841 |  |
| VTWEG | DC/分销渠道 | VBAK-VTWEG | CHAR | 2 |  | 性质分类 |
| NAME2 | Store name/店名 | ADRC-NAME2 | CHAR | 40 | Where VBPA-PARVW = ‘SH’ and VBPA-POSNR = POSNR | 店名 |
| SPART | Division/产品组 | VBAK-SPART | CHAR | 2 |  | 销售类型 |
| VKBUR | Sales office/销售办公室 | VBAK-VKBUR | CHAR | 4 |  | 大区 |
| VKGRP | Sales group/销售组 | VBAK-VKGRP | CHAR | 3 |  | 中心 |
| VBELN | SO number/销售订单编号 | VBAK-VBELN | CHAR | 10 |  | 合同号 |
| KVGR1 | Customer grp.1/客户组1 | VBAK-KVGR1 | CHAR | 3 | If convenience store, 0-no,1-yes/是否便利店 | 是否便利店 |
| KVGR2 | Customer grp.2/客户组2 | VBAK-KVGR2 | CHAR | 3 | If new customer, 0-no,1-yes /是否新客户 | 是否新客户 |
| KVGR3 | Customer grp.3/客户组3 | VBAK-KVGR3 | CHAR | 3 | if reformed shop, 0-no,1-yes/是否改造店 | 是否改造店 |
| BSTZD | Additional/附加的 | VBAK-BSTZD | CHAR | 4 | Warranty period/保修年限 | 保修年限 |
| BSTKD\_E | Ship-to PO/送达方-采购订单编号 | VBKD-BSTKD\_E | CHAR | 35 |  | 项目报备编号 |
| VSART | Shipping type/装运类型 | VBKD-VSART | CHAR | 2 | Transport type/运输类型 | 运输类型 |
| ZTERM | Payment terms/付款条款 | VBKD-ZTERM | CHAR | 4 | Settlement type/结算方式 | 结算方式 |
| KUNNR | Sold-to party/售达方 | VBAK-KUNNR | CHAR | 10 |  | 签约单位 |
| WAERK | Currency/币别 | VBAK-WAERK | CUKY | 5 |  | 币别 |
| INCO1 | Incoterms/国际贸易条款 | VBKD-INCO1 | CHAR | 3 |  | 国际贸易条件 |
| INCO1 | Incoterms2/国际贸易条款2 | VBKD-INCO1 | CHAR | 28 |  | 国际贸易条件2 |
|  | 折扣 |  |  |  |  |  |
| VBBKZ120 | Contract amount/合同金额 | Text(VBBK-Z120) | CHAR | 255 | Object-ID | 合同金额 |
| VBBKZ121 | Sale rep./签约人 | Text(VBBK-Z121) | CHAR | 255 | Object-ID | 客户经理 |
| VBBKZ109 | Order clerk/合同管理员 | Text(VBBK-Z109) | CHAR | 255 | Object-ID | 合同管理员 |
| VBBKZ108 | Contact info./授权人信息 | Text(VBBK-Z108) | CHAR | 255 | Object-ID | 授权人信息6个字段 |
| VBBKZ122 | Survey info. for header /调研表相关内容 | Text(VBBK-Z122) | CHAR | 255 | Object-ID  Link 3 fields with linefeed before sending/传数据之前以换行符合并3个字段 | 调研表相关内容3个字段 |
| VBBKZ106 | Receiving method /收货方式 | Text(VBBK-Z106) | CHAR | 255 | Object-ID | 收货方式 |

1. Item input, define table ZITEM

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Field**/字段** | Description**/名称** | SAP field/SAP**字段** | Type/**格式** | Length**/长度** | **Comment/备注** | **Selling tool** |
| POSNR | Ship-to PO item/送达方-采购订单编号项目 | VBAP-POSNR | NUMC | 6 | If exist | 行号 |
| MATNR | Material Number/物料编码 | VBAP-MATNR | CHAR | 18 | if item exist | 专用号 |
| ZMENG | Target quantity/数量 | VBAP-ZMENG | QUAN | 13 |  | 数量 |
| EDATU | Req.dlv.date/请求发货日期 | VBEP-EDATU | CHAR | 8 | Where VBEP- POSNR = VBAP-POSNR and VBEP- VBELN = VBAP-VBELN and VBEP- ETENR = 1 | 要求发货日期 |
| PSTYV | Item category/行项目类别 | VBAP-PSTYV | CHAR | 4 |  | 行项目类别 |
| VKAUS | Item usage/项目用途 | VBAP-VKAUS | CHAR | 3 |  | 行项目用途 |
| STREET | Ship-to address/送达方地址 | ADRC-STREET | CHAR | 60 | Where VBPA-PARVW = ‘SH’ and VBPA-POSNR = POSNR | 到货地址 |
| REGION | Province/省 | ARDC-REGION | CHAR | 3 | Where VBPA-PARVW = ‘SH’ and VBPA-POSNR = POSNR | 省 |
| CITY1 | City/市 | ADRC-CITY1 | CHAR | 40 | Where VBPA-PARVW = ‘SH’ and VBPA-POSNR = POSNR | 市 |
| CITY2 | District/区 | ADRC-CITY2 | CHAR | 40 | Where VBPA-PARVW = ‘SH’ and VBPA-POSNR = POSNR | 区 |
| VBBP0006 | B2C note/B2C备注 | Text(VBBP-0006) | CHAR | 255 | Object-ID | B2C备注 |
| VBBPZ121 | Survey info. for item /调研表基本信息 | Text(VBBP-Z121) | CHAR | 255 | Object-ID  Link 4 fields with linefeed before sending/传之前以换行符合并4个字段 | 调研表基本信息：商标要求，木包装要求，铭牌要求，电路图要求。 |
| VBBPZ117 | Special note/特殊备注 | Text(VBBP-Z117) | CHAR | 255 | Object-ID | 特殊备注 |
| VBBPZ118 | Color Note/颜色备注 | Text(VBBP-Z118) | CHAR | 255 | Object-ID | 颜色备注 |
| VBBPZ120 | Color option/颜色可选项 | Text(VBBP-Z120) | CHAR | 255 | Object-ID | 颜色可选项信息 |
| VBBP0007 | Survey info. Note/调研表备注 | Text(VBBP-Z007) | CHAR | 255 | Object-ID | 备注/需改成调研表备注 |

1. Characteristics value input, define table ZCHARC

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Field**/字段** | Description**/名称** | SAP field/SAP**字段** | Type/**格式** | Length**/长度** | **Comment/备注** | **Selling tool** |
| POSNR | Item/行项目编号 | VBAP-POSNR | NUMC | 6 |  | 行号 |
| ATNAM | Characteristic/特性 |  | CHAR | 30 |  | 配置 |
| ATWRT | Char. value/特性值 |  | CHAR | 30 |  | 配置值 |

1. Price/condition record input, define table ZCOND

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Field**/字段** | Description**/名称** | SAP field/SAP**字段** | Type/**格式** | Length**/长度** | **Comment/备注** | **Selling tool** |
| POSNR | Item/行项目编号 | VBAP-POSNR | NUMC | 6 |  | 行号 |
| KSCHL | Condition type/价格类型 | KONV-KSCHL | CHAR | 4 | Note1 | 实卖价合计(Item)/折扣（Header） |
| KBETR | Rate/金额 | KONV-KBETR | CURR | 11 |  |  |

1. Billing plan, define table ZPLAN

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Field**/字段** | Description**/名称** | SAP field/SAP**字段** | Type/**格式** | Length**/长度** | **Comment/备注** | **Selling tool** |
| TETXT | Date category/日期原因 | FPLT-TETXT | CHAR | 4 |  | 回款类型 |
| FKDAT | Settlement date/结算日期 | FPLT-FKDAT | DATS | 8 |  | 回款起始时间 |
| FAKWR | Value to be billed/金额 | FPLT-FAKWR | CURR | 15 |  | 预算回款金额 |
| ZTERM | Payment terms/付款条款 | FPLT-ZTERM | CHAR | 4 |  | 付款条款（New/新增） |

### Output

Return structure ZRETURN

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Field**/字段** | Description**/名称** | SAP field/SAP**字段** | Type/**格式** | Length**/长度** | **Comment/备注** |
| SUBRC | Return code/返回码 | SY-SUBRC | INT | 4 |  |
| TEXT | Return text/返回描述 | T100-TEXT | CHAR | 73 |  |

### Program logic

#### Create sales order

Call function module BAPI\_SALESORDER\_CREATEFROMDAT2

Input ZHDR data into header and partner

Input ZITEM data into items,

Input ZCOND data into item conditions

Input ZCHARC into configuration.

1. **Create billing plan**

Call function module BILLING\_SCHEDULE\_SAVE and than SD\_SALES\_DOCUMENT\_SAVE, input ZPLAN data.

1. **Return information to table ZRETURN.**

Note1:

The 折扣/Discount and value is for condition type ‘ZH03’ and value.

The 实卖价合计/Actual price and value is for condition type ‘ZH05’ and value.

The 转移价合计/Transfer price value is for condition type ‘ZH08’ and value.

Note2:

|  |  |  |
| --- | --- | --- |
| **费用类别** | **成本** | **收入** |
| 运费 | X | X |
| 安装费 | X |  |
| 安装材料费 | X |  |
| 电气费 | X |  |
| 维保费 | X |  |
| 冷库费 | X | X |
| 其他项目收费 | 0.01 | X |
| 不可预估项 | X |  |
| 预提备件费 | X |  |

# **Test Conditions**

|  |
| --- |
| Business Test Conditions (To be furnished by the Functional Consultant) |
| [Please indicate the business level test conditions that should be used to verify successful operations of the Report]  [Document all technical scenarios associated with this development. Examples would include  1) Testing an error-free run;  2) Testing the exception processes;  3) Testing the error handling.]  [Document all control scenarios associated with this development. Examples would include  1) Rounding of dollars and cents;  2) Audit trail processing;  3) Reconciliation reporting] |