

Liquid UI: Convert function module structure detail to type object

User Interface

The screenshot shows the SAP Dictionary: Display Structure window. The structure selected is **BAPI_ALM_ORDER_OPERATION_E**, which is active. The short description is "Export Structure for PM/CS BAPIs Operations". The window has tabs for Attributes, Components, Entry help/check, and Currency/quantity fields. The Components tab is active, displaying a table of predefined types.

Component	Typing Method	Component Type	Data Type	Length	Deci...	Short Description
ACTIVITY	1 Types	VORNR	CHAR	4		0 Operation/Activity Number
SUB_ACTIVITY	1 Types	UVORN	CHAR	4		0 Suboperation
CONTROL_KEY	1 Types	STBUS	CHAR	4		0 Control key
WORK_CNTR	1 Types	ARBPL	CHAR	8		0 Work center
PLANT	1 Types	WERKS_D	CHAR	4		0 Plant
STANDARD_TEXT_K	1 Types	KTSCH	CHAR	7		0 Standard text key
DESCRIPTION	1 Types	LTXA1	CHAR	40		0 Operation short text
LANGU	1 Types	SPRAS	LANG	1		0 Language Key
LANGU_ISO	1 Types	LAIISO	CHAR	2		02-Character SAP Language Code
NO OF TIME TICK	1 Types	LOHNANZ	DEC	3		0 Number of Time Tickets
WAGETYPE	1 Types	LOHNART	CHAR	4		0 Wage Type
SUITABILITY	1 Types	QUALF	CHAR	2		0 Suitability
WAGEGROUP	1 Types	LOHNGRP	CHAR	3		0 Wage group
SORT_FLD	1 Types	SORTL	CHAR	10		0 Sort field
VENDOR_NO	1 Types	LIFNR	CHAR	10		0 Account Number of Vendor or Creditor
QUANTITY	1 Types	CX_LOSVG	QUAN	13		3 Operation quantity in order unit of measure
BASE_UOM	1 Types	MEINS	UNIT	3		0 Base Unit of Measure
BASE_UOM_ISO	1 Types	ISOCOD UNIT	CHAR	3		0 ISO code for unit of measurement
PRICE	1 Types	PREIS	CURR	11		2 Price
PRICE_UNIT	1 Types	PEINH	DEC	5		0 Price Unit
COST_ELEMENT	1 Types	KSTAR	CHAR	10		0 Cost Element
CURRENCY	1 Types	WAERS	CUKY	5		0 Currency Key
CURRENCY_ISO	1 Types	ISOCO	CHAR	3		0 ISO currency code
INFO_REC	1 Types	INFNR	CHAR	10		0 Number of Purchasing Info Record
PURCH_ORG	1 Types	EKORG	CHAR	4		0 Purchasing Organization
PUR_GROUP	1 Types	VG_EKGRP	CHAR	3		0 Purchasing group for external processing
MATL_GROUP	1 Types	MATKL	CHAR	9		0 Material Group

After click “Get Structure Object”

Structure Edit Goto Utilities Extras Environment System Help

Dictionary: Display Structure

Hierarchy Display Append Structure... Clear Structure Object

```
var z_BAPI_ALM_ORDER_OPERATION_E = {
  name:'BAPI_ALM_ORDER_OPERATION_E',
  components:[
    { name:'ACTIVITY', length:4, decimalpl:0, type:'C' }, //Operation/Activity Number
    { name:'SUB_ACTIVITY', length:4, decimalpl:0, type:'C' }, //Suboperation
    { name:'CONTROL_KEY', length:4, decimalpl:0, type:'C' }, //Control key
    { name:'WORK_CNTR', length:8, decimalpl:0, type:'C' }, //Work center
    { name:'PLANT', length:4, decimalpl:0, type:'C' }, //Plant
    { name:'STANDARD_TEXT_KEY', length:7, decimalpl:0, type:'C' }, //Standard text key
    { name:'DESCRIPTION', length:40, decimalpl:0, type:'C' }, //Operation short text
    { name:'LANGU', length:1, decimalpl:0, type:'C' }, /** LANG **/ //Language Key
    { name:'LANGU_ISO', length:2, decimalpl:0, type:'C' }, //2-Character SAP Language Code
    { name:'NO_OF_TIME_TICKETS', length:3, decimalpl:0, type:'P' }, /** DEC **/ //Number of Time Tickets
    { name:'WAGETYPE', length:4, decimalpl:0, type:'C' }, //Wage Type
    { name:'SUITABILITY', length:2, decimalpl:0, type:'C' }, //Suitability
    { name:'WAGEGROUP', length:3, decimalpl:0, type:'C' }, //Wage group
    { name:'SORT_FLD', length:10, decimalpl:0, type:'C' }, //Sort field
    { name:'VENDOR_NO', length:10, decimalpl:0, type:'C' }, //Account Number of Vendor or Creditor
    { name:'QUANTITY', length:13, decimalpl:3, type:'P' }, /** QUAN **/ //Operation quantity in order unit of measure
    { name:'BASE_UOM', length:3, decimalpl:0, type:'C' }, /** UNIT **/ //Base Unit of Measure
    { name:'BASE_UOM_ISO', length:3, decimalpl:0, type:'C' }, //ISO code for unit of measurement
    { name:'PRICE', length:11, decimalpl:2, type:'P' }, /** CURR **/ //Price
    { name:'PRICE_UNIT', length:5, decimalpl:0, type:'P' }, /** DEC **/ //Price Unit
    { name:'COST_ELEMENT', length:10, decimalpl:0, type:'C' }, //Cost Element
    { name:'CURRENCY', length:5, decimalpl:0, type:'C' }, /** CUKY **/ //Currency Key
    { name:'CURRENCY_ISO', length:3, decimalpl:0, type:'C' }, //ISO currency code
    { name:'INFO_REC', length:10, decimalpl:0, type:'C' }, //Number of Purchasing Info Record
    { name:'PURCH_ORG', length:4, decimalpl:0, type:'C' }, //Purchasing Organization
    { name:'PUR_GROUP', length:3, decimalpl:0, type:'C' }, //Purchasing group for external processing
    { name:'MATL_GROUP', length:9, decimalpl:0, type:'C' }, //Material Group
    { name:'AGREEMENT', length:10, decimalpl:0, type:'C' }, //Number of Principal Purchase Agreement
    { name:'AGMT_ITEM', length:5, decimalpl:0, type:'N' }, /** NUMC **/ //Item Number of Principal Purchase Agreement
    { name:'PREQ_NAME', length:12, decimalpl:0, type:'C' }, //Name of Requisitioner/Requester
    { name:'TRACKINGNO', length:10, decimalpl:0, type:'C' }, //Requirement Tracking Number
    { name:'NUMBER_OF_CAPACITIES', length:3, decimalpl:0, type:'N' }, /** INT1 **/ //Number of capacities required
  ]
}
```

SAP

Liquid UI Code [Script]

```
////////////////////////////////////
// Author: Synactive, Inc. [1065 E. Hillside Blvd, Foster City, CA, 94404, USA]
// Email: support@guixt.com; sales@guixt.com;
// Contact: 650.341.3310
// Version: 1.0.0.0
////////////////////////////////////

DATA_TYPE_REF_ARY = {"CHAR":"C", "UNIT":"C", "LANG":"C", "CUKY":"C",
                    "DATS":"D", "FLTP":"F", "TIMS":"T", "NUMC":"N",
                    "QUAN":"P", "DEC":"P", "CURR":"P",
                    "INT":"I", "INT1":"b", "INT2":"s", "INT4":"I"};

if(_transaction == "SE37"){
    if(!z_se37_display_structure_obj){
        pushbutton([TOOLBAR], "Get Structure Object", "?", {"process":se37GetStructureObject});
    }
    else {
        pushbutton([TOOLBAR], "Clear Structure Object", "?", {"process":se37Reset});

        clearscren();

        textbox([0,0], [30,160], {"name":"z_se37_structure_obj_text"});
    }
}

//Function to reset SE37 related variables
function se37Reset(){
    set("V[z_se37*]", "");
}

//Function to organize component array to become structure object detail
function setStructureObject(structure,component_ary){
    var result_ary = [];
    var component_str = "";

    println("component_ary.length=\n"+component_ary.length+"");

    result_ary.push("\tvar z_" + structure + " = {");
    result_ary.push("\t\tname:'" + structure + "',");
    result_ary.push("\t\tcomponents:[");

    for(var i=0; i<component_ary.length; i++){
        component_str = "\t\t\t{ name:'" + component_ary[i][0] +
            "' , \tlength:" + component_ary[i][4] +
            " ,\tdecimalpl:" + component_ary[i][5] +
            " ,\ttype:'" + DATA_TYPE_REF_ARY[component_ary[i][3]] +
            "' }" + ((i!=component_ary.length-1)?",":"" ) +
            "\t" + ((component_ary[i][3]=="CHAR")?"\t\t\t":("/* " + component_ary[i][3] + " */\t\t")) +
            "/*" + component_ary[i][6];

        result_ary.push(component_str );
    }

    result_ary.push("\t\t]");
    result_ary.push("\t};");

    return result_ary;
}
```

```

//Function to get structure object from screen
function se37GetStructureObject(){

    onscreen "SAPLSD41.2100"
        set("V[z_se37_structure]", "&F[Structure]");
        var relrow = 1;
        var absrow = 1;
        var z_se37_component_ary = [];
        var z_se37_row_ary = [];

NEW_SCREEN:;
        enter("/ScrollToLine=&V[absrow]", {"table":"T[SAPLSD41_TC0]"});

        onscreen "SAPLSD41.2100"
            gettableattribute("T[SAPLSD41_TC0]", {"firstvisiblerow":"FVisRow", "lastvisiblerow":"LVisRow", "lastrow":"LRow"});
            relrow = 1;

NEW_ROW:;
            if(absrow > LVisRow){
                goto NEW_SCREEN;
            }

            if(absrow > LRow){
                goto END_OF_TABLE;
            }

            z_se37_row_ary = [];
            set("V[cur_component]", "&cell[SAPLSD41_TC0,Component,&V[relrow]]");
            set("V[cur_typing_method]", "&cell[SAPLSD41_TC0,Typing Method,&V[relrow]]");
            set("V[cur_component_type]", "&cell[SAPLSD41_TC0,Component Type,&V[relrow]]");
            set("V[cur_data_type]", "&cell[SAPLSD41_TC0,Data Type,&V[relrow]]");
            set("V[cur_length]", "&cell[SAPLSD41_TC0,Length,&V[relrow]]");
            set("V[cur_decimal_pl]", "&cell[SAPLSD41_TC0,Decimal Pl,&V[relrow]]");
            set("V[cur_short_desc]", "&cell[SAPLSD41_TC0,Short Description,&V[relrow]]");

            z_se37_row_ary.push(cur_component);
            z_se37_row_ary.push(cur_typing_method);
            z_se37_row_ary.push(cur_component_type);
            z_se37_row_ary.push(cur_data_type);
            z_se37_row_ary.push(cur_length);
            z_se37_row_ary.push(cur_decimal_pl);
            z_se37_row_ary.push(cur_short_desc);

            z_se37_component_ary.push(z_se37_row_ary);

            relrow++;
            absrow++;
            goto NEW_ROW;

END_OF_TABLE:;

            z_se37_display_structure_obj = true;

            var z_se37_result_struct_ary = setStructureObject(z_se37_structure,z_se37_component_ary);

            for(var struct in z_se37_result_struct_ary){
                tmp_str = z_se37_result_struct_ary[struct];

                if(struct==0)
                    copytext({"totext":"z_se37_structure_obj_text", "fromstring":"tmp_str"});
                else
                    copytext({"totext":"z_se37_structure_obj_text", "fromstring":"tmp_str", "appendline":true});
            }

            enter("/ScrollToLine=1", {"table":"T[SAPLSD41_TC0]"});
}

```