

MES – Global IT Department

MES Standard Model

Dev. Guide

I. System Process Flow

II. Server Dev. Guide

- Project Package
- SCO Project

III. Screen Dev. Guide

- Screen Structure
- JSP Structure

IV. Screen Example

- Active Diagram
- Query File
- PL/SQL
- JSP

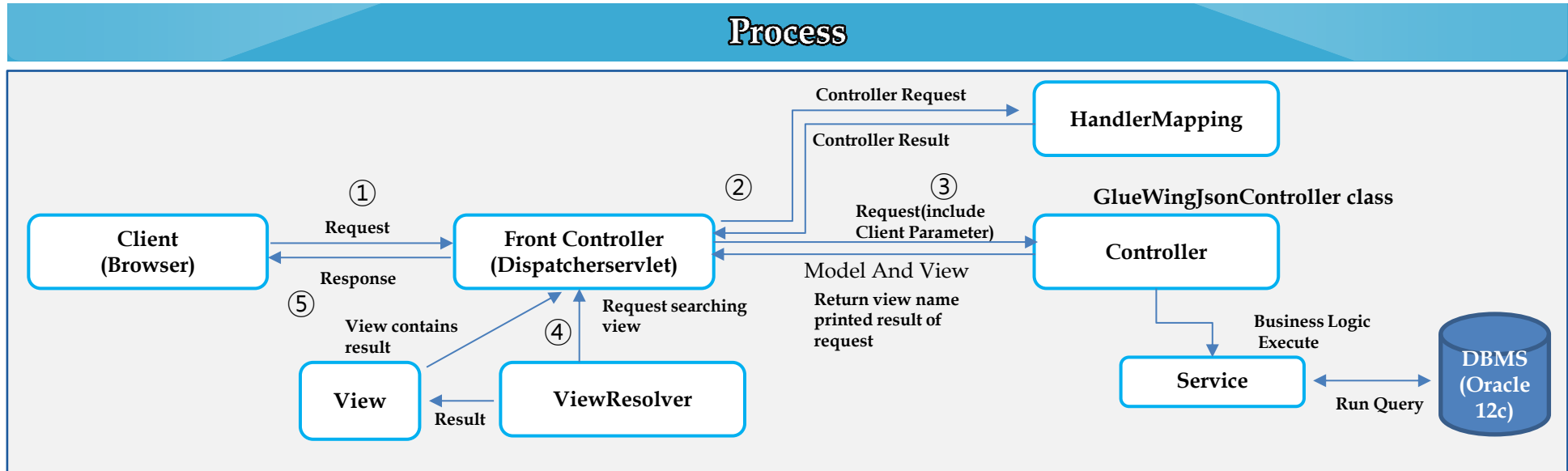
V. Common Function

- Function List
- How to make screen

VI. Interface Dev. Guide → To Do

1. System Process Flow

■ Process Flow



【 Component 】

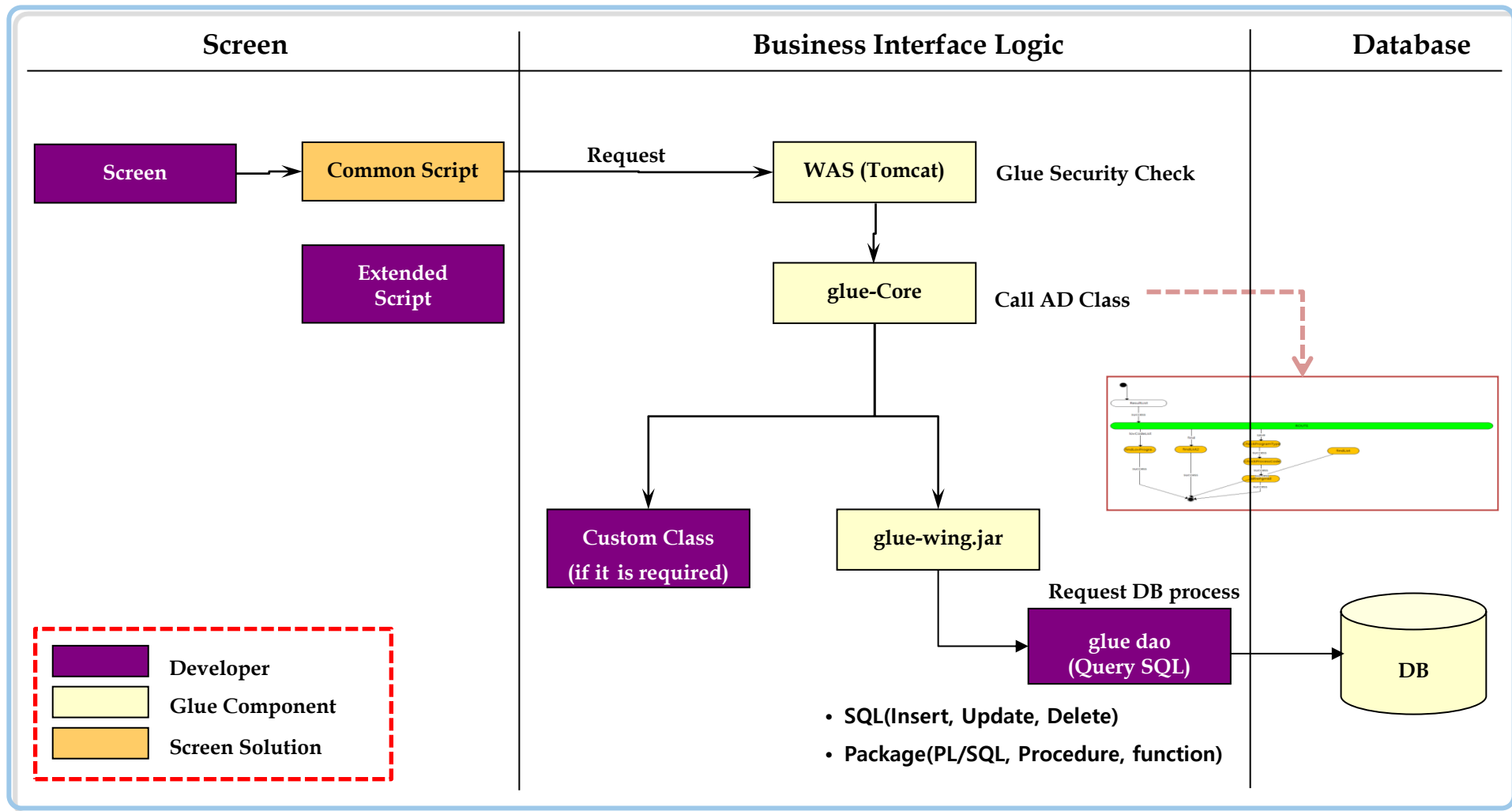
- **DispatcherServlet** : Front Controller (Object created/managed by servlet container)
- **HandlerMapping** : Search container for handling client request
- **Controller** : process controller for client request
- **ModelAndView** : storage object for response view and parameter sending to view
- **ViewResolver** : Searching view
- **View** : Handling Response Logic

【 Process 】

- ① DispatcherServlet receipt request from client.
- ② DispatcherServlet request controller to HandlerMapping.
- ③ DispatcherServlet send request to controller, it return result after handling request.
Create ModelAndView and return to DispatcherServlet.
- ④ ModelAndView request view to ViewResolver.
- ⑤ Display result with result information.

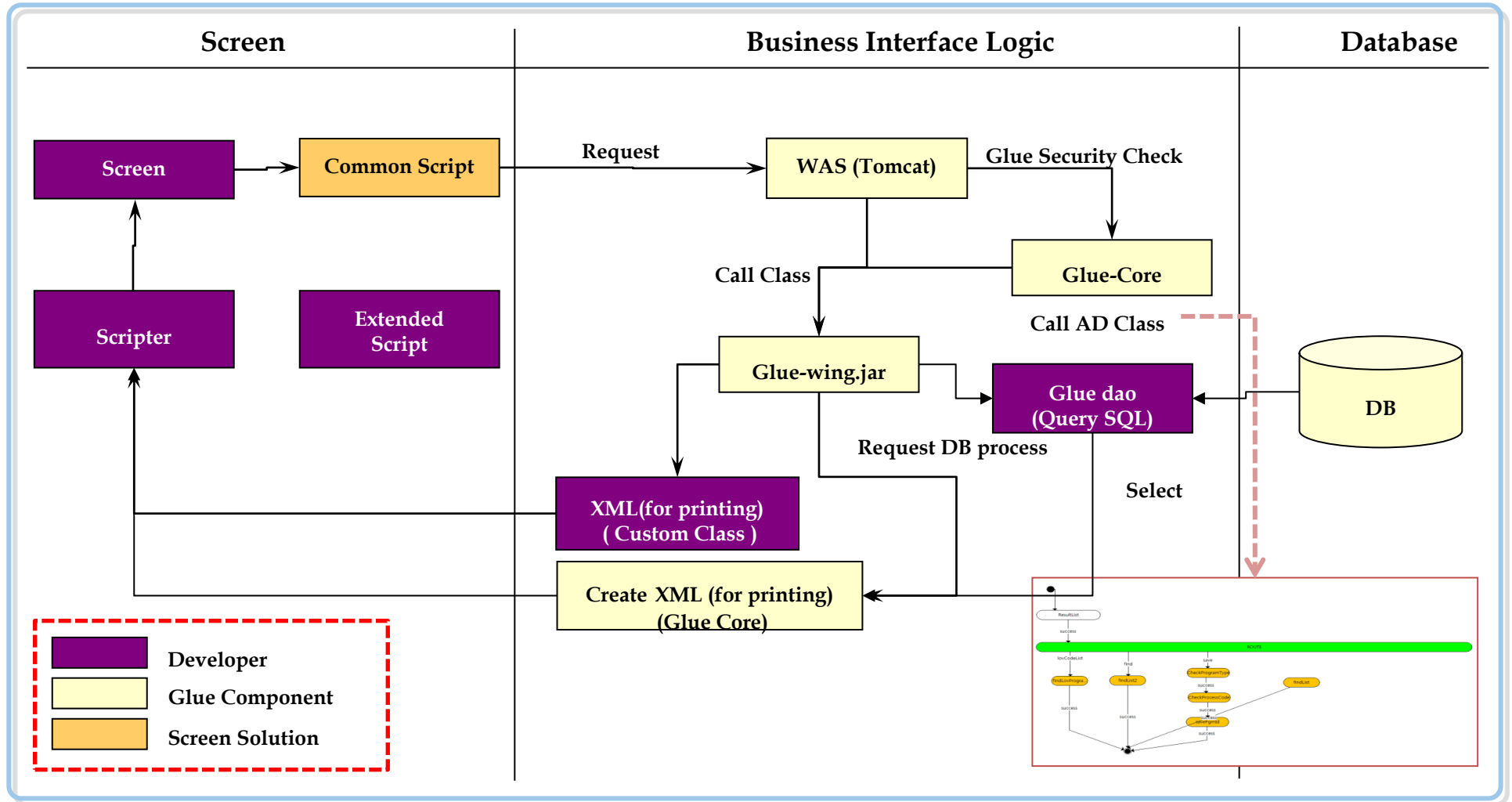
1. System Process Flow

■ Data Inquiry (Screen → DB)



1. System Process Flow

■ Data Inquiry (DB → Screen)



2. Server Development Guide - Project

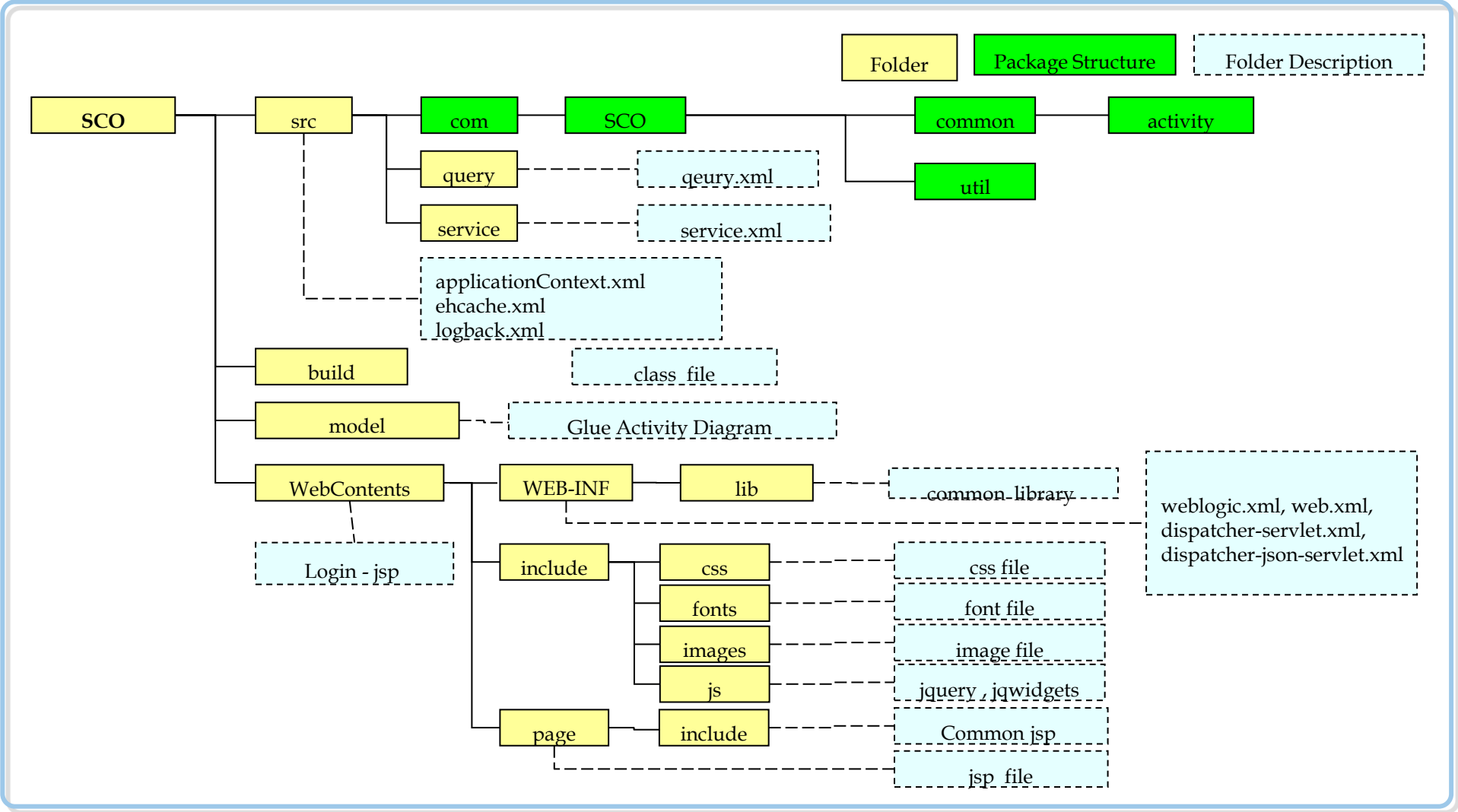
■

Project

System	Process	Module	Description
SCM	销产计划	SMP	Steelpia Sales & Master Planning
	订单管理	SSD	Steelpia Sales & Distribution
	进程管理	SPG	Steelpia Progress Management
	质量设计/管理	SQM	Steelpia Quality Management
	工序计划/生产管控	SCH	Steelpia Scheduling
MES	铁水管控	SIM	Steelpia Iron Making
	炼钢作业	SMS	Steelpia Steel Making Shop
	热轧作业	SHR	Steelpia Hot Rolling
	冷轧作业	SCR	Steelpia Cold Rolling
	厚板作业	SPR	Steelpia Plate Rolling
	순환품	SRS	Steelpia Roll Shop
	厂内运输	SIT	Steelpia Internal Transportation
	仓库管理/出货管理	SYD	Steelpia Yard & Dispatch
System Common	共同	SCO	Steelpia Common

2. Server Development Guide - SCO Package

SCO Project Structure



3. Screen – Main Screen

■ Main Screen Layout

Role

Title
C/R/U/D
Button

Menu

Menu

System

User Mgt

[SCO201] User Management

[SCO202] Employee Management

[SCO203] Employee Information

[SCO001] User Management Sam

Code Mgt

Menu Mgt

Multi-Language

System Mgt

Interface Mgt

Etc.

Equipment Stoppage

Order Inquiry

Quality Design

Chemical Test

Quality Judgment

Order Progress Mgt.

Scheduling

Raw Material Manage

Raw Material YARD

Sinter Plant

[SCO201] User Management x

User Management

User ID ADMIN

User Name

User(Y/N) All Yes No

User Type

Init Password

	ID	Name	User Type	Use(Y/N)	Validate Date		Passwc
					Start Date	End Date	
1	ADMIN	System User	MES User	✓	08-01-2014	31-12-2999	30

View 1-1 of 1

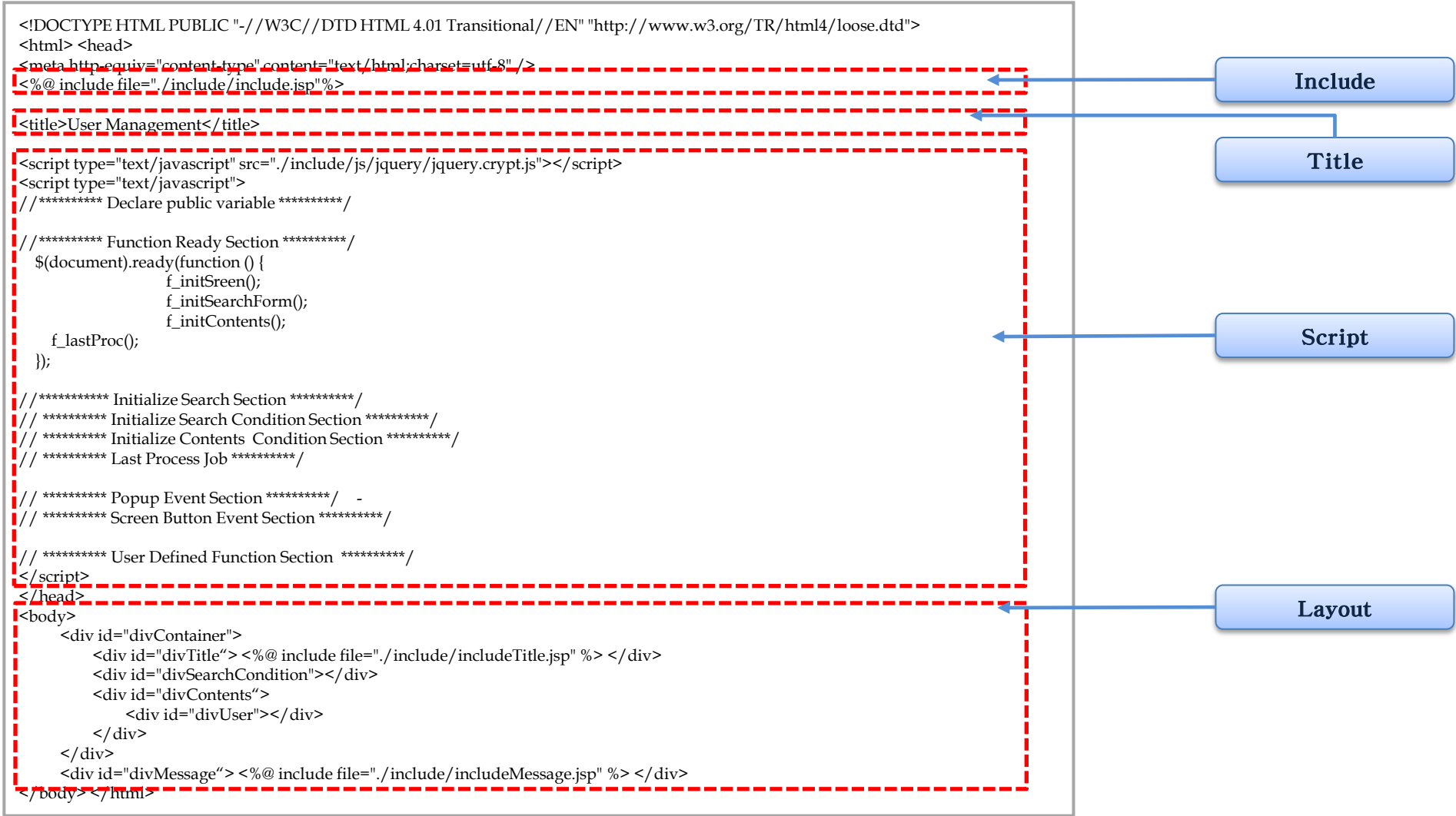
Screen ID

Search

Contents

3. Screen – JSP Source

■ Screen Source Structure



3. Screen – JSP Source: Include

■ Screen Source Structure: Include Area

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">
<html> <head>
<meta http-equiv="content-type" content="text/html; charset=utf-8"/>
<%@ include file="/include/include.jsp"%>

<title>User Management</title>

<script type="text/javascript" src="/include/js/jquery/jquery.crypt.js"></script>
<script type="text/javascript">
// ***** Declare public variable ***** /

// ***** Function Ready Section ***** /
$(document).ready(function () {
    f_initScreen();
    f_initSearchForm();
    f_initContents();

    f_lastProc();
});

// ***** Initialize Search Section ***** /
// ***** Initialize Search Condition Section ***** /
// ***** Initialize Contents Condition Section ***** /
// ***** Last Process Job ***** /

// ***** Popup Event Section ***** / -
// ***** Screen Button Event Section ***** /

// ***** User Defined Function Section ***** /
</script>
</head>
<body>
    <div id="divContainer">
        <div id="divTitle"> <%@ include file="/include/includeTitle.jsp" %> </div>
        <div id="divSearchCondition"></div>
        <div id="divContents">
            <div id="divUser"></div>
        </div>
        <div id="divMessage"> <%@ include file="/include/includeMessage.jsp" %> </div>
    </div>
</body> </html>
```

Include

1. Include file list
 - jqWing
 - jQuery
 - Grid
 - tree
 - POSCO ICT Reuse
 - etc script
2. Request for adding if it is required

3. Screen – JSP Source: Title

■ Screen Source Structure: Title Area

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">
<html> <head>
<meta http-equiv="content-type" content="text/html; charset=utf-8" />
<%@ include file="./include/include.jsp"%>
```

```
<title>User Management</title>
```

```
<script type="text/javascript" src="./include/js/jquery/jquery.crypt.js"></script>
<script type="text/javascript">
// ***** Declare public variable ***** /

// ***** Function Ready Section ***** /
$(document).ready(function () {
    f_initScreen();
    f_initSearchForm();
    f_initContents();
    f_lastProc();
});

// ***** Initialize Search Section ***** /
// ***** Initialize Search Condition Section ***** /
// ***** Initialize Contents Condition Section ***** /
// ***** Last Process Job ***** /

// ***** Popup Event Section ***** / -
// ***** Screen Button Event Section ***** /

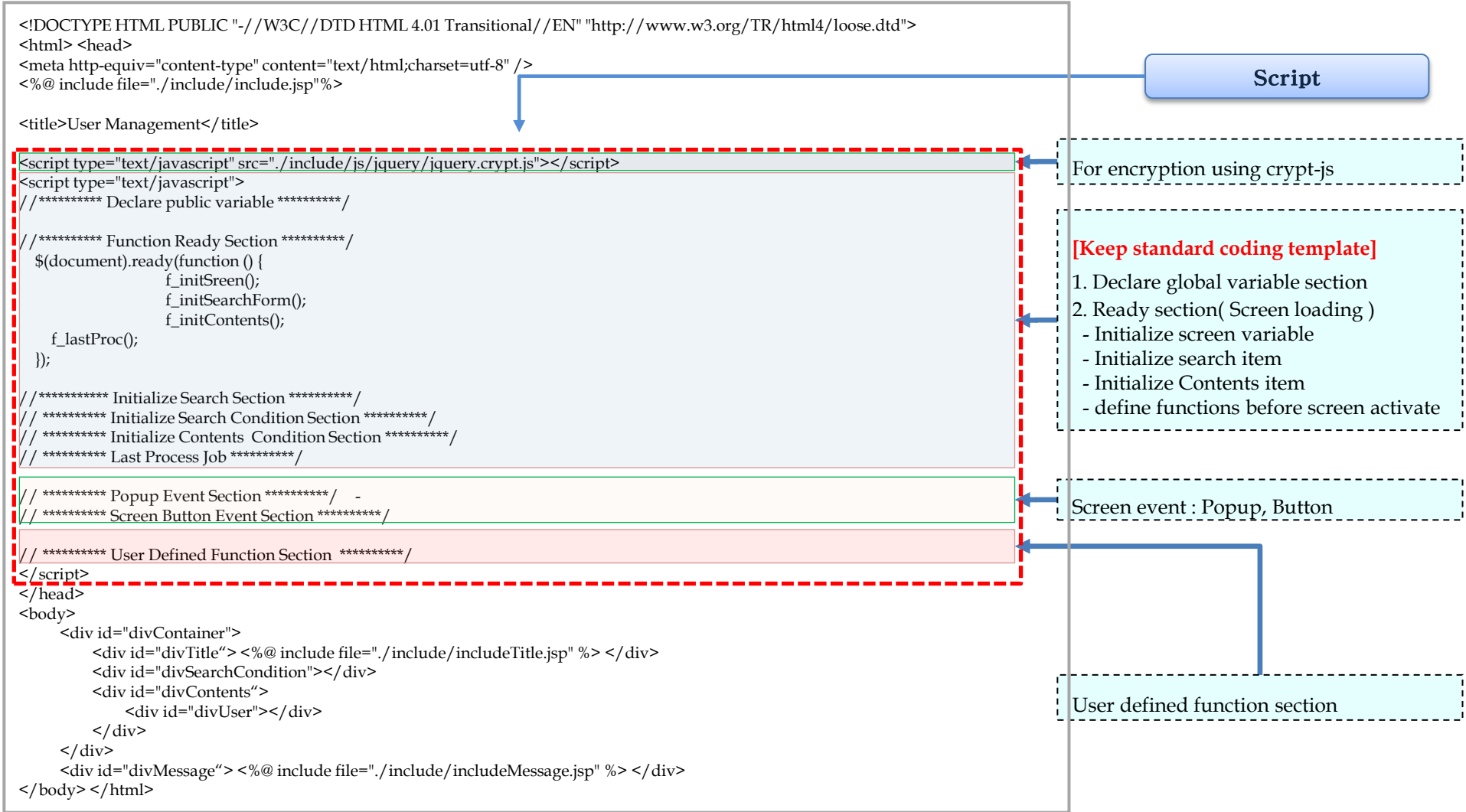
// ***** User Defined Function Section ***** /
</script>
</head>
<body>
    <div id="divContainer">
        <div id="divTitle"> <%@ include file="./include/includeTitle.jsp" %> </div>
        <div id="divSearchCondition"></div>
        <div id="divContents">
            <div id="divUser"></div>
        </div>
        <div id="divMessage"> <%@ include file="./include/includeMessage.jsp" %> </div>
    </div>
</body> </html>
```

Title

1. Change screen title
2. Enter multi language info

3. Screen – JSP Source: Script

Screen Source Structure: Script Area



3. Screen – JSP Source: Layout

Screen Source Structure: Layout Area

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">
<html> <head>
<meta http-equiv="content-type" content="text/html;charset=utf-8" />
<%@ include file="./include/include.jsp"%>

<title>User Management</title>

<script type="text/javascript" src="./include/js/jquery/jquery.crypt.js"></script>
<script type="text/javascript">
// ***** Declare public variable ***** /

// ***** Function Ready Section ***** /
$(document).ready(function () {
    f_initSreen();
    f_initSearchForm();
    f_initContents();

    f_lastProc();
});

// ***** Initialize Search Section ***** /
// ***** Initialize Search Condition Section ***** /
// ***** Initialize Contents Condition Section ***** /
// ***** Last Process Job ***** /

// ***** Popup Event Section ***** / -
// ***** Screen Button Event Section ***** /

// ***** User Defined Function Section ***** /
</script>
</head>
<body>
    <div id="divContainer">
        <div id="divTitle"> <%@ include file="./include/includeTitle.jsp" %> </div>
        <div id="divSearchCondition"></div>
        <div id="divContents">
            <div id="divUser"></div>
        </div>
        </div>
        <div id="divMessage"> <%@ include file="./include/includeMessage.jsp" %> </div>
    </body></html>
```

Layout

[Keep standard coding template]

1. Not change Layout & id

```
<div id="divContainer">
    <div id="divTitle"> </div>
    <div id="divSearchCondition"></div>
    <div id="divContents">
        User Contents Section
    </div>
</div>
<div id="divMessage"> </div>
```
2. Add as below to create contents

```
<div id="divContainer">
    <div id="divTitle"> </div>
    <div id="divSearchCondition"></div>
    <div id="divContents">
        <div id="divUser"></div>
    </div>
</div>
<div id="divMessage"> </div>
```

4. Create Simple Screen

Check Table Exist

■ Development Sequence

Sequence

Create AD(Activity Diagram)

Create SQL, Package

Create JSP Screen

Menu Register

Contents

- ✓ Activity Setting (Class, dao, sql-key, result-key)
- ✓ Generate Service , Transaction Setting

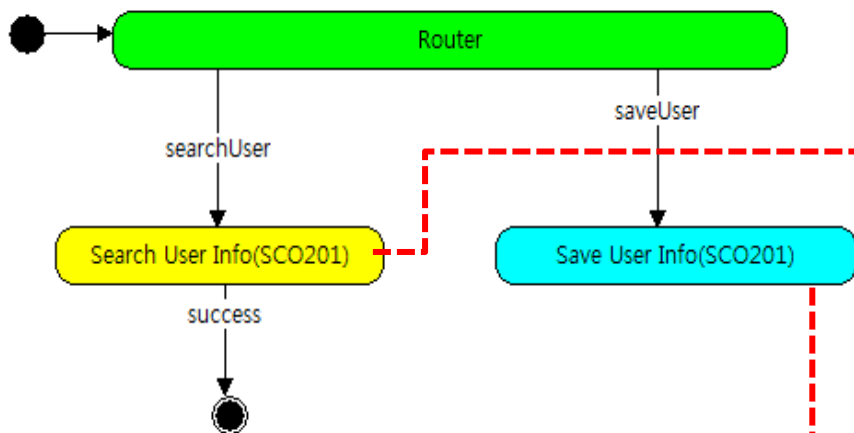
- ✓ Create SQL(insert, update, delete)
- ✓ Create Package (Procedure, Function)

- ✓ Create JSP Screen
- ✓ Search & Contents Item Register

- ✓ Create Menu
(Screen/Menu -> Menu Mapping-> Multi Language)

4.1 Eclipse - AD (Search, Save)

■ Create AD(Active Diagram) (1/3)



■ Activity Setting (2/3)

Activity Setting

Search

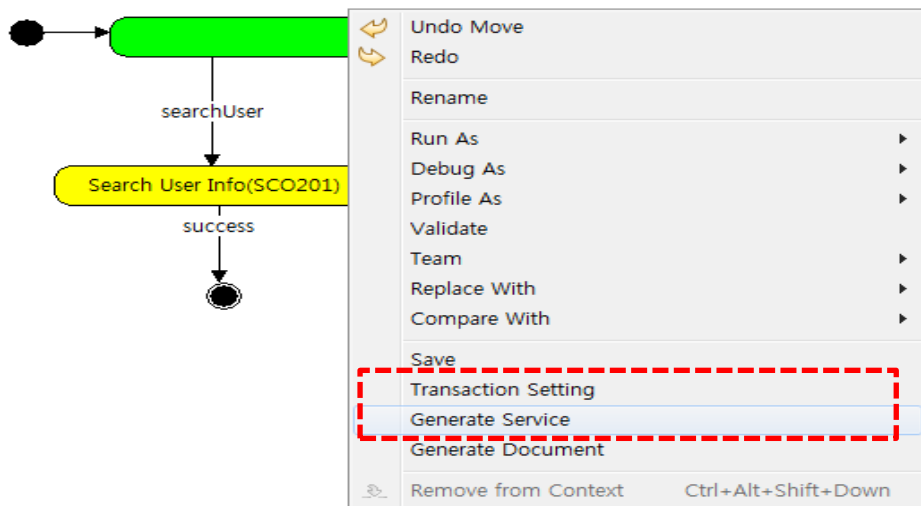
Name : Search User Info(SCO201)

Properties :

Name	Value
<input type="checkbox"/> class	com.poscoict.gluewing.activity.json.GlueWingJSONSearch
<input type="checkbox"/> dao	masterdao
<input type="checkbox"/> sql-key	user.select
<input type="checkbox"/> result-key	RK_USER

Need Change: sql-key, result-key

■ Create Service, Transaction Setting (3/3)



Activity Setting

Save

Name : Save User Info(SCO201)

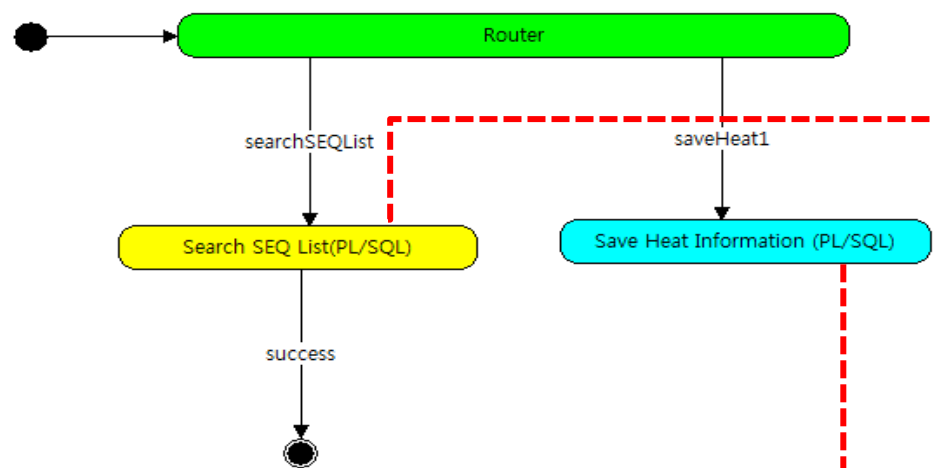
Properties :

Name	Value
<input type="checkbox"/> class	com.poscoict.gluewing.activity.json.GlueWingJSONSave
<input type="checkbox"/> dao	masterdao
<input type="checkbox"/> json-keylist	USER_INFO
<input type="checkbox"/> table-name	SCO_USER
<input type="checkbox"/> result-key	query.id_updateCnt

Need Change: json-key, table-name

4.1 Eclipse - AD (Oracle Package)

■ Create AD(Active Diagram) (1/3)



■ Activity Setting (2/3)

Name : Search

Search SEQ List(PL/SQL)

Properties :

Name	Value
<input type="checkbox"/> class	com.poscoict.gluewing.activity.json.GlueWingJSONOracleCursor
<input type="checkbox"/> dao	mesdao
<input type="checkbox"/> procedure-name	BSCH_PLAN_SEARCH.P_SEARCH_SEQ_LIST
<input type="checkbox"/> result-key	RK_SEQ_LIST

Need Change: procedure-name

Name : Save

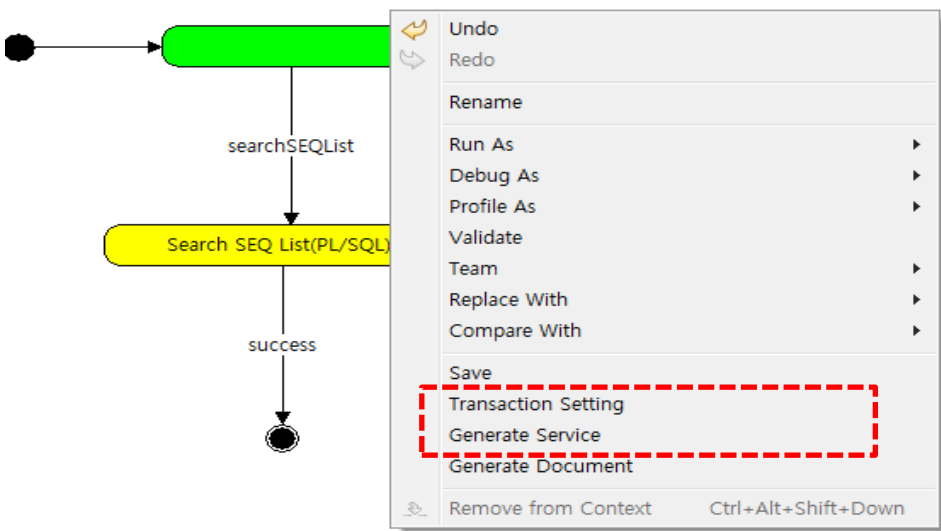
Save Heat Information (PL/SQL)

Properties :

Name	Value
<input type="checkbox"/> class	com.poscoict.gluewing.activity.json.GlueWingJSONOracleProcedure
<input type="checkbox"/> dao	mesdao
<input type="checkbox"/> json-keylist	GRID_INFO
<input type="checkbox"/> procedure-name	BSCH_PLAN_ADJUST.P_SAVE_HEAT_INFO1
<input type="checkbox"/> result-key	rowCnt

Need Change: json-keylist, procedure-name

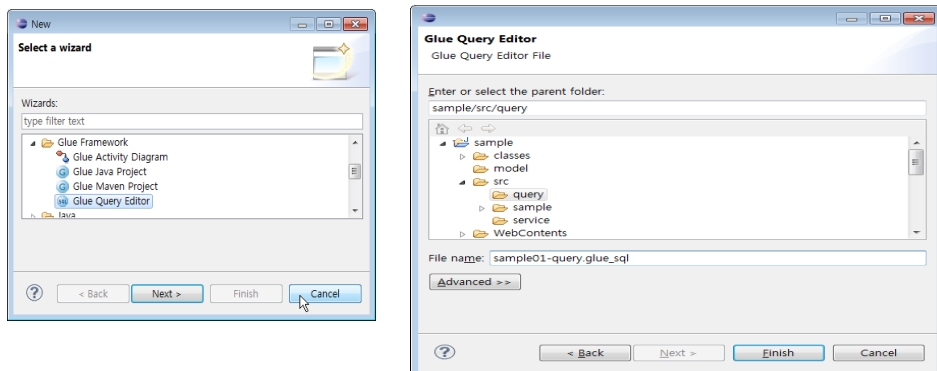
■ Create Service, Transaction Setting (3/3)



4.2 Eclipse – Query File

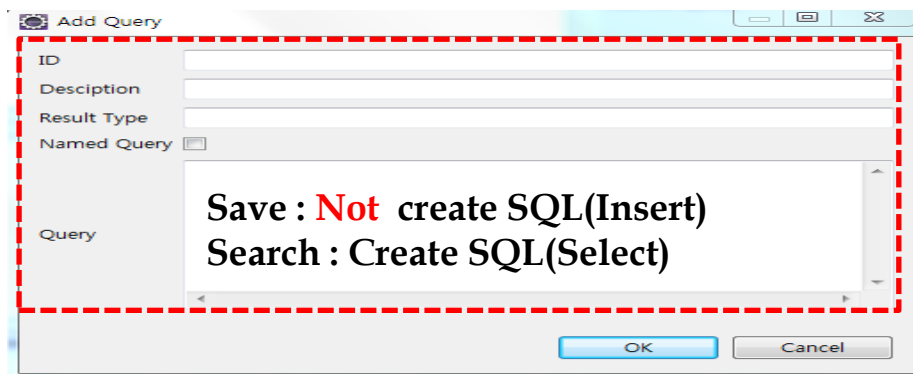
■ Create Query Editor (1/4)

- File > New > Other > Glue Framework > Glue Query Editor



■ Create Query Editor (1/3)

- Example : query id="user.select" desc="User info select" resultType=""

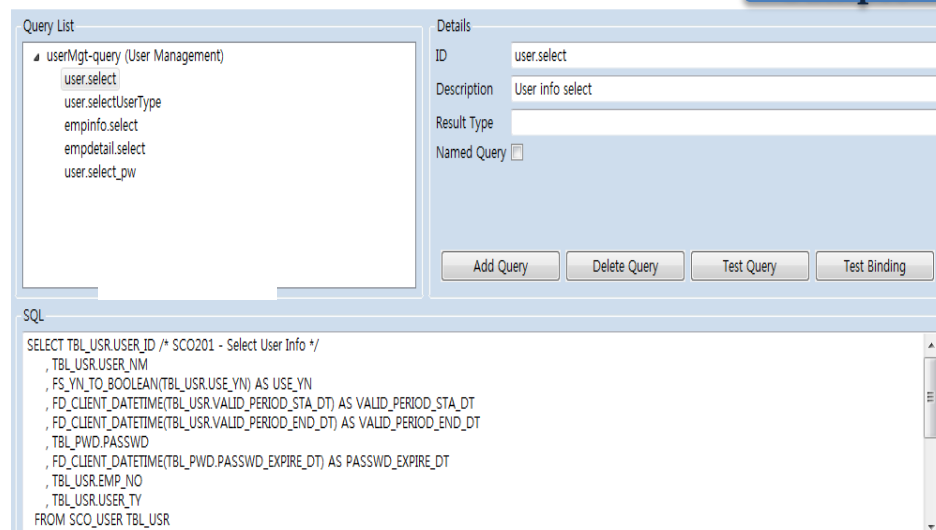


■ Context of Glue Query Editor (2/4)

- **Query Map**
 - desc : describe query contents
- **Query**
 - id: should be unique in project
 - desc: description
 - return type: aaaa
 - isNamed :
 - true) binding parameter :name
 - false) binding parameter: ?

■ SQL Statement (4/4)

Sample



4.3 Eclipse - PL/SQL

■ Create Package - Spec (1/2)

```
CREATE OR REPLACE PACKAGE MESAPUSER.BSCH_PLAN_SEARCH AS
TYPE V_CUR IS REF CURSOR;
/*****
* PROGRAM HEADER
+++++
* -----
* System Name   - MES SYSTEM
* Sub_System Name - SCH MODULE
* Program Name   - BSCH_PLAN_SEARCH
* Description    - Scheduling Common Select Query Package for UI(SCH000,,,,,)
*****/

-- *****
-- MAIN SEARCH FOR SEQ List - SCH004
-- *****

PROCEDURE PR_SEARCH_SEQ_LIST(
    P_CUR      OUT V_CUR
);

-- *****
-- MAIN SEARCH FOR SEQ List - SCH006
-- *****

PROCEDURE PR_SEARCH_SEQ_LIST2(
    P_PLAN_DT_FROM IN VARCHAR
    ,P_PLAN_DT_TO  IN VARCHAR
    ,P_ORDER_BY    IN VARCHAR
    ,P_FINISH_TY   IN VARCHAR
    ,P_CUR         OUT V_CUR
);
END BSCH_PLAN_SEARCH;
/
```

Sample

■ Create Package - Body (2/2)

```
CREATE OR REPLACE PACKAGE BODY MESAPUSER.BSCH_PLAN_SEARCH
AS
/*****
* PROGRAM HEADER
+++++
* -----
* System Name   - MES SYSTEM
* Sub_System Name - SCH MODULE
* Program Name   - BSCH_PLAN_SEARCH
* Description    - Scheduling Common Select Query Package for UI(SCH000,,,,,)
*****/

-- *****
-- MAIN SEARCH FOR SEQ List - SCH004
-- *****

PROCEDURE PR_SEARCH_SEQ_LIST(
    P_CUR      OUT V_CUR
) IS
BEGIN

    OPEN P_CUR FOR
    SELECT *
    FROM (SELECT SEQ_NO
              ,SEQ_NO ORI_SEQ_NO
              ,COUNT(PLAN_HEAT_NO) HEAT_TOT_CNT
              ,SUM(CASE WHEN PLAN_HEAT_STS IN ('A1','A2') THEN 1
              ELSE 0 END) AS HEAT_IN_SCH_CNT
              ,SUM(CASE WHEN PLAN_HEAT_STS IN ('A3','A4','A5') THEN 1
              ELSE 0 END) AS HEAT_IN_PROC_CNT
              )
    WHERE HEAT_FINISH_CNT != HEAT_TOT_CNT
    ORDER BY SEQ_NO;

    RETURN;

END P_SEARCH_SEQ_LIST;
END BSCH_PLAN_SEARCH;
/
```

Sample

4.4 Eclipse – JSP

■ Only modify “red part”

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html> <head>
<meta http-equiv="content-type" content="text/html; charset=utf-8" />
<%@ include file="./include/include.jsp"%>

<title>Title</title>

<script type="text/javascript"
src="./include/js/jquery/jquery.crypt.js"></script>
<script type="text/javascript">
//***** Declare public variable *****/
var gridUser;

//***** Function Ready Section *****/
$(document).ready(function () {
    f_initScreen();
    f_initSearchForm();
    f_initContents();
    f_lastProc();
});
//***** Initialize Search Section *****/
function f_initScreen() {
    serviceName = 'service-name';
};
//***** Initialize Search Condition Section *****/
function f_initSearchForm() {
    fc_makeSearch( "USER_INFO", "" );
};
//***** Initialize Contents Condition Section *****/
gridUser = fc_makeGrid( 'divUser', 'insert', 'USER_INFO', "", false );
gridUserId = gridUser.getGridId();

//***** Last Process Job *****/
```

```
//***** Screen Button Event Section *****/
function f_search() {
    fc_addParamForm( 'divSearchCondition' );
    fc_searchGrid( [ { gridId: gridUserId, resultKey: 'RK_USER' } ], serviceName,
'searchUser' );
};
function f_save() {
    if( !f_beforeSave() ) return;
    fc_saveGrid( [ gridUserId ], "", serviceName, 'saveUser', "", 'Y', 'Y' );
};

</script>
</head>
<body>
    <div id="divContainer">
        <div id="divTitle"> <%@ include file="./include/includeTitle.jsp" %>
    </div>

        <div id="divSearchCondition"></div>
        <div id="divContents">
            <div id="divUser"></div>
        </div>
    </div>
    <div id="divMessage"> <%@ include
file="./include/includeMessage.jsp" %> </div>
</body> </html>
```

4.4 Eclipse – JSP: Search Condition

[SCO201] User Management x

User Management Search Save Delete Close

Search Item

User ID ADMIN User Name Use(Y/N) All Yes No User Type Init.Password

		User	User Type	Use(Y/N)	Validate Date		Password Expire Date	Employee No
		ID	Name		Start Date	End Date		
1	<input type="checkbox"/>	ADMIN	System User	MES User	<input checked="" type="checkbox"/>	08-01-2014	31-12-2999	30-07-2014

```

/***** Define Search Items *****/
function fc_getSearchItems( sKey, sSubKey, attribute1, attribute2 ) {
objItems = null;
objGrpItems = null;

switch ( sKey ) {
case 'USER_INFO' : // SCO201, SCO242, SCO224
objItems = [
{groupname: 'divSearch1', caption: 'User ID' , name: 'USER_ID', width: 170, datatype: 'popup', uppercase: true },
{groupname: 'divSearch1', caption: 'User Name', name: 'USER_NM', width: 150, datatype: 'text'},
{groupname: 'divSearch1', caption: 'Use Yes/No', name: 'USER_YN', width: 150, datatype: 'radio', itemCd: 'USE_YN'},
{groupname: 'divSearch1', caption: 'User Type', name: 'USER_TY', width: 150, datatype: 'lov'}
];

if ( fc_isNull( sSubKey ) ) // SCO201
objItems.push( {groupname: 'divSearch1', caption: 'Init.Password', name: 'INIT_PWD_BTN', width: 150, datatype: 'button', itemCd: 'CAP_INIT_PWD_BTN'} );
else if ( sSubKey == 'NOT_INCLUDE_USE_YN' ) {
objItems.splice(2,2);
}
else if ( sSubKey == 'MAP' ) {
objItems.push( {groupname: 'divSearch1', caption: 'Menu Information (Exclusion)', name: 'MNU_MAPPED_EX', itemCd: 'CAP_MNU_INFO_EX', width: 150, datatype: 'radio'} );
}
break;
};
};
};
```

4.4 Eclipse – JSP: Contents Item

[SCO201] User Management x

User Management Search Save Delete Close

User ID ADMIN User Name Use(Y/N) All Yes No User Type Init Password

		User		User Type	Use(Y/N)	Validate Date		Password Expire Date	Employee No
		ID	Name			Start Date	End Date		
1	<input type="checkbox"/>	ADMIN	System User	MES User	<input checked="" type="checkbox"/>	08-01-2014	31-12-2999	30-07-2014	

Contents Item

```
function fc_getGridItems( sKey, sSubKey, caption_flag, attribute1, attribute2 ) {
objItems = null; objGrpItems = null; gridId = ""; gridKey = sKey; var sCaption = "", sItemCd = "";

switch ( sKey ) {
case 'USER_INFO':
gridId = 'gridUser';
if ( caption_flag ) {
sCaption = 'User Information';
sItemCd = 'CAP_USER_INFO';
};
objGrpItems = [
{caption: 'User', name:'USER_ID_GRP', align:'center',itemCd: 'CAP_USER' },
{caption: 'Validate Date', name:'VALID_PERIOD_DT_GRP', align:'center',itemCd: 'CAP_VALID'}
];
objItems = [
{caption: 'ID', name: 'USER_ID', width: 200, datatype: 'text', itemCd: 'CAP_ID', group:'USER_ID_GRP' },
{caption: 'Name', name: 'USER_NM', width: 200, datatype: 'text', itemCd: 'CAP_NM', group:'USER_ID_GRP' },
{caption: 'User Type', name: 'USER_TY', width: 150, datatype: 'lov' },
{caption: 'Use ?', name: 'USE_YN', width: 70, datatype: 'checkbox'},
{caption: 'Start Date', name: 'VALID_PERIOD_STA_DT', width: 150, datatype: 'date', itemCd: 'CAP_STA_DT', group:'VALID_PERIOD_DT_GRP'},
{caption: 'End Date', name: 'VALID_PERIOD_END_DT', width: 150, datatype: 'date', itemCd: 'CAP_END_DT', group:'VALID_PERIOD_DT_GRP'},
{caption: 'Password', name: 'PASSWD', width: 100, datatype: 'password'},
{caption: 'Password Expire Date', name: 'PASSWD_EXPIRE_DT', width: 150, datatype: 'date'},
{caption: 'Employee No', name: 'EMP_NO', width: 150, datatype: 'text'}
];
break;
};
};
};
```

4.4 Eclipse – JSP: Popup

JSP Source: modify “red part”

```
<html>
<head>
<meta http-equiv="content-type" content="text/html;charset=utf-8" />
<%@ include file="./include/include.jsp"%>
<title>User Management</title>

<script type="text/javascript" src="./include/js/jquery/jquery.crypt.js"></script>

<script type="text/javascript">
// ***** Function Ready Section
$(document).ready(function () {
    f_lastProc();
}); // end of ready

// ***** Last Process Job
function f_lastProc() {
    fc_setCodeList([
        {object: 'USER_ID', code: 'USER_LIST'}
    ]);
}; // end of f_lastProc

function f_setParamPopup () {
    var returnObj = new Object();
    var sOptTitle = fc_getLabelText( 'LBL_USER_ID' ) + ", " + fc_getLabelText( 'LBL_USER_NM' );
    var sOptSearch = fc_getInputVal( 'USER_ID' ) + ", " + fc_getInputVal( 'USER_NM' );
    var pTitle = fc_getMultiItem( 'CAP_USER_INFO' );

    returnObj['title'] = pTitle;    // set popup title
    returnObj['manSearch'] = "";
    returnObj['optTitle'] = sOptTitle;
    returnObj['optSearch'] = sOptSearch;
    returnObj['optResult'] = sOptTitle;

    return returnObj;
}
</script>
</head>

<body>
<div id="divContainer">
<div id="divTitle"> <%@ include file="./include/includeTitle.jsp"%> </div>
<div id="divSearchCondition"></div>
<div id="divContents">
<div id="divUser"></div>
</div>
</div>
<div id="divMessage"> <%@ include file="./include/includeMessage.jsp"%> </div>
</body>
</html>
```

Test Screen

[SCO201] User Management x

User Management

User ID User Name Use(Y/N) All Yes No User Type Init.Password

click

User Information

User ID User Name Search

	User ID	User Name
1	MOZAR.MEDEIROS	Mozar Medeiros
2	PABLO.MARTINS	Pablo Martins
3	RAFAEL.KARDOSO	Rafael Kardoso
4	THIAGO.VICTOR	Thiago Victor
5	BACKSANG	backsang KIM
6	REINALDO.AZEVEDO	Reinaldo Azevedo
7	ROBERTO.COLELLA	Roberto Colella
8	DANIEL.MAIA	Daniel Martins Maia
9	WILSON.PAULINO	Wilson Paulino
10	FERNANDO.ALMEIDA	Fernando Almeida
11	EDUARDO.FERREIRA	Eduardo Ferreira
12	ANDERSON.RODRIGUES	Anderson Porto Rodrigues
13	GIOVANNI.RODRIGUES	Giovanni Marcchinely Oliveira Rodrig...

Ok Cancel

4.5 System - Menu

■ Enter New Screen Info(Screen Mgt.)

[SCO021] Screen Management x

Screen Management

Search Save Delete Close

Biz Chain Common Screen Id Screen Name

	Screen Id	Screen Name	Biz Chain	Screen Function				Custom Function					
				Search	Save	Delete	Confirm	Button1	Name1	Button2	Name2	Button3	Name3
1	SC0001	User Management Sample	Common	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	

■ Enter Menu Info

[SCO023] Menu Management x

Menu Management

Search Save Delete Close

(-) Collapse All (+) Expand All

Root

System

Remote Mgt

User Mgt

✓ [SCO010] User Management

✓ [SCO032] Employee Management

✓ [SCO033] Employee Information

✓ [SCOPM1] Change Password

✓ [SCO001] User Management Sample

Code Mgt

Menu Mgt

Current Menu

Menu Name	User Mgt
Parent Menu	System
Group	<input checked="" type="checkbox"/>
Program ID	

Child Menu Information

	Menu Name	Group	Menu ID	Sequence	Program ID	Use(Y/N)	Param1	Param2	Pi
1	User Management		M000000005	0	SC0201	<input checked="" type="checkbox"/>			
2	Employee Management		M000000006	1	SC0202	<input checked="" type="checkbox"/>			
3	Employee Information		M000000007	2	SC0203	<input checked="" type="checkbox"/>			
4	Change Password		M000000404	3	SCOPM1	<input checked="" type="checkbox"/>			
5	User Management Sample		M000000597	4	SC0001	<input checked="" type="checkbox"/>			

■ Menu mapping

[SCO021] Menu Mapping to User x

Menu Mapping to User

Search Save Close

User ID ADMIN User Name User(Y/N) All Yes No User Type Menu Information (Exclusion) Yes No

User Information

User ID	User Name
1 ADMIN	System User

Screen Id SC0001 Screen Name Biz Chain Program Type Search

Menu Information (Inclusion)

	Name	ID	Biz Chain	Screen Function				Custom Function			
				Search	Save	Delete	Confirm	Button1	Button2	Button3	Pi
No data to display											

Menu Information (Exclusion)

	Name	ID	Biz Chain	Screen Function				Custom Function			
				Search	Save	Delete	Confirm	Button1	Button2	Button3	Pi
1	[M000000597] User Management Sample	SC0001	Common	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sc

■ Enter Multi Language Info

[SCO396] Multi-Language (Menu) x

Multi-Language (Menu)

Search Save Close

Menu ID Menu Name Program ID SC0001

	Menu Name	Menu ID	Group	Program ID	Screen Name
1	User Management Sample	M000000597		SC0001	User Management Sample

View 1-1 of 1

	Language	Contents
1	English	User Management Sample
2	Korean	사용자 관리 샘플
3	Portugues	

5.1 Common Functions – Screen Structure(Default)

■ Screen Structure – Default Layout

TC Log Inquiry

1

Search

Close

2

Owner ChainTC IDFormat IDSenderReceiver

Date

19-01-2016 00:00:00

~

20-01-2016 00:00:00

TypeStatus

3

Create Object

Datetime

Type

Status

TC ID

Sender

Receiver

Contents

Contents

No data to display

No records to view

5.1 Common Functions – Screen Structure (Multi)

Screen Structure – Multi Layout

2

Order Design Result Inquiry

1

Search

Save

Delete

Confirm

Re-Design

Close

Order No

0000001150

Item

020

Order Information

Order Information

Specification	Specification Year	Order Quantity	Destination	Order Size	Usage	Customer Code	Final Customer Code
S355-N2	2004	250	ESTADOS UNIDOS	300 x 1500 x 8000	CZ1	600002	
Dispatch Mode	Order Status	Delivery Condition	Consignee	Urgent	Product Code	Country	CSR-No
Road-Maritime	Wait for Quality Confirm	CIF			Slab	US	6000020001
Order Register	Order Confirm Date	Order Class			Delivery Date	Product Group	Order Type
19-01-2016	19-01-2016	Export Direct			14-02-2016	S	Sale Exp.Direct MTO

Form Object

Order Designed Header

IMC	Steel Grade	2nd. Refining	De-	gn Scarf Type	MSC	Design Status
	W04023HCXX1	3:LF		DR3001	check scarfing (03, 53 s	PAJ01 Waiting For Confirmation

4

Chemical Composition

Internal Quality Properties

Tolerance Value

SMS Operation Parameter

CC Operation Parameter

Design Error

Design Step

5

	<input type="checkbox"/>	Chemical Code	Customer Spec.			International Spec.			Internal Spec.			Assurance Spec.		
			Min	Max	Charact	Min	Max	Charact	Min	Max	Charact	Min	Max	Charact
1	<input type="checkbox"/>	C	0,02	0,06		0,13	0,17					0,02	0,06	
2	<input type="checkbox"/>	Si												
3	<input type="checkbox"/>	Mn												
4	<input type="checkbox"/>	P												
5	<input type="checkbox"/>	S												
6	<input type="checkbox"/>	Cu												
7	<input type="checkbox"/>	Tot-Al												
8	<input type="checkbox"/>	Nb												
9	<input type="checkbox"/>	Ni												
10	<input type="checkbox"/>	Ti												
11	<input type="checkbox"/>	V												
12	<input type="checkbox"/>	N												

Grid Object

Role		
Mandatory Functions By Role		
Seq.	function name	Role
1	f_search	Search
2	f_save	Save
3	f_delete	Delete
4	f_confirm	Confirm
5	f_cust1	Cust1
6	f_cust2	Cust2
7	f_cust3	Cust3
8	f_cust4	Cust4
9	f_cust5	Cust5

Common javascript	
Area	File name
1	jqueryFormUtils.js
2	jqueryTabUtils.js
3	jqueryGridUtils.js
4	jqueryInitUtils.js
5	jqueryCommon.js

5.2 Common Functions

Common Function List

Seq.	Name	Description
1	jQueryChartUtils.js	Chart module
2	jQueryCommon.js	set Screen Role, Screen Title, Screen Resize, Multi language .. Other features
3	jQueryFormUtils.js	Create element (HTML Element), Make Table, get/set Element Value,
4	jQueryFunctions.js	Common javascript function
5	jQueryGridUtils.js	Grid module
6	jQueryInitUtils.js	Component Management - System environment variables - Glue Service Call(Ajax Transition) - Authority Inquiry, setup - Others System Information Inquiry, setup
7	jQueryLogin.js	Login module
8	jQueryMessageBoxUtils.js	Message Box module - information, confirm, error
9	jQueryMessageUtils.js	Multi Language of System
10	jQueryTabUtils.js	Tab module
11	jQueryTreeGridUtils.js	TreeGrid module
12	jQueryTreeUtils.js	Rebuild JS-Tree module
13	jQueryValidatorUtils.js	Validate value objects -Required fields, Type (Date)
14	jQueryWindowUtils.js	Popup module - Design
15	jqxGridLocalization.js	JqWigets Generated by the Globalize Culture Generator - Date Format, Number Format

5.3 How to make screen – Screen

■ JSP: Body Section

Sample Page

Search Save Delete Confirm Custom1 Custom2 Custom3 Close

Dispatch Order Date ~ Dispatch Order Staus Dispatch Order No Order No

Customer Code Vessel Name Vessel Assign No Customer Name

Search

Contents

<div id="divContents">

Height 0 0 0

Form(Table)

<div id='divFormFieldAarea' style='width:100%; height:auto; min-height: 115px; '>

<div id="divCraneTbl" style="width:100%; height: auto; min-height: 105px;"></div>

</div>

Chemical Petrographic Analysis

Order Weight Dispatch Order No

Weight Min Max Slabs Weight Order No

Finished Date Due Date Pieces Short Weigh

Tab Grid

<div id='divMultObjectAarea' style='height: 100%; '>

<div id="divDetailMasterTab" floattype="left" style='width:40%; height:100%'></div>

<div id="divMaster" floattype="left" style="width:30%; height:100%;"></div>

<div id="divDetail" floattype="left" style="width:30%; height:100%;"></div>

</div>

No data to display

No data to display

No data to display

No records to view

No records to view

No records to view

I Create Tomorrow
by Imagining, Creating & Transforming

Copyright © 2016 POSCOICT Co, Ltd. All Rights Reserved| Confidential

posco
포스코ICT

5.3 How to make screen – Screen Layout

■ JSP: Body Section

CSS Attribute

```
<div id="divSearchCondition"></div>
<div id="divContents">
  <div id='divFormFieldAarea' style='width:100%; height:auto; min-height: 115px;'>
    <div id="divCraneTbl" style="width:100%; height: auto; min-height: 105px;"></div>
  </div>
  <div id='divMultObjectAarea' style='height: 100%;'>
    1 <div id="divDetailMasterTab" floattype="left" style='width:40%; height:100%'></div>
    <div id="divMaster" floattype="left" style="width:30%; height:100%;"></div>
    <div id="divDetail" floattype="left" style="width:30%; height:100%;"></div>
  </div>
</div>
```

CSS Attribute

Vertical Alignment

```
#divContents div[floattype='group'] {
  position: relative;
  /* overflow: auto; */
  width: 100%;
  height: inherit;
}
```

Horizontal Alignment

```
/* TODO : 스크롤 발생시 화면 폭어느 현상이 있음 JS
#divContents div[floattype='left'] {
  float: left;
  overflow: hidden;
  width: 100%;
  height: inherit;
}
```

Inline block Type

```
[div[grptype='group']]>div {
  /*padding: 3px;*/
  display: inline-block;
  vertical-align: middle;
}
```

SCO : no need change

1. <Division> divSearchCondition : Search Area
2. < Division > divContents : Contents Area
- Grid, Tab, Form Object

Developer: need modification

5.3 How to make screen – Search Condition

■ JSP: Search Condition

```
var targetObj = $( '#divSearchCondition' );
var objList = [
    {groupname: 'divSearchGrp', caption: 'Dispatch Order Date', name: 'DORD_DTM_GR', itemCd: 'DORD_DTM', width: 100, datatype: 'daterange', target: ['DORD_DTM_FR', 'DORD_DTM_TO', 'date']}
    ,{groupname: 'divSearchGrp', caption: 'Dispatch Order Status', name: 'DORD_STS', width: 120, datatype: 'lov' }
    ,{groupname: 'divSearchGrp', caption: 'Dispatch Order No', name: 'DORD_NO', width: 80, datatype: 'text', uppercase: true }
    ,{groupname: 'divSearchGrp', caption: 'Order No', name: 'ORD_NO', width: 80, datatype: 'text', uppercase: true }
    ,{groupname: 'divSearchGrp2', caption: 'Customer', name: 'CUST_CD', width: 100, datatype: 'popup', uppercase: true }
    ,{groupname: 'divSearchGrp2', caption: 'Vessel Name', name: 'SHIP_NM', width: 80, datatype: 'text' }
    ,{groupname: 'divSearchGrp2', caption: 'Vessel Assign No', name: 'SHIP_ASSN_NO', width: 80, datatype: 'text', uppercase: true }
    ,{groupname: 'divSearchGrp2', caption: 'Customer Name', name: 'CUST_NM', width: 100, datatype: 'header', hidden: true }
];
// make HTML
fc_createDOM( targetObj, objList );
```

Seq.	Attribute	Description	Seq.	Attribute	Description
1	align	Left, right, middle	9	itemValue	Multi domain Item Attribute
2	caption	Field Label Caption	10	lowercase	Value Lower Case
3	datatype	Data Type	11	maxlength	Field Max length
4	defval	Default Value	12	name	Element Object name
5	height	number Height	13	readonly	Boolean read only
6	hidden	boolean hidden	14	required	Boolean mandatory
7	integers	Integer Digits	15	uppercase	value Upper Case
8	itemCd	Multi domain Item Cd	16	width	number Width

5.3 How to make screen – Table

■ JSP: Contents Area (Table)

Classification	Crane / Bed	Slabs		Height	Width Difference	Length Difference
		Weight	Height	0	0	0
		0	0,00	0	0	0
		0		0		

```

var tableObj = $( '#divCraneTbl' );
var tableId = 'tblCrane';
var colWidths = [100, 100, 100, 100, 100, 100, 100];
var colObjList = [
    {caption: 'Classification', name: 'ROW_SPAN', itemCd: 'CAP_CLS', datatype: 'header'},
    {caption: 'Crane / Bed', name: 'ROW_SPAN2', itemCd: 'CAP_CRN_BED', datatype: 'header'},
    {caption: 'Pieces', name: 'COL_SPAN1', itemCd: 'CAP_PCS', datatype: 'header'},
    {caption: 'Pieces', name: 'COL_SPAN1', itemCd: 'CAP_PCS', datatype: 'header'},
    {caption: 'Height', name: 'YD_MAX_LOAD_HGT_HD', itemCd: 'CAP_HGT', datatype: 'header'},
    {caption: 'Width Difference', name: 'YD_MAX_DIFF_WTH_HD', itemCd: 'CAP_WTH_DIFF', datatype: 'header'},
    {caption: 'Length Difference', name: 'YD_MAX_DIFF_LTH_HD', itemCd: 'CAP_LTH_DIFF', datatype: 'header'},

    {caption: 'Classification', name: 'ROW_SPAN', itemCd: 'CAP_CLS', datatype: 'header'},
    {caption: 'Crane / Bed', name: 'ROW_SPAN2', itemCd: 'CAP_CRN_BED', datatype: 'header'},
    {caption: 'Weight', name: 'YD_MAX_LOAD_WGT_HD', itemCd: 'CAP_WGT', datatype: 'header'},
    {caption: 'Pieces', name: 'YD_MAX_LOAD_PCS_HD1', itemCd: 'CAP_HGT', datatype: 'header'},
    {caption: 'Height Data', name: 'YD_MAX_LOAD_HGT_FR', datatype: 'slabthk', align: 'center', r},
    {caption: 'Width Difference Data', name: 'YD_MAX_DIFF_WTH_FR', datatype: 'slabwth', align: 'center', r},
    {caption: 'Length Difference Data', name: 'YD_MAX_DIFF_LTH_FR', datatype: 'slablth', align: 'center', r},

    {caption: 'Classification', name: 'ROW_SPAN', itemCd: 'CAP_CLS', datatype: 'header'},
    {caption: 'Crane Data', name: 'YD_CRN_NO', datatype: 'lov', align: 'center', r},
    {caption: 'Pieces Data', name: 'YD_MAX_LOAD_PCS', datatype: 'integer', align: 'center', r},
    {caption: 'Weight Data', name: 'YD_MAX_LOAD_WGT', datatype: 'slabwgt', align: 'center', r},
    {caption: 'Height Data', name: 'YD_MAX_LOAD_HGT', datatype: 'slabthk', align: 'center', r},
    {caption: 'Width Difference Data', name: 'YD_MAX_DIFF_WTH', datatype: 'slabwth', align: 'center', r},
    {caption: 'Length Difference Data', name: 'YD_MAX_DIFF_LTH', datatype: 'slablth', align: 'center', r},

    {caption: 'Classification', name: 'ROW_SPAN', itemCd: 'CAP_CLS', datatype: 'header'},
    {caption: 'To Bed', name: 'YD_TO_BED_CD', datatype: 'text', align: 'center', r},
    {caption: 'Pieces Data', name: 'YD_MAX_LOAD_PCS_TO', datatype: 'integer', align: 'center', r},
    {caption: 'Weight Data', name: 'YD_MAX_LOAD_WGT_TO', datatype: 'label', align: 'center', r},
    {caption: 'Height Data', name: 'YD_MAX_LOAD_HGT_TO', datatype: 'integer', align: 'center', r},
    {caption: 'Width Difference Data', name: 'YD_MAX_DIFF_WTH_TO', datatype: 'label', align: 'center', r},
    {caption: 'Length Difference Data', name: 'YD_MAX_DIFF_LTH_TO', datatype: 'label', align: 'center', r}
];
fc_createFormTable(tableObj, tableId, 7, 0, colWidths, colObjList);

fc_setHeaderRowSpanByArray( tableId, [0,1] ); // rowspan : column index 0,1
fc_setHeaderColSpanByArray( tableId, [0] ); // rowspan : row index 0
    
```


5.3 How to make screen – Table: Data Type

■ JSP: Contents Area (Data Type)

Seq.	Attribute	Description	Seq.	Attribute	Description
1	text	Input Text	19	number3	decimal digits 3
2	popup	Grid Popup	20	number4	decimal digits 4
3	checkbox	checkbox	21	slabthk	Number Integer
4	yearmonth	Year Month Calendar	22	slabwth	Number Integer
5	monthday	Monthly day Calendar	23	slablth	Number Integer
6	date	Date Calendar	24	platethk	Number Integer
7	datetime	Date Time Calendar	25	platewth	Number Integer
8	datemin	Date Minute Calendar	26	platelth	Number Integer
9	datehour	Date Hour Calendar	27	coilthk	Number Integer
10	time	Time	28	coilwth	Number Integer
11	hour	Hour	29	coillth	Number Integer
12	hourmin	Hour Minute	30	bloomthk	Number Integer
13	minsec	Minute Second	31	bloomwth	Number Integer
14	integer	Number Integer	32	bloomlth	Number Integer
15	number	Big Decimal Type	33	billetthk	Number Integer
16	number0	decimal digits 0	34	billetwth	Number Integer
17	number1	decimal digits 1	35	billetlth	Number Integer
18	number2	decimal digits 2	36	slabwgt	decimal digits 2

5.3 How to make screen – Grid Layout

■ JSP: Contents Area (Grid Layout)

Master Grid

Finished Date

Due Date

Order Pieces

Order Weight

Dispatch

Pieces

Short

Weight

Min

Max

Slabs

Weight

Order

Grid Type
showing (insert, update)

No data to display

Grid Type : search, update

Grid Type : insert

No records to view

Detail Grid

Finished Date

Due Date

Order Pieces

Order Weight

Dispatch

Pieces

Short

Weight

Min

Max

Slabs

Weight

Order

Grid Type
showing (insert, update)

No data to display

Grid Type : search, update

Grid Type : insert

No records to view

5.3 How to make screen – Grid Coding

■ JSP: Contents Area (Grid Coding)

Set Column Header Group

		Finished Date	Due Date	Order Pieces		Order Weight		Dispatch		Order No
	<input type="checkbox"/>			Pieces	Short	Weight	Min	Max	Slabs	Weight

```
function jQueryGrid( targetObj : DIV Object for drawing the grid
    , gridId : Grid ID
    , gridCols : [ { Grid Column Object } ]
    , gridType : insert, update, search
    , gridCaption : Grid Title { Object }
    , gridKey : Unique Grid Key ( String )
    , gridColGroups : Grid Column Header Group [ { Column Group Object } ]
    , tabGridFlag : belong Tab Object ( Boolean true/false )
    , addType : Add Row Type( true : current position down, false : current position top )
    , bGridMultiLanguage : Multi Language Use ( true, false ) Default : set by the system.
    )
```

```
var targetObj = $( '#divMaster' );
var gridId = 'gridMaster';
var gridKey = 'gridMasterKey';
var gridColGroup = [
```

Set Column Header Group

```
{caption: 'Order Pieces' , name: 'ORD_PCS_GRP' , itemCd: 'CAP_ORD_PCS' , align: 'center'}
,{caption: 'Order Weight' , name: 'ORD_WGT_GRP' , itemCd: 'CAP_ORD_WGT' , align: 'center'}
,{caption: 'Dispatch' , name: 'DISP_GRP' , itemCd: 'CAP_DISP' , align: 'center'}
,{caption: 'Vessel' , name: 'VESSEL_GRP' , itemCd: 'CAP_VESSEL' , align: 'center'}
];
```

```
var gridCols = [
    {caption: 'Complete Date' , name: 'DORD_END_DTM' , itemValue: 1 , width: 140, datatype: 'datetime' , align: 'center'}
    ,{caption: 'Due Date' , name: 'DISP_DUE_DT' , itemValue: 1 , width: 100, datatype: 'date' , align: 'center'}
    ,{caption: 'Order Pieces' , name: 'DORD_TOT_PCS' , itemValue: 1 , width: 60 , datatype: 'integer'
    ,{caption: 'Order Short Pieces' , name: 'SHORT_PROD_PCS' , itemValue: 1 , width: 60 , datatype: 'integer'
    ,{caption: 'Order Weight' , name: 'DORD_TOT_WGT' , itemValue: 1 , width: 60 , datatype: 'slabwgt'
    ,{caption: 'Order Weight Min' , name: 'DORD_WGT_MIN' , itemValue: 1 , width: 60 , datatype: 'slabwgt'
    ,{caption: 'Order Weight MAX' , name: 'DORD_WGT_MAX' , itemValue: 1 , width: 60 , datatype: 'slabwgt'
    ,{caption: 'Dispatch Pieces' , name: 'DISP_PCS' , itemCd: 'CAP_PCS' , width: 60 , datatype: 'integer'
    ,{caption: 'Dispatch Weight' , name: 'DISP_WGT' , itemCd: 'CAP_WGT' , width: 60 , datatype: 'slabwgt'
    ,{caption: 'Order No' , name: 'ORD_NO' , width: 110, datatype: 'text' , align: 'center'
];
```

Set Column Header Group

```
{ , group: 'ORD_PCS_GRP' }
{ , group: 'ORD_PCS_GRP' }
{ , group: 'ORD_WGT_GRP' }
{ , group: 'ORD_WGT_GRP' }
{ , group: 'ORD_WGT_GRP' }
{ , group: 'ORD_WGT_GRP' }
{ , group: 'DISP_GRP' }
{ , group: 'DISP_GRP' }
```

```
var gridType = 'insert';
var gridCaption = { caption: 'Master Grid', itemCd: '', isMultiLanguage: false };
gridMaster = new jQueryGrid( targetObj, gridId, gridCols, gridType, gridCaption, gridKey, gridColGroup );
```

5.3 How to make screen – Grid Property

■ JSP: Contents Area (Grid Column Property)

Seq.	Attribute	Description	Seq.	Attribute	Description
1	name	Column Name	13	exportable	Export Excel
2	caption	Column Caption	14	Maxlength	value Max length
3	width	If using multiple languages à not Used	15	isMultiLanguage	Is Multi Language (true/false)
4	align	Value Align	16	itemCd	Multi Language Item Cd
5	editable	available Modify(true/false)	17	itemValue	multi domain Item attribute (itemValue : "0~3") default : 0
6	sortable	available Column Sort (true/false)	18	fc_setColUpperCase	Value Upper Case
7	frozen	fixed column	19	fc_setColLowerCase	Value Lower Case
8	datatype	Column Data Type	20	fc_setGridPKeys	set Grid Column PK(modify X)
9	hidden	hide column (true/ false)	21	fc_setParentGrid	Set the parent from the child. (Master and Details Grid)
10	nullable	Set Required (true/false)	22	setcolumnproperty	Sets a property of a column. Possible property names: 'text', 'hidden', 'hideable', 'renderer', 'cellsrenderer', 'align', 'cellsalig', 'cellsformat', 'pinned', 'contenttype', 'resizable', 'filterable', 'editable', 'cellclassname', 'classname', 'width', 'minwidth', 'maxwidth'
11	group	Column Header Group			
12	inputreadonly	available Popup column Input box read only (true/false)			

<http://www.jqwidgets.com/jquery-widgets-documentation/documentation/jqxgrid/jquery-grid-api.htm?search=grid>

5.3 How to make screen - Tab

■ JSP: Contents Area (Tab)

```
<div id="divDetailMasterTab" floattype="left" style='width:40%; height:100%'></div>
```

Chemical Petrographic Analysis TAB2

TAB1

	<input type="checkbox"/>	Due Date	Pieces	Weight	Min	Max	Slabs	Weight	Order No
1	<input checked="" type="checkbox"/>			<input type="checkbox"/>					

```
fc_makeDOMSubTabManual( tabObj, tabId, tabList, arrInTableObj);
```

View 1-1 of 1

- Div Tab Area
- Tab Object Area
- Grid Area

5.3 How to make screen – Tab Coding

Sample

■ JSP: Contents Area (Tab Coding)

```
var targetObj = $('#TAB1');
var gridId = 'tabGridMaster';
var gridKey = 'tabGridMasterKey';
var gridColGroup = [
  {caption: 'Order Pieces', name: 'ORD_PCS_GRP', itemCd: 'CAP_ORD_PCS', align: 'center'},
  {caption: 'Order Weight', name: 'ORD_WGT_GRP', itemCd: 'CAP_ORD_WGT', align: 'center'},
  {caption: 'Dispatch', name: 'DISP_GRP', itemCd: 'CAP_DISP', align: 'center'},
  {caption: 'Vessel', name: 'VESSEL_GRP', itemCd: 'CAP_VESSEL', align: 'center'}
];
var gridCols = [
  {caption: 'Complete Date', name: 'DORD_END_DTH', itemValue: 1, width: 140, datatype: 'datetime', align: 'center'},
  {caption: 'Due Date', name: 'DISP_DUE_DT', itemValue: 1, width: 100, datatype: 'date', align: 'center'},
  {caption: 'Order Pieces', name: 'DORD_TOT_PCS', itemValue: 1, width: 60, datatype: 'integer', align: 'center'},
  {caption: 'Order Short Pieces', name: 'SHORT_PROD_PCS', itemValue: 1, width: 60, datatype: 'integer', align: 'center'},
  {caption: 'Order Weight', name: 'DORD_TOT_WGT', itemValue: 1, width: 60, datatype: 'slabwgt', align: 'center'},
  {caption: 'Order Weight Min', name: 'DORD_WGT_MIN', itemValue: 1, width: 60, datatype: 'slabwgt', align: 'center'},
  {caption: 'Order Weight Max', name: 'DORD_WGT_MAX', itemValue: 1, width: 60, datatype: 'slabwgt', align: 'center'},
  {caption: 'Dispatch Pieces', name: 'DISP_PCS', itemValue: 1, width: 60, datatype: 'integer', align: 'center'},
  {caption: 'Dispatch Weight', name: 'DISP_WGT', itemCd: 'CAP_WGT', width: 60, datatype: 'slabwgt', align: 'center'},
  {caption: 'Order No', name: 'ORD_NO', itemValue: 1, width: 110, datatype: 'text', align: 'center'}
];
var gridType = 'insert';
var gridCaption = '';
tabGridMaster = new jQueryGrid( targetObj, gridId, gridCols, gridType, gridCaption, gridKey, gridColGroup, true);
```

Creation tabGridMaster

```
var targetObj = $('#TAB2');
var gridId = 'tabGridDetail';
var gridKey = 'tabGridDetailKey';
var gridColGroup;
var gridCols = [
  {caption: 'Complete Date', name: 'DORD_END_DTH', itemValue: 1, width: 140, datatype: 'datetime', align: 'center'},
  {caption: 'Due Date', name: 'DISP_DUE_DT', itemValue: 1, width: 100, datatype: 'date', align: 'center'},
  {caption: 'Order Pieces', name: 'DORD_TOT_PCS', itemValue: 1, width: 60, datatype: 'integer', align: 'center'},
  {caption: 'Order Short Pieces', name: 'SHORT_PROD_PCS', itemValue: 1, width: 60, datatype: 'integer', align: 'center'},
  {caption: 'Order Weight', name: 'DORD_TOT_WGT', itemValue: 1, width: 60, datatype: 'checkbox', align: 'center'},
  {caption: 'Order Weight Min', name: 'DORD_WGT_MIN', itemValue: 1, width: 60, datatype: 'yearmonth', align: 'center'},
  {caption: 'Order Weight Max', name: 'DORD_WGT_MAX', itemValue: 1, width: 60, datatype: 'monthday', align: 'center'},
  {caption: 'Dispatch Pieces', name: 'DISP_PCS', itemCd: 'CAP_PCS', width: 60, datatype: 'date', align: 'center'},
  {caption: 'Dispatch Weight', name: 'DISP_WGT', itemCd: 'CAP_WGT', width: 60, datatype: 'minsec', align: 'center'},
  {caption: 'Order No', name: 'ORD_NO', itemValue: 1, width: 110, datatype: 'datetime', align: 'center'}
];
var gridType = 'insert';
var gridCaption = '';
tabGridDetail = new jQueryGrid( targetObj, gridId, gridCols, gridType, gridCaption, gridKey, gridColGroup, true);
```

Creation tabGridDetail

```
var arrInTableObj = [ tabGridMaster, tabGridDetail ];
var tabObj = $('#divDetailMasterTab');
var tabId = 'tabDetailMaster';
var tabList = [
  {caption: 'Master', name: 'TAB1', itemCd: 'CAP_CHEMICAL', contentstype: 'grid', itemValue: '1'},
  {caption: 'Details', name: 'TAB2', itemCd: 'CAP_PART_SIZE_COARSE', contentstype: 'grid'}
];
window.gwCustTab = fc_makeDOMSubTabManual( tabObj, tabId, tabList, arrInTableObj);
fc_setTabSelected( tabId, fc_formResize);
fc_setFirstItem( tabId, 100);
```

```
function f_lastProc() {
  fc_setDynamicDivHeight( [ 'divMultObjectAarea' ] );
}
```

```
<div id="divSearchCondition"></div>
<div id="divContents">
  <div id="divFormFieldAarea" style="width:100%; height:auto; min-height: 115px;">
    <div id="divCraneTbl" style="width:100%; height: auto; min-height: 105px;"></div>
  </div>
  <div id="divMultObjectAarea" style="height: 100px;">
    <div id="divDetailMasterTab" floattype="left" style="width:40%; height:100%"></div>
    <div id="divMaster" floattype="left" style="width:30%; height:100%"></div>
    <div id="divDetail" floattype="left" style="width:30%; height:100%"></div>
  </div>
</div>
```

5.3 How to make screen – LOV Data

■ JSP: Contents Area (Combo: LOV Data)

Dispatch Order Status

*:In Progress

*:In Progress

A:Ready

B:In Working

C:Finished

Z:Canceled

Column Object (Form Object)

```
{, {groupname: 'divSearchGrp', caption: 'Dispatch Order Status' , name: 'DORD_STS' , width: 120, datatype: 'lov' }
```

Column Object(Grid Object)

```
{, {caption: 'Order No' , name: 'ORD_NO' , width: 110, datatype: 'lov' , align: 'center' }
```

Get Code

```
fc_getLovData( [
    {code: 'DORD_STS_A' , tags: '' , alias: ''}
    , {code: 'DORD_STS' , tags: '' , alias: ''}
]);
```

Master Grid

		Order Weight			Dispatch		
		Weight	Min	Max	Slabs	Weight	Order No
1	<input checked="" type="checkbox"/>						<div>Please Choose</div> <div>*:In Progress</div> <div>A:Ready</div> <div>B:In Working</div> <div>C:Finished</div>

Set Combo Value Code (LOV Details)

```
fc_setLovData( [
    {object: 'DORD_STS' , code: 'DORD_STS_A' , format: 'K:V' , nullable: true, defval: '*' }
    , {object: gridMaster.getGridId()+'.ORD_NO' , code: 'DORD_STS_A' , format: 'K:V' , nullable: true, defval: '*' }
]);
```

Get Code		
Seq.	Attribute	Description
1	code	Master Code, Query Master Key
2	tag	Filter
3	alias	Change Result Key
4	conditions	Query Master search Condition

Set Code (object)		
Seq.	Attribute	Description
1	object	Object Id (Set Code Data)
2	code	Code Result Key
3	format	Display Code Value (V:value, K:key, KV:key value)
4	nullable	Add Null Value (true/false)
5	defval	Default Value

5.3 How to make screen – LOV Combination

■ JSP: Contents Area (Combo Combination)

	<input type="checkbox"/>	Facility	Equipment	@@EQUIP_STOP_CD
1	<input checked="" type="checkbox"/>	Sinter	@_Sinter #1	Preventive Maintenance

Column Object

{caption: 'Facility'
,{caption: 'Equipment'
,{ caption: 'Stoppage'

, name: 'EQUIP_FACIL_CD'
, name: 'STOP_OCC_EQUIP_LOC_CD'
, name: 'EQUIP_STOP_CD'

, width: 100, datatype: 'lov'
, width: 100, datatype: 'lov'
, width: 100, datatype: 'lov' }

, align: 'center'
, align: 'center'

Change Value

Facility
E

BF

Raw Material
Sinter
Coke
BF
SMS
CC
Slab Yard

	<input type="checkbox"/>	Facility	Equipment	@@EQUIP_STOP_CD
1	<input checked="" type="checkbox"/>	BF		

set Grid Cell LOV Change event

```
//set Grid Cell lov Change event
fc_setGridComboFilter( { object: gridMaster.getGridId()+''.STOP_OCC_EQUIP_LOC_CD'
                        , code: 'STOP_OCC_EQUIP_LOC_CD'
                        , format: 'V'
                        , nullable: false
                        , defval: ''
                        , parentColNm: 'EQUIP_FACIL_CD'
                        , arrowColNm: 'TAGS'
                        } );
fc_setGridComboFilter( { object: gridMaster.getGridId()+''.EQUIP_STOP_CD'
                        , code: 'EQUIP_STOP_CD'
                        , format: 'V'
                        , nullable: false
                        , defval: ''
                        , parentColNm: 'EQUIP_FACIL_CD'
                        , arrowColNm: 'TAGS'
                        } );
```

Seq.	Name	Description	Seq.	Name	Description
1	object	Taget Objcet Id	4	nullable	Add Null Value (true/false)
2	code	Code Result Key	5	defval	Default Value
3	format	Display Code Value (V:value, K:key, KV:key value)	6	parentColNm	Owner Event (Object Id)
			7	arrowColNm	Arrow Code Value(Filter)

5.3 How to make screen – Form Function List

■ JSP: Form Function List

Seq.	Name	Example
1	fc_setInputVal(targetId, value)	fc_setInputVal('TAB_NM', 'AAAA');
2	fc_setReadOnly(targetId, flag)	fc_setReadOnly('BIZ_CHAIN_CD', true);
3	fc_getInputVal(targetId)	fc_getInputVal('H_HEAT_NO');
4	fc_setFormBindEvent(targetId, event, callback)	fc_setFormBindEvent('ADD_SLAB_BTN1', 'click', f_add_slab);
5	fc_addParamForm(searchConditionId)	fc_addParamForm('divSearchCondition');
6	fc_addParam(key, value)	fc_addParam('PROC_TY', 'AAA');
7		
8		
9		
10		
11		
12		
13		

5.3 How to make screen – Grid Function List

■ JSP: Grid Function List

Seq.	Name	Description
1	fc_setGridBindEvent(gridId, event, callback)	Set Grid Event
2	fc_getSelectedRow(gridId)	Gets the selected cell. The returned value is an Object with two fields: 'rowindex' - the row's bound index and 'datafield' - the column's datafield.
3	fc_getSelRow(gridId)	Selects a row at a specified index.
4	fc_getGridRecordCount(gridId)	Total Record Count
5	fc_setGridCellLinkStyle(gridId, arrColNm)	Set Link Style (Font Blue and UnderLine)
6	fc_setColProp (gridId, colName, prmName, prmValue)	Sets a property of a column. Possible property names: 'text', 'hidden', 'hideable', 'renderer', 'cellsrenderer', 'align', 'cellsalign', 'cellsformat', 'pinned', 'contenttype', 'resizable', 'filterable', 'editable', 'cellclassname', 'classname', 'width', 'minwidth', 'maxwidth'
7	fc_setCellData(gridId, rowIdx, colName, data)	Set Value
8	fc_getCellData(gridId, rowIdx, colName)	Get Value
9	fc_getRowData(gridId, rowId)	Cell Max Length
10	fc_getRowsData(gridId)	ALL Rows Data
11	fc_getSelectedRowData(gridId)	Checked Rows Data
12	fc_getSelectedRow(gridId)	Checked Rows
13	fc_getSelRow(gridId)	Current Row

<http://www.jqwidgets.com/>
Events

bindingcomplete	Event
columnresized	Event
columnreordered	Event
columnclick	Event
cellclick	Event
celldoubleclick	Event
cellselect	Event
cellunselect	Event
cellvaluechanged	Event
cellbeginedit	Event
cellendedit	Event
filter	Event
groupschanged	Event
groupexpand	Event
groupcollapse	Event
pagechanged	Event
pagesizechanged	Event
rowclick	Event
rowdoubleclick	Event
rowselect	Event
rowunselect	Event
rowexpand	Event
rowcollapse	Event
sort	Event

5.3 How to make screen – From Transition Functions

■ JSP: Form Transition Functions

```
/* -----
 * @Name          fc_searchForm
 * @Description    load data to target models
 * @Parameter     object targetFormId : target model object info
 *                string prmServiceName
 *                string prmTransitionName
 *                boolean isNoProgressBar : display progress window
 * @Returns       boolean
 * @Example       fc_searchForm( [ {gridId: 'gridLeftTop', resultKey: 'RK_RESULT1'}, {gridId: 'gridLeftBtm', resultKey: 'RK_RESULT2'}]
 *                        , serviceName, transitionName, true )
 * ----- */
function fc_searchForm( targetFormId, prmKeyResult, prmServiceName, prmTransitionName, isNoProgressBar, prmModule ) {

/* -----
 * @Name          fc_saveForm
 * @Description
 * @param       : srcFormId      - Form Object
 * @param       : prmKeyResult   - addParameter(option)
 * @param       : serviceName    - service name
 * @param       : [transition]   - default : save
 * @param       : [isAddChkName]- Y, N
 * @param       : objMsgShowAttr - {itemCd:'', show:true/false }
 * @Returns
 * @Example
 * ----- */
function fc_saveForm( arrFormId, addParam, prmServiceName, prmTransitionName, isNoProgressBar, askConfirm, objMsgShowAttr ) {

/* -----
 * @Name          fc_deleteJsonForm
 * @Description
 * @param       : srcFormId      - Form Object
 * @param       : prmKeyResult   - addParameter(option)
 * @param       : serviceName    - service name
 * @param       : [transition]   - default : save
 * @param       : [isAddChkName]- Y, N
 * @param       : [keyList]-     json type [{"key":"USER_INFO"}]
 * @param       : [sendData]-     json type [{"USER_INFO":[{"JQX_CB":true, "USER_ID":"test111", "PASSWD_CUR":"paaa", "PASSWD":"newpaaa", "PASSWD_RE":"newpaaa", "JQX_RS":"U"}]}];
 *                        %% must have this attribute key %% :: JQX_CB(true), JQX_RS( Insert:I, Update:U, Delete:D )
 * @Returns
 * @Example
 * ----- */
function fc_deleteJsonForm( arrFormId, addParam, prmServiceName, prmTransitionName, isNoProgressBar, askConfirm, keyList, sendData, objMsgShowAttr ) {
```

5.3 How to make screen – Grid Transition Functions

■ JSP: Grid Transition Functions

```
/* -----  
 * @Name          fc_searchGrid  
 * @Description    load data to target models  
 * @Parameter      array arrTargetModel : target model object info  
 *                 string prmServiceName  
 *                 string prmTransitionName  
 *                 boolean isNoProgressBar : display progress window  
 * @Returns        boolean  
 * @Example        fc_searchGrid( [ {gridId: 'gridLeftTop', resultKey: 'RK_RESULT1'}, {gridId: 'gridLeftBtm', resultKey: 'RK_RESULT2'}]  
 *                               , serviceName, transitionName, true )  
 * ----- */  
function fc_searchGrid( arrTargetModel, prmServiceName, prmTransitionName, isNoProgressBar, prmModule ) {  
  
/* -----  
 * @Name          fc_saveGrid  
 * @Description  
 * @param : arrSrcGrid - Array Grid ID  
 * @param : addParam - add Parameter { "key1": "value1", "key2": "value2", "key3": "value3" }  
 * @param : prmServiceName - service name  
 * @param : [prmTransitionName] - default : save  
 * @param : [isNoProgressBar] - Y/N  
 * @param : askConfirm - Y/N  
 * @param : checkSelected - Y/N  
 * @param : objMsgShowAttr - {itemCd:'', show:true/false }  
 * @Returns  
 * @Example  
 * ----- */  
function fc_saveGrid( arrSrcGrid, addParam, prmServiceName, prmTransitionName, isNoProgressBar, askConfirm, checkSelected, objMsgShowAttr ) {  
  
/* -----  
 * @Name          fc_deleteGrid  
 * @Description  
 * @param : arrSrcGrid - Array Grid ID  
 * @param : addParam - add Parameter { "key1": "value1", "key2": "value2", "key3": "value3" }  
 * @param : prmServiceName - service name  
 * @param : [prmTransitionName] - default : save  
 * @param : [isNoProgressBar] - true,false  
 * @param : [askConfirm] - true,false  
 * @param : checkSelected - Y/N  
 * @param : objMsgShowAttr - {itemCd:'', show:true/false }  
 * @Returns  
 * @Example  
 * ----- */  
function fc_deleteGrid( arrSrcGrid, addParam, prmServiceName, prmTransitionName, isNoProgressBar, askConfirm, checkSelected, objMsgShowAttr ) {
```

End of Document.

Thank you !!