



Header Data

Released On	31.08.2015 16:02:10
Release Status	Released for Customer
Component	PY-ES Spain
Other Components	PA-PA-ES Spain XX-CSC-ES-PY Payroll
Priority	Correction with medium priority
Category	Legal change

Symptom

This SAP Note creates the **Gestión de Estados** (Status Handler) generic framework. This framework enables the storage, processing and listing of customizable statuses related to employees in a given business process.

This SAP Note also explains how to handle the statuses for the **Sistema de Liquidación Directa** (SLD) application.

For more information, see the rollout document available at <http://service.sap.com/hres>, under menu *Resources*.

Other Terms

Status Handler HCM-ES; &SLD (for more information, see SAP Note 1071282)

PC00_M04_SH; RPU_PADES_SH

CL_HRPADES_SH; CL_HRPADES_SH_APPL; CL_HRPADES_SH_SLD

Reason and Prerequisites

This is not a program error, but an enhancement to support future developments.

You have to apply the following SAP Notes as prerequisite:

- 2184102 - UTIL: CCC generic filter class
- 2191561 - UTIL: Function module for Event ID search help
- 2189866 - SH: Status Handler and Infotype 3393 - adv.deliv.note
- 2184159 - UTIL: Enhancements to exception classes
- 2184283 - SH: Dictionary objects for Status Handler
- 2184284 - SH: Utilities classes for Status Handler
- 2184579 - SH: Creation of Infotype 3393 for Status Handler Spain

The following Support Package level is the minimum prerequisite:

Release	Support Package
6.08	HR SP 00
6.04	HR SP 70
6.00	HR SP A4

(For more information, click on "R/3 HR Support Package Schedule" in www.service.sap.com/ocs-schedules.)

Solution

The framework is composed by the following elements:

1. Switch to active the framework
2. Standard events
3. Customizable statuses
4. Status Handler infotype (3393)
5. Event handling framework
6. Status messages
7. Listing and massive processing report

The elements are described below.

1. SWITCH TO ACTIVATE THE FRAMEWORK

To activate the Status Handler framework, a switch must be set in the **Especificar grupos y valores de atributo HR** (VC_T799BATTRIB03C) view cluster under the **Configuraciones de la gestión de estados** (SH_CONFIG) attribute class.

1.1. Switch to activate the framework for *Sistema de Liquidación Directa* (SLD) application

To activate the solution for the **Sistema de Liquidación Directa** (SLD) application, under the SH_CONFIG attribute class, set the **Aplicación SLD** (AT_SH_SLD) HR attribute to value 'X'.

2. STANDARD EVENTS

An event consists in an interaction of the system with an employee in a given business process. All events are standard and predefined, and can be handled from different applications in the system.

2.1. Configuration of standard events

The standard events are configured in the **Especificar grupos y valores de atributo HR** (VC_T799BATTRIB03C) view cluster under the **Clave del evento** (CL_SH_EVENT) attribute class. This attribute class is composed by the following HR Attributes:

HR Attribute	Business description	Modification type
AT_SH_APPL	Application to which the event belongs and for which the event can be handled	Standard: do not modify the value of this attribute
AT_SH_DESC	Event description	Standard: do not modify the value of this attribute
AT_SH_EVENT_ID	Event identification key	Standard: do not modify the value of this attribute
AT_SH_STATUS_ID	Status linked to this event	Customizable: replace the value of this attribute for a custom one if necessary

For each standard event, one standard status is delivered (see section 3).

2.2. Standard events for SLD application

Event ID	Description	Handled from transactions	Business scenario	Data recorded
001	Creación manual	Actualizar datos maestros personal (PA30); Gestión de estados (PC00_M04_SH)	An entry is manually created in infotype 3393	Status ID; processing date; processing time; TemSe object; CCC; for period; in period; external reference; recovery date; recovery time
002	Reserved	To be used in future	To be defined	To be defined
003	Liquidación ordinaria generada	SLD: fichero de bases (PC00_M04_CRETA_BASES)	A regular settlement is generated for the employee in an XML bases file	Status ID; processing date; processing time; TemSe object; CCC; for period; in period; external reference
004	Liquidación complementaria generada	SLD: fichero de bases (PC00_M04_CRETA_BASES)	An additional settlement is generated for the employee in a XML bases file	Status ID; processing date; processing time; TemSe object; CCC; for period; in period; external reference
005	Empleado con cuotas fijas sin bases a reportar	SLD: fichero de bases (PC00_M04_CRETA_BASES)	An employee is omitted from an XML bases file because of fixed contributions	Status ID; processing date; processing time; TemSe object; CCC; for period; in period; external reference
006	Empleado exento sin bases a reportar	SLD: fichero de bases (PC00_M04_CRETA_BASES)	An employee is omitted from an XML bases file because of exemption	Status ID; processing date; processing time; TemSe object; CCC; for period; in period; external reference
007	Empleado sin diferencias retroactivas	SLD: fichero de bases (PC00_M04_CRETA_BASES)	An employee is omitted from an additional settlement in an XML bases file because of lack of retroactive differences	Status ID; processing date; processing time; TemSe object; CCC; for period; in period; external reference
008	Mensajes en fichero de respuesta	SLD: procesamiento de ficheros (PC00_M04_CRETA_FILES)	Messages are found for the employee in a XML response file	Status ID; processing date; processing time; TemSe object; CCC; for period; in period; external reference; recovery date; recovery time
009	Ningún mensaje en fichero de respuesta	SLD: procesamiento de ficheros (PC00_M04_CRETA_FILES)	No messages are found for the employee in a XML response file and the external reference matches a given entry in infotype 3393	Status ID; processing date; processing time; TemSe object; CCC; for period; in period; external reference; recovery date; recovery time

3. CUSTOMIZABLE STATUSES

The statuses are configured in the **Gestión de estados** (V_T77PADES_SHST) view.

For more information, see SAP Note 2184283, section 1.

In the standard system, a status is assigned to each event. However, when the standard status settings do not comply with the company's business needs, a custom status can be created on this view. This custom status must be then assigned to the event by modifying its corresponding AT_SH_STATUS_ID HR attribute.

3.1 Standard statuses for SLD application

Identif. del estado	Inicio	Final	Tipo del estado	Indicador de estado final	Sobrescribir estado final	Descrip. del estado
001	01.01.1800	31.12.9999	W		X	Creación manual
002	01.01.1800	31.12.9999	W		X	Resultado de nómina calculado
003	01.01.1800	31.12.9999	W			Liquidación ordinaria generada
004	01.01.1800	31.12.9999	W		X	Liquidación complementaria generada
005	01.01.1800	31.12.9999	S	X		Empleado con cuotas fijas sin bases a reportar
006	01.01.1800	31.12.9999	S	X		Empleado exento sin bases a reportar
007	01.01.1800	31.12.9999	S	X		Empleado sin diferencias retroactivas
008	01.01.1800	31.12.9999	E			Mensajes en fichero de respuesta
009	01.01.1800	31.12.9999	S			Ningún mensaje en fichero de respuesta

4. STATUS HANDLER INFOTYPE (3393)

The **Gestión de estados (ES)** (3393) infotype stores the statuses of one employee in a period. Multiple entries can be stored in the same period for the same employee, representing a history of all interactions the system had with this employee in the given business process. The entry with the highest **Nº registro** (P3393-RECORD_SEQ) will be considered the most current status for the employee in the period.

For more information, see SAP Note 2184579.

5. EVENT HANDLING FRAMEWORK

Some applications from a given business process are adapted to trigger standard events at some point. For example, the **SLD: fichero de bases** (RPC_PAYES_CRETA_BASES) report was adapted to trigger standard event 003 whenever an employee is listed in an XML bases file.

Subsequently, the **Gestión de estados HCM-ES** (CL_HRPADES_SH) class handles this event and determines which customizable status is assigned to it. At this point, the following business rules are verified:

There are no other statuses stored in infotype 3393 for the employee in the same period	The new status can be handled
There are other statuses stored in infotype 3393 for the employee in the same period	If the latest stored status is not a final status, the new status can be handled
	If the latest stored status is a final status and the new status overwrites final statuses, the new status can be handled
	If the latest stored status is a final status and the new status does not overwrite final statuses, the new status is ignored

After the new status passed these verifications, a new entry is created in infotype 3393 to store this information. Additionally, there are some cases where informative messages associated to the status are stored in a secondary table (see section 6).

Besides the automatic handling of statuses, entries from infotype 3393 can be manually created, changed or deleted. They can also be listed and massively maintained through the **Gestión de estados** (RPU_PADES_SH) report (see section 7).

The following classes were created to support the framework:

- **Gestión de estados HCM-ES** (CL_HRPADES_SH) class: Manages the Status Handler operations for the **Gestión de estados (ES)** (3393) infotype.
- **Clase genérica de aplicación para gestión de estados** (CL_HRPADES_SH_APPL) class: Specifies routines for Status Handler framework by application.
- **Gestión de estados para aplicación SLD** (CL_HRPADES_SH_SLD) class: Specifies routines for Status Handler framework for **Sistema de Liquidación Directa** (SLD) application.

6. STATUS MESSAGES

The **Mensajes por estado** (T77PADES_SHMS) table stores all messages related to one entry of infotype 3393.

For more information, see SAP Notes 2184283 (section 2) and 2184579 (section 3).

6.1. Status messages for SLD standard events

The following standard events from SLD can have associated messages:

Event	Messages
003	<p>Multiple messages can be associated to this event informing the settlement types where the employee has been reported.</p> <p>Example: the employee is reported under settlement types L00 and L13 in a regular settlement and a new status 003 is stored in infotype 3393. Two messages associated to this status are recorded on the table:</p> <p>Empleado incluido en liquidación L00 Empleado incluido en liquidación L13</p>
004	<p>The same behavior associated to regular settlements (event 003) is applicable to additional settlements (event 004)</p>
008	<p>Multiple messages can be associated to this event informing the errors reported in an XML response file.</p> <p>Example: the Social Insurance returns a file containing two error messages for the employee and a new status 008 is stored in infotype 3393. The returned messages associated to this status are recorded in the table:</p> <p>R9502 Dato proporcionado no requerido o erróneo R9503 Tramo inexistente en afiliación para ese trabajador</p>

7. LISTING AND MASSIVE PROCESSING REPORT

The new **Gestión de estados** (RPU_PADES_SH) utility report facilitates the management of the statuses of employees, for example, allowing the generation of lists with statuses per employee and allowing the massive maintenance of statuses of multiple employees. The transaction to access this report is **PC00_M04_SH**.

7.1 Selection Screen

- **Selección**
 - **Número de personal** field: Determines the personnel number to be selected.
 - **Área de nómina** field: Determines the payroll area of the employee to be selected. This is a mandatory field. If no personnel number is provided, the report will verify the statuses for all employees of the given payroll area.
- **Selección de estados**
 - **Aplicación** (P_APPL) dropdown list: Determines which application will be used to manage the statuses.
 - **Estado** (P_STATUS) field: Determines which status will be selected. The search help displays all entries for the selected application available in **Gestión de estados** (T77PADES_SHST) table
 - **Tipo del estado** (P_TYPE) field: Determines which type of status will be selected: **Error** (E), **Información** (S) or **Advertencia** (W).
 - **Evento** (P_EVENT) field: Determines which event will be selected. The search help displays all entries from **Customizable Values of HR Attribute** (T799BATTRIB03C) table where the field HR_ATTRIBUTE has the value equals to AT_SH_EVENT_ID.
 - **Fecha de procesamiento** (P_DATE) field: Determines the message processing date to be selected.
 - **Código del mensaje** (P_CODMS) field: Determines which message code will be selected. The search help displays all entries for the selected application available in the **Textos de mensajes de aplicación legales, España** (T5EMA) table.
 - **Fichero TemSe** (P_TEMSE) field: Determines the name of the TemSe file to be selected.
 - **Sólo estados más actuales** (P_ACTUAL) checkbox: Displays only the last status of the employees on the log.
- **Filtros generales**
 - **Cód. cuenta de cotización** (P_CCC) field: Determines the **CCC** data to filter the list of statuses to be generated. This filter is applied over CCC field from infotype 3393, not the current CCC of the employee. This field search help displays all CCCs available in **Divisiones y subdivisiones de personal** (T5E01) and **Características dependientes del tiempo de CCCs** (T5E08) tables.
- **Opciones de visualización**
 - **Mostrar árbol de log a la izquierda** (P_LEFT) checkbox: Displays the tree log at the left side of the screen, otherwise the log will appear at the top.
- **Filtros específicos por aplicación:**
 - **Specific fields for SLD application**
 - **Periodo Para de cál.nómina** (P_MBEG, P_YBEG, P_MEND, P_YEND): Determines the period of payroll to be selected. A range can be selected.
 - **Periodo En cál.nómina** (P_INMO, P_INYE): Determines the selection of the period when the payroll was calculated.
 - **Referencia externa** (P_EXTREF): Determines the name of the file to be selected.
 - **Fecha de recaudación** (P_RECDDAT): Determines the date of collection to be selected.

7.2 Output log

- **Estadísticas:** Shows the total number of statuses processed by the report and specifies the total number of errors, warnings and information entries.
- **Estados por empleado:** Shows the processed statuses by employee.
- **Empleados sin estado:** For the selected period, shows all the periods per employee where the employee has no status.

- **Empleados no tratados:** Employees are listed under this node when they have entries in infotype 3393 for the given period but no one of these entries has been selected because they were filtered according to the values informed in the selection screen parameters. At this node it is not possible to start massive actions, since the user cannot have a complete understanding on the employee's status.
- **Mensajes generales:** Displays general errors and warnings from the report execution that are not related to any employee.
- **Empleados procesados con error/advertencia:** Reports error and warning messages from the report execution that are related to employees.
- **Mensajes de inserción o borrado de entradas:** Reports the errors and warnings from the latest massive action executed by the user.
- **Specific nodes for SLD application**
 - **Estados por CCC:** Displays the total number of errors, warning and information statuses of each processed CCC.

7.3 Massive processing

7.3.1 ADD STATUS

Select at least one entry from the ALV log and click on **Insertar nuevos estados** button to massively create entries in infotype 3393 for the selected employees. Note that only one entry is created for each employee in each period, even if multiple entries of the same employee were selected in the ALV log.

The values of the created entries are filled as follows:

- **Evento** (P3393-EVENT_ID): 001
- **Estado** (P3393-STATUS_ID): informed by the user
- **Fichero TemSe** (P3393-TEMSE): informed by the user
- **Specific values for SLD application:**
 - **CCC** (P3393-CCC): the same from the entry selected in the ALV
 - **Fecha de recaudación** (P3393-REC_DATE): informed by the user
 - **Hora de recaudación** (P3393-REC_TIME): informed by the user
 - **Período para** (P3393-FOR_PER): the same from the entry selected in the ALV
 - **Período en** (P3393-IN_PER): the same from the entry selected in the ALV; if this information is missing, the system uses the for period.

7.3.2 DELETE ENTRIES

Select at least one entry from the ALV log and click on **Borrar seleccionados** button to massively delete entries from infotype 3393. When an infotype entry is selected, all associated messages are also deleted. However, if a message entry is selected, only the selected message is deleted from the secondary table; the other messages and the infotype entry remain.

7.3.3 GO TO SLD: fichero de bases (RPC_PAYES_CRETA_BASES) REPORT

In the **Estados por empleado** or **Empleados sin estado log nodes**, select entries from the ALV log and click on the **Bases** button to run report RPC_PAYES_CRETA_BASES for the selected employees. The **Área de nómina** (PNPXABKR), **Número de personal** (PNPPERNR) and **Período de liquidación** (P_MBEG; P_YBEG; P_MEND; P_YEND) selection screen fields are automatically filled by the report.

7.3.4 GO TO SLD: ficheros de solicitud (RPC_PAYES_CRETA_REQUEST) REPORT

In the **Estados por CCC log node**, select entries from the ALV log and click on the **Solicitud** button to run report RPC_PAYES_CRETA_REQUEST for the selected CCCs. The **Cód. cuenta de cotización** (S_CCC) selection screen field is automatically filled by the report.

7.3.5 DETAIL LOG

Click on **Mostrar log desglosado** button to detail the following log nodes:

- **Estados por CCC node**
 - Subnodes are created under this node for each CCC
 - Subnodes are created under each CCC node grouping statuses by type (error, warning, information)
- **Estados por empleado, Empleados sin estado and Empleados no tratados nodes:**
 - Subnodes are created under this node for each employee, grouping by **Número de Afiliación** (NAF)

7.3.6 ALV LINKS

In the **Estados por empleado** node, it is possible to navigate to the following transactions by clicking on the following columns:

Column	Transaction
<i>Nº personal</i>	<i>Actualizar datos maestros personal (PA30)</i>
<i>Obj. TemSe</i>	<i>Visualización y download de ficheros TemSe (PC00_M04_UTMS)</i>
<i>Período Para / Período En</i>	<i>Visualización resultados de nómina (PC_PAYRESULT)</i>

VERSIONING

10	Released; minor changes to note text - the solution has <u>not</u> changed
----	--

As a general rule, SAP recommends that you install a solution by applying a Support Package. However, if you need to install the solution earlier, proceed as follows:

1. Apply the manual pre-implementation steps.
2. Use Note Assistant (SNOTE) to implement the correction instructions.

List of new/changed objects (manual activities related):

MESS 5E 668
MESS 5E 669
R3TR CDAT T599C
R3TR CDAT VC_T799BATTRIB03C
TABU T599W
TRAN PC00_M04_SH
VDAT V_T5EMA
VDAT V_T77PADES_SHST
VDAT V_T799BATTRIB00
VDAT V_T799BATTRIB01
VDAT V_T799BATTRIB03C
VDAT V_T799BATTRIB05
VDAT V_T799BATTRIB06C

You can find more information about the Note Assistant in SAP Service Marketplace, under service.sap.com/note-assistant.

Manual Pre-Implement.

VALID FOR	
Software Component	SAP_HRCES
Release 600	SAPK-600A4INSAPHRCES - SAPK-600C4INSAPHRCES
Release 604	SAPK-60470INSAPHRCES - SAPK-60490INSAPHRCES
Release 608	Until SAPK-60818INSAPHRCES

1. Apply SAP Note **2189866** (2189866 - SH: Status Handler and Infotype3393 - adv.deliv.note) as a prerequisite.

Validity

Software Component	From Rel.	To Rel.	And Subsequent
SAP_HRCES	600	600	<input type="checkbox"/>
	604	604	<input type="checkbox"/>
	608	608	<input type="checkbox"/>

Correction Instructions

Correction Instructions			
Software Component	Valid from	Valid to	Number
SAP_HRCES	600	600	1920719
SAP_HRCES	604	604	1920598
SAP_HRCES	608	608	1920593

Support Packages & Patches

Support Packages		
Software Component	Release	Support Package
SAP_HRCES	600	SAPK-600C5INSAPHRCES
	604	SAPK-60491INSAPHRCES
	608	SAPK-60819INSAPHRCES

References

This document refers to:

SAP Notes

2008017 [LC ES Sistema de Liquidación Directa \(SLD\) - Cret@ project](#)

SAP Notes (unidirectional)

2191561 [UTIL: Function module for Event ID search help](#)
2189866 [SH: Status Handler and Infotype 3393 - adv.deliv.note](#)
2184579 [SH: Creation of Infotype 3393 for Status Handler Spain](#)
2184284 [SH: Utility classes for Status Handler Framework](#)
2184283 [SH: Dictionary objects for Status Handler Framework](#)
2184159 [UTIL: Enhancements to exception classes and utility classes](#)
2184102 [UTIL: CCC generic filter class](#)
1071282 [CONSULT: List of tags for Spain notes.](#)
167718 [CONSULT.: HRMS España - Novedades](#)

This document is referenced by:

SAP Notes (2)

2008017 [LC ES Sistema de Liquidación Directa \(SLD\) - Cret@ project](#)
2180749 [SLD: Status Handler enablement for bases file report](#)