ERS Interface Specification version 4.3

This document describes the format of each of the interface files that will be input to the Effort Reporting System (ERS). The interface files share these common characteristics:

- Sequential "flat files"
- All data values converted to character
- Dates converted to CHAR(10) using MM/DD/YYYY format
- Encoding converted as required by platforms (e.g., EBCDIC to ASCII if going from MVS to Unix)

For the purposes of this specification, a format of "NOT NULL" means that a value must be present in the interface file, otherwise the value may be null, represented as a series of spaces or blank characters of the appropriate length.

These interface files are expected to be loaded into ERS on a recurring basis, based on campus processing schedules. For ERS processing purposes, the recommendation is that PPS Interface files be created and loaded after each payroll compute. Campus financial system interface files should be loaded to be in sync with the PPS interface files.

Specifics for each interface file

ERS/PPS Interface File: This file will be produced by a program that will be added to the PPS Base System. It will accept sequential PAR files from an individual compute or a monthly consolidated PAR file.

Financial Systems Interface File: This is a required interface file. This file is expected to be produced from the campus financial system, contracts and grants system, or a combination of both. The file should contain a complete list of all FAU's on the campus chart of accounts *that will be used for payroll funds*. See page 5 for additional details on the data required for this file.

Departments Interface File: This is a required interface file. The organizational hierarchy is used in multiple parts of the ERS system including: display of employee department information on the effort report, and associating projects and funds with the departments that are responsible for them.

Cost Sharing Interface File: This is an optional interface file. If present, cost sharing commitments will be associated with the employee and presented on the Effort Report as a default value. If this interface file is not loaded, employees can still enter cost sharing percents on the effort report manually.

User Interface File: This is an optional interface file for campuses that have an integrated authentication system which provides employee ID and email address to the application. For campuses using the ERS internal logon mechanism, this interface file is required to associate authentication IDs with employee IDs for users of the ERS system.

Org/Dept Interface File: This is an optional interface file. When using the decentralized security administration feature, this table provides a mapping between the financial system's organization code hierarchy, loaded via the DEPT interface file, and the Payroll/Personnel system Home Department code table. This mapping is required to allow departmental security administrators, who administer security based on an organization code, to create permissions based on PPS Home Department code.

ProjectAlt/User Interface File: This is an optional interface file. This file allows you to pre-build searches for employees, based on the Project_Alt_ID column in the FS file. For each unique value found in this column, the job will build a search and associate it with the login ID supplied in this file for that Project_Alt_ID value.

Pilot Participant: This is an optional file that designates reporting periods as pilot periods. Only the employees listed in the file for a given period will have reports generated and late pay applied for each pilot period. You can turn off a participant entered previously in error by setting the Active_Ind to N.

Without Salary (WOS) Employee Interface File: This is an optional interface file. This file is used to load WOS employees who need to be able to access and certify effort reports for others. Since PAR records exist only for employees who receive pay, this interface will load WOS employees into the ERS database.

ERS/PPS Interface File	Record length: 220 characters				
Field name	Format		DB2 Source	DB2 Type	DE Number	Comments
Pay_Cycle_End_Date	CHAR(10) 1-10	NOT NULL	PPPERN.PAY_CYCLE_END_DATE	DATE	PAR0140	Convert DATE to CHAR(10) Format (mm/dd/yyyy)
Pay_Cycle_Code	CHAR(2) 11-12	NOT NULL	PPPERN.PAY_CYCLE_CODE	CHAR	PAR0190	
Employee_ID	CHAR(9) 13-21	NOT NULL	PPPERN.EMPLOYEE_ID	CHAR	PAR0120	
Record_Type	CHAR(2) 22-23	NOT NULL	PPPERN.RECORD_TYPE	CHAR	PAR0280	
Pri_Gross_Ctl	CHAR(3) 24-26	NOT NULL	PPPERN.PRI_GROSS_CTL	CHAR	PAR0130	
Entry_Seq_No	CHAR(4) 27-30	NOT NULL	PPPERN.ENTRY_SEQ_NO	SMALLINT		Convert to CHAR(4)
Emp_Name	CHAR(26) 31-56	NOT NULL	PPPEUD.EMP_NAME	CHAR	PAR0571	
Home_Dept	CHAR(6) 57-62	NOT NULL	PPPEUD.HOME_DEPT	CHAR	PAR0720	
Home_Dept_Name	CHAR(30) 63-92	NOT NULL	PPPHME.HME_DEPT_NAME	CHAR	HME1000	Lookup based on above
ERN_FAU	CHAR(30) 93-122	NOT NULL	PPPERN.ERN_FAU	CHAR		(Not currently defined in the PAR data dictionary)
Trans_Code	CHAR(2) 123-124	NOT NULL	PPPERN.TRANS_CODE	CHAR	PAR3590	
Pay_Sched_Code	CHAR(1) 125	NOT NULL	PPPERN.PAY_SCHED_CODE	CHAR	PAR3140	
Rate_Type_Code	CHAR(1) 126	NOT NULL	PPPERN.RATE_TYPE_CODE	CHAR	PAR3300	
Pay_Per_End_Date	CHAR(10) 127-136	NOT NULL	PPPERN.PAY_PER_END_DATE	DATE	PAR3750	Convert DATE to CHAR(10) Format (mm/dd/yyyy)
Paid_Hours	CHAR(7) 137-143	NOT NULL	PPPERN.PAID_HOURS	DECIMAL(5,2)	PAR3980	Convert to CHAR(6)
Paid_Amount	CHAR(9) 144-152	NOT NULL	PPPERN.PAID_AMT	DECIMAL(7,2)	PAR3990	Convert to CHAR(9)
Paid_Percent	CHAR(7) 153-159	NOT NULL	PPPERN.PAID_PERCENT	DECIMAL(5,4)	PAR4000	Convert to CHAR(6)
Pay_Rate	CHAR(11) 160-170	NOT NULL	PPPERN.DIST_PAYRATE	DECIMAL(9,4)	PAR3260	Convert to CHAR(11)
Title_Code	CHAR(4) 171-174	NOT NULL	PPPERN.TITLE_CODE	CHAR	PAR3846	
TC_Name	CHAR(30) 175-204	NOT NULL	PPPTCI.TCI_TITLE_NM_ABBRV	CHAR	TCT1120	Lookup based on Title_Code, above

TC_Pers_Pgm_Code	CHAR(1) 205	NOT NULL	PPPTCI.TCI_PERSONL_PGM_CD	CHAR	TCT1050	Lookup based on Title_Code, above
TC_Exempt_Code	CHAR(1) 206	NOT NULL	PPPTSL.TSL_OVRTM_EXMPT_CD	CHAR	TCT3360	Lookup based on Title_Code, above
TC_Acad_Appt_Basis	CHAR(1) 207	NOT NULL	PPPTPA.TPA_ACAD_APPT_BAS	CHAR	TCT2180	Lookup based on Title_Code, above
TC_Acad_Pay_Period	CHAR(1) 208	NOT NULL	PPPTPA.TPA_ACAD_PAY_PERD	CHAR	TCT2190	Lookup based on Title_Code, above
Dist_DOS	CHAR(3) 209d-211	NOT NULL	PPPERN.DIST_DOS	CHAR	PAR3870	
DOS_Time_Code	CHAR(1) 212	NOT NULL	PPPDOS.DOS_TIME_CODE	CHAR	DOS8500	Lookup based on Dist_DOS, above
DOS_Pay_Category	CHAR(1) 213	NOT NULL	PPPDOS.DOS_PAY_CATEGORY	CHAR	DOS1600	Lookup based on Dist_DOS, above
Ern_Derived_Pct	CHAR(7) 214-220	NOT NULL	PPPERN.ERN_DERIVED_PCT	DECIMAL(5,4)	PAR0343	Convert to CHAR(11)

Financial Systems Interface File	Record Length: 660 + [Number of Co_PI_Emp_IDs * 9] characters				
Column name	Format Pos		Possible Values	Interpretation	Comments
FAU	CHAR(30) 1-30	NOT NULL			FAU (Full Accounting Unit) from Payroll transactions Searchable via the Funds tab.
Project_ID	CHAR(30) 31-60				A unique identifier required to group multiple FAUs related to the same project on the sponsored project line of the effort report. This value can be a combination of elements of the FAU such as Account-Fund, or just the Fund, or another campus project identifier. Not required to be present on the record unless Cert_Reqd_Ind = Y or Sponsored_Ind = Y. Should always be blank when Sponsored_Ind = N. If a Project ID is not available in any campus system, the full FAU may be used as the Project ID.
Sponsored_Ind	CHAR(1) 61	NOT NULL	Y, N	Y – FAU contains sponsored funds N – FAU does not contain sponsored funds	
Fed_Fund_Ind	CHAR(1) 62	NOT NULL	Y, N	Y – FAU contains Federal funds N – FAU does not contain Federal funds	Not currently used for effort report generation but may be used for ad-hoc reporting to isolate funds that require certification but are not federal funds.
Cert_Reqd_Ind	CHAR(1) 63	NOT NULL	Y, N	Y – Funds require certification of effort N – Funds do not require certification	Implies a value of 'Y' in Sponsored_Ind, above.
Effective_Date	CHAR(10) 64-73				Date that this FAU was last updated. May be blank for new records. If the effective date is newer than the value on a matching record, the funding source will be updated with the new values. If the effective date is blank or older than a matching record, the record will be ignored. Format: mm/dd/yyyy

Account_Org_ID	CHAR(6) 74-79				Organizational unit that administers the account portion of the funding source. Refers to the data loaded from the Departments interface file (org_id column).
Fund_Org_ID	CHAR(6) 80-85				Organizational unit that administers the fund portion of the funding source. Refers to the data loaded from the Departments interface file (org_id column).
PI_Emp_ID	CHAR(9) 86-94				Principal Investigator Employee ID
Sponsor_Code	CHAR(10) 95-104				Sponsoring Agency Code – for ad-hoc reporting. Not displayed in ERS.
Sponsor_Name	CHAR(90) 105-194				Sponsoring Agency Name – for display and reporting.
Contract_Nbr	CHAR(30) 195-224				Contract Number (Agency #) – for display and search. Searchable via the Projects tab.
Project_Name	CHAR(135) 225-359				Project Name – for display and search. This name will be displayed on the effort report for each sponsored project and should correspond to the value used for the Project_ID "groupifier" field. Searchable via the Projects tab.
Project_ID_Alt	CHAR(50) 360-409				Alternate Project ID – for display and reporting. Will be used for the sponsored project line tooltip. May contain a project ID from the campus contracts and grants system.
Project_Name_Alt	CHAR(200) 410-609				Alternate Project Name – for display and reporting. (Was Fund_Desc) Will be used for the sponsored project line tooltip. May contain an alternate project name from the campus contracts and grants system.
Fund_Name	CHAR(50) 610-659				Fund Name (Fund Title) – for display and search. The name of the fund or funding source. Searchable via the Funds tab.

FAU_Reused_Flag	CHAR(1) 660		Y, blank		Value 'Y' indicates that this FAU was previously used for a different project. Once this flag is set, any new payroll activity will be treated as a new sponsored project on effort reports generated after this point.
Co_PI_Emp_ID	CHAR(9) 661-669				Co-Principal Investigator Employee ID (This value is Optional. Also if present, multiple Co_PI_Emp_IDs can be possible.)

Identifying Funds That Require Certification of Effort

The Financial Systems interface file should list each FAU on the campus chart of accounts *that will be used for payroll funds*. If an FAU will never contain payroll funds and can be identified as such by object code or subaccount, then this FAU may be omitted from the interface file. Certain FAU's which are used to pay employees will require certification of effort. The interface record has three indicator fields which tell ERS how to treat the payroll activity – specifically, whether and where to include it on the effort report. The three indicators for each fund on the ERS interface file are:

Sponsored Indicator	Y, N, blank	'Y' – the fund contains funds from a contract, grant or other cooperative agreement
Federal Funds Indicator	Y, N, blank	'Y' – the funding source is the US Government
Certification Required Indicator	Y, N, blank	'Y' – the funding source requires effort reporting

The data elements needed to set the indicators in the ERS interface file are part of the Corporate Account/Fund Profile (CAFP) specification. Therefore, these elements should be available in the campus financial system that is used to prepare input to CAFP. The primary determinants are FUND GROUP CODE and FLOW THROUGH CODE. For the complete CAFP specification see: http://www.ucop.edu/irc/campus_specs/caf/

Sponsored Indicator (field Sponsored Ind)
Funds with Fund Group codes that identify contracts, grants and cooperative agreements from any source should be treated as sponsored funds. This includes private restricted grants and contracts, and clinical drug trials. Currently these fund groups are: **406210, 406310** (federal); **404210** (state); **405210** (local govt); **408300,408410,408420** (private/restricted).

All funds with one of these Fund Group codes should have the Sponsored Indicator set to 'Y' in the ERS interface file. Fund groups containing "overhead clearing accounts" such as 406220, 406320, 408430 should **not** be flagged as sponsored funds.

Federal Fund Indicator (field Fed Fund Ind)
Certain Fund Group codes identify federal funds. Funds in these Fund Groups should have the Federal Funds Indicator set to 'Y' in the ERS interface file. Currently these fund groups are: **406210** and **406310**.

Certification Required Indicator (field Cert Reqd Ind)
Certain Fund Group codes identify federal funds. Funds in these Fund Groups should have the Certification Required Indicator set to 'Y' in the ERS interface file. Currently these fund groups are: **406210** and **406310**.

If sponsored funds from a non-Federal source require certification of effort, and the campus decides to use the Effort Reporting System to produce the effort reports, then the Certification Required Indicator must be set to 'Y' in the ERS interface file for these non-Federal funds as well.

Examination of the Flow-Through-Code

In addition to the rules above, any other funds, regardless of Fund Group code, that have Flow Through Code value of '2' or '3' are considered federal funds and should have the Sponsored Indicator set to 'Y', Federal Funds Indicator set to 'Y', and the Certification Required Indicator set to 'Y' in the ERS interface file.

Note that CAFP edits will normally insure that the Flow Through Code is set consistently for the Fund Group code, however we recommend that this additional check be included in the procedures used to prepare the ERS interface file.

NOTE: As of this version of the interface specification, discussion is underway to expand the list of values for Flow-Through-Code and Award-Type in the CAFP to allow the flag settings on the ERS interface file to be more readily determined. These notes will be revised once the final CAFP changes have been specified.

Principal Investigators
Place the employee ID of the PI for the project at positions 86-94. This is the same position it occupied pre-Release 8.1. For any number of co-PIs, append each employee ID to the end of the line. The test for validity of an FS line is now at least 660 chars, and if > 660, then the difference must be evenly divisable by 9 (length of an employee ID). (660 + [Number of Co_PI_Emp_IDs * 9] or ([line length] -660) % 9 == 0.)

Departments Interface File			Record Length: 42 characters		
Column name	Format		Possible Values	Interpretation	Comments
Org_ID	CHAR(6) 1-6	NOT NULL			Organization (department) code—must be unique.
POrg_ID	CHAR(6) 7-12				Parent organization (department) code
Org_Name	CHAR(30) 13-42	NOT NULL			Organizational unit name

Cost Sharing Interface File			Record Length: 66 characters		
Column name	Format		Possible Values	Interpretation	Comments
FAU	CHAR(30) 1-30	NOT NULL			FAU on which this cost sharing commitment was made. **This value must match the FAU provided on the Financial Systems interface file.**
Employee_ID	CHAR(9) 31-39	NOT NULL			Employee ID for which this cost sharing commitment applies.
Start_Date	CHAR(10) 40-49	NOT NULL		MM/DD/YYYY	Date that the cost sharing commitment began or will begin.
End_Date	CHAR(10) 50-59	NOT NULL		MM/DD/YYYY	Date that the cost sharing commitment ended or will end. During generate, ERS will select only cost sharing records to apply to an effort report when the period defined by the Start Date and End Date overlaps the reporting period.
Cost_Sharing_Pct	CHAR(6) 60-65	NOT NULL		Percentage	Committed cost sharing percentage, for this employee, for this FAU, that will be applied to any reporting period Format: Decimal(6,2) No sign, no decimal point, leading zeroes
Active_Ind	CHAR(1) 66	NOT NULL		Y – This commitment is active N – This commitment is no longer active	Use this field to deactivate commitments entered in error, etc. ERS will not apply inactive commitments to any report.

User Interface File			Record Length: 189 characters		
Column name	Format		Possible Values	Interpretation	Comments
Authentication_ID	CHAR(60) 1-60	NOT NULL			Logon ID for ERS, or identity as defined by the external authentication system.
Employee_ID	CHAR(9) 61-69				Employee ID associated with this authentication ID, if user is an employee.
Email_Address	CHAR(60) 70-129				Email address associated with this authentication ID. If missing, the user associated with the authentication ID will not be able to participate in the Notification features of the ERS, nor be able to reset their password.
Friendly_Name_Last	CHAR(30) 130-159				A displayable version of the user's name.
Friendly_Name_First	CHAR(30) 160-189				

Org/Dept Interface File			Record Length: 12 characters		
Column name	Format		Possible Values	Interpretation	Comments
Org_ID	CHAR(6) 1-6	NOT NULL			Organizational unit code, as defined in the DEPT interface
Dept_ID	CHAR(6) 7-12	NOT NULL			PPS Home Department code associated with this Org_ID. Matched against the Home Department code from the employee's earnings records in the PPS Interface.

ProjectAlt/User Interface File			Record Length: 110 characters		
Column name	Format		Possible Values	Interpretation	Comments
Project_ID_Alt	CHAR(50) 1-50	NOT NULL			Alternate Project ID - for display and reporting. Will be used for the sponsored project line tooltip. May contain a project ID from the campus contracts and grants system.
Authentication_ID	CHAR(60) 51-110	NOT NULL			Logon ID for ERS, or identity as defined by the external authentication system.

Pilot Period Interface File			Record Length: 14 characters		
Column name	Format		Possible Values	Interpretation	Comments
Period_ID	CHAR(4) 1-4	NOT NULL		integer	Must match an existing reporting period ID already created in the ERS system. Marks the period as a pilot one. Must be left padded with either zeroes or blanks.
Employee_ID	CHAR(9) 5-13	NOT NULL			PPPERN.EMPLOYEE_ID, employee must already exist in the ERS system. Indicates an employee that is part of the pilot period (i.e. the employee will have a report generated if required, etc.)
Active_Ind	CHAR(1) 14		Y, N, Blank	Blank interpreted as Y.	Value set to 'N' removes the employee from pilot participation in the specified period.

WOS Employee Interface File			Record Length: 41 characters		
Column name	Format		Possible Values	Interpretation	Comments
Employee_ID	CHAR(9) 1-9	NOT NULL			Employee Id. Must be 9 character numeric value.
Home_Dept	CHAR(6) 10-15	NOT NULL			Employee home department. Must exist in the ERS department table. This field must be right justified.
Emp_Name	CHAR(26) 16-41	NOT NULL			Employee name

Change Log

Version	Date	Changes
4.3	12/??/08	Add pilot record specification Added new WOS Employee Interface file layout
4.2	9/22/08	CS file definition change. (Add Active_Ind.)
4.1	7/27/07	FS file definition change. (PI Normalization)
4.0	5/15/07	Added ProjectAltUser file layout for SponsoredProject Search Interface.
3.0	9/18/06	Added ORGDEPT file layout
2.9	7/25/06	Revise FS to remove acceptable value "blank" for Cert_Reqd_Ind and others
2.8	2/10/06	Revise descriptions on FS interface for further clarity. Add field position numbers to FS file format description.
2.7	12/6/2005	FS: Revised field descriptions for clarity. Added Project_ID_Alt. Renamed Fund_Desc to Project_Name_Alt. Expanded Sponsor_Code.
2.6	10/3/2005	Corrected record length on PPS file (should be 220, was 219)
2.5	8/29/2005	Added wording for clarification of FAU selection on FS interface – FAUs that will never contain payroll funds need not be included in the file.
2.4	7/8/2005	Removed Effective Date from DEPT interface; we do not need to support Department Code reuse or reassignment.
2.3	6/27/2005	Added notes clarifying use of ProjectID, Project_Name, Account_Org_ID and Fund_Org_Id; added FAU_Reused_Flag to FS interface file and removed Project_Effective_Date; added Friendly_Name fields to the User interface file and reduced field length for email address; removed CS_Period_Code, CS_Start_Date, CS_End_Date from CS interface file and added Start Date and End Date; changed Project_ID to FAU on CS interface file; removed Depth indicator and Exclude indicator from DEPT interface file.
2.2	4/19/2005	Added Project_Effective_Date, changed both effective dates to nullable
2.1	4/11/2005	Added clarification of use of Project_Name field on the financial systems interface (FS) and use of Project_ID field on the cost sharing (CS) interface file. Added clarification on use of Effective Date on the financial systems interface (FS) and departments (DEPT) interface files.
2.0	2/11/2005	PPS interface-restored Pay Sched Code, had been removed. Financial interface-renamed Org_ID to Account_Org_ID, added Fund_Org_ID to allow distinct searching on different criteria. Reworded instructions on how to identify funds requiring certification

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1.9      2/3/2005   PPS interface-added fields: Home Dept Name, Earnings amount, Trans code
1.8      1/20/2005  Changed Contract_Nbr to Project_ID on CS interface, recalc record lengths
1.7      1/19/2005  Added PAYRATE to PPS interface, added Project_ID to FS interface
1.6      1/18/2005  Added ERSUSR new interface file; added "specifics" information on p.1
1.5      1/18/2005  Changed Contract_Nbr on FS interface to be part of key
1.4                 Added Sponsored_Ind to FS interface
1.3                 Added additional title code elements to PPS interface
1.2                 Added additional title code elements to PPS interface
1.1                 Expand ERN_DERIVED_PCT on PPS interface to char(7)
1.0      12/7/2004  Initial release for review by TAG
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