

Rule Engine Implementation

From ADempiere ERP Wiki

This my idea to implement the Rule & Engine into ADempiere

Fist we need create new model data into Application Dictionary:

- Table AD_Rule_Engine
- Fields:
 - Value
 - Name
 - Description
 - Rule Engine Type
 - Script

DDL Script

```
CREATE TABLE adempiere.ad_rule_engine
(
  ad_client_id numeric(10) NOT NULL,
  ad_org_id numeric(10) NOT NULL,
  ad_rule_engine_id numeric(10) NOT NULL,
  created timestamp without time zone NOT NULL,
  createdby numeric(10) NOT NULL,
  description character varying(255),
  isactive character(1) NOT NULL,
  name character varying(60) NOT NULL,
  rule_engine_type character varying(2),
  script character varying(4000),
  updated timestamp without time zone NOT NULL,
  updatedby numeric(10) NOT NULL,
  value character varying(40),
  CONSTRAINT ad_rule_engine_key PRIMARY KEY (ad_rule_engine_id),
  CONSTRAINT ad_rule_engine_isactive_check CHECK (isactive = ANY (ARRAY['Y'::bpchar, 'N'::bpchar]))
)
```

New Windows into Application Dictionary

- Windows Name : Rule Engine
- Fields
 - Search Key : Value to search to Rule
 - Name : Name of Rule
 - Description: Description detail the rule
 - Rule Engine Type :
 - Bash Shell (Allow execute a rule based in this language script)
 - SQL (Will Allow execute a rule based in SQL standard)
 - AOP (Will Allow execute a rule based in AOP)
 - Script : Script logic to Rule Engine Type

Screenshot

File Edit View Go Tools Window Help

Client: GardenWorld Organization: HQ

Search Key: FTS

Name: Fed Tax Salary

Description:

☒ Active

Rule Engine Type: Bash Shell

Script:

```
double AnnualSalary = getAttribute("1000")*12;
double Income = getAttribute("8040")+getAttribute("8050")+getAttribute("1000");
double Benefits= (AnnualSalary + Income)/12;
double Base = AnnualSalary + Income + Benefits;
double TaxBase = Base - (Base*getAttribute("8000"));

double TaxRangeCol1 = getList("FedTaxTable",TaxBase,"1");
double TaxRangeCol2 = getList("FedTaxTable",TaxBase,"2");
double TaxRangeMin= getList("FedTaxTable",TaxBase,"From");

System.err.println("    "+TaxBase+" "+TaxRangeCol1+" "+TaxRangeCol2+" "+ TaxRangeMin);

double AnnualTax = TaxBase - TaxRangeMin;

AnnualTax = ( TaxRangeCol2 * AnnualTax) + TaxRangeCol1;

result = (AnnualTax /12);
```

Navigate or Update record *1/2

Here you can review how I am implement bash Shell in Payroll

MHRProcess (http://adempiere.svn.sourceforge.net/viewvc/*checkout*/adempiere/branches/libero/src/org/eevolution/model/MHRProcess.java)

Retrieved from "http://www.adempiere.com/Rule_Engine_Implementation"

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