

CRYSTAL REPORT
Functions, Formulas, Examples

//Age/Anniversary Calculation

//new age formula from ken hamady

```
WhileReadingRecords;
DateVar Birth:= {CS_APPLICANT_MAIN.DATE_OF_BIRTH};
DateVar Ann := {CS_ADHOC_TITLE1_REPORT.PROGRAM_START_DATE};
if (Month(Ann) * 100) + Day (Ann) >=(Month(Birth) *100) + Day (Birth)
then Year (Ann) - Year(Birth)
else Year (Ann) - Year(Birth) -1
```

//entered employment logic

```
(
not isnull({CS_ADHOC_TITLE1_REPORT.ENTERED_EMPLOYMENT_DATE}) or
not isnull({CS_ADHOC_TITLE1_REPORT.ENT_MILITARY_SERVICE_DATE}) or
not isnull({CS_ADHOC_TITLE1_REPORT.ENT_QUAL_APPRENTICE_DATE}) or
not isnull({CS_ADHOC_TITLE1_REPORT.CALLED_BACK_RECALL_DATE})
)
```

//conversion to hourly wage

//(for job placement wages using cs_applicant_service_followup table)

```
local numberVar hoursPerDay := 0;
if (isnull({CS_APPLICANT_SERVICE_FOLLOWUP.HOURS_PER_WEEK}) or
{CS_APPLICANT_SERVICE_FOLLOWUP.HOURS_PER_WEEK} = 0) then
    hoursPerDay := 8
else hoursPerDay := {CS_APPLICANT_SERVICE_FOLLOWUP.HOURS_PER_WEEK}/5;
```

```
select {cs_applicant_service_followup.pay_unit}
case 196: {cs_applicant_service_followup.pay} //hourly
case 197: {cs_applicant_service_followup.pay}/hoursPerDay //daily
case 198: {cs_applicant_service_followup.pay}/5/hoursPerDay //weekly
case 199: {cs_applicant_service_followup.pay}/22/hoursPerDay //monthly
case 200: {cs_applicant_service_followup.pay}/260/hoursPerDay //yearly
```

//(for job placement wages using cs_applicant_job_history table)

```
local numberVar hoursPerDay := 0;
if (isnull({CS_APPLICANT_JOB_HISTORY.HOURS_PER_WEEK}) or
{CS_APPLICANT_JOB_HISTORY.HOURS_PER_WEEK} = 0) then
    hoursPerDay := 8
else hoursPerDay := {CS_APPLICANT_JOB_HISTORY.HOURS_PER_WEEK}/5;
```

```
select {CS_APPLICANT_JOB_HISTORY.SALARY_UNIT}
case 196: {CS_APPLICANT_JOB_HISTORY.SALARY} //hourly
case 197: {CS_APPLICANT_JOB_HISTORY.SALARY}/hoursPerDay //daily
case 198: {CS_APPLICANT_JOB_HISTORY.SALARY}/5/hoursPerDay //weekly
case 199: {CS_APPLICANT_JOB_HISTORY.SALARY}/22/hoursPerDay //monthly
case 200: {CS_APPLICANT_JOB_HISTORY.SALARY}/260/hoursPerDay //yearly
```

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//select (case) statement for Age Grouping

//(after creating the @age formula; see Age Calculation above)

```
select {@age}
  case is < 17 : 'Under 17'
  case is < 22 : '17 – 21'
  case is < 30 : '22 – 29'
  default : '30 and over'
```

//switch statement for Age Grouping

//(after creating the @age formula; see Age Calculation above)

```
switch
(
  {@age} < 17, 'Under 17',
  {@age} < 22, '17 – 21',
  {@age} < 30, '22 – 29',
  true, '30 and over'
)
```

//if/then/else statement for Age Grouping

//(after creating the @age formula; see Age Calculation above)

```
if {@age} < 17 then 'Under 17' else
  if {@age} < 22 then '17 – 21' else
    if {@age} < 30 then '22 – 29' else
      '30 and over'
```

//ethnicity

```
local StringVar ethnicities;
local StringVar result;
```

```
if not isnull({CS_APPLICANT_MAIN.ETHNIC_WHITE}) then ethnicities := ethnicities & 'w';
if not isnull({CS_APPLICANT_MAIN.ETHNIC_AFRICAN}) then ethnicities := ethnicities & 'b';
if not isnull({CS_APPLICANT_MAIN.ETHNIC_HISPANIC}) then ethnicities := ethnicities & 'h';
if not isnull({CS_APPLICANT_MAIN.ETHNIC_NATIVE}) then ethnicities := ethnicities & 'n';
if not isnull({CS_APPLICANT_MAIN.ETHNIC_ASIAN}) then ethnicities := ethnicities & 'a';
if not isnull({CS_APPLICANT_MAIN.ETHNIC_PACIFIC}) then ethnicities := ethnicities & 'p';
if not isnull({CS_APPLICANT_MAIN.ETHNIC_OTHER}) then ethnicities := ethnicities & 'o';
```

```
if length(ethnicities) > 1 then result := 'Multi-Ethnic' else
if ethnicities = 'w' then result:= 'White' else
if ethnicities = 'b' then result:= 'African-American' else
if ethnicities = 'h' then result:= 'Hispanic' else
if ethnicities = 'n' then result:= 'Native American' else
if ethnicities = 'a' then result:= 'Asian' else
if ethnicities = 'p' then result:= 'Pacific Isl' else
if ethnicities = 'o' then result:= 'Other' else result:= 'Unknown';
```

```
result;
```

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//SSN Format:

```
picture({cs_applicant_main.ss_number}, 'xxx-xx-xxxx')
```

//Phone Format:

```
picture({cs_applicant_main.phone}, '(xxx) xxx-xxxx')
```

//Client Name as Last Name, First Name in upper case

```
uppercase({cs_applicant_main.last_name} + ", " + {cs_applicant_main.first_name})
```

//Zip Code Format (from the cs_applicant_main table):

```
if len({CS_APPLICANT_MAIN.ZIP}) > 5 then  
    picture({CS_APPLICANT_MAIN.ZIP}, 'xxxxx-xxxx')  
else  
    picture({CS_APPLICANT_MAIN.ZIP}, 'xxxxx')
```

//ApplicantID Group Sorter

```
uppercase(TrimLeft({CS_APPLICANT_MAIN.LAST_NAME}) &  
trimleft({CS_APPLICANT_MAIN.FIRST_NAME}) & {CS_APPLICANT_MAIN.APPLICANT_ID})
```

//SQL version of ApplicantID Group Sorter

```
{fn UCASE(ltrim(CS_APPLICANT_MAIN."LAST_NAME") || ltrim(CS_APPLICANT_MAIN."FIRST_NAME") ||  
CS_APPLICANT_MAIN."APPLICANT_ID")}
```

//WIA Out Of School

```
if ({CS_APPLICANT_MAIN.IN_SCHOOL} = "Y" and  
{CS_APPLICANT_MAIN.HIGHEST_EDUCATION_GRADE} < 98) then  
    "No"  
else  
    if ({CS_APPLICANT_MAIN.HIGHEST_EDUCATION_GRADE} < 98 and  
{CS_APPLICANT_MAIN.IN_SCHOOL} = "N") // dropout  
        or  
        ({CS_APPLICANT_MAIN.HIGHEST_EDUCATION_GRADE} >= 98 and // hs grad and basic skills def or  
unemployed  
        ((not isnull({CS_APPLICANT_TRAINING.MATH_LEVEL}) and  
{CS_APPLICANT_TRAINING.MATH_LEVEL} < 9)  
        or (not isnull({CS_APPLICANT_TRAINING.READING_LEVEL}) and  
{CS_APPLICANT_TRAINING.READING_LEVEL} < 9) or  
        {CS_APPLICANT_TRAINING.LABOR_FORCE_STATUS} <> 161))  
    then "Yes"  
    else "No"
```

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//OSCCAR Entered Employments

```
{CS_APPLICANT_JOB_SERVICES.TRANSACTION_DATE} > cdate(2004, 06, 30) and  
{CS_APPLICANT_JOB_SERVICES.TRANSACTION_DATE} < cdate(2005,07,01) and  
(  
{CS_APPLICANT_JOB_SERVICES.SERVICE_TYPE} in [452, 824] or  
{CS_APPLICANT_JOB_SERVICES.SERVICE_RESULT} = 275  
) and  
{APPLICANT_OSCCAR_SERVICES_V01.LOCAL_OFFICE_ID} in ["4001"] and  
{APPLICANT_OSCCAR_SERVICES_V01.TRANSACTION_DATE} < cdate(2005,07,01) and  
{CS_APPLICANT_JOB_SERVICES.TRANSACTION_DATE} >=  
{APPLICANT_OSCCAR_SERVICES_V01.TRANSACTION_DATE}
```

//WIB – FIPS Code conversion

```
select {fieldname}  
  case 25005:'Boston'  
  case 25015:'Hampden'  
  case 25020:'North Central'  
  case 25025:'Central Mass'  
  case 25030:'Metro North'  
  case 25035:'Brockton'  
  case 25040:'Bristol'  
  case 25045:'Greater Lowell'  
  case 25050:'Berkshire'  
  case 25055:'Lower Merrimack Valley'  
  case 25060:'Southern Essex'  
  case 25065:'South Coastal'  
  case 25070:'Metro Southwest'  
  case 25075:'Franklin/Hampshire'  
  case 25080:'Cape Cod'  
  case 25085:'Greater New Bedford'
```

//Counting Job Seeker Services like the OSCCAR

//i.e. transaction date for job referrals hired, service date for all other job referrals

```
{APPLICANT_OSCCAR_SERVICES_V01.LOCAL_OFFICE_ID} in ['4001','4002','3001'] and  
(  
(not({APPLICANT_OSCCAR_SERVICES_V01.SERVICE_TYPE} in [449,451]) and  
{APPLICANT_OSCCAR_SERVICES_V01.TRANSACTION_DATE} = {?ReportDateRange})  
OR  
({APPLICANT_OSCCAR_SERVICES_V01.SERVICE_TYPE} in [449,451] and  
{APPLICANT_OSCCAR_SERVICES_V01.SERVICE_RESULT}=275 and  
{APPLICANT_OSCCAR_SERVICES_V01.TRANSACTION_DATE} = {?ReportDateRange})  
OR  
({APPLICANT_OSCCAR_SERVICES_V01.SERVICE_TYPE} in [449,451] and  
{APPLICANT_OSCCAR_SERVICES_V01.SERVICE_RESULT}<>275 and  
{APPLICANT_OSCCAR_SERVICES_V01.SERVICE_DATE} = {?ReportDateRange})  
)
```