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 Bearbeiten Übertragung Darstellung Kommunikation Funktionen Fenster Hilfe
 [Icons]
 File Edit Edit_Settings Menu Utilities Compiler

EDIT          P390A.OPC.JOBLIB(HAHMVARA) - 01.17
Command ==>
***** ***** Top of Data *****
=NOTE= LABEL  MSG.NO.  ERROR MESSAGE
=NOTE= -----
=NOTE= .JAAR  JCK0316E DATA SET CANNOT BE FOUND/NOT IN CATALOG
=NOTE= .JAAB  JCK0240E LREC IS AN INVALID DCB SUBPARAMETER
000001 //P390GX JOB ,'_HORIZONT',MSGCLASS=T
000002 //*%OPC SCAN
000003 //CPUNL      EXEC PGM=IKJEFT01,REGION=6M
000004 //SYSTSPRT DD SYSOUT=*
.JAAR //PRGRCF      DD DISP=SHR,DSN=P390A.OPG.D990101
==MSG> JCK0316E DATA SET CANNOT BE FOUND/NOT IN CATALOG
000006 //EQQLIB DD DSN=P390A.OPCESA.V2R3M0.SEQQMSG0,
000007 //OUTPUT DD DISP=(NEW,PASS),DSN=&&PARM,
000008 //          UNIT=SYSDA,
.JAAB //          DCB=(LREC=80,RECFM=FB)
==MSG> JCK0240E LREC IS AN INVALID DCB SUBPARAMETER
000010 //SYSTSIN DD *
000011 CALL 'P390A.OPG.LOAD23(OPGICPU7)' +
000012      'HEAP(1M,256K),DEP(0),ER(0)/'
***** ***** Bottom of Data *****
```

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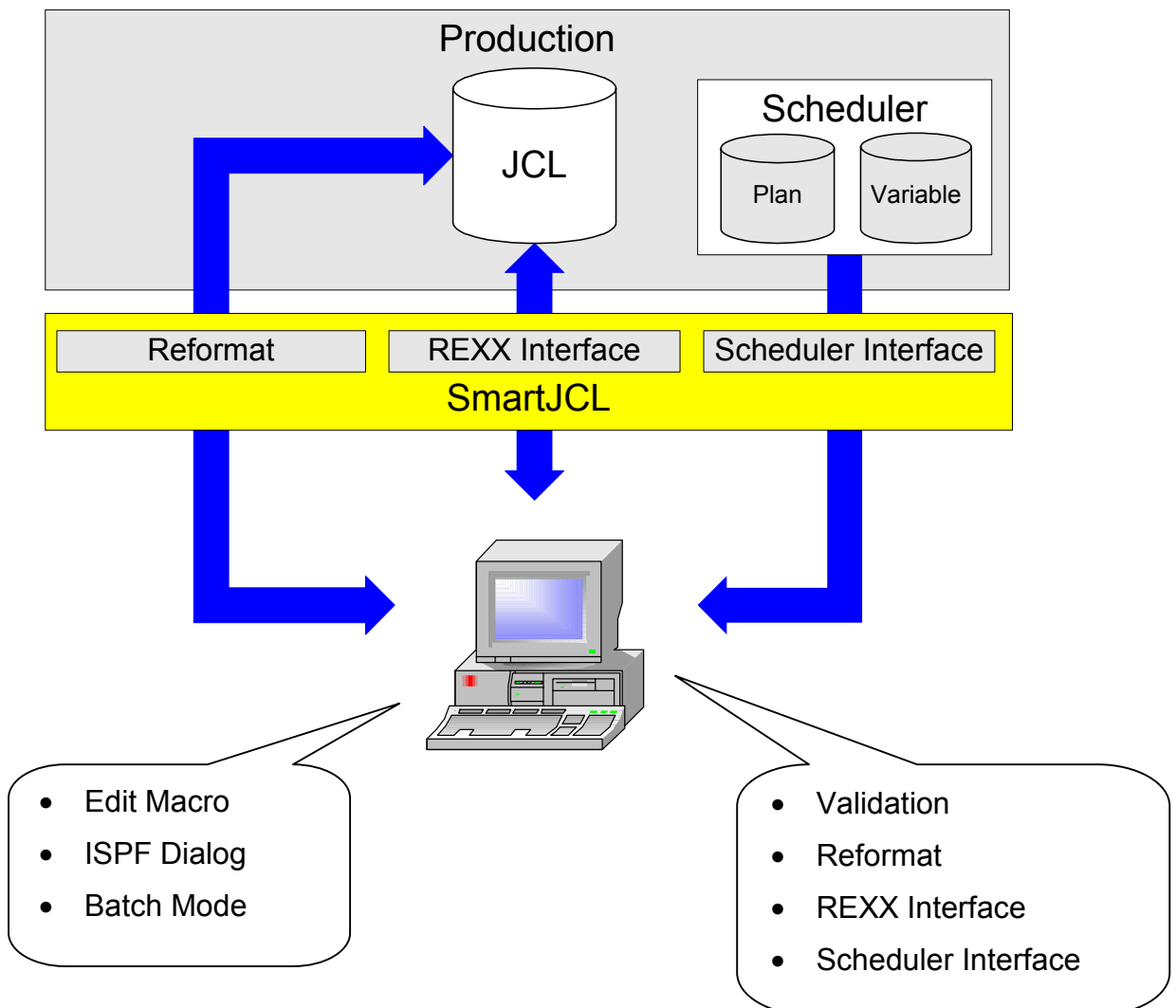
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SmartJCL – The Easy Way to Faultless JCL

Despite all predictions to the contrary, the number of mainframe jobs continues to grow. As a result, "old" JCL has to be continually modified and new JCL is regularly created. This causes a dilemma: JCL cannot normally be tested in production. Any new or modified JCL can potentially cause errors in production.

- SmartJCL eliminates errors at the source, thus reducing the number of abends dramatically.
- SmartJCL is a JCL checker to validate your JCL. At an affordable price. No more and no less.



Functional Overview

- SmartJCL validates the syntax of *all* JCL statements. This rules out frequent causes of errors such as missing continuation characters and incorrect parameters.
- SmartJCL can be called by an edit macro directly from the ISPF editor.
- SmartJCL can be called as a batch program: Complete production sequences can be checked ahead of time. Jobs can be selected using lists or scheduler fields such as application, owner or jobname.
- SmartJCL has an integrated interface to your scheduler¹: If you use scheduler variables, this interface allows you to simulate variable substitution.
- SmartJCL checks disposition parameters and corresponding file allocations for logical mistakes. If a job tries to read a file with DISP=SHR and the file doesn't exist, SmartJCL returns an error.
- SmartJCL can check JCL in a production sequence. Catalog actions can be taken into account. If a job deletes an existing file (DISP=OLD,DELETE) and a subsequent job tries to read it (DISP=SHR), SmartJCL returns an error.
- SmartJCL validates GDG processing.
- SmartJCL checks the availability of programs and procedures.
- SmartJCL has a function to reformat JCL automatically.
- SmartJCL has an integrated REXX interface. It allows to adapt SmartJCL flexible and easily to customer specific needs, from simple verification of company standards up to complex handover systems.

¹ SmartJCL supports BMC's Control-M and IBM's TWS (OPC). More interfaces are planned for future releases.

ISPF Edit Macro

SmartJCL can be called from the ISPF editor. Error messages are displayed as NOTE lines. Labels enable users to locate "incorrect" statements using the L(ocate) command.

The screenshot shows the ISPF editor window titled 'Sitzung A - [24 x 80]'. The command line shows 'Command ===> JCK'. The main display area contains JCL code with several error messages. Three callout boxes are overlaid on the image:

- 1. Call SmartJCL (pointing to the 'JCK' command)
- 2. Read messages (pointing to the error messages)
- 3. Jump directly to wrong statements by typing "L .HAAA" (pointing to the highlighted error lines)

```
EDIT      P390A.JCK.TEST_CNF
Command ===> JCK
***** ***** Top of Data *****
=NOTE= LABEL MSG.NO.  ERROR MESSAGE
-----
=NOTE= .HAAA JCK0440E PROGRAM OPGICPU6 NOT FOUND ON SEARCH PATH
=NOTE= .HAAB JCK0515E DATA SET CANNOT BE FOUND/NOT IN CATALOG
=NOTE= .HAAB JCK0500I DSN = "P390A.OPG.D020502"
=NOTE= .HAAC JCK0440E PROGRAM OPGIGEN  NOT FOUND ON SEARCH PATH
000001 //P390K2 JOB  ,,MSGCLASS=T
000002 //*
000003 //**OPC SCAN
000004 //*
.HAAA  //CPUNL   EXEC PGM=OPGICPU6,REGION=6M
==MSG> JCK0440E PROGRAM OPGICPU6 NOT FOUND ON SEARCH PATH
000006 //SYSOUT  DD SYSOUT=*
000007 //SYSPRINT DD SYSOUT=*
000008 //EQQDUMP  DD SYSOUT=*
000009 //EQQML0G  DD SYSOUT=*
000010 //SYSTSPRT DD SYSOUT=*
.HAAB  //PRGRCF DD DISP=SHR,DSN=P390A.OPG.D020502
==MSG> JCK0515E DATA SET CANNOT BE FOUND/NOT IN CATALOG
==MSG> JCK0500I DSN = "P390A.OPG.D020502"
000012 //*
```

Advantages:

- While editing a job, you can quickly check it - and corrected it, if necessary.
- Messages are displayed directly in the editor, right at the place where the error was found.
- A summary of all errors is shown at the beginning of the job. This makes it possible to jump directly to them, using the locate command.
- Handling is simple. The user does not need any special knowledge, training or manuals.

Scheduler Interface

One of the main advantages of SmartJCL is the integrated scheduler interface for IBM's TWS (OPC) and BMC's Control-M. Variables are substituted by the corresponding values, JCL can be correctly validated.

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Sitzung A - [24 x 80]
Datei Bearbeiten Übertragung Darstellung Kommunikation Funktionen Fenster Hilfe
Anzeige drucken Kopieren Einfügen Senden Empfangen Anzeige Fabne Zuordnen Aufzeichnen Stoppen Wiederherstellen

EDIT P390A.JCK.TEST.CNTL(P390K2) - 01.01 Columns 00001 00072
Command ==> Scroll ==> CSR
000001 //P390K2 JOB , ,MSGCLASS=T
000002 //JOBLIB DD DISP=SHR,DSN=P390A.OPG.LOAD23
000003 /**
000004 //%%OPC SCAN
000005 /**
000006 //CPUNL EXEC PGM=OPGICPU6,REGION=6M
000007 //SYSOUT DD SYSOUT=*
000008 //SYSPRINT DD SYSOUT=*
000009 //EQDUMP DD SYSOUT=*
000010 //EQMLLOG DD SYSOUT=*
000011 //SYSTSPRT DD SYSOUT=*
.HAAR //PRGRCF DD DISP=SHR,DSN=P390A.OPG.&OHHMM
==MSG> JCK0296E A INVALID DATA SET NAME FORMAT IN DSN OPERAND
==MSG> JCK0290E THE FIRST CHARACTER & OF A QUALIFIER IS INVALID
==MSG> JCK9904E DSN= P390A.OPG.&OHHMM
000013 /**
000014 //INCREASE EXEC PGM=OPGIGEN
000015 //SYSPRINT DD SYSOUT=*
000016 //PARMOUT DD DISP=(NEW,PASS),DSN=&&PARM,
000017 // UNIT=SYSDA,
000018 // DCB=(LRECL=80,RECFM=FB)
000019 //CKPOUT DD DISP=(NEW,PASS),DSN=&&CKPT,
UNIT=SYSDA,

```

In this case JCL validation without previous variable substitution is more or less useless

SmartJCL has integrated and easy-to-use scheduler Interfaces

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Sitzung A - [24 x 80]
Datei Bearbeiten Übertragung Darstellung Kommunikation Funktionen Fenster Hilfe
Anzeige drucken Kopieren Einfügen Senden Empfangen Anzeige Fabne Zuordnen Aufzeichnen Stoppen Wiederherstellen

EDIT P390A.JCK.TEST.CNTL(P390K2) - 01.01 Columns 00001 00072
Command ==> sim7 jck Scroll ==> CSR
*****
----- OPC/SimJCL ----- Row 1 of 25
Command ==> Scroll ==> PAGE

Select line with S to start Simulation
Enter Command SP to specify additional Parameters

Current Plan End Date : 20020507 Time : 0600
                      YYYYMMDD      HHMM
Simulation Date      ==> 20011231 Time ==> 0900

for origin AD enter Input Arrival Date and Time below
Arrival Date ==> Time ==>

Application ID Jobname Input Arrival OpNo WsId origin
Date Time
-----
XELMUTTIME3 P390K2 20020503 0000 020 CPU1 CP
XELMUTTIME3 P390K2 20020504 0000 020 CPU1 CP
          90K2 20020506 0700 020 CPU1 CP
          90K2 20020506 0800 020 CPU1 CP
          90K2 20020506 0900 020 CPU1 CP

```

SmartJCL resolves the variables prior to validation and can point out potential problems

```

Sitzung A - [24 x 80]
Datei Bearbeiten Übertragung Darstellung Kommunikation Funktionen Fenster Hilfe
Anzeige drucken Kopieren Einfügen Senden Empfangen Anzeige Fabne Zuordnen Aufzeichnen Stoppen Wiederherstellen

EDIT P390A.JCK.TEST.CNTL(P390K2) - 01.01 Columns 00001 00072
Command ==> Scroll ==> CSR
000001 //P390K2 JOB , ,MSGCLASS=T
000002 //JOBLIB DD DISP=SHR,DSN=P390A.OPG.LOAD23
000003 /**
000004 //%%OPC SCAN
000005 /**
000006 //CPUNL EXEC PGM=OPGICPU6,REGION=6M
000007 //SYSOUT DD SYSOUT=*
000008 //SYSPRINT DD SYSOUT=*
000009 //EQDUMP DD SYSOUT=*
000010 //EQMLLOG DD SYSOUT=*
000011 //SYSTSPRT DD SYSOUT=*
.HAAR //PRGRCF DD DISP=SHR,DSN=P390A.OPG.D020505
==MSG> JCK0515E DATA SET CANNOT BE FOUND/NOT IN CATALOG
==MSG> JCK0500I DSN = "P390A.OPG.D020505"
000013 /**
000014 //INCREASE EXEC PGM=OPGIGEN
000015 //SYSPRINT DD SYSOUT=*
000016 //PARMOUT DD DISP=(NEW,PASS),DSN=&&PARM,SPACE=(TRK,(1,1)),
000017 // UNIT=SYSDA,
000018 // DCB=(LRECL=80,RECFM=FB)
000019 //CKPOUT DD DISP=(NEW,PASS),DSN=&&CKPT,
UNIT=SYSDA,
000020 //

```

Batch Mode

SmartJCL enables the user to check complex job streams in batch mode. The jobs to be checked can be selected directly from the scheduler. Most of the scheduler fields can be used as selection criteria, for example application, owner, jobname etc.

Select jobs directly from TWS (OPC):

- Application description
- Current Plan
- Long term Plan

```

Sitzung A - [24 x 80]
Datei Bearbeiten Übertragung Darstellung Kommunikation Funktionen Fenster Hilfe
SmartJCL Startpanel
Command ==> _
Select one of the following options and press ENTER
1 AD      - Select jobs from Application Description
2 CP      - Select jobs from Current Plan
3 FORECAST - Select jobs from LTP or any future planning period
4 SIMULATE - Start JCL simulation based on previous selection (option 1,2,3)
5 CHECK   - Start JCL check based on previous simulation (option 4)
6 CHECK   - Start JCL check without simulation
Note:     Options 5 and 6 are only available, if a JCL checker is installed,
          for example SmartJCL
    
```

```

Sitzung B - [24 x 80]
Datei Bearbeiten Übertragung Darstellung Kommunikation Funktionen Fenster Hilfe
CTM/SimJCL
Command ==> _
JCL LIBRARY MODE
For simulation of members defined in a PRIVATE LIBRARY enter Y: N (Y or N)

SCHEDULING LIBRARY MODE
For simulation of the jobs unloaded from the SCHEDULE LIBRARY.
Files
Joblist (Input)      ==> P390G.MJV.SELJOBS
JCL (Output)         ==> P390G.MJV.JCLOUT
CONTROL-M GLOBAL LIBRARY ==> P390A.MSJ.QM.HELPLIB

Simulation (optional parameters)
GROUP               ==>
SSIGN               ==>
ODATE               ==> Y Y M M D D

Parameters
Submit             ==> S      S submit job, E edit before submit

PF 1=HELP      2=SPLIT      3=END      4=RETURN      5=RFIND      6=RCHANGE
PF 7=UP        8=DOWN       9=SWAP
    
```

The dialog for Control-M

Selection criteria are the same as in the scheduler's dialog

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Sitzung A - [24 x 80]
Datei Bearbeiten Übertragung Darstellung Kommunikation Funktionen Fenster Hilfe
APPLICATION DESCRIPTION SELECTION
Command ==> _
top: APP to edit the application list

Application id ==> DOK*
Type           ==>
Jobname        ==>
Owner id       ==>
Status         ==>
Priority        ==>
Authority group id ==>
Valid from - to ==> - - - - - Y Y M M D D
Calendar id    ==>
Workstation    ==>
Group definition ==>

(cards * and % are allowed in all selection fields!
    
```

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