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Burroughs Corporation



COMPUTER SYSTEMS GROUP
SANTA BARBARA PLANT

2219 0177

INTRINSICS/AGGR.MAKER

PRODUCT SPECIFICATION

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GENERAL MANAGER
SANTA BARBARA PLANT

REV LTR	REVISION ISSUE DATE	APPROVED BY	REVISIONS
A	1/28/77	<i>J. Hale</i>	Original Issue. Mark VI.1 level.
B	7/1/77	<i>J. Hale</i>	Additional VI.1 Updates All references to BAS.INTRN2 replaced with BAS.INTRN3.
C	7/29/80	<i>J. Hale</i>	Changes for MARK 10.0 Release 1-1 Updated "The aggregate file..." paragraph. 2-2 Updated "Dollar-sign cards..." paragraph. Updated "ADD" Option. 2-3 Updated "DELETE" Option. Added "ANALYZE, ANALYZE.NEW, COMPARE, COMPARE.AGGR" Options. 2-4 Added "INTERNAL FILE NAMES" and "FUNCTIONs". 2-5 Changed "CARD STRUCTURE" to "IMAGE STRUCTURE." Updated "FAMILY.NAME" file name. Updated "FILE.ID" file name. 3-1 Added "SAMPLE EXECUTE FROM ODT" operating instruction.

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INTRODUCTION

GENERAL

The INTRINSICS/AGGR.MAKER program is a utility program. Its main function is to collect compiler intrinsics, either SDL or BASIC, into one file that can be accessed under a single file name. The program can also be used to add new intrinsics to, or delete old intrinsics from, the existing aggregate file.

The aggregate file is called <mfid>/AGGREGATE where <mfid> is one of the appropriate compiler family names (e.g., SDL.INTRIN or BAS.INTRN3) and the individual intrinsics are appropriately numbered or named. The program expects all the specified intrinsics to be present on the system disk, unless modified by the user (see Switch settings). After the aggregate file has been made, the individual intrinsics may be removed.

RELATED PUBLICATIONS

Name

Number

BASIC Compiler	P.S. 2212 5280
SDL Compiler	P.S. 2212 5389
Software Development Language (BNF Version)	P.S. 2212 5405
Software Operational Guide	1068731

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STRUCTURES AND OPTIONS

FILE STRUCTURE

The structure of the aggregate file is:

PPB

Three sectors.

NAME.TABLE

Two sectors. The NAME.TABLE contains the second names of the BASIC or SDL intrinsics. The SDL intrinsic names are truncated in the table to the three least significant characters. BASIC intrinsics are named by the appropriate three-letter identifier.

SEGMENT.DICTIONARY

Five sectors. Each entry is 64 bits long in the NORMAL.DESRIPTOR format. The ND.CORE entry indicates the sector number in the file of the particular intrinsic. The ND.LENGTH shows the length of the intrinsic in bits, or bytes, depending on the code in ND.TYPE.

FORMAT

The code files are copied one after another, sequentially.

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DOLLAR-SIGN OPTIONS

Dollar-sign options must contain a "\$" as the first token and one of the following options. They are grouped according to type and listed in alphabetical order:

CREATING THE AGGREGATE FILE

OPTION

OPERATION

CREATE

builds a <mfid>/AGGREGATE file. The next card in the deck must contain the FAMILY.NAME of the intrinsics to be merged into the aggregate file. On subsequent cards, the appropriate file.ids must be entered. See IMAGE STRUCTURE.

MODIFYING THE AGGREGATE FILE

OPTION

OPERATION

ADD

allows new intrinsics to be added to the <mfid>/AGGREGATE file. The input card deck must contain the names of the intrinsics which are to be added to the file. The new intrinsics will be ordered with the existing file of intrinsics to form a new <mfid>/AGGREGATE.

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ADD.NEW performs the same activity as ADD but does not remove the old <mfid>/AGGREGATE file. It closes the new file with the name <mfid>/NEW.AGGR, which allows <mfid>/AGGREGATE to remain on disk.

DELETE removes the specified intrinsics from the AGGREGATE file. The new file is closed with the name <mfid>/AGGREGATE and the original file is removed. The program creates a new file which has those intrinsic-names and pointers corresponding to the names in the card input deleted from the Name Table and the Segment Dictionary.

DELETE.NEW performs the same activity as DELETE but closes the new aggregate file with the name <mfid>/NEW.AGGR, which allows the old aggregate file to remain on disk.

ANALYZE lists the contents of the NAME.TABLE and the SEGMENT.DICTIONARY for the <mfid>/AGGREGATE file.

ANALYZE.NEW lists the contents of the NAME.TABLE and the SEGMENT.DICTIONARY for the <mfid>/NEW.AGGR file.

COMPARE compares the <mfid>/AGGREGATE to the intrinsics that are on disk.

COMPARE.AGGR compares the <mfid>/AGGREGATE to the <mfid>/NEW.AGGR.

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SWITCH -----	SETTING -----	FUNCTION -----
0	0	CARD INPUT
	1	ODT INPUT FOR SPECIFICATIONS. (See example page 3-1.)
1	0	USE DEFAULT NAMES.
	1	USE THE FILE EQUATED NAMES.
2	0	THIS IS A SDL.INTRIN AGGREGATE.
	1	THIS IS A BAS.INTRN3 AGGREGATE.
3	0	ACTION WILL BE SPECIFIED.
	1	CREATE
	2	DELETE
	3	ADD
	4	ANALYZE
	5	NOT USED
	6	COMPARE
	7	COMPARE.AGGR
	8	DELETE.NEW
	9	ADD.NEW
10	ANALYZE.NEW	

INTERNAL
 FILE NAMES

FUNCTION

INTRIN	Intrinsics input file.
COPY	The output aggregate.
MASTER	The input aggregate.
CARDS	The specification cards (if switch 0 = 0).
LINE	Printer output for the ANALYZE, ANAYLZE.NEW, COMPARE, and COMPARE.AGGR options.

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IMAGE STRUCTURE

File names for any of the above options should be specified as follows:

FAMILY.NAME SDL.INTRIN or BAS.INTRN3.

FILE.ID Appropriate file-id of the individual SDL
intrinsic is identified by the three least
significant digits (000 through 014) and BASIC
intrinsic is specified by the three-character
identifier (e.g., CAT). Note that more than one
intrinsic can be specified at a time.

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OPERATING INSTRUCTIONS

The program should be executed using the execute-deck format which is given below.

EXECUTE DECK FORMAT

```
? EXECUTE INTRINSICS/AGGR.MAKER;
? DATA CARDS
$ <dollar-sign option>
<intrinsic family-name>
<intrinsic file-name>
.
.
.
<intrinsic file name>
? END
```

SAMPLE EXECUTE DECK

```
? EX INTRINSICS/AGGR.MAKER;
? DA CARDS
$ CREATE
SDL.INTRIN
000
.
.
.
014
? END
```

SAMPLE EXECUTE FROM QDI

```
? EX INTRINSICS/AGGR.MAKER SW 0 = 1;
INTRINSICS/AGGR.MAKER = <JOB NO.> 80J.
<JOB NO.> ENTER SPEC
<JOB NO.> ACCEPT.
<JOB NO.> AX $ ADD SDL.INTRIN 006
<JOB NO.> ENTER SPEC
<JOB NO.> ACCEPT
<JOB NO.> AX
INTRINSICS/AGGR.MAKER = <JOB NO.> EOJ.
```

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