

Coding a Simple DD Card Using Existing Datasets

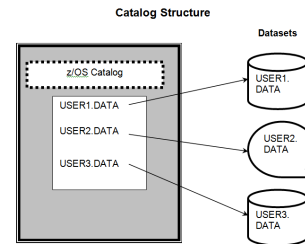
Lesson 1:

Coding a Simple DD Card

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Disk and Tape Datasets - Existing



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Disk and Tape Datasets - Existing

- DD statement parameters are used with existing disk and tape datasets.
 - Additional parameters specific to utilization with tape datasets can also be used.
- The z/OS operating system uses volume control; the catalog provides assistance in locating existing datasets and maintaining a catalog.

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DD Statement Parameters - Basic

- There is a feature in the z/OS operating system known as volume and data control.
- It is known as the catalog.
- Parameters need to be coded for using existing datasets on:
 - Disk
 - Tape
- Before a program can use an existing dataset, z/OS must be provided with its name and location.
- The following DD parameters provide the necessary information.

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DD Statement Parameters - Basic

- DSNAME
 - The name of the dataset to be used.
- DISP
 - The disposition of the dataset.
- UNIT
 - The type of storage device on which the dataset resides.
 - It is only needed for uncataloged datasets.
- VOL
 - What specific volume contains the dataset.
 - It is only needed for uncataloged datasets.

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DSNAME or DSN Parameter

- The DSNAME or DSN parameter specifies the name of a dataset.
- It has the following format:

```
DSN=name  
or  
DSNAME=name
```

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DSNAME or DSN Parameter

- The name is used by the system to identify the dataset.
 - Each dataset on a volume must have a unique name.
 - Datasets on different volumes can have the same name.
 - However, this can be confusing and should be avoided.

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DSNAME or DSN Parameter

- A simple dataset name consists of 8 or fewer characters and follows the JCL naming rules.
 - Example:**
`DSN=PAYFILE`
- A qualified dataset name consists of two or more simple dataset names joined by a period.
- There can be a maximum of 44 characters, including the periods.

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DSNAME or DSN Parameter

- Qualified dataset names.
 - Examples:**
`DSNAME=SYSED.INPUT.DATA`
`DSN=THE.MAXIMUM.SIZE.DATA.SET.NAME.OF44.CHARACTRS`
- Most installations have rules governing the naming of datasets.
 - Typically simple dataset names are prohibited.
 - Frequently, a specific high level qualifier must be used.
- Consult the installation standard's manual for site specific information.

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DISP Parameter

- The DISP or disposition parameter performs two functions.
- First, it describes the status of a dataset at allocation.
 - The status informs z/OS whether:
 - the dataset is new or old.
 - other jobs can share the dataset.
 - to write over or add to existing data.

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DISP Parameter

- Second, DISP instructs z/OS how to dispose of the dataset during termination.
- The disposition portion of DISP indicates whether to:
 - save or delete the dataset.
 - change catalog information about the dataset.

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DISP Parameter

- Two subparameters specify disposition.
 - One controls the dataset's disposition when the program ends normally.
 - The other controls disposition in the event of an Abend.
- The subparameters of DISP are positional; the format is:
`DISP=(status,[normal],[abnormal])`

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DISP Parameter

- **The Status Subparameter**

- Status is the first subparameter.
- There are four options which describe the dataset status at allocation.

NEW OLD SHR MOD

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DISP Parameter

- NEW The dataset does not exist and should be created.
- OLD An existing dataset should be used.
Do not share it with other jobs.
Write over any old data already in the dataset.
- SHR Use an existing disk dataset.
Share it with any other jobs that want it.
Write over any existing data.
- MOD Use an existing dataset and do not share it
with other jobs.
Add new data at the end of the dataset instead
of writing over existing data.

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DISP Parameter

- **Examples:**

```
</DD1 DD> DSN=INDATA,DISP=SHR
</DD2 dd> DSN=WRITOVER,DISP=OLD
```

- These are two examples of the status subparameter.

- For existing datasets, status is the only subparameter required.
 - If only status is coded, the parentheses aren't necessary.
 - When multiple parameters are specified, parenthesis are required.

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DISP Parameter

- **Normal Disposition**

- The second positional instructs z/OS what to do with the dataset when the program completes normally.

- There are five options to select from.

DELETE KEEP PASS
CATLG UNCATLG

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DISP Parameter

- DELETE Scratch the dataset from the disk.
Depending on other parameters, z/OS may
not uncatalog the dataset.
- KEEP Save the dataset.
- PASS Save the dataset and pass it to the next step.
- CATLG Save the dataset and put the dataset name in
the catalog.
- UNCATLG Save the dataset; however, remove the
dataset name from the catalog.
A disk file's entry remains in the VTOC.
The data can still be accessed; however it will
be necessary to specify the location of the
dataset.

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DISP Parameter

- These DISP examples show the dataset's status and normal disposition:

```
//DD1 DD DSN=IMPORTANT,DISP=(SHR,KEEP)
//DD2 DD DSN=USEFULL,DISP=(OLD,DELETE)
```

- If this subparameter is not specified, z/OS returns the dataset to its condition prior to the step.
 - A new dataset will be deleted and old dataset will be kept.

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DISP Parameter

- **Abnormal Disposition**
 - The last DISP subparameter specifies what action z/OS should take if the program abends.
 - All normal disposition options, except PASS, are permitted.
- The four normal dispositions are:

| | |
|--------|---------|
| DELETE | KEEP |
| CATLG | UNCATLG |

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DISP Parameter

- DELETE
 - Remove the dataset from the disk.
 - Depending on the other specified parameters, z/OS may not uncatlog the dataset.
- KEEP
 - Save the dataset.
- CATLG
 - Save the dataset and enter its name in the catalog.
- UNCATLG
 - Save the dataset; but remove the dataset's entry from the catalog.

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DISP Parameter

- These examples demonstrate abnormal disposition:

```
//DD1 DD DSN=INDATA,DISP=(OLD,DELETE,KEEP)  
//DD2 DD DSN=OUTDATA,DISP=(OLD,DELETE)
```

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DISP Parameter

- The first example is a typical disposition for an input dataset.
 - If the step executes, the dataset is no longer needed and can be deleted.
 - If the program abends, the dataset must be kept in order that the program can be rerun.
- The second example is often used with output datasets.
 - If the program completes successfully, the output is saved.
 - If the program does not complete successfully, the output is worthless and should be deleted.

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