

VIII.4.2-COX FORECAST COMPONENT OPERATION CARRYOVER TRANSFER  
SUBROUTINE (COXn)

Purpose: The carryover transfer subroutine adjusts old carryover values for changes made to parameter values whenever possible.

When the parameters for an Operation are changed, the carryover values generated by the old parameter set may still be able to be used but they need to be checked and possibly adjusted first. The function of the carryover transfer subroutine is to check each old carryover value against the parameter changes and either:

- o retain the old carryover value
- o adjust the old carryover value
- o use the value supplied by the input subroutine if the old carryover value can not be used

Each Operation with carryover will have a unique set of rules for deciding which old carryover values can be saved, adjusted and not be used.

In most cases when changes are made to parameters during a segment redefinition, the carryover transfer subroutine will be used to adjust the carryover values for the Operation for all dates that carryover is saved. However, there will be an option for the user to use the carryover values supplied by the input subroutine and skip the carryover transfer process. This option is taken care of outside of the COXn subroutine.

Arguments: The argument list for this subroutine is:

SUBROUTINE COXn (POLD,COLD,PONEW,CONEW)

The contents of the argument list are:

1. POLD - real array dimensioned POLD(\*) that is the old PO array for the Operation (input)
2. COLD - real array dimensioned COLD(\*) that is the old CO array for the Operation (input)
3. PONEW - real array dimensioned PONEW(\*) that is the new PO array for the Operation (input)
4. CONEW - real array dimensioned CONEW(\*) that will be the new CO array for the Operation (input and output - initially contains values set by the input subroutine)

The contents of POLD, COLD and PONEW should not be altered by the carryover transfer subroutine.

Special Cases: In some Operations the carryover values are related to the time interval of the time series data used by the Operation (some examples are unit hydrograph, Tatum routing and computation of mean discharge). In these cases the carryover transfer subroutine must be able to adjust carryover not only for parameter changes, but also for changes in the time interval of the time series data being used.

Comments: If the old carryover values cannot be adjusted completely, a warning message to this effect should be printed. This subroutine should not generate any printer output except for warning messages. The print carryover subroutine PRCn should be called if the new carryover values are to be displayed. The call to PRCn will be made outside of COXn.

This subroutine must be able to transfer carryover for all versions of the Operation.