



Figure 11.4: Active target communication. Dashed arrows represent synchronizations and solid arrows represent data transfer.

Figure 11.4 illustrates the use of these four functions. Process 0 puts data in the windows of processes 1 and 2 and process 3 puts data in the window of process 2. Each start call lists the ranks of the processes whose windows will be accessed; each post call lists the ranks of the processes that access the local window. The figure illustrates a possible timing for the events, assuming strong synchronization; in a weak synchronization, the start, put or complete calls may occur ahead of the matching post calls.

`MPI_WIN_TEST(win, flag)`

IN	win	window object (handle)
OUT	flag	success flag (logical)

`int MPI_Win_test(MPI_Win win, int *flag)`

`MPI_WIN_TEST(WIN, FLAG, IERROR)`

INTEGER WIN, IERROR  
LOGICAL FLAG

`{bool MPI::Win::Test() const (binding deprecated, see Section 15.2) }`

[This is the nonblocking version of `MPI_WIN_WAIT`. It returns `flag = true` if `MPI_WIN_WAIT` would return, `flag = false`, otherwise. The effect of return of `MPI_WIN_TEST` with `flag = true` is the same as the effect of a return of `MPI_WIN_WAIT`. If `flag = false` is returned, then the call has no visible effect. ] This is the nonblocking version of `MPI_WIN_WAIT`. It returns `flag = true` if all accesses to the local window by the group to which it was exposed by the corresponding `MPI_WIN_POST` call have been completed as signalled by matching `MPI_WIN_COMPLETE` calls, and `flag = false` otherwise. In the former case `MPI_WIN_WAIT` would have returned immediately.

`MPI_WIN_TEST` should be invoked only where `MPI_WIN_WAIT` can be invoked. Once the call has returned `flag = true`, it must not be invoked anew, until the window is posted anew.