Understanding the Different Buffer Types

The following syntax depicts the relationships between the different types of buffers that can be specified for a direct call. It should assist you in determining which buffer specifications are dependent on the presence of others.

```
[format-buffer record-buffer... [multifetch-buffer]]...
[search-buffer value-buffer]
[ISN-buffer]
[user-buffer] ...
[performance-buffer]
```

Notes:

1. If you are specifying an ACBX interface direct call, corresponding Adabas buffer descriptions (ABDs) must also be specified. In addition, in ACBX interface direct calls when buffer specifications require the presence of other buffer specifications (for example, a format buffer requires the presence of a record buffer), Adabas pairs the buffers in the sequence in which they are specified (for example, the first specified format buffer ABD with the first specified record buffer ABD). The syntax below can assist you in determining the sequence in which the ABDs should be listed in the call or in the ABD list.
2. If you are specifying an ACB interface direct call, the multifetch, performance, and user buffers listed in this syntax do not apply. In addition, buffers must be specified in this sequence: format, record, search, value, and ISN. If an earlier buffer in the sequence is not needed, but a later one is, all of the buffers up to the needed buffer must be specified, even if they are blank. For example, if an ACB interface direct call requires an ISN buffer but none of the other buffers, dummy format, record, search, and value buffers must be specified before the ISN buffer.

The following table describes the elements in this syntax:

Element	Description	Conditions
format-buffer	A format buffer segment to use for the call. Each format buffer segment must end with a period and be a complete and valid standalone format buffer.	Required only if you need to specify the fields to be processed during the execution of an Adabas read or update command. When required, multiple format buffers can be specified for an ACBX interface direct call. Only one format buffer can be specified in an ACB interface direct call. If a format buffer is specified in the call, a corresponding record buffer must also be specified. In an ACBX interface direct call, if a record buffer is not provided, Adabas will create a dummy one (with length zero) to pair with the format buffer. In an ACB interface direct call, if a record buffer is not provided, processing errors will occur. Optionally, in an ACBX interface direct call, a corresponding multifetch buffer can also be specified.
ISN-buffer	An ISN buffer segment to use for the call.	Required only if you need to set aside an area in storage to store ISNs or (in the case of an ACB interface direct call) an area to store the record descriptor elements (RDEs) of multifetched or prefetched records. When required, only one ISN buffer should be specified for the call.
multifetch-buffer	A multifetch buffer segment to use for the ACBX interface direct call. This buffer is only available for ACBX interface direct calls.	Used only by ACBX interface direct calls and required only if you need to set aside an area in storage to store the record descriptor elements (RDEs) of multifetched records. When required, multiple multifetch buffers can be specified for an ACBX interface direct call. If a multifetch buffer is specified, corresponding format and record buffers must also be specified. If they are not, Adabas will create dummy format and record buffers (with length zero) to correspond with the multifetch buffer.

Element	Description	Conditions
performance-buffer	A performance buffer to use for the ACBX interface direct call. This buffer is only available for ACBX interface direct calls and is only used by Adabas Review.	Not required. Used only by ACBX interface direct calls withAdabas Review. For more information, read the Adabas Review documentation.
record-buffer	A record buffer segment to use for the call.	Required only if you need to set aside an area of storage to store record data required or collected for the call. When required, multiple record buffers can be specified for an ACBX interface direct call. Only one record buffer can be specified in an ACB interface direct call. If a record buffer is specified in the call, a corresponding format buffer must also be specified. In an ACBX interface direct call, if a format buffer is not provided, Adabas will create a dummy one (with length zero) to pair with the record buffer. In an ACB interface direct call, if a format buffer is not provided, processing errors will occur. Optionally, in an ACBX interface direct call, a corresponding multifetch buffer can also be specified.
search-buffer	A search buffer segment to use for the call.	Required only if search criteria are required to select records for the call. If a search buffer is specified in the call, a corresponding value buffer must also be specified. Only one search and value buffer pair can be specified in a single direct call.
user-buffer	A user buffer segment (extension) to use for the call. The user buffer extension (UBX) is used for the user data passed to Adabas nucleus user exits 11 and 4 and Adalink user exits 1 and 2 (user exits A and B in Adabas 7).	Used only by ACBX interface direct calls and required only if the call requires input for the Adabas nucleus user exits 11 and 4 and the Adalink user exits 1 and 2 (user exits A and B in Adabas 7). You can specify a single user buffer in a direct call.

Element	Description	Conditions
value-buffer	A value buffer segment to use for the call.	Required only if search criteria are required to select records for the call. If a value buffer is specified in the call, a corresponding search buffer must also be specified. Only one search and value buffer pair can be specified in a single direct call.