

ZIMS for Studbooks PMx Export Documentation

This document is based on ZIMS exports current to 21 September 2020 and PMx Version 1.6.20200408.

Below is a detailed explanation of how the data selected in the ZIMS for Studbooks PMx export is exported to the data files that are imported into PMx for analysis.

[Contact SPECIES360 Support](#)

Note: Download the newest version of PMx prior to using ZIMS for Studbooks exports. The new ZIMS exports are not supported by older versions of PMx.

PMx is currently available here and is supported by SCTI (not supported by Species360):
<https://scti.tools/>

Additional PMx Resources:

- [A Guide for Testing ZIMS PMx Exports - by Sara Sullivan \(SCTI\) and Katelyn Mucha \(Species360\)](#)
- [Export to PMx](#)
- [This document is based on ZIMS exports](#)
- [Studbook Training Library Index](#)

Once a user selects to run the PMx export they will receive notification that their export is being run. After they receive this notification they can choose to run additional PMx exports or close the PMx screen and continue to work on their studbook. The export will run behind the scenes and once it is completed the user will receive a notification and the export will automatically download to their browser. This prevents the export from timing out, resulting in the PMx project not being created, which used to happen for very large studbooks. The export will run in the background for as long as needed and the user can continue to work on their studbook while waiting for the export to complete. If the user closes the studbook module or logs out of ZIMS prior to the export completing, the next time they open the studbook the export(s) will automatically download. The database will save the exports for one week; if the user does not log in within that time they will need to re-run the export.

Overall Filter Rules:

- Date defaults:

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- Demographic/Genetic Date Filters:
 - Start date = 1/1/1900
 - End Date = Date of export
- Census Date Filter:
 - December 31st of the previous year
- If the user removes the default dates and does not apply new dates (exports blank dates), the system will default the exports as follows:
 - Demographic: 1900 – date of export, no location filter, UDF, or taxonomy filter applied
 - Genetic: 1900 – date of export, no location, UDF, or taxonomy filter applied
 - Census: December 31st of the last year, no location, UDF, or taxonomy filter applied
- Include In Situ button includes animals that are released to the wild and historic wild events into the exports (demographic, genetic, census). Please see [In Situ in PMx](#) for more details.
- Taxonomy filter uses the current taxonomy of the animal when applying the filter. If an animal in ZIMS has more than one taxonomy, it is assumed that there was a taxonomy change and the animal should be managed as the current taxonomy, so all historic taxon are ignored and the system uses the currently assigned taxon.
- Users can create “FED Files” by adding and removing institutions/regions
 - Institutions excluded using the exclude option in the filter will be excluded from the filter
- “Apply Demographic Filters to all filters” button:
 - Once user has selected the demographic filters, they can select this button to have the demographic filters applied across the other filter selections.
 - Selecting this button will replace the current selections in the genetic and census filters.
 - The census date will not change to reflect the demographic date. It will remain Dec 31 of previous year. User can change this date manually.
- Local institutions are treated as global or geographical locations - the system will look to see where the local institution is geographically located (in the studbooks institution list) to determine if the location is included in the filter or not.
 - For example, if the local institution is in North America and the filter applied to the export is Europe, then the animal will not be selected.
 - Local institutions without a geographical location defined will not be included in the filters.

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- If the geolocation is in the selected filter, then the animal at that geolocation will be selected, if the geolocation filter is not in the filter, then the animal at that geolocation will not be selected.
- Undetermined locations are treated as undetermined and not included in the selected population unless the user does not apply a location filter to the export.
 - If the user does not apply a location filter, then animals at undetermined locations will be selected.
- User can apply and create saved filters from the PMx Export screen

Overall ZIMS PMx Export Rules:

- Animals with temporary numbers will be exported and treated in the same way as permanent SB ID animals.
 - Draft animals will not be included in the export to PMx.
- All files created in the PMx export screen will be downloaded to the browser in a zipped folder. User can find these files in their “Downloads” file.
- Date estimates with ranges and approximate variances display as: "Year +/-1", same for month and day
- Undetermined has replaced Unknown from legacy software (UND = UNK)
- Indeterminate will export as date estimate if entered in ZIMS (treated as Undetermined in PMx).

ZIMS File Export (previously ped file)

ZIMS File Header:

- **Common Name:** The common name for the species in the studbook - if there are multiple then the highest level is listed.
- **Scientific Name:** The scientific name of the species managed in the studbook. If there are multiple, the highest level is listed
- **Data Source:** ZIMS for Studbooks
- **Studbook Name:** Name of studbook
- **Exported on:** Date of export; Year/Month/Day format
- **Software Version:** ZIMS and then the current version of ZIMS
- **Current Through:** Currentness date of the studbook; Year/Month/Day format
- **Compiled By:** The Studbook Keeper, if there are multiple they are all displayed separated by a comma

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- **Scope:** Will be the scope of the studbook (AZA, EAZA, ZAA, WAZA)
- **Dates:**
 - For demographic csv header it is the dates set in the demographic export in Year/Month/Day format (ex. 1900-01-01 to 2017-03-21)
 - For the genetic file, it is the dates entered in the genetic filter.
 - For the ZIMS file, it is the dates entered in the genetic filter.
- **Location:** The location filter applied to each filter.
 - The genetic and ZIMS file header shows the location filter entered in the genetic export and the demographic csv shows the location filters entered in the demographic export.
 - Only the geographical and institution filters will show in this line - the association filters show below.
 - If the users, select multiple geographic locations or institutions they are displayed as: North America/Dallas/Frankfort
- **Association:** The associations selected in the export
 - The genetic and ZIMS file header should show the location filter entered in the genetic export and the demographic csv will show the location filters entered in the demographic export
- **Other Filters:** UDF filters applied to the filters will display
 - Display in this format: SPECIES = LEM AND SUBSPECIES = GRI
 - Status = Living
- **User:** this will be the studbook keeper again

Overall ZIMS File Export Rules:

- All animals in the studbook are exported to the ZIMS file (permanent and temporary ID animals).
- There is a row above the data columns indicating the number of animals in the export
- Animals export in numerical order
 - The animals with temporary IDs can come after the ones with permanent IDs
 - Draft animals are not exported to the ZIMS file as real animals; however, they will be exported as parents if the user has recorded them as a parent in the studbook. If draft animal is exported as a parent, it will be treated as undetermined in PMx.
- Filters applied to the genetic export will be applied to the ZIMS file
- If the in situ box was checked, then animals that have been released to the wild and meet the other filter criteria will display as selected.

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- Header has been added to each column to indicate the information included in the column.
- Values with invalid characters (tab, semicolons) are replaced with a space in the export.

ZIMS File Column Definitions:

- **Studbook ID:**
 - Displays Studbook ID - Includes permanent and temporary IDs
- **Sire ID:**
 - Displays SB ID of sire (permanent or temporary) – sire may also display as WILD, WILD#, UND, UND#, MULT, MULT#
 - If sire is Draft animal in ZIMS, sire will export as DRAFT# and be treated as undetermined by PMx
 - MULT parents and their probabilities are defined at the end of the ZIMS export.
- **Dam ID:**
 - Display SB ID of dam (permanent or temporary) – dam may also display as WILD, WILD#, UND, UND#, MULT, MULT#
 - If dam is Draft animal in ZIMS, dam will export as DRAFT# and be treated as undetermined by PMx
 - MULT parents and their probabilities are defined at the end of the ZIMS export.
- **Sex Type:**
 - 0 = Female
 - 1 = Male
 - 4 = Undetermined/indeterminate
 - B = Hemaphrodite
 - A = Asexual
- **GenSelected:**
 - Displays if animal is genetically selected based on the genetic filters used in the ZIMS export.
 - "T" if the animal is selected and "F" if the animal is not selected.

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- The location field is populated with the animal's current location as of the date of export - this field disregards where the animal was during the filter dates.
- **Local ID:**
 - Current local ID
- **House Name:**
 - Most recent house name entered in animal record. If no house name in the animal record, then this column is blank.
- **GAN:**
 - Displays the GAN, if no GAN in animal record then column is blank.
- **Tags:**
 - Displays the most recent tag entered in animal record. If no tags are in the animal record, then column is blank.
- **Bands:**
 - Displays the most recent band entered in the animal record. If no bands are in the animal record, then column is blank.
- **Transponders:**
 - Displays the most recent transponder entered in the animal record. If no transponders are in the animal record, then the column is blank.
- **Rearing:**
 - Displays the most recent rearing record.
- **Birth Type:**
 - Displays the birth type of the animal
- **Birth Location:**
 - Displays the animal's birth location
- **Contraception:**
 - Displays the more recent active contraceptive method entered on the animal record.
 - PMx pulls contraception information from this data
 - If no contraception record is entered in the animal record, this column will be blank.
- **Taxonomy:**
 - Displays the most recent taxonomy entered in the animal record.
- **Estimated Conception Date:**
 - Displays the estimated conception date as calculated by ZIMS.
- **Regional Association:**
 - Displays the regional association where the animal is currently located.

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- If the animal is in multiple associations, all associations will display.
- If animal is not in any regional association, the column will be blank.
- **DemSelected:**
 - Displays if animal is demographically selected based on the demographic filters used in the ZIMS export.
 - "T" if the animal is selected and "F" if the animal is not selected.
 - The animals selected are determined by the filters selected by during export. All of the filters selected in the demographic export are applied to this column (Date range, institution, UDF, and taxonomy).
 - Example: Date range = 1/1/1980 – 1/1/2015 + North America - any animals that are in North America during 1/1/1980 – 1/1/2015 will show as true any animals that were not in north America during the date filters selected will show as false.
- **UDF**
 - Column name displays are the UDF name with a prefix of UDF (UDFTaxonomy or UDFEducation)
 - Spaces, punctuation, and special characters in UDFs are removed from the header and the UDF values.
 - Each UDF in the studbook is exported as a column – there is one column for each UDF in the studbook.
 - The column displays the UDF entered in for the animals.
 - If an animal does not have a UDF record entered, the column will be blank.
 - If there are no UDFs in the studbook, then no UDF columns are exported.

MULT Definitions:

At the bottom of the ZIMS export, all of the MULT#'s are defined. This includes studbook IDs of the parents in the MULT and the probabilities assigned to those parents in ZIMS.

MULTS are displayed as follows:

- ID: MULT#
 - SIRE/DAM: Indicates the studbook IDs included in the MULT grouping
 - SIRE/DAMPROB: Indicates the probabilities assigned to the studbook IDs exported above.
- MULTs are created by groupings of potential parents. The parents within the MULT group can have a different percent likelihood assigned among the different offspring assigned that MULT.

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- If there are MULT groupings that are assigned different percentages for the parents included in the MULT then a letter is added to the end of the MULT to designate that the MULT is different.
 - Example:
 - MULT1 = 1 (25%) and 2 (75%) for animal #123
 - MULT1 = 1 (50%) and 2 (50%) for animal #456
 - These become MULT1a and MULT1b in the ZIMS export
 - If there were additional animals with the same MULT and different percent layouts then the lettering system would continue: MULT1c, MULT1d, MULT1e.....MULTaa,MULTab.....
- If there are no animals in the studbook that are assigned the same MULT with a different percentage, then there will be no lettering system applied to the MULTs.

Census Report:

- The filters selected in the census export in ZIMS will be applied to this data.
- This file is exported as a text file.
- There is a header to the text file with the studbook name followed by the columns explained below.
 - **Year:** The first column is the year (most historic on top, most recent year on the bottom) for the years that the census was taken.
 - Example:
 - If the user chooses December 31st in the filter, then the data associated with that year reflects the data as of December 31st.
 - If the user chooses to filter on June 6th - then the census will be taken on June 6th of every year and show those numbers in the report.
 - **Total_Sex:** The total number of living animals in the population based on the filters applied to the report on the date chosen by user for that year.
 - **Male:** The number of living males in the population based on the filters applied to the report on the date chosen by user for that year.
 - **Female:** The number of living females in the population based on the filters applied to the report on the date chosen by user for that year.
 - **Unk_sex:** The number of undetermined or indeterminate sex animals in the population based on the filters applied in the report on the date chosen by user for that year.
 - **Other_Sex:** The number of living animals of all the other sex types in the population based on the filters applied in the report on the date chosen by user for that year.

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- **Tot_Born:** Total number of animals that were born every year of the census - this is an accumulation of the wild born, captive born, and undetermined born animals born each year the census is taken.
- **Wildborn:** Total number of wild born animals that were in the population each year the census is taken.
- **Capt:** Total number of captive born animals that were in the population each year the census is taken.
- **Unk:** Total number of undetermined born animals that were in the population each year the census is taken.

Demographic and Genetic CSV Files

CSV File Header:

- **Common Name:** The common name for the species in the studbook - if there are multiple then the highest level is listed
- **Scientific Name:** The scientific name of the species managed in the studbook. If there are multiple, the highest level is listed
- **Data Source:** ZIMS for Studbooks
- **Studbook Name:** Name of studbook
- **Exported on:** Date of export - should be in the following format; Year/Month/Day format
- **Software Version:** ZIMS and then the current version of ZIMS
- **Current Through:** Currentness date of the studbook; Year/Month/Day format
- **Compiled By:** The Studbook Keeper, if there are multiple they are all displayed separated by a comma
- **Scope:** Should be the scope of the studbook (AZA, EAZA, ZAA, WAZA)
- **Dates:**
 - For demographic csv header it should be the dates set in the demographic export Year/Month/Day format Year/Month/Day format (ex. 1900-01-01 to 2017-03-21)
 - For the genetic file, it should be the dates entered in the genetic filter.
 - For the ZIMS file, it should be the dates entered in the genetic filter.
- **Location:** The location filter applied to each filter.
 - The genetic and ZIMS file header should show the location filter entered in the genetic export and the demographic csv should show the location filters entered in the demographic export.
 - Only the geographical and institution filters should show in this line - the association filters show below.

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- If the users select multiple geographic locations or institutions they are displayed as:
North America/Dallas/Frankfort
- **Association:** The associations selected in the export
 - The genetic and ZIMS file header should show the location filter entered in the genetic export and the demographic csv should show the location filters entered in the demographic export
- **Other Filters:**
- UDF filters applied will display (if selected)
 - They should display in this format: SPECIES = LEM AND SUBSPECIES = GRI
- Taxonomy filters applied will display (if selected)
 - Taxonomy = Dicerus bicornis / Black rhinoceros
- Status = None
- **User:** this will be the studbook keeper

Overall CSV File Export Rules:

- If the user selects the same filters for demographic and genetic export, the demographic and genetic exported files will contain the same data.
- If the user selects different filters for demographic and genetic export, the exported files will be different, however, the rules applied to the data will be the same.
- Animals export in numerical order

CSV File Column Definitions:

- **SB ID:**
 - Studbook ID of the animal. These include permanent or temporary IDs, but should never include Draft animals.
- **Sex:**
 - Current sex of the animal
- **Birthdate:**
 - Animal's date of birth
- **Birthdate Estimate:**
 - Animal's birthdate estimate
- **Entry Date:**
 - This is the date the animal entered the population based on the filters selected at export.

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- The date, location, UDF, taxonomy, and in situ filters selected during export will change the entry date and entry method populated in the csv files.
- **Example Scenarios:**
 - **Animal was Alive at the start of the selected date window and included in the Institution filter, the entry date should be the date selected in the export.**
 - Example: animal was born in 1970 + North America – but the filters were set for 1/1/1980 – present + North America),
 - This animal’s entry date should be 1/1/1980.
 - See animal #3 in Emp Tam SB
 - **Animal was Alive at the start of the selected date window but has never been in one of the institutions selected in the filter.**
 - This animal should not show in the export, as it has never been held at an institution in the selected filter.
 - **Animal was Alive at the start of the selected date window but was not at an institution in the selected filter until later in the selected date range**
 - Example: Animal was born 10/10/1979 in Europe and transferred to North America on 12/17/1980 – user set filters for 1/1/1980 – present + North America. The Entry date for this animal would be 12/17/1980.
 - The animal should not show in the export until it has moved into an institution in the selected filter.
 - **Animal born during the selected date window (animal was not alive before the date window) and included in the institution filter**
 - Example: user set filters for 1/1/1980 – present + North America and animal was born on 6/5/1995 in north America. The animal’s entry date should 6/5/1995.
 - The animal’s entry date should be the date it was born.
 - **Animal born during the selected date window but was not in the selected institution filter until later in the selected date range**
 - Example: Animal was born 6/5/1995 in Europe and transferred to North America on 12/17/1997 – user set filters for 1/1/1980 – present + North America. The Entry date for this animal would be 12/17/1997.
 - The animal should not show in the export until it has moved into an institution in the selected filter.
 - **Animal born during the selected date window but has never been in one of the institutions selected in the filter.**

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- This animal should not show in the export, as it has never been held at an institution in the selected filter.
- **Animal recaptured into the selected institution filter during the selected date window**
 - Example: this animal was released and then the animal was recaptured during the selected filters.
 - The entry date should show as the recapture date
- **Animal returned from LTF into the selected institution filter during the selected date window**
 - Example: this animal previously went LTF and then returned from LTF during the selected filters.
 - The entry date should show as the return from LTF date.
- **Entry Date Estimate:**
 - Date estimate associated with the animal's entry date.
 - This will display the birth or transfer estimate associated with the date in the entry date column.
- **Entry Age (in Days):**
 - Age of the animal in days on the date that it entered the population.
 - If animal was born into window, the entry age displays as "0"
- **Entry Method:**
 - Displays as "Alive at start of window" if:
 - Animal was Alive at the start of the selected date window and included in the Institution filter.
 - Displays as "Import into window" if:
 - Animal was Alive at the start of the selected date window but was not at an institution in the selected filter until later in the selected date range
 - Animal born during the selected date window but was not in the selected institution filter until later in the selected date range
 - Displays as "Born into window" if:
 - Animal born during the selected date window (animal was not alive before the date window) and included in the institution filter
 - Note: if user selects a date range that includes all animals in the studbook and does not apply institution filter – then all animals will display as born into window.
- **Exit Date:**

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- The date and location filters selected determine the exit date and exit method populated in the csv.
- The date, location, UDF, and taxonomy filters selected during export determine the entry date and entry method populated in csv.
- All animals that have an entry date, will have an exit date or alive out date.
- **Example Scenarios:**
 - **Animal entered the population and died in the selected date window within an institution in the filter.**
 - Example: User select filters for 1/1/1980- present + North America. Animal was in North America and died on 6/5/1998. Exit date should show as 6/5/1998.
 - Exit date is the day the animal died.
 - **Animal entered the population and was exported out of the selected institution filters during the date window.**
 - Example: User select filters for 1/1/1980- present + North America. Animal was in North America and was exported to Europe on 6/5/1998. Exit date should show as 6/5/1998.
 - Exit date is the day the animal exited the selected filter.
 - **Animal entered the population and was alive at the end of the date window**
 - Example: User selects filters as 1/1/1980 – 6/26/2017. Exit date will be 6/26/2017.
 - Exit date is the end of the date window.
 - **Animal entered the population and went LTF in the selected date window.**
 - Example: User selects filters as 1/1/1980 – 6/26/2017. Animal was born in 5/6/1990 and went LTF on 5/7/1991. Exit date will display as 5/7/1991.
 - Exit date is the date the animal went LTF.
 - **Animal entered the population and was released in the selected date window**
 - Example: User selects filters as 1/1/1980 – 6/26/2017. Animal was born in 5/6/1990 and was released on 5/7/1991. Exit date will display as 5/7/1991.
 - Exit date is the date the animal was released.
- **Exit Date Estimate:**
 - Date estimate associated with the animal's exit date.
- **Exit Age (in Days):**

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- Age of the animal in days on the date that it exited the population.
- Exit age for animals that were born and died on the same day are exported as "1" in order for these animals to be counted in the PMx demographic tables.

- **Exit Method:**
 - **Should display as “died” if:**
 - Animal entered the population and died in the selected date window within an institution in the filter.
 - **Should display as “exported out of window” if:**
 - Animal entered the population and was exported out of the selected institution filters during the date window.
 - **Should display as “alive at end of window” if:**
 - Animal entered the population and was alive at the end of the date window
 - **Should display as “LTF” if:**
 - Animal entered the population and went LTF in the selected date window.
 - **Should display as “released” if:**
 - Animal entered the population and was released to wild in the selected date window

- **Censored/Complete Column:**
 - Should display “complete” if:
 - Exit method is died
 - Should display as “censored” if:
 - Exit method is alive at end of window, LTF, released, exported out of window

Multiple Moves in CSV Files:

- It is possible for animals to show in multiple rows of the CSV files if the animal has transferred in/out of the selected institution filters, gone LTF/Return from LTF within the date filters, or was released/recaptured within the date filters.
 - If this is the case, the animal displays one entry/exit transaction in one row and then the next entry/exit in the next row.
 - Example: User selects filters 1/1/1980 – 1/1/2017 + North America.
 - Animal was born on 6/5/1981 in North America and was transferred to Europe on 1/8/1982. The animal was then transferred back to North America on 5/7/1990. Animal died on 8/9/2005.

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- First entry in CSV is: Birth into Window on 6/5/1981 and Exit = exported out of window on 1/8/1982.
- Second entry in CSV is: imported into window on 5/7/1990 and Exit = died on 8/9/2005.

Animals with Undetermined/Indeterminate Birthdate Estimates:

- If animals with undetermined birthdate estimates are within the filter parameters, are included in the csv exports just like an animal without an undetermined birthdate estimate.
- CSV export columns for animals with undetermined/indeterminate birthdate estimates display as follows:
 - **Birthdate:** Displays the date entered for the birthdate.
 - **Birthdate estimate:** Displays undetermined/indeterminate for animals with undetermined/indeterminate birthdates.
 - **Entry date:** No change from default rules for animals with undetermined/indeterminate birthdate except in the case where all the transaction records that meet the filter criteria are undetermined – see undetermined transactions below.
 - All other columns will work as described in the CSV export section.
 - The animals with undetermined/indeterminate birthdates will be included and the entry date, age, exit date, age, are calculated based on the events in that animal's transaction stream.
 - System does not calculate entry on the birthdate as it is an undetermined event (Except in the case where all the transaction records that meet the filter criteria are undetermined – see undetermined transactions below).

Undetermined Transactions:

- The ZIMS exports have been improved to export all possible information into the PMx export for a more robust analysis.
- Historically, if an animal's first event was undetermined, the remainder of the animal's life history was excluded, in ZIMS the exports are using the first event without an undetermined date estimate in the exports.
 - **Entry date:** The system uses the first event (within the selected filters) without an undetermined date estimate.

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- If the first event without an undetermined date estimate is not within the export filters, the system will look at the next event to see if that location is within the filters.
- Once the system finds an event within the filter without a date estimate, this date is exported as the entry date for the animal.
- If all transactions (within the filters) have undetermined date estimates, then the system will use the first transaction with an undetermined date estimates that is within the filter (including birthdate, if birthdate is also undetermined estimate) as the entry date.
 - Example:
 - Selected filters: AZA, 1980 - present
 - Animal transactions are as follows:
 - Birthdate = 1/1/1990 with undetermined estimate at AZA institution.
 - Transaction on 1/1/2000 with undetermined estimate to non- AZA institution
 - Transaction to 1/1/2004 with undetermined estimate to AZA institution
 - In this situation, the Entry Date is the date entered for birthdate (1/1/1990) since it is included in the filter and institution selection and all transactions have undetermined estimates.
 - Selected filters: AZA, 1980 - present
 - Animal transactions are as follows:
 - Birthdate = 1/1/1960 with undetermined estimate at AZA institution
 - Transaction on 1/1/2000 with undetermined estimate to non- AZA institution
 - Transaction to 1/1/2004 with undetermined estimate to AZA institution
 - In this situation, the Entry Date is 1/1/2004 since this is the transaction that meets the date and location in the selected filters.

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- If the animal was alive at the start of the selected date window but has never been in one of the institutions selected in the filter, then the animal will not show in the csv files.

Undetermined Exit Dates (Death, LTF, Released):

- Animals with undetermined exit dates are calculated as follows:
 - The undetermined date entered is used as the exit date even though it has an undetermined estimate
 - The undetermined date entered displays in the exit date column in both the genetic and demographic csv file
 - The exit date estimate displays as undetermined/Indeterminate
 - The exit date age is calculated on the exit date entered

Items to Note:

- If an animal in SPARKS/PopLink did not have a birth transaction the animal does not show in the PopLink/SPARKS export but will show in the ZIMS export because ZIMS is creating a birth transaction for all animals.
- SPARKS/PopLink pulls the birthdate from the master table. If master birthdate and transactions birthdates are different, then the age at birth will display a negative number. Since ZIMS only has one birthdate this is not an issue.
- ZIMS migrates birth events from the transaction grid of SPARKS/PopLink. Legacy software was pulling birth records from the master table, this could cause the birthdates exported in ZIMS to be different from legacy exports.
- If the local institution location is not defined in the studbook institution list in ZIMS, it will not be included in the applied filters.
 - Example: Local institution ZOOBC is located in Canada but there is no location information in the institution list for ZOOBC, this institution will not be included in a North American filter.

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