myHR uses effective dates to track changes over time. For example, effective dates are used for appointment (job) information, position data, and department name changes. When writing queries, users must correctly apply effective date criteria to obtain the desired data.

Example: Job Table

Here is a fictitious employee's appointment history. The person was hired on 1/1/2018, had a merit increase on 9/1/2018, had a promotion on 5/1/2019, and had another merit increase on 9/1/2019.

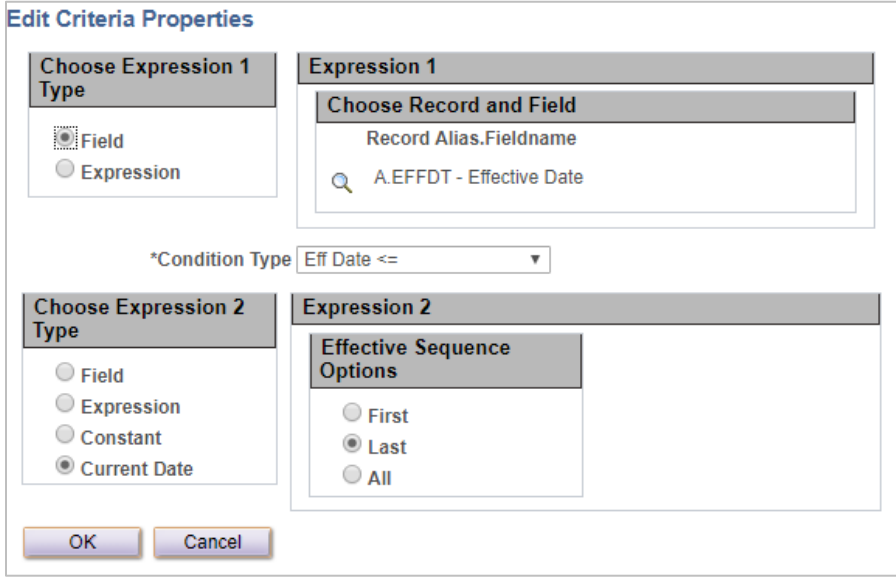| ID	Empl Record	Eff Date	Sequence	Action	Reason	Sal Plan	Grade	Comp Rate
1234567	0	1/1/2018	0	HIR	HIR	EXS	5	4,000
1234567	0	9/1/2018	0	PAY	MER	EXS	5	4,100
1234567	0	5/1/2019	0	POS	CLS	EXS	6	4,100
1234567	0	5/1/2019	1	PRO	PRC	EXS	6	4,100
1234567	0	5/1/2019	2	PAY	PRO	EXS	6	4,500
1234567	0	9/1/2019	0	PAY	MER	EXS	6	4,600

- A row in the Job table is in effect from the effective date until the day before the next effective date.
- There may be more than one action taken on the same day; these have different sequence numbers. The row with the greatest sequence number is in effect from that day until the next change.
- On 3/1/2018, the compensation rate for the person was $4,000. The row with effective date 1/1/2018 and sequence number of 0 was in effect.
- On 8/1/2019, the compensation rate for the person was $4,500. The row with effective date 5/1/2019 and sequence number of 2 was in effect.
- Today, the person's compensation rate is $4,600. The row with effective date 9/1/2019 and sequence number of 0 is in effect.

Example: Department Table

The above employee worked in department 234567. The department's name changed over time:

Dept ID	Eff Date	Descr
234567	1/1/1901	Ctr for Research
234567	3/1/2019	Center for Research
234567	10/1/2019	Institute of Research

- When combining data from two tables, decide whether the data in the second table should be as of today, or as of the effective date in the first table.
- Today, the department's name is Institute of Research (row with effective date of 10/1/2019).
- When the person was hired (1/1/2018), the department's name was Ctr for Research (row with effective date of 1/1/1901).

Procedure for Modifying Effective Date Criterion
1. Click **Create New Query**
2. **Search** for the name of the table (record) you want to add
3. Click the **Add Record** hyperlink next to the correct table
4. Query Manager automatically adds an effective date criterion for the table. A pop-up message will appear: An effective date criteria has been automatically added for this effective dated record. Click **OK** to dismiss the message.
5. Click on the **Criteria** tab and click **Edit** on the row for the effective date criterion
6. Leave **Expression 1** as **A.EFFDT**
7. Select the appropriate **Condition Type** • **Eff Date <=** is the default option and is usually the correct choice. It picks the row in the table that is as of the date in **Expression 2**. Use this for data as of today or as of a specific date in the past. • Do not use **Last Eff Date** if you are looking for data that is in effect today since future-dated information is sometimes entered in myHR. Use **Condition Type** of **Eff Date <=** with **Expression 2 Type** of **Current Date**. • Use **between**, **greater than**, or **equal to** when the query is restricted to specific action or reason codes. For example, looking for all JOB table data rows with reason code of MER (merit raise) between 8/1/2019 and 9/30/2019.

8.	Choose **Expression 2 Type**
	• **Current Date** will show data as of today
	• **Constant** will show data as of a specific date (e.g. 8/31/2019)
	• **Expression** allows users to enter formulae to define a date. For example, add_months(sysdate,-12) would show data as of 12 months ago.
	• **Field** is used when joining tables. For example, if the JOB table is alias A, DEPT_TBL is alias B, and we want the department name as of the JOB table effective date, then
	○ Expression 1: B.EFFDT
	○ Condition Type: Eff Date <=
	○ Expression 2 Type: Field
	○ Expression 2 Record and Field: A.EFFDT
	○ See *Procedure for Modifying Effective Date Criterion for Left Outer Joins* section below
9.	Leave **Effective Sequence Option** as **Last**. This option will pick the last sequence number for effective dates that have multiple actions (e.g. the promotion in the JOB table example above).
10.	Click **OK** at the bottom of the **Edit Criteria Properties** page
11.	If all rows in the table are needed, the effective date criterion can be deleted on the **Criteria** tab. For example, you may wish to see all rows in the JOB table for a specific employee to understand the appointment history.

Procedure for Modifying Effective Date Criterion for Left Outer Joins	
1.	Click **Create New Query**
2.	**Search** for the name of the first table (record) you want to add (e.g. JOB)
3.	Click the **Add Record** hyperlink next to the correct table
4.	Query Manager automatically adds an effective date criterion for the table. A pop-up message will appear: An effective date criteria has been automatically added for this effective dated record. Click **OK** to dismiss the message.
5.	Go to the **Records** tab
6.	**Search** for the name of the second table (record) you want to add (e.g. POSITION_DATA)
7.	Click the **Join Record** hyperlink next to the correct table
8.	Under **Join Type**, select the **Join to get additional fields only (Left Outer Join)** option
9.	Click on the name of the table to which you want to join (the first table)
10.	Review the **Auto Join Criteria** page and click the **Add Criteria** button
11.	Query Manager automatically adds an effective date criterion for the table. Click **OK** to dismiss the pop-up message.
12.	Go to the **Criteria** tab
	• Find the row for the effective date of the new table (B.EFFDT)
	• Click **Edit**

13. On the **Edit Criteria Properties** page
- Leave **Expression 1** as **B.EFFDT**
- Leave **Condition Type** as **Eff Date <=**
- Under **This criteria belongs to**, change the selection to **ON clause of outer join B**
  - If you don't change the selection, your left outer join will become a standard (inner) join and you will lose non-matching records
- Update **Expression 2**
  - Use **Current Date** for data as of today
  - Use **Constant** for data as of a specific date (e.g. 8/31/2019)
  - Use **Expression 2 Type** of **Field** and **Expression 2** of **A.EFFDT** for data in the second table as of the effective date in the first table (e.g. position data as of the job table effective date)
- Click **OK**