트레킹 테이블 인덱스

```sql
SELECT
   a.index_name
  ,a.table_name
  ,a.uniqueness
  ,b.column_name
  ,b.column_position
  ,b.column_length
  ,b.descend
FROM all_INDEXES a, all_ind_columns b
WHERE a.index_name = b.index_name
AND a.table_name = UPPER('MASTERLOG')
AND a.index_name = 'MSG_DT_IDX';
```

SELECT a.index_name ,a.table_name ,a.uniqueness | Enter a SQL expression to filter results (use Ctrl+Space)

	INDEX_NAME	TABLE_NAME	UNIQUENESS	COLUMN_NAME	COLUMN_POSITION	COLUMN_LENGTH	DESCEND
1	MSG_DT_IDX	MASTERLOG	NONUNIQUE	MSG_DT	1	11	ASC
2	MSG_DT_IDX	MASTERLOG	NONUNIQUE	MSG_INTF_ID	2	32	ASC

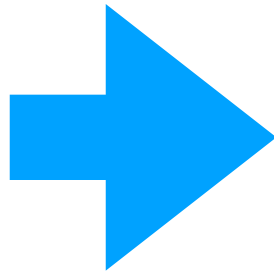## 트레킹 테이블 데이터

20181015 00:00 ~ 20181015 23:59

트레킹 테스트 결과

241021 건 검색

2.8 초 소요

getTrackingLogListTotalCount --> {executed in 2019 msec}

getTrackingLogList --> {executed in 759 msec}

SQL 튜닝

```xml
<select id="getTrackingLogListTotalCount" parameterType="Map" resultType="int">
    SELECT
    COUNT(A.MSG_INTF_ID) AS TOTAL_CNT
    FROM MASTERLOG A
    WHERE MSG_DT BETWEEN to_date(#{startDate},'yyyymmddHH24mi') - 9/24 AND to_date(#{endDate},'yyyymmddHH24mi') - 9/24
    <if test="status != null and status != ''">
    AND MSG_STATUS = #{status}
    </if>
    <choose>
        <when test="unregisteredFlag != null and unregisteredFlag eq 'Y'.toString()">
        </when>
        <otherwise>
        AND EXISTS (
            SELECT
                1
            FROM TAN0201 INTF, TAN0213 B, TIM0101 C, TAN0101 REQ, TIM0301 BIZ
            WHERE INTF.INTERFACE_ID = B.INTERFACE_ID
                <if test="interfaceNm != null and interfaceNm != ''">
                AND INTF.INTERFACE_NM LIKE '%'||#{interfaceNm}||'%'
                </if>
                <if test="integrationId != null and integrationId != ''">
                AND INTF.INTEGRATION_ID = #{integrationId}
                </if>
                <if test="channelId != null and channelId != ''">
                AND INTF.CHANNEL_ID = #{channelId}
                </if>
                <if test="dataPrMethod != null and dataPrMethod != ''">
                AND INTF.DATA_PR_METHOD = #{dataPrMethod}
                </if>
            AND C.SYSTEM_ID = B.SYSTEM_ID
                <if test="systemId != null and systemId != ''">
                AND C.SYSTEM_ID = #{systemId}
                </if>
                <if test="nodeType != null and nodeType != ''">
                AND B.NODE_TYPE = #{nodeType}
                </if>
            AND REQ.INTERFACE_ID = INTF.INTERFACE_ID
            AND BIZ.BUSINESS_ID = REQ.BUSINESS_ID
                <if test="businessId != null and businessId != ''">
            AND BIZ.BUSINESS_ID = #{businessId}
            </if>
                AND INTF.INTEGRATION_ID = A.MSG_INTF_ID
        )
        </otherwise>
    </choose>
</select>
```

* 중첩형식 베제
   select *
     from (
     select *
     from (
        ....
)B
) A

중첩형식 사용시 **SQL** 실행기(디벨롭퍼**2000** 등) 에서 수행시 응답속도는 빠르나
JDBC 를 통한 수행시 느려지는 현상이 발생함.(원인 분석 필요)

* INNER JOIN 을 이용한 주요 필터링 및 DISTINCT 연산 배제
* 코드값 조회용 LEFT OUTER JOIN 제외

```xml
<select id="getTrackingLogList" parameterType="Map" resultMap="TRLogResult">
            SELECT
                    /*+ INDEX_DESC (A MSG_DT_IDX) */
                    ROWNUM AS IDX,
                    A.MSG_HOST_ID,
                    A.MSG_INTF_ID,
                    A.MSG_DATETIME,        * 리스트의 결과 컬럼 MSG_DATETIME --> MSG_DT 로 변경하여 검색조건과 겸색결과 필드 일치 시킴
                    A.MSG_DT,                          (조회 결과 페이징시 날짜 내림차순 정렬이 근본적으로 잘못 보일 수 있는 점 배제)
                    A.MSG_STATUS,
                    A.MSG_GROUP_ID,
                    A.MSG_SEQ_NO
                    FROM MASTERLOG A
                    WHERE 1 = 1
                    ---------------------
                    -- 트레킹 테이블 필터조건
                    ---------------------
                    AND MSG_DT BETWEEN to_date(#{startDate},'yyyymmddHH24mi') - 9/24 AND to_date(#{endDate},'yyyymmddHH24mi') - 9/24
                    <if test="status != null and status != ''">
                    AND MSG_STATUS = #{status}
                    </if>

            <choose>
                <when test="unregisteredFlag != null and unregisteredFlag eq 'Y'.toString()">
                </when>
                <otherwise>
                AND EXISTS (
                            SELECT
                                1
                            FROM TAN0201 INTF, TAN0213 B, TIM0101 C, TAN0101 REQ, TIM0301 BIZ
                            WHERE INTF.INTERFACE_ID = B.INTERFACE_ID
                                <if test="interfaceNm != null and interfaceNm != ''">
                                AND INTF.INTERFACE_NM LIKE '%'||#{interfaceNm}||'%'
                                </if>
                                <if test="integrationId != null and integrationId != ''">
                                AND INTF.INTEGRATION_ID = #{integrationId}
                                </if>
                                <if test="channelId != null and channelId != ''">
                                AND INTF.CHANNEL_ID = #{channelId}
                                </if>
                                <if test="dataPrMethod != null and dataPrMethod != ''">
                        ...
                        ...

            ) TMP
```