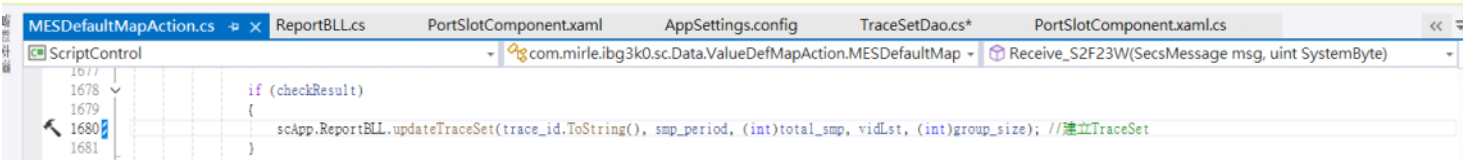


S2F23→TraceSet改寫

2025年3月27日 下午 04:09

此為Initial Cleaner為Sample，不同版本必要時作適當修改。

收到S2F23後建立TraceSet



ReportBLL.CS updateTraceSet修改方式

```

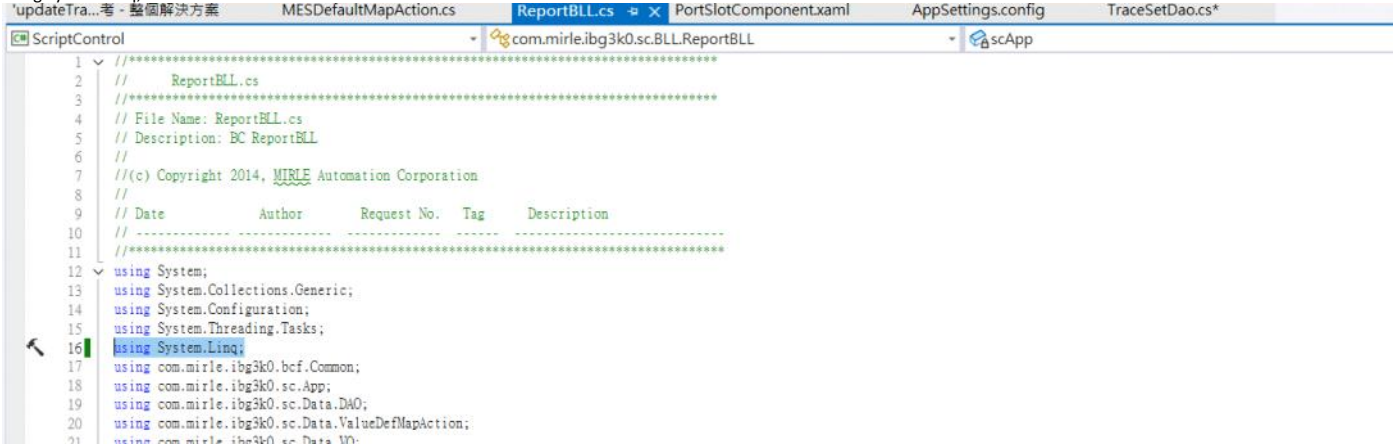
if (!createTraceSet(traceSet, tracelItems))
{
    logger_SystemError.Error($"Failed to create trace set for trace_id: {trace_id}");
    throw new Exception($"Failed to create trace set for trace_id: {trace_id}");
}
catch (Exception ex)
{
    logger_SystemError.Error(ex, $"Error in updateTraceSet for trace_id: {trace_id}");
    throw;
}

```



ReportBLL.cs 新增Using System.Linq (如沒有的話)

using System.Linq;



ReportBLL.cs新增的createTraceSet()

```

public bool createTraceSet(TraceSet traceSet, List<TracelItem> tracelItems)
{
    DBConnection conn = null;
    string deleteSql = "";
    string insertTraceSetSql = "";
    string insertTracelItemsSql = "";
    try
    {
        conn = scApp.getDBConnection();
        conn.BeginTransaction();

        // 使用單一 SQL 語句刪除舊的 Trace Set 相關資料
        deleteSql = @"
            DELETE FROM ATRACEITEMVALUE WHERE TRACE_ID = :trace_id;

```

```

DELETE FROM ATRACEITEM WHERE TRACE_ID = :trace_id;
DELETE FROM ATRACESET WHERE TRACE_ID = :trace_id;

var session = conn.Session;
var deleteQuery = session.CreateSQLQuery(deleteSql);
deleteQuery.SetParameter("trace_id", traceSet.Trace_ID.PadRight(5).Substring(0, 5));
deleteQuery.ExecuteUpdate();

// 使用單一 SQL 語句新增 Trace Set
insertTraceSetSql = @"
INSERT INTO ATRACESET (
    TRACE_ID, SMP_PERIOD, TOTAL_SMP_CNT, SMP_CNT,
    SMP_GRP_CNT, NX_SMP_TIME, SMP_TIME
) VALUES (
    :TraceId, :SmpPeriod, :TotalSmpCnt, :SmpCnt,
    :SmpGrpCnt, :NxSmpTime, :SmpTime
)";

var insertTraceSetQuery = session.CreateSQLQuery(insertTraceSetSql);
insertTraceSetQuery.SetParameter("TraceId", traceSet.Trace_ID.PadRight(5).Substring(0, 5));
insertTraceSetQuery.SetParameter("SmpPeriod", traceSet.Smp_Period.PadRight(6).Substring(0,
6));
insertTraceSetQuery.SetParameter("TotalSmpCnt", traceSet.Total_Smp_Cnt);
insertTraceSetQuery.SetParameter("SmpCnt", 0); // 重新開始
insertTraceSetQuery.SetParameter("SmpGrpCnt", traceSet.Smp_Grp_Cnt);
insertTraceSetQuery.SetParameter("NxSmpTime", DateTime.Now);
insertTraceSetQuery.SetParameter("SmpTime", DateTime.Now);
insertTraceSetQuery.ExecuteUpdate();

// 使用單一 SQL 語句批次新增 Trace Items
if (traceltems?.Any() == true)
{
    insertTraceltemsSql = @"
INSERT INTO ATRACEITEM (TRACE_ID, SVID, sort_no)
VALUES (:TraceId, :Svid, :SortNo);

var insertTraceltemsQuery = session.CreateSQLQuery(insertTraceltemsSql);
foreach (Traceltem item in traceltems)
{
    insertTraceltemsQuery.SetParameter("TraceId",
item.TraceltemPK.Trace_ID.PadRight(5).Substring(0, 5));
    insertTraceltemsQuery.SetParameter("Svid",
item.TraceltemPK.SVID.PadRight(5).Substring(0, 5));
    insertTraceltemsQuery.SetParameter("SortNo", item.SORT_NO);
    insertTraceltemsQuery.ExecuteUpdate();
}
}
conn.Commit();
return true;
}
catch (Exception ex)
{
    if (conn != null) { try { conn.Rollback(); } catch (Exception ex_rollback)
{ logger_SystemError.Error(ex_rollback, "Exception"); } }
    logger_SystemError.Error(ex, $"Exception in createTraceSet for trace_id: {traceSet.Trace_ID}\n"
+
    $"Delete SQL: {deleteSql}\n" +
    $"Insert TraceSet SQL: {insertTraceSetSql}\n" +
    $"Insert Traceltems SQL: {insertTraceltemsSql}");
    return false;
}
finally
{
    if (conn != null) { try { conn.Close(); } catch (Exception ex_close)
{ logger_SystemError.Error(ex_close, "Exception"); } }
}
}

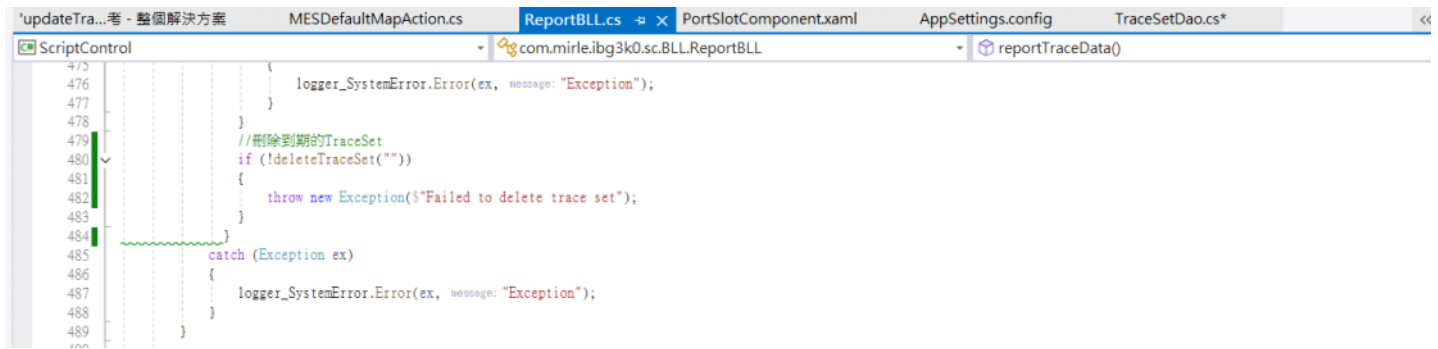
```

ReportBLL.cs的ReportTraceData() · 新增代碼：執行完報告後：刪除所有已到期的trace資料

```

//刪除到期的TraceSet
if (!deleteTraceSet(""))
{
    throw new Exception($"Failed to delete trace set");
}

```



ReportBLL.cs新增刪除所有已到期的trace資料function

```

public bool deleteTraceSet(string trace_id)
{
    //不指定trace_id時為刪除所有已到期的TraceSet，指定時為刪除指定trace_id的資料<指定
    為預留，暫時用不到>
    DBConnection conn = null;
    string sql = "";
    try
    {
        conn = scApp.getDBConnection();
        conn.BeginTransaction();
        // 使用單一 SQL 語句刪除所有已完成採樣的資料，除了效能提高外，也避免了多個 SQL 語
        句執行時的資料一致性問題，特別是在個別 SQL 語句執行時發生錯誤時
        if (!string.IsNullOrEmpty(trace_id))
        {
            // 刪除特定 trace_id 的資料
            sql = @"
                DELETE FROM ATRACEITEMVALUE
                WHERE TRACE_ID = :trace_id;
                DELETE FROM ATRACEITEM
                WHERE TRACE_ID = :trace_id;
                DELETE FROM ATRACESET
                WHERE TRACE_ID = :trace_id;";

            var session = conn.Session;
            var query = session.CreateSQLQuery(sql);
            query.SetParameter("trace_id", trace_id);
            query.ExecuteUpdate();
        }
        else
        {
            // 刪除所有已完成採樣的資料
            sql = @"
                DELETE FROM ATRACEITEMVALUE
                WHERE TRACE_ID IN (
                    SELECT TRACE_ID
                    FROM ATRACESET
                    WHERE TOTAL_SMP_CNT = SMP_CNT
                );
                DELETE FROM ATRACEITEM
                WHERE TRACE_ID IN (
                    SELECT TRACE_ID
                    FROM ATRACESET
                    WHERE TOTAL_SMP_CNT = SMP_CNT
                );
                DELETE FROM ATRACESET
                WHERE TOTAL_SMP_CNT = SMP_CNT;";

            var session = conn.Session;
            var query = session.CreateSQLQuery(sql);
            query.ExecuteUpdate();
        }

        conn.Commit();
        return true;
    }
    catch (Exception ex)
    {
        if (conn != null) { try { conn.Rollback(); } catch (Exception ex_rollback)
        { logger_SystemError.Error(ex_rollback, "Exception"); } }
        logger_SystemError.Error(ex, $"deleteTraceSet Exception for trace_id: {trace_id}\nSQL: {sql}");
        return false;
    }
    finally
    {
        if (conn != null) { try { conn.Close(); } catch (Exception ex_close)
        { logger_SystemError.Error(ex_close, "Exception"); } }
    }
}

```

測試需確認：

- 1、S2F23整體流程正常，包含回報給EAP的Trace Report
- 2、Nhibernate.log不會有警告和錯誤
- 3、System Error Log不會有錯誤
- 4、不會有此修改的例外發生