Continuous Casting Machine (CCM)

```
SELECT ros.r_os_id, ros.production_line_name, ccm.sequence_id, ros.reference_date, NVL(TO_CHAR(slab.piece_id),'NA') piece_id, NVL(TO_CHAR(slab.material_id),'NA') material_id, NVL(TO_CHAR(slab.mold_width),'NA') mold_width, NVL(TO_CHAR(mat.width),'NA') width, NVL(TO_CHAR(mat.thickness),'NA') thickness, NVL(TO_CHAR(mat.weight),'NA') weight, NVL(TO_CHAR(mat.length),'NA') length, NVL(TO_CHAR(mat.heat_id),'NA') heat_id, NVL(TO_CHAR(mat.steel_grade_id_int),'NA') steel_grade_id_int, NVL(TO_CHAR(slab.exit_temp),'NA') exit_temp, NVL(TO_CHAR(mat.slab_transition),'NA') slab_transition
FROM L3MAIN.r_os ros
LEFT JOIN L3MAIN.r_ccm ccm ON ros.r_os_id=ccm.r_os_id
LEFT JOIN L3MAIN.r_ccm_slab slab ON ros.r_os_id=slab.r_os_id
LEFT JOIN L3MAIN.r_mat mat ON ros.r_os_id=mat.r_os_id
WHERE sequence_id IS NOT NULL;
```

Compact Strip Production (CSP)

```
SELECT DISTINCT ccm2.sequence_id, sl.production_line_name, sl.piece_id, sl.material_id, sl.steel_grade_id_int, sl.heat_id, sl.slab_transition, sl.width, sl.length, sl.weight, sl.thickness, sl.thickness_hsm, sl.cut_time
FROM r_ccm ccm2
LEFT JOIN (
        SELECT ros.production_line_name, ccm.sequence_id, NVL(TO_CHAR(slab.piece_id),'null') piece_id, NVL(TO_CHAR(slab.material_id),'null') material_id, NVL(TO_CHAR(slab.mold_width),'null') mold_width, NVL(TO_CHAR(slab.casting_speed),'null') casting_speed, NVL(TO_CHAR(slab.exit_temp),'null') exit_temp, NVL(TO_CHAR(mat.steel_grade_id_int),'null') steel_grade_id_int, NVL(TO_CHAR(mat.heat_id),'null') heat_id, NVL(TO_CHAR(mat.slab_transition),'null') slab_transition, NVL(TO_CHAR(mat.width),'null') width, NVL(TO_CHAR(mat.length),'null') length, NVL(TO_CHAR(mat.weight),'null') weight, NVL(TO_CHAR(mat.thickness),'null') thickness, NVL(TO_CHAR(mat2.thickness),'null') as thickness_hsm, NVL(TO_CHAR(slab.cut_time),'null') cut_time
        FROM r_os ros, r_ccm_slab slab, r_ccm ccm, r_mat mat, r_mat mat2, r_os ros2
        WHERE mat2.material_id=mat.material_id AND mat2.r_os_id=ros2.r_os_id AND ros2.production_line_name LIKE 'HSM%' AND mat.material_id=slab.material_id AND slab.r_os_id=ccm.r_os_id AND mat.material_type='S' AND mat.modification_date=(
                SELECT MAX(mat2.modification_date)
                FROM r_mat mat2
                WHERE mat2.material_type='S' AND mat2.material_id=slab.material_id
        ) AND ros.r_os_id=mat.r_os_id AND ros.production_line_name LIKE 'CCM1'
) sl ON sl.sequence_id=ccm2.sequence_id
WHERE ccm2.ladle_arrival_time>to_date('01.07.2017', 'DD.MM.YYYY');
```

Continuous Galvanizing Line (CGL)

```
SELECT DISTINCT seq.program_id, seq.program_state, data.material_id, data.piece_id, data.material_sub_type, data.steel_grade_id_int, data.spm_elongation, data.temp_end_dff_aim, data.temp_end_rtf_aim, data.temp_end_soak_aim, data.temp_end_slow_cool, data.temp_end_rapid_cool, data.coat_wt_top_aim, data.coat_wt_bottom_aim, data.tlv_elongation, data.width, data.thickness, data.crosssection, data.weight, data.length, data.galv_top, data.galv_bot, data.elongation_spm, data.roll_set_id, data.elongation_tlv, data.oiling_ind, data.cut_date
FROM pg seq
LEFT JOIN (
        SELECT pgl.program_id, NVL(TO_CHAR(pgl.material_id),'null') material_id, NVL(TO_CHAR(mat.material_sub_type),'null') material_sub_type, NVL(TO_CHAR(mat.steel_grade_id_int),'null') steel_grade_id_int, NVL(TO_CHAR(mat.width),'null') width, NVL(TO_CHAR(mat.thickness),'null') thickness, NVL(TO_CHAR(mat.thickness*mat.width),'null') crosssection, NVL(TO_CHAR(mat.weight),'null') weight, NVL(TO_CHAR(mat.length),'null') length, NVL(TO_CHAR(mat.galv_top),'null') galv_top, NVL(TO_CHAR(mat.galv_bot),'null') galv_bot, NVL(TO_CHAR(cgl.piece_id),'null') piece_id, NVL(TO_CHAR(cgl.elongation_spm),'null') elongation_spm, NVL(TO_CHAR(cgl.roll_set_id),'null') roll_set_id, NVL(TO_CHAR(cgl.elongation_tlv),'null') elongation_tlv, NVL(TO_CHAR(cgl.oiling_ind),'null') oiling_ind, NVL(TO_CHAR(cgl.cut_date),'null') cut_date, NVL(TO_CHAR(pdi.spm_elongation),'null') spm_elongation, NVL(TO_CHAR(pdi.temp_end_dff_aim),'null') temp_end_dff_aim, NVL(TO_CHAR(pdi.temp_end_rtf_aim),'null') temp_end_rtf_aim, NVL(TO_CHAR(pdi.temp_end_soak_aim),'null') temp_end_soak_aim, NVL(TO_CHAR(pdi.temp_end_slow_cool),'null') temp_end_slow_cool, NVL(TO_CHAR(pdi.temp_end_rapid_cool),'null') temp_end_rapid_cool, NVL(TO_CHAR(pdi.coat_wt_top_aim),'null') coat_wt_top_aim, NVL(TO_CHAR(pdi.coat_wt_bottom_aim),'null') coat_wt_bottom_aim, NVL(TO_CHAR(pdi.tlv_elongation),'null') tlv_elongation
        FROM pdi_cgl pdi, pgl pgl, r_mat mat, r_cgl cgl
        WHERE mat.material_id=pdi.material_id AND mat.material_id=pgl.material_id AND mat.material_id=cgl.material_id AND mat.material_type LIKE 'CG' AND mat.modification_date=(
                SELECT MAX(modification_date)
                FROM r_mat mat2
                WHERE mat2.material_id=mat.material_id
        )
) data ON data.program_id=seq.program_id
WHERE seq.production_line_name LIKE 'CGL%' AND seq.start_actual>to_date('01.01.2018','DD.MM.YYYY');
```

Pickling Line & Tandem Cold Mill (PLTCM)

```
SELECT DISTINCT seq.program_id, seq.program_state, data.piece_id, data.material_id, data.material_sub_type, data.steel_grade_id_int, data.width, data.thickness_hsm, data.thickness, data.crosssection, data.weight, data.length, data.pickling_temp_avg, data.pickling_speed_avg, data.pickling_pressure_avg, data.elongation, data.oiling_flag, data.oil_type, data.operation_mode, data.roll_set_id, data.spm_mode, data.yield_point_calc, data.trim_flag, data.trim_width, data.cut_date, data.target_thickness, data.pl_oiling_flag, data.pl_oiling_type, data.pl_oiling_weight_top, data.pl_elongation, data.hot_coiling_temp, data.hrc_tensile_str, data.hrc_yield_point, data.input_thickness, data.input_width, data.input_length, data.target_width, data.target_length
FROM pg seq
LEFT JOIN (
        SELECT pgl.program_id, NVL(TO_CHAR(pgl.material_id),'null') material_id, NVL(TO_CHAR(mat.piece_id),'null') piece_id, NVL(TO_CHAR(mat.material_sub_type),'null') material_sub_type, NVL(TO_CHAR(mat.steel_grade_id_int),'null') steel_grade_id_int, NVL(TO_CHAR(mat.width),'null') width, NVL(TO_CHAR(mat_hot.thickness),'null') thickness_hsm, NVL(TO_CHAR(mat.thickness),'null') thickness, NVL(TO_CHAR(mat.thickness*mat.width),'null') crosssection, NVL(TO_CHAR(mat.weight),'null') weight, NVL(TO_CHAR(mat.length),'null') length, NVL(TO_CHAR(PLTCM.pickling_temp_avg),'null') pickling_temp_avg, NVL(TO_CHAR(PLTCM.pickling_speed_avg),'null') pickling_speed_avg, NVL(TO_CHAR(PLTCM.pickling_pressure_avg),'null') pickling_pressure_avg, NVL(TO_CHAR(tcm.elongation),'null') elongation, NVL(TO_CHAR(tcm.oiling_flag),'null') oiling_flag, NVL(TO_CHAR(tcm.oil_type),'null') oil_type, NVL(TO_CHAR(tcm.operation_mode),'null') operation_mode, NVL(TO_CHAR(tcm.roll_set_id),'null') roll_set_id, NVL(TO_CHAR(tcm.spm_mode),'null') spm_mode, NVL(TO_CHAR(tcm.yield_point_calc),'null') yield_point_calc, NVL(TO_CHAR(tcm.trim_flag),'null') trim_flag, NVL(TO_CHAR(tcm.trim_width),'null') trim_width, NVL(TO_CHAR(tcm.cut_date),'null') cut_date, NVL(TO_CHAR(pdi.target_thickness),'null') target_thickness, NVL(TO_CHAR(pdi.pl_oiling_flag),'null') pl_oiling_flag, NVL(TO_CHAR(pdi.pl_oiling_type),'null') pl_oiling_type, NVL(TO_CHAR(pdi.pl_oiling_weight_top),'null') pl_oiling_weight_top, NVL(TO_CHAR(pdi.pl_elongation),'null') pl_elongation, NVL(TO_CHAR(pdi.hot_coiling_temp),'null') hot_coiling_temp, NVL(TO_CHAR(pdi.hrc_tensile_str),'null') hrc_tensile_str, NVL(TO_CHAR(pdi.hrc_yield_point),'null') hrc_yield_point, NVL(TO_CHAR(pdi.input_thickness),'null') input_thickness, NVL(TO_CHAR(pdi.input_width),'null') input_width, NVL(TO_CHAR(pdi.input_length),'null') input_length, NVL(TO_CHAR(pdi.target_width),'null') target_width, NVL(TO_CHAR(pdi.target_length),'null') target_length
        FROM pdi_pltcm pdi, pgl pgl, r_mat mat, r_mat mat_hot, r_PLTCM_IN PLTCM, r_TCM tcm
        WHERE mat.material_id=tcm.material_id AND mat.material_id=pdi.material_id AND mat_hot.material_id=pgl.material_id AND mat.material_id=pgl.material_id AND mat.material_id=PLTCM.material_id AND mat.material_type LIKE 'CC' AND mat.modification_date=(
                SELECT MAX(modification_date)
                FROM r_mat mat2
                WHERE mat2.material_id=mat.material_id AND mat2.material_type='CC'
        ) AND mat_hot.modification_date=(
                SELECT MAX(modification_date)
                FROM r_mat mat3
                WHERE mat3.material_id=mat.material_id AND mat3.material_type='CH'
        )
) data ON data.program_id=seq.program_id
WHERE seq.production_line_name LIKE 'PLTCM%' AND seq.start_actual>to_date('01.01.2018','DD.MM.YYYY');
```