

## **Propagation tree report**

## 1. Feared event

Name: Erroneous Message

Date: Dec 9, 2015, 3:08 PM

## 2. Propagation tree

- Erroneous Message
- ProvidePositionReport::Build\_SinglePosReport}->[posRepHeader](E)
- OR Gate
- ProvidePositionReport::Build\_SinglePosReport}->[errorMsg](E)
- ProvidePositionReport::ErrorManager}->[errorVector](E)
- OR Gate
- ProvidePositionReport::ErrorManager}->[BG\_LinkingConsistencyError](E)
- {calculateTrainPosition::Abstract definition}->[errors](E)
- OR Erroneous
- fcalculateTrainPosition::Abstract definition}->[trainProperties](E)
- fromDMI\_TrainRunningNumber](E)
  fromDMI\_TrainRunningNumber](E)
- OR E
- fmanageDMI\_Input::Abstract}->[inStatusList](E)
- {manageDMI\_Output::Abstract}->[outStatusList](E)
- A DR F
- {manageDMI\_Output::Abstract}->[dmiUpdateLevelsDMI](E)
- {manageDMI\_Input::Abstract}->[outUpdateLevelsDMI](E)
- OR E

- fmanageDMI\_Output::Abstract}->[inStatusList](E)
- fmanageDMI Input::Abstract}->[outStatusList](E)

- 🤎 OR E
- fmanageDMI\_Output::Abstract}->[inCurrentDMIStatus](E)
- {manageDMI Input::Abstract}->[CurrentDMIStatus]

(E)

- fmanageDMI\_Output::Abstract}->[inNTC](E)
- fmanageDMI\_Input::Abstract}->[updatedNTC](E)

- OR E
- {manageDMI\_Input::Abstract}->[API\_fromAPI](E)
- {manageDMI\_Input::Abstract}->[dmiStatusReset](E)



```
OR E
                                                                   {manageDMI_Input::Abstract}->[API_fromAPI](E)
                                                                   {manageDMI_Input::Abstract}->[dmiStatusReset](E)
                                                                   {manageDMI Input::Abstract}->[InSystemTime](E)
                                           {calculateTrainPosition::Abstract definition}->[currentOdometry](E)
                                           {calculateTrainPosition::Abstract definition}->[PassedBG](E)
       {calculateTrainPosition::Abstract definition}->[msgFromTrack](E)
       {Manage_TrackSideInformation_Integration::InformationFilter}->[outMessage](E)
                                                {Manage_TrackSideInformation_Integration::InformationFilter}->[Barrier]
(E)
       {ProvidePositionReport::ErrorManager}->[DoubleLinkingError](E)
       {calculateTrainPosition::Abstract definition}->[errors](E)
       OR Erroneous
       {calculateTrainPosition::Abstract definition}->[trainProperties](E)
       {manageDMI Input::Abstract}->[fromDMI TrainRunningNumber](E)
       OR E
       {manageDMI Input::Abstract}->[inStatusList](E)
       {manageDMI_Output::Abstract}->[outStatusList](E)
       {manageDMI Output::Abstract}->[dmiUpdateLevelsDMI](E)
       {manageDMI Input::Abstract}->[outUpdateLevelsDMI](E)
                                                                           OR E
       {manageDMI Output::Abstract}->[inStatusList](E)
       {manageDMI Input::Abstract}->foutStatusList1(E)
                                                                           OR E
       {manageDMI Output::Abstract}->[inCurrentDMIStatus](E)
                                                                       {manageDMI Input::Abstract}->[CurrentDMIStatus]
(E)
       {manageDMI Output::Abstract}->[inNTC](E)
       {manageDMI Input::Abstract}->[updatedNTC](E)
                                                                           OR E
                                                       {manageDMI_Input::Abstract}->[API_fromAPI](E)
                                                       {manageDMI Input::Abstract}->[dmiStatusReset](E)
                                                       {manageDMI_Input::Abstract}->[InSystemTime](E)
       {trainData::trainDataStorage}->[actualTrainData](E)
   OR E
                                                       {trainData::trainDataStorage}->[actualStatus](E)
                                                       {trainData::trainDataStorage}->[eventsForTrainData](E)
       {trainData::trainDataStorage}->[trainDatafromDriver](E)
       {manageDMI_Input::Abstract}->[fromDMI_TrainData](E)
       OR E
       {manageDMI_Input::Abstract}->[inStatusList](E)
       {manageDMI_Output::Abstract}->[outStatusList](E)
```

OR E {manageDMI\_Output::Abstract}->[dmiUpdateLevelsDMI](E) {manageDMI Input::Abstract}->[outUpdateLevelsDMI](E) OR E {manageDMI Output::Abstract}->[inStatusList](E) {manageDMI\_Input::Abstract}->[outStatusList](E) OR E {manageDMI Output::Abstract}->[inCurrentDMIStatus](E) {manageDMI\_Input::Abstract}->[CurrentDMIStatus](E) {manageDMI\_Output::Abstract}->[inNTC](E) {manageDMI Input::Abstract}->[updatedNTC](E) OR E {manageDMI Input::Abstract}->[API fromAPI](E) {manageDMI Input::Abstract}->[dmiStatusReset](E) {manageDMI Input::Abstract}->[InSvstemTime](E) {trainData::trainDataStorage}->[trainDataAckfromDriver](E) {manageDMI Input::Abstract}->[fromDMI TrainDataAck](E) {manageDMI Input::Abstract}->[inStatusList](E) {manageDMI Output::Abstract}->[outStatusList](E) OR E {manageDMI Output::Abstract}->[dmiUpdateLevelsDMI](E) {manageDMI Input::Abstract}->[outUpdateLevelsDMI](E) OR E {manageDMI Output::Abstract}->[inStatusList](E) {manageDMI Input::Abstract}->[outStatusList](E) OR E {manageDMI Output::Abstract}->[inCurrentDMIStatus](E) {manageDMI Input::Abstract}->[CurrentDMIStatus](E) {manageDMI Output::Abstract}->[inNTC](E) {manageDMI Input::Abstract}->[updatedNTC](E) OR E {manageDMI\_Input::Abstract}->[API\_fromAPI](E) {manageDMI Input::Abstract}->[dmiStatusReset](E) {manageDMI Input::Abstract}->[InSystemTime](E) {calculateTrainPosition::Abstract definition}->[currentOdometry](E) {calculateTrainPosition::Abstract definition}->[PassedBG](E) {calculateTrainPosition::Abstract definition}->[msgFromTrack](E) {Manage TrackSideInformation Integration::InformationFilter}->[outMessage](E) {Manage\_TrackSideInformation\_Integration::InformationFilter}->[Barrier] (E)

```
{ProvidePositionReport::ErrorManager}->[DoubleRepositioningError](E)
       {calculateTrainPosition::Abstract definition}->[errors](E)
       OR Erroneous
       {calculateTrainPosition::Abstract definition}->[trainProperties](E)
       {manageDMI Input::Abstract}->[fromDMI TrainRunningNumber](E)
4 笋
       {manageDMI_Input::Abstract}->[inStatusList](E)
       {manageDMI Output::Abstract}->[outStatusList](E)
       {manageDMI_Output::Abstract}->[dmiUpdateLevelsDMI](E)
       {manageDMI_Input::Abstract}->[outUpdateLevelsDMI](E)
                                                                           OR E
       {manageDMI_Output::Abstract}->[inStatusList](E)
       {manageDMI Input::Abstract}->[outStatusList](E)
                                                                           OR E
       {manageDMI Output::Abstract}->[inCurrentDMIStatus](E)
                                                                       {manageDMI_Input::Abstract}->[CurrentDMIStatus]
(E)
       {manageDMI Output::Abstract}->[inNTC](E)
       {manageDMI Input::Abstract}->[updatedNTC](E)
                                                                          OR E
                                                       {manageDMI_Input::Abstract}->[API_fromAPI](E)
                                                       {manageDMI Input::Abstract}->[dmiStatusReset](E)
                                                       {manageDMI_Input::Abstract}->[InSystemTime](E)
       {trainData::trainDataStorage}->[actualTrainData](E)
   OR E
                                                       {trainData::trainDataStorage}->[actualStatus](E)
                                                       {trainData::trainDataStorage}->[eventsForTrainDatal(E)
       {trainData::trainDataStorage}->[trainDatafromDriver](E)
       {manageDMI Input::Abstract}->[fromDMI TrainData](E)
⊿ 笋
       OR E
       {manageDMI Input::Abstract}->[inStatusList](E)
       {manageDMI_Output::Abstract}->[outStatusList](E)
       OR E
       {manageDMI Output::Abstract}->[dmiUpdateLevelsDMI](E)
       {manageDMI Input::Abstract}->[outUpdateLevelsDMI](E)
                                                                                      OR E
       {manageDMI Output::Abstract}->[inStatusList](E)
       {manageDMI Input::Abstract}->[outStatusList](E)
                                                                                       OR E
       {manageDMI Output::Abstract}->[inCurrentDMIStatus](E)
                                                                                   {manageDMI Input::Abstract}-
>[CurrentDMIStatus](E)
```

{manageDMI\_Output::Abstract}->[inNTC](E) {manageDMI\_Input::Abstract}->[updatedNTC](E) OR F {manageDMI\_Input::Abstract}->[API\_fromAPI](E) {manageDMI Input::Abstract}->[dmiStatusReset](E) {manageDMI\_Input::Abstract}->[InSystemTime](E) {trainData::trainDataStorage}->[trainDataAckfromDriver](E) {manageDMI Input::Abstract}->[fromDMI TrainDataAck](E) {manageDMI\_Input::Abstract}->[inStatusList](E) {manageDMI Output::Abstract}->[outStatusList](E) {manageDMI\_Output::Abstract}->[dmiUpdateLevelsDMI](E) {manageDMI\_Input::Abstract}->[outUpdateLevelsDMI](E) OR E {manageDMI\_Output::Abstract}->[inStatusList](E) {manageDMI Input::Abstract}->[outStatusList](E) OR E {manageDMI\_Output::Abstract}->[inCurrentDMIStatus](E) {manageDMI\_Input::Abstract}->[CurrentDMIStatus](E) {manageDMI Output::Abstract}->[inNTC](E) {manageDMI\_Input::Abstract}->[updatedNTC](E) OR E {manageDMI Input::Abstract}->[API fromAPI](E) {manageDMI Input::Abstract}->[dmiStatusReset](E) {manageDMI Input::Abstract}->[InSystemTime](E) {calculateTrainPosition::Abstract definition}->[currentOdometry](E) {calculateTrainPosition::Abstract definition}->[PassedBG](E) {calculateTrainPosition::Abstract definition}->[msgFromTrack](E) {Manage\_TrackSideInformation\_Integration::InformationFilter}->[outMessage](E) {Manage TrackSideInformation Integration::InformationFilter}->[Barrier] (E) {ProvidePositionReport::ErrorManager}->[LinkedBG\_MessageConsistencyError](E) {ProvidePositionReport::ErrorManager}->[RadioMessageConsistencyError](E) {ProvidePositionReport::ErrorManager}->[RadioSafeRadioConnectionError](E) {ProvidePositionReport::ErrorManager}->[RadioSequenceError](E) {ProvidePositionReport::ErrorManager}->[SafetyCriticalFailure](E) {ProvidePositionReport::ErrorManager}->[UnlinkedBG\_MessageConsistencyError](E) {ProvidePositionReport::ErrorManager}->[BG\_LinkingConsistencyError](U) {calculateTrainPosition::Abstract definition}->[errors](U) **OR** Intempestif {calculateTrainPosition::Abstract definition}->[currentOdometry](U)

```
{calculateTrainPosition::Abstract definition}->[PassedBG](U)
       {calculateTrainPosition::Abstract definition}->[msgFromTrack](U)
       {Manage _TrackSideInformation_Integration::InformationFilter}->[outMessage](U)
                                                  {Manage TrackSideInformation Integration::InformationFilter}->[Barrier]
(U)
       {calculateTrainPosition::Abstract definition}->[trainProperties](U)
       {manageDMI Input::Abstract}->[fromDMI TrainRunningNumber](U)
   D
       {manageDMI_Input::Abstract}->[inStatusList](U)
       {manageDMI Output::Abstract}->foutStatusList1(U)
   Ð
       OR U
       {manageDMI Output::Abstract}->[inCurrentDMIStatus](U)
       {manageDMI Input::Abstract}->[CurrentDMIStatus](U)
                                                                           OR U
       {manageDMI Output::Abstract}->[inNTC](U)
       {manageDMI Input::Abstract}->[updatedNTC](U)
                                                                           OR U
       {manageDMI Output::Abstract}->[dmiUpdateLevelsDMI](U)
       {manageDMI Input::Abstract}->[outUpdateLevelsDMI](U)
                                                                          OR U
       {manageDMI Output::Abstract}->[inStatusList](U)
       {manageDMI Input::Abstract}->[outStatusList](U)
                                                                          OR U
                                                       {manageDMI Input::Abstract}->[API fromAPI](U)
                                                       {manageDMI Input::Abstract}->[dmiStatusReset](U)
                                                       {manageDMI Input::Abstract}->[InSystemTime](U)
       {trainData::trainDataStorage}->[actualTrainData](U)
       OR U
       {trainData::trainDataStorage}->[trainDatafromDriver](U)
       {manageDMI Input::Abstract}->[fromDMI TrainData](U)
   \rightarrow
       OR U
       {manageDMI Input::Abstract}->[inStatusList](U)
       {manageDMI_Output::Abstract}->[outStatusList](U)
   >
       OR U
       {manageDMI Output::Abstract}->[inCurrentDMIStatus](U)
       {manageDMI Input::Abstract}->[CurrentDMIStatus](U)
                                                                                      OR U
       {manageDMI Output::Abstract}->[inNTC](U)
       {manageDMI Input::Abstract}->[updatedNTC](U)
                                                                                       OR U
       {manageDMI Output::Abstract}->[dmiUpdateLevelsDMI](U)
       {manageDMI Input::Abstract}->[outUpdateLevelsDMI](U)
                                                                                       OR U
```

{manageDMI\_Output::Abstract}->[inStatusList](U) {manageDMI\_Input::Abstract}->[outStatusList](U) OR U {manageDMI\_Input::Abstract}->[API\_fromAPI](U) {manageDMI Input::Abstract}->[dmiStatusReset](U) {manageDMI\_Input::Abstract}->[InSystemTime](U) {trainData::trainDataStorage}->[trainDataAckfromDriver](U) {manageDMI Input::Abstract}->[fromDMI TrainDataAck](U) {manageDMI\_Input::Abstract}->[inStatusList](U) {manageDMI\_Output::Abstract}->[outStatusList](U) {manageDMI\_Output::Abstract}->[inCurrentDMIStatus](U) {manageDMI\_Input::Abstract}->[CurrentDMIStatus](U) OR U {manageDMI\_Output::Abstract}->[inNTC](U) {manageDMI\_Input::Abstract}->[updatedNTC](U) OR U {manageDMI\_Output::Abstract}->[dmiUpdateLevelsDMI](U) {manageDMI Input::Abstract}->[outUpdateLevelsDMI](U) OR U {manageDMI\_Output::Abstract}->[inStatusList](U) {manageDMI Input::Abstract}->[outStatusList](U) OR U {manageDMI\_Input::Abstract}->[API\_fromAPI](U) {manageDMI\_Input::Abstract}->[dmiStatusReset](U) {manageDMI Input::Abstract}->[InSystemTime](U) {trainData::trainDataStorage}->[eventsForTrainData](U) {trainData::trainDataStorage}->[actualStatus](U) {trainData::trainDataStorage}->[trainDatafromTIU](U) {ProvidePositionReport::ErrorManager}->[LinkedBG\_MessageConsistencyError](U) {ProvidePositionReport::ErrorManager}->[UnlinkedBG\_MessageConsistencyError](U) {ProvidePositionReport::ErrorManager}->[RadioMessageConsistencyError](U) {ProvidePositionReport::ErrorManager}->[RadioSequenceError](U) {ProvidePositionReport::ErrorManager}->[RadioSafeRadioConnectionError](U) {ProvidePositionReport::ErrorManager}->[SafetyCriticalFailure](U) {ProvidePositionReport::ErrorManager}->[DoubleLinkingError](U) {calculateTrainPosition::Abstract definition}->[errors](U) **OR** Intempestif {calculateTrainPosition::Abstract definition}->[currentOdometry](U) {calculateTrainPosition::Abstract definition}->[PassedBG](U) {calculateTrainPosition::Abstract definition}->[msgFromTrack](U)

{Manage\_TrackSideInformation\_Integration::InformationFilter}->[outMessage](U)

```
{Manage TrackSideInformation Integration::InformationFilter}->[Barrier]
(U)
       {calculateTrainPosition::Abstract definition}->[trainProperties](U)
       {manageDMI Input::Abstract}->[fromDMI TrainRunningNumber](U)
   \triangleright
   U
       {manageDMI_Input::Abstract}->[inStatusList](U)
       {manageDMI Output::Abstract}->[outStatusList](U)
   D
       {manageDMI Output::Abstract}->[inCurrentDMIStatus](U)
       {manageDMI Input::Abstract}->[CurrentDMIStatus](U)
                                                                           OR U
       {manageDMI Output::Abstract}->[inNTC](U)
       {manageDMI_Input::Abstract}->[updatedNTC](U)
                                                                           OR U
       {manageDMI Output::Abstract}->[dmiUpdateLevelsDMI](U)
       {manageDMI Input::Abstract}->[outUpdateLevelsDMI](U)
                                                                           OR U
       {manageDMI_Output::Abstract}->[inStatusList](U)
       {manageDMI Input::Abstract}->[outStatusList](U)
                                                                           OR U
                                                       {manageDMI Input::Abstract}->[API fromAPI](U)
                                                       {manageDMI Input::Abstract}->[dmiStatusReset](U)
                                                       {manageDMI Input::Abstract}->[InSystemTime](U)
       {trainData::trainDataStorage}->[actualTrainData](U)
       OR U
       {trainData::trainDataStorage}->[trainDatafromDriver](U)
       {manageDMI Input::Abstract}->[fromDMI TrainData](U)
   \triangleright
       OR U
       {manageDMI Input::Abstract}->[inStatusList](U)
       {manageDMI Output::Abstract}->[outStatusList](U)
   D
       OR U
       {manageDMI Output::Abstract}->[inCurrentDMIStatus](U)
       {manageDMI_Input::Abstract}->[CurrentDMIStatus](U)
                                                                                       OR U
       {manageDMI Output::Abstract}->[inNTC](U)
       {manageDMI Input::Abstract}->[updatedNTC](U)
                                                                                       OR U
       {manageDMI Output::Abstract}->[dmiUpdateLevelsDMI](U)
       {manageDMI Input::Abstract}->[outUpdateLevelsDMI](U)
                                                                                       OR U
       {manageDMI Output::Abstract}->[inStatusList](U)
       {manageDMI Input::Abstract}->[outStatusList](U)
                                                                                       OR U
```

```
{manageDMI_Input::Abstract}->[API_fromAPI](U)
                                                                   {manageDMI_Input::Abstract}->[dmiStatusReset](U)
                                                                   {manageDMI_Input::Abstract}->[InSystemTime](U)
       {trainData::trainDataStorage}->[trainDataAckfromDriver](U)
       {manageDMI Input::Abstract}->[fromDMI TrainDataAck](U)
       {manageDMI_Input::Abstract}->[inStatusList](U)
       {manageDMI Output::Abstract}->[outStatusList](U)
       {manageDMI_Output::Abstract}->[inCurrentDMIStatus](U)
       {manageDMI_Input::Abstract}->[CurrentDMIStatus](U)
                                                                                        OR U
       {manageDMI_Output::Abstract}->[inNTC](U)
       {manageDMI_Input::Abstract}->[updatedNTC](U)
                                                                                        OR U
       {manageDMI_Output::Abstract}->[dmiUpdateLevelsDMI](U)
       {manageDMI_Input::Abstract}->[outUpdateLevelsDMI](U)
                                                                                        OR U
       {manageDMI_Output::Abstract}->[inStatusList](U)
       {manageDMI_Input::Abstract}->[outStatusList](U)
                                                                                    OR U
                                                                   {manageDMI_Input::Abstract}->[API_fromAPI](U)
                                                                   {manageDMI Input::Abstract}->[dmiStatusReset](U)
                                                                   {manageDMI_Input::Abstract}->[InSystemTime](U)
                                                       {trainData::trainDataStorage}->[eventsForTrainData](U)
                                                       {trainData::trainDataStorage}->[actualStatus](U)
                                                       {trainData::trainDataStorage}->[trainDatafromTIU](U)
       {ProvidePositionReport::ErrorManager}->[DoubleRepositioningError](U)
       {calculateTrainPosition::Abstract definition}->[errors](U)
       OR Intempestif
                                           {calculateTrainPosition::Abstract definition}->[currentOdometry](U)
                                           {calculateTrainPosition::Abstract definition}->[PassedBG](U)
       {calculateTrainPosition::Abstract definition}->[msgFromTrack](U)
       {Manage_TrackSideInformation_Integration::InformationFilter}->[outMessage](U)
                                                {Manage_TrackSideInformation_Integration::InformationFilter}->[Barrier]
(U)
       {calculateTrainPosition::Abstract definition}->[trainProperties](U)
       {manageDMI Input::Abstract}->[fromDMI TrainRunningNumber](U)
       OR U
       {manageDMI_Input::Abstract}->[inStatusList](U)
       {manageDMI Output::Abstract}->[outStatusList](U)
       OR U
       {manageDMI Output::Abstract}->[inCurrentDMIStatus](U)
```

```
{manageDMI_Input::Abstract}->[CurrentDMIStatus](U)
                                                                   OR U
{manageDMI_Output::Abstract}->[inNTC](U)
{manageDMI_Input::Abstract}->[updatedNTC](U)
                                                                   OR U
{manageDMI_Output::Abstract}->[dmiUpdateLevelsDMI](U)
{manageDMI_Input::Abstract}->[outUpdateLevelsDMI](U)
                                                                  OR U
{manageDMI_Output::Abstract}->[inStatusList](U)
{manageDMI_Input::Abstract}->[outStatusList](U)
                                                                  OR U
                                               {manageDMI_Input::Abstract}->[API_fromAPI](U)
                                               {manageDMI_Input::Abstract}->[dmiStatusReset](U)
                                               {manageDMI Input::Abstract}->[InSystemTime](U)
{trainData::trainDataStorage}->[actualTrainData](U)
{trainData::trainDataStorage}->[trainDatafromDriver](U)
{manageDMI_Input::Abstract}->[fromDMI_TrainData](U)
{manageDMI_Input::Abstract}->[inStatusList](U)
{manageDMI_Output::Abstract}->[outStatusList](U)
OR U
{manageDMI_Output::Abstract}->[inCurrentDMIStatus](U)
{manageDMI_Input::Abstract}->[CurrentDMIStatus](U)
                                                                               OR U
{manageDMI_Output::Abstract}->[inNTC](U)
{manageDMI Input::Abstract}->[updatedNTC](U)
                                                                               OR U
{manageDMI_Output::Abstract}->[dmiUpdateLevelsDMI](U)
{manageDMI_Input::Abstract}->[outUpdateLevelsDMI](U)
                                                                               OR U
{manageDMI_Output::Abstract}->[inStatusList](U)
{manageDMI_Input::Abstract}->[outStatusList](U)
                                                                           🤪 or u
                                                           {manageDMI_Input::Abstract}->[API_fromAPI](U)
                                                           {manageDMI_Input::Abstract}->[dmiStatusReset](U)
                                                           {manageDMI_Input::Abstract}->[InSystemTime](U)
{trainData::trainDataStorage}->[trainDataAckfromDriver](U)
{manageDMI_Input::Abstract}->[fromDMI_TrainDataAck](U)
OR U
{manageDMI_Input::Abstract}->[inStatusList](U)
{manageDMI_Output::Abstract}->[outStatusList](U)
OR U
```

```
{manageDMI Output::Abstract}->[inCurrentDMIStatus](U)
       {manageDMI_Input::Abstract}->[CurrentDMIStatus](U)
                                                                                       OR U
       {manageDMI Output::Abstract}->[inNTC](U)
       {manageDMI Input::Abstract}->[updatedNTC](U)
                                                                                       OR U
       {manageDMI_Output::Abstract}->[dmiUpdateLevelsDMI](U)
       {manageDMI Input::Abstract}->[outUpdateLevelsDMI](U)
                                                                                       OR U
       {manageDMI_Output::Abstract}->[inStatusList](U)
       {manageDMI Input::Abstract}->[outStatusList](U)
                                                                                    🤪 or u
                                                                   {manageDMI_Input::Abstract}->[API_fromAPI](U)
                                                                   {manageDMI_Input::Abstract}->[dmiStatusReset](U)
                                                                   {manageDMI_Input::Abstract}->[InSystemTime](U)
                                                       {trainData::trainDataStorage}->[eventsForTrainData](U)
                                                       {trainData::trainDataStorage}->[actualStatus](U)
                                                       {trainData::trainDataStorage}->[trainDatafromTIU](U)
       {ProvidePositionReport::ErrorManager}->[BG_LinkingConsistencyError](A)
       {calculateTrainPosition::Abstract definition}->[errors](A)
       OR Abscent
                                          {calculateTrainPosition::Abstract definition}->[currentOdometry](A)
       {calculateTrainPosition::Abstract definition}->[msgFromTrack](A)
       {Manage_TrackSideInformation_Integration::InformationFilter}->[outMessage](A)
                                               {Manage_TrackSideInformation_Integration::InformationFilter}->[Barrier]
(A)
       {calculateTrainPosition::Abstract definition}->[trainProperties](A)
       {manageDMI Input::Abstract}->[fromDMI TrainRunningNumber](A)
       OR A
                                                   {manageDMI Input::Abstract}->[InSystemTime](A)
       {manageDMI Input::Abstract}->[inStatusList](A)
       {manageDMI Output::Abstract}->[outStatusList](A)
       {manageDMI Output::Abstract}->[dmiUpdateLevelsDMI](A)
       {manageDMI Input::Abstract}->[outUpdateLevelsDMI](A)
                                                                           OR A
       {manageDMI_Output::Abstract}->[inStatusList](A)
       {manageDMI Input::Abstract}->[outStatusList](A)
                                                                           OR A
       {manageDMI_Output::Abstract}->[inCurrentDMIStatus](A)
       {manageDMI Input::Abstract}->[CurrentDMIStatus](A)
                                                                           OR A
       {manageDMI Output::Abstract}->[inNTC](A)
```

```
{manageDMI_Input::Abstract}->[updatedNTC](A)
                                                                   OR A
                                                {manageDMI_Input::Abstract}->[API_fromAPI](A)
                                                {manageDMI Input::Abstract}->[dmiStatusReset](A)
{trainData::trainDataStorage}->[actualTrainData](A)
                                                {trainData::trainDataStorage}->[actualStatus](A)
                                                {trainData::trainDataStorage}->[eventsForTrainData](A)
                                                {trainData::trainDataStorage}->[trainDatafromTIU](A)
{trainData::trainDataStorage}->[trainDatafromDriver](A)
{manageDMI_Input::Abstract}->[fromDMI_TrainData](A)
OR A
                                                            {manageDMI_Input::Abstract}->[InSystemTime](A)
{manageDMI_Input::Abstract}->[inStatusList](A)
{manageDMI Output::Abstract}->[outStatusList](A)
{manageDMI_Output::Abstract}->[dmiUpdateLevelsDMI](A)
{manageDMI_Input::Abstract}->[outUpdateLevelsDMI](A)
                                                                                OR A
{manageDMI Output::Abstract}->[inStatusList](A)
{manageDMI_Input::Abstract}->[outStatusList](A)
                                                                                OR A
{manageDMI Output::Abstract}->[inCurrentDMIStatus](A)
{manageDMI_Input::Abstract}->[CurrentDMIStatus](A)
                                                                                OR A
{manageDMI_Output::Abstract}->[inNTC](A)
{manageDMI Input::Abstract}->[updatedNTC](A)
                                                                                OR A
                                                            {manageDMI_Input::Abstract}->[API_fromAPI](A)
                                                            {manageDMI Input::Abstract}->[dmiStatusReset](A)
{trainData::trainDataStorage}->[trainDataAckfromDriver](A)
{manageDMI_Input::Abstract}->[fromDMI_TrainDataAck](A)
OR A
                                                            {manageDMI Input::Abstract}->[InSystemTime](A)
{manageDMI_Input::Abstract}->[inStatusList](A)
{manageDMI_Output::Abstract}->[outStatusList](A)
{manageDMI_Output::Abstract}->[dmiUpdateLevelsDMI](A)
{manageDMI_Input::Abstract}->[outUpdateLevelsDMI](A)
                                                                                OR A
{manageDMI Output::Abstract}->[inStatusList](A)
{manageDMI Input::Abstract}->[outStatusList](A)
                                                                                OR A
```

```
{manageDMI Output::Abstract}->[inCurrentDMIStatus](A)
       {manageDMI_Input::Abstract}->[CurrentDMIStatus](A)
                                                                                      OR A
       {manageDMI Output::Abstract}->[inNTC](A)
       {manageDMI Input::Abstract}->[updatedNTC](A)
                                                                                       OR A
                                                                   {manageDMI_Input::Abstract}->[API_fromAPI](A)
                                                                   {manageDMI Input::Abstract}->[dmiStatusReset](A)
                               {ProvidePositionReport::ErrorManager}->[LinkedBG_MessageConsistencyError](A)
                            & {ProvidePositionReport::ErrorManager}->[UnlinkedBG_MessageConsistencyError](A)
                               {ProvidePositionReport::ErrorManager}->[RadioMessageConsistencyError](A)
                               {ProvidePositionReport::ErrorManager}->[RadioSequenceError](A)
                               {ProvidePositionReport::ErrorManager}->[RadioSafeRadioConnectionError](A)
                               {ProvidePositionReport::ErrorManager}->[SafetyCriticalFailure](A)
       {ProvidePositionReport::ErrorManager}->[DoubleLinkingError](A)
       {calculateTrainPosition::Abstract definition}->[errors](A)
       OR Abscent
                                           {calculateTrainPosition::Abstract definition}->[currentOdometry](A)
       {calculateTrainPosition::Abstract definition}->[msgFromTrack](A)
       {Manage TrackSideInformation_Integration::InformationFilter}->[outMessage](A)
                                               (Manage_TrackSideInformation_Integration::InformationFilter}->[Barrier]
(A)
       {calculateTrainPosition::Abstract definition}->[trainProperties](A)
       {manageDMI Input::Abstract}->[fromDMI TrainRunningNumber](A)
       OR A
                                                      {manageDMI Input::Abstract}->[InSystemTime](A)
       {manageDMI Input::Abstract}->[inStatusList](A)
       {manageDMI Output::Abstract}->[outStatusList](A)
       OR A
       {manageDMI Output::Abstract}->[dmiUpdateLevelsDMI](A)
       {manageDMI Input::Abstract}->[outUpdateLevelsDMI](A)
                                                                           OR A
       {manageDMI_Output::Abstract}->[inStatusList](A)
       {manageDMI Input::Abstract}->[outStatusList](A)
                                                                           OR A
       {manageDMI Output::Abstract}->[inCurrentDMIStatus](A)
       {manageDMI Input::Abstract}->[CurrentDMIStatus](A)
                                                                           OR A
       {manageDMI Output::Abstract}->[inNTC](A)
       {manageDMI Input::Abstract}->[updatedNTC](A)
                                                                          OR A
                                                       {manageDMI Input::Abstract}->[API fromAPI](A)
                                                       {manageDMI Input::Abstract}->[dmiStatusReset](A)
```

4	(A)	{trainData::trainDataStorage}->[actualTrainData](A) OR A			
		A A A	{trainData::trainDataStorage}->[actualStatus](A) {trainData::trainDataStorage}->[eventsForTrainData](A) {trainData::trainDataStorage}->[trainDatafromTIU](A)		
<b>⊿</b> <b>⊿</b>	A A	{trainData::trainDataStorage}->[trainDatafromDrive {manageDMI_Input::Abstract}->[fromDMI_TrainDatafromDrive OR A	r](A)		
			🙆 {ma	nageDMI_Input::	Abstract}->[InSystemTime](A)
4	A A A	<pre>{manageDMI_Input::Abstract}-&gt;[inStatusList](A) {manageDMI_Output::Abstract}-&gt;[outStatusList](A) OR A {manageDMI_Output::Abstract}-&gt;[dmiUpdateLevel</pre>			
⊿	A	{manageDMI_Input::Abstract}->[outUpdateLevelsD	- ' '		
				<b>2</b>	OR A
4	A	{manageDMI_Output::Abstract}->[inStatusList](A)			
_	•	{manageDMI_Input::Abstract}->[outStatusList](A)		2	OR A
⊿	A	{manageDMI_Output::Abstract}->[inCurrentDMISta	tusl(A)	_	OK A
⊿	A	{manageDMI_Input::Abstract}->[CurrentDMIStatus	- ` '		
				<b>2</b>	OR A
4	(A)	{manageDMI_Output::Abstract}->[inNTC](A)			
4	A	{manageDMI_Input::Abstract}->[updatedNTC](A)		2	OR A
			♠ ⟨ma	1	Abstract}->[API_fromAPI](A)
					Abstract}->[dmiStatusReset](A
<b>△</b> <b>△</b>	A A	{trainData::trainDataStorage}->[trainDataAckfromDataAck	river](A)	0 - 1	, <u>,</u> , ,
			🙆 {ma	nageDMI_Input::	Abstract}->[InSystemTime](A)
4	A A	<pre>{manageDMI_Input::Abstract}-&gt;[inStatusList](A) {manageDMI_Output::Abstract}-&gt;[outStatusList](A) OR A</pre>			
⊿	A	{manageDMI_Output::Abstract}->[dmiUpdateLevel	sDMI](A)		
⊿	A	$\{manageDMI\_Input::Abstract\} -> [outUpdateLevelsDiscontinuous content of the con$	MI](A)		
				2	OR A
4	A	{manageDMI_Output::Abstract}->[inStatusList](A)			
_	•	{manageDMI_Input::Abstract}->[outStatusList](A)		9	OR A
⊿	A	{manageDMI_Output::Abstract}->[inCurrentDMISta	tus](A)	*	
⊿	A	{manageDMI_Input::Abstract}->[CurrentDMIStatus	- ' '		
				<b>②</b>	OR A
⊿	(A)	{manageDMI_Output::Abstract}->[inNTC](A)			

```
{manageDMI Input::Abstract}->[updatedNTC](A)
                                                                   {manageDMI_Input::Abstract}->[API_fromAPI](A)
                                                                   {manageDMI Input::Abstract}->[dmiStatusReset](A)
       {ProvidePositionReport::ErrorManager}->[DoubleRepositioningError](A)
       {calculateTrainPosition::Abstract definition}->[errors](A)
       OR Abscent
                                           {calculateTrainPosition::Abstract definition}->[currentOdometry](A)
       {calculateTrainPosition::Abstract definition}->[msgFromTrack](A)
       {Manage _TrackSideInformation_Integration::InformationFilter}->[outMessage](A)
                                                Manage TrackSideInformation Integration::InformationFilter}->[Barrier]
(A)
       {calculateTrainPosition::Abstract definition}->[trainProperties](A)
       {manageDMI_Input::Abstract}->[fromDMI_TrainRunningNumber](A)
   OR A
                                                    {manageDMI Input::Abstract}->[InSvstemTime](A)
       {manageDMI Input::Abstract}->[inStatusList](A)
       {manageDMI Output::Abstract}->[outStatusList](A)
       {manageDMI Output::Abstract}->[dmiUpdateLevelsDMI](A)
       {manageDMI Input::Abstract}->[outUpdateLevelsDMI](A)
                                                                           OR A
       {manageDMI Output::Abstract}->[inStatusList](A)
       {manageDMI Input::Abstract}->foutStatusList1(A)
                                                                           OR A
       {manageDMI Output::Abstract}->[inCurrentDMIStatus](A)
       {manageDMI Input::Abstract}->[CurrentDMIStatus](A)
                                                                           OR A
       {manageDMI Output::Abstract}->[inNTC](A)
       {manageDMI Input::Abstract}->[updatedNTC](A)
                                                                           OR A
                                                       {manageDMI Input::Abstract}->[API_fromAPI](A)
                                                       {manageDMI Input::Abstract}->[dmiStatusReset](A)
       {trainData::trainDataStorage}->[actualTrainData](A)
   OR A
                                                       {trainData::trainDataStorage}->[actualStatus](A)
                                                       {trainData::trainDataStorage}->[eventsForTrainData](A)
                                                       {trainData::trainDataStorage}->[trainDatafromTIU](A)
       {trainData::trainDataStorage}->[trainDatafromDriver](A)
       {manageDMI_Input::Abstract}->[fromDMI_TrainData](A)
                                                                   {manageDMI Input::Abstract}->[InSystemTime](A)
       {manageDMI Input::Abstract}->finStatusListI(A)
```

```
{manageDMI_Output::Abstract}->[outStatusList](A)
{manageDMI_Output::Abstract}->[dmiUpdateLevelsDMI](A)
{manageDMI_Input::Abstract}->[outUpdateLevelsDMI](A)
                                                                               OR A
{manageDMI_Output::Abstract}->[inStatusList](A)
{manageDMI_Input::Abstract}->[outStatusList](A)
                                                                               OR A
{manageDMI_Output::Abstract}->[inCurrentDMIStatus](A)
{manageDMI_Input::Abstract}->[CurrentDMIStatus](A)
                                                                               OR A
{manageDMI_Output::Abstract}->[inNTC](A)
{manageDMI_Input::Abstract}->[updatedNTC](A)
                                                                           OR A
                                                           {manageDMI_Input::Abstract}->[API_fromAPI](A)
                                                           {manageDMI Input::Abstract}->[dmiStatusReset](A)
{trainData::trainDataStorage}->[trainDataAckfromDriver](A)
{manageDMI_Input::Abstract}->[fromDMI_TrainDataAck](A)
OR A
                                                           {manageDMI Input::Abstract}->[InSystemTime](A)
{manageDMI_Input::Abstract}->[inStatusList](A)
{manageDMI_Output::Abstract}->[outStatusList](A)
{manageDMI_Output::Abstract}->[dmiUpdateLevelsDMI](A)
{manageDMI_Input::Abstract}->[outUpdateLevelsDMI](A)
                                                                               OR A
{manageDMI Output::Abstract}->[inStatusList](A)
{manageDMI_Input::Abstract}->[outStatusList](A)
                                                                               OR A
{manageDMI Output::Abstract}->[inCurrentDMIStatus](A)
{manageDMI_Input::Abstract}->[CurrentDMIStatus](A)
                                                                               OR A
{manageDMI_Output::Abstract}->[inNTC](A)
{manageDMI Input::Abstract}->[updatedNTC](A)
                                                                              OR A
                                                           {manageDMI_Input::Abstract}->[API_fromAPI](A)
                                                           {manageDMI_Input::Abstract}->[dmiStatusReset](A)
```

{ProvidePositionReport::Build SinglePosReport}->[trainProps](E)