Input Date of Birth

Link towards TFS: User Story 60777

As a Payroll user, I want to initiate the creation of a Business Leader or an Employee (Full Functional).

A subset functionality is selecting or typing the Date of Birth (reused at other places).

Goal of User Story

I want to be able to select, type, copy paste a Date of Birth.

Used definitions and Three Letter Words

Link towards overview: (Glossary).

Precedents - Start Conditions, Cause and User Stories that call this functionality

- Default behaviour: Datepicker Component (Link) (TFS: User Story xxx).
- Uses information from: INSS Input and Validator (Link) (User Story 58500).
- Component is part of: Initiate Add Employee (Step before Add Employee / Business Leader Wizard) (Link) (User Story 58494).
- Component is part of: Update Identity (Link) (User Story 61749).

Properties for Datepicker

- Dates in the future are not possible.
- The "Clear" Button must be shown.
- The "Today" Button must be shown.
- Possible Error on check after edit or by leaving it unchanged (Specific in this screen).
   - Field is obligatory.

Scenarios

The Birthdate can be calculated using a filled in INSS number.
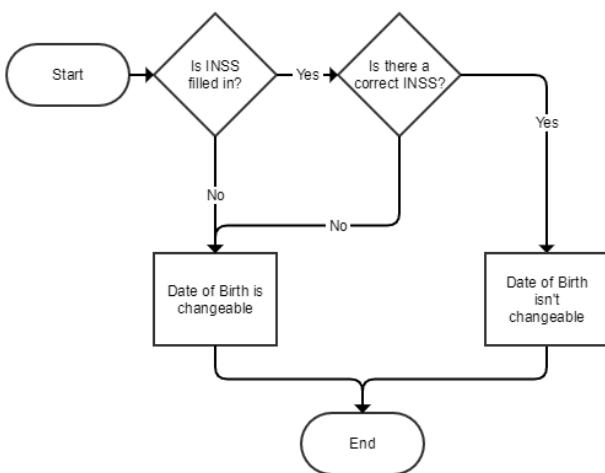
When Birthdate is filled in automatically, by filling in a INSS, you can't change it manually.

- The only way to change it is by:
    - typing another correct INSS.
    - clearing the INSS and fill the Date of Birth manually.

### When can you change Date of Birth?
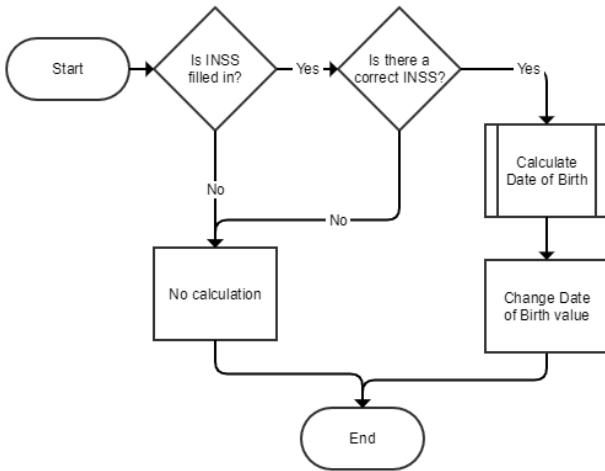
Textual

- When no INSS is filled in, the Date of Birth is changeable.
- When a correct INSS is filled in, the Date of Birth is calculated and unchangeable.
- When an incorrect INSS is filled in, the Date of Birth is changeable.
    - This scenario does not make any sense, but covers a possible situation.

When is Date of Birth calculated?

Textual

- If there is a INSS filled in
- and the value of INSS is validated, triggered by a change in the input INSS
  - then the Date of Birth is filled in based on the typed INSS number.
- In all other cases, the Date of Birth remains unchanged, so the INSS and corresponding Date of Birth are in sync.

How is it calculated?

Textual

A INSS has a format of ##.##.##-###.## (Year).(Month).(Day)-(FollowNumber).(CheckDigits)

Year (yyyy)

The full INSS number is needed to calculate the year.

- You need (Year), (Month), (Day), (FollowNumber) and (CheckDigits) to calculated the birth year of a person.
- See CheckDigits for more detail

Month (mm)

(Month) can be the values between (00, 01 .. 11, 12) and (20 .. 32) and (40 .. 52).

- Numbers larger or equal to 40, subtract 40 Result is PossibleMonth.
- Numbers larger or equal to 20, subtract 20 Result is PossibleMonth.
- PossibleMonth has now a range from 00 to 12.
- 00 is replaced by 01.
- PossibleMonth has now a range from 01 to 12.
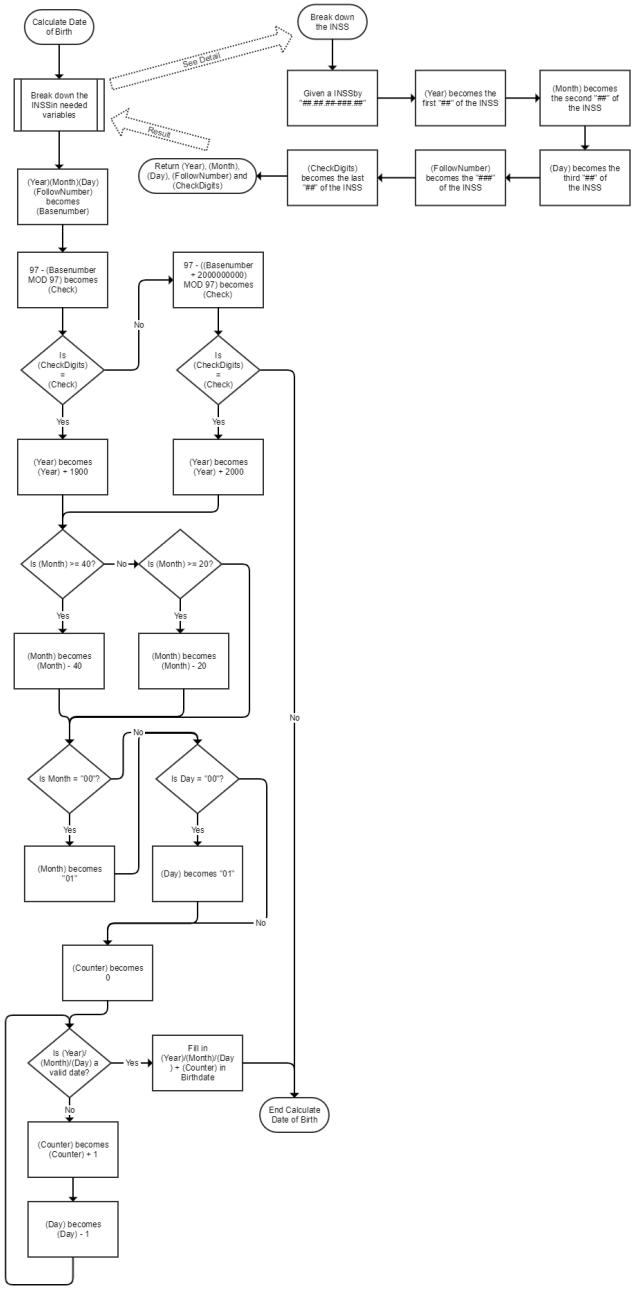
Day (dd)

(Day) can be the values between (00, 01, ..., 30, 31).

- 00 is replaced by 01.

What if the Year (yyyy) - Month (mm) - Day (dd) does not exist?

- Following the rules above, a date 2010 - 04 - 31 is possible.
  - This is a not valid date.
- The number of days that are too many, compared with the first date in the past that is possible, will be added to the possible date.
  - 31 april 2010 does not exist.
    - One day less 30 april 2010 does exist.
    - So we add 1 day to it, 01 may 2010.
  - 31 februari 2010 does not exist.

Calculate Date of Birth

Break down the INSS in needed variables

See Detail

Resue

Break down the INSS

Given a INSS by "##.##.##-###.##"

(Year) becomes the first "##" of the INSS

(Month) becomes the second "##" of the INSS

(Day) becomes the third "##" of the INSS

(FollowNumber) becomes the "###" of the INSS

(CheckDigits) becomes the last "##" of the INSS

Return (Year), (Month), (Day), (FollowNumber) and (CheckDigits)

(Year)(Month)(Day)(FollowNumber) becomes (Basenumber)

97 - (Basenumber MOD 97) becomes (Check)

97 - ((Basenumber + 2000000000) MOD 97) becomes (Check)

Is (CheckDigits) = (Check) — No

Is (CheckDigits) = (Check)

Yes → (Year) becomes (Year) + 1900

Yes → (Year) becomes (Year) + 2000

Is (Month) >= 40? — No → Is (Month) >= 20?

Yes → (Month) becomes (Month) - 40

Yes → (Month) becomes (Month) - 20

No

Is Month = "00"? — No

Is Day = "00"?

Yes → (Month) becomes "01"

Yes → (Day) becomes "01"

No

(Counter) becomes 0

Is (Year)/(Month)/(Day) a valid date? — Yes → Fill in (Year)/(Month)/(Day) + (Counter) in Birthdate → End Calculate Date of Birth

No

(Counter) becomes (Counter) + 1

(Day) becomes (Day) - 1

- One day less 30 februari 2010 does not exist.
- Two days less 29 februari 2010 does not exist.
- Three days less 28 februari 2010 does exist.
- So we add 3 days to it, 03 march 2010.

Examples

Start situation: Date of Birth is empty and you fill INSS with:

- 02.04.20-789.68
- 02.04.20-789.39
- 77.10.31-285.84
- 91.09.05-631.30
- 00.00.00-998.01
- 70.02.29-123.06
- 70.02.29-123.35
- 80.02.31-587.80
- 81.02.31-587.04
- 15.11.31.483.75

Results Examples

Date of Birth becomes:

- 20 April 2002.
- 20 April 1902.
- 31 October 1977.
- Stays empty.
- 01 January 2000.
- 01 March 1970.
- 01 March 2070.
  - Date is in the future, but because the field is disabled, error message is not shown.
  - This error will be covered by a check in the input of INSS.

- 02 March 1980.
- 03 March 1981.
- 01 December 2015.

Start situation: Date of Birth is filled in with 02 march 1970 and you fill INSS with:

- Whatever correct number you like.

Date of Birth becomes:

- the Date of Birth that corresponds with the typed INSS.

Start situation: There is no INSS filled in and you type / select a date:

- 06/05/1970
- 01/09/2069

Date of Birth becomes:

- 06 May 1970.
- 01 September 2069 with message that it is not a valid Date of Birth.

Dependents - Effects and User Stories that are based on this functionality

When the Date of Birth changes in value (made empty or other date), all compoments below must be cleared.

- Changes behavior of: Input Category (Link) (Part of User Story 58494).
- Changes behavior of: Input Region (Link) (Part of User Story 58494).
- Changes behavior of: Input Subcategory (Link) (Part of User Story 58494).
- Changes behavior of: Input an Activity (Not for Demo) (Link) (TFS: To Do Add Link).
    - List of Radio Buttons with Joint Committee (official), Joint Committee (chosen) and NSSO Registration Index.
- Changes behavior of: Input Active pensioner (Link) (User Story 60920).

Errors

Number	Description
1	Not a valid Date of Birth

Error messages

Num ber	English message	Dutch message	French message
1	Date of birth in the future is not possible.	Geboortedatum in de toekomst is niet mogelijk.	Date de naissance dans le futur n'est pas possible.

Acceptance Criteria

- Date of Birth is correctly calculated with a given INSS is filled in.
- When changing Date of Birth into not a valid date, an error message is shown.
- Date of Birth is recalculated, when there is a change in the INSS number.