



White Paper | SEEBURGER BIS AI Assistance

## The Art of Efficient Prompting How to Get Jump Started With AI-Assisted BIS Mapping Designer

# How to get jump started with integrated AI assistance in the BIS Mapping Designer

BIS Mapping Designer (aka BIS Mapper) allows you to integrate powerful AI services, creating a unified user experience that supercharges your productivity. This powerful combination can boost your efficiency by up to 60% on average, no matter your level of experience. Ready to unlock this powerful new AI assistance in seconds? We've created this handy cheat sheets booklet for efficient prompting including examples of categorized prompts for different use cases.

**See how the usage of AI assistance within BIS Mapping Designer can help you achieve more!**

## Why should you use this AI assistance?

Need help with integration tasks? Leverage the power of AI services of OpenAI that could be integrated within BIS Mapping Designer for a variety of assistance, including:

### + Code and mapping support

Get suggestions for code, transferring code from XSLT to BIS mapping language, or regular expressions. Optimize existing code, comment it automatically or rewrite it for improved performance.

### + Understanding file content and mapping codes

Obtain explanations for file content or mapping code in any language.

### + Sample file generation

Generate sample files with or without schemas to test your mappings.

### + Deepen integration knowledge

Improve your understanding of topics related to the specific integration task you're working on.

**Fine-tune your results:** Use prompt sequences to interact with the AI service directly from the UI of BIS Mapper to optimize your results. For example, you can request a sample file in a specific format and then use additional prompts to expand the file with more data or modify the content for testing purposes (e.g., adding valid IDs for items).

## Who should use this AI assistance?



### **Beginners,**

this feature is for you! Before seeking help from experienced colleagues with basic questions or explanations, utilize this AI assistance to gain a better understanding of your mapping tasks. Achieve results quickly and confidently!



### **Advanced users,**

it's valuable support for you. Experienced users can benefit most from integrating an AI service! Your expertise allows you to know what you want to achieve and get assistance on how to do it. For those 'hard nuts to crack,' AI assistance can help you with the trickiest challenges. It can boost efficiency by handling time-consuming tasks like commenting code or deciphering complex, uncommented code written by others. And as integration is a domain of constant innovations and new technologies, you speed up your learning curve when encountering new topics.

# How to achieve best results?

Mastering the prompt is key to success: The art of crafting effective prompts is crucial for unlocking the full potential of a generative AI service. As you become more familiar with its capabilities, you'll naturally improve your prompt-writing skills. Start simple and gradually incorporate more advanced prompts, like crafting code examples.

The good news for BIS Mapping Designer users is you don't necessarily need to design highly sophisticated prompts. However, having a basic understanding of prompting can still be beneficial.

## Tailor your commands

The specific command you give in your prompt will depend on the outcome you desire.

### Examples of useful commands

Explain	Create	Generate
Rewrite	Optimize	Refine
Locate	Comment	Transform
Remove	Replace	Add
Change	Find	

## Specify your desired output

Clearly define the format you want for the results.

### Examples

...in [e.g., XPath code, JAVA code, XQuery code, ...]
...as [e.g., a sample JSON file of the Salesforce master data interface outbound, an ANSI X12 Release 008030 sample file, a CSV file with three columns ID, TIME, STATUS ...]

## Set the scene

Provide context for your request to help the AI assistance understand your needs better.

### Examples

Paste snippets of code and name the language into your prompt
Paste file content, the message structure or a schema into your prompt
Add: e.g., 'to achieve...' or 'which fits to this xsd [paste the xsd]' to your prompt and define your specific objective or paste the context into the prompt

## Unlock advanced results with prompt priming

Get creative and use 'prompt priming' to provide the AI service task-specific guidance. This is one of the most important topics to consider for an efficient prompt. It involves providing relevant examples or instructions tailored to your specific needs.

### Examples

'...to avoid pitfalls'
'...and explain it in very easy words and step by step'
'...and generate the sample file in the most complex way'
'...and comment the code as if you are 7 years old'

## Refine your results (optional)

For even greater control on the response, you can set restrictions on the output.

### Examples

'...each of a maximum length of 12 characters'
'...and the sample file should contain 12 line items'
'...that splits the string in chunks of 3 digits each'
'...write using basic English'
'...add further examples or alternatives'

## Start with a question (general alternative)

Feel free to kick off your prompt with a question, especially when providing context like code or a sample file.

### Examples

How to ...
What is happening here... [e.g., past a code snippet]
What is the best way to ... [e.g., achieve a targeted result?]
What is wrong with ... [e.g., past a code snippet]

## Essential tips for effective prompts

### + Refine with iterations

Run conversations or prompt sequences iteratively. Instruct the AI service consecutively using different commands or add further context. This helps sharpen your request and achieve optimized results.

### + Cut the pleasantries

Save time! OpenAI's AI service doesn't expect 'please' or perfect grammar. Typos and incomplete sentences are fine. It's a machine, after all.

### + Experiment and sharpen your skills

Be creative! Try new things and keep exploring, regardless of your current expertise. You'll continuously improve.

### + Embrace multilingual prompts

Prompt in your native language and request the response translated to English or vice versa. This can improve precision or understanding for complex topics.

### + Fact-check AI results by the AI service itself

Encourage the AI service to cross-check its work. Ask where information comes from, how it achieved a task, or what tools it used. Request alternatives for the same prompt or, for specific functions or code, ask for a sample result before using its suggestion in your mapping.

### + Use results with a certain caution

View the results and outputs of the AI service as proposals or suggestions, not guaranteed solutions. As an AI, it can make mistakes.

### + Explore unforeseen possibilities

Remain open to unexpected opportunities that OpenAI might uncover.

## A useless but remarkable example

Instruct the AI service to create a sample file

```
Create a sample json file of the Salesforce master data interface outbound
```

Next (this is unexpected, for sure)

```
Create a limerick using the content of the json file
```

Result

```
In Salesforce's domain, a sight so bright,  
Records dance outbound in the night.  
Accounts update with grace,  
Contacts find their place,  
Opportunities vanish from sight.
```

**As said: Makes no sense to do this but it is amazing, isn't it?**

# How can you use this AI assistance to boost migrations to the SEEBURGER BIS Platform?

Many companies want to migrate from other integration platforms to the SEEBURGER BIS Platform. A key challenge is the migration of data mappings. Here is the solution:

## BIS Mapping Designer: a modern approach to data mapping

BIS Mapper offers a powerful and efficient code language based on XPATH and XQUERY concepts. This sets it apart from many other tools that rely on XSLT, a language known for performance drawbacks and complexity. Some examples of tools using XSLT include Microsoft BizTalk, WSO2 Enterprise Integrator, MuleSoft Anypoint Platform, and Microsoft Azure Logic Apps.

For integration platforms developed by Axway, Boomi, SAP, Oracle, IBM, Informatica, Talend and SnapLogic, XSLT might not be the primary focus across all offerings, but depending on users' decisions, their XSLT support might have been used for data and file mappings.

## Easily migrate XSLT mappings to the BIS Platform

Companies can enjoy the performance and advanced features of BIS Mapper without a complete rewriting of existing XSLT mappings. Here's the key: leverage the power of AI assistance, conveniently integrated within BIS Mapper.

Since both XSLT and BIS Mapper code language rely on standards, the AI service can efficiently support you in transforming your XSLT code into optimized BIS Mapper code, which is based on XPath and XQuery. This significantly reduces the migration effort, allowing you to reap the benefits of BIS Mapper quickly.

### Example

A transformation like that requires a method we call **code painting**. Use your expertise and create code in a conversation with OpenAI's AI service spanning several prompts in a row.

Start with the basic instruction for the transformation – this is the **basic sketch**:

Transform this XSLT code with the following syntax: Node-name, followed by "{", followed by target fields on the left, then ":@" then the source of those fields on the right, close each node with "}" [paste XSLT code]

Now comes the art of putting **advanced code painting** into place. Iterate to your desired output using a prompt sequence with instructions such as:

Remove

Replace

Add

Change

As an example, this will allow you to transform this XSLT code

```
<!-- E2ADRM1 - E2ADRE1 -->
<xsl:if test="G_02/S_NAD[D_3035='BY']/C_C082/D_3039 != ,">
  <G02>
    <xsl:call-template name="write_e1adrm1">
      <xsl:with-param name="partner_q"
        select="AG"/>
      <xsl:with-param name="partn" select="" />
      <xsl:with-param name="name1"
        select="G_02/S_NAD[D_3035='BY']/C_
C080/D_3036[1]"/>
      <xsl:with-param name="name2"
        select="G_02/S_NAD[D_3035='BY']/C_
C080/D_3036[2]"/>
    </G02>
  </xsl:call-template>
</if>
</xsl:if>
```

into that BIS Mapping Code that you can easily copy and insert into BIS Mapping Designer

```
E2ADRM1 {
  partner_q := 'AG',
  name1 := G_02/S_NAD[D_3035='BY']/C_C080/D_3036[1],
  name2 := G_02/S_NAD[D_3035='BY']/C_C080/D_3036[2]
}
```

This example is just about some lines of code. Be aware that this works with hundreds of lines of code in one prompt for the basic sketch. The restriction for the length of XSLT code of your initial prompt is the maximum of tokens OpenAI allows you to use in one prompt. Expect a maximum of about 8,000 tokens using GPT-4 Turbo of OpenAI.

# What are valuable single use cases?

Our SEEBURGER mapping specialists recommend exploring some specific use cases to familiarize yourself with the integration of the OpenAI service. These examples are just a starting point – you’ll undoubtedly discover your own ‘AI hacks’ tailored to your specific domain.

## Working with code

Most of the time ‘code is key’ describing the most important daily tasks working on mappings, isn’t it? If one of these examples below sound familiar to you, streamline your mapping workflows with AI assistance you can integrate in BIS Mapping Designer!

### + Pain point and solution for mapping documentation

Everyone acknowledges the value of proper mapping code documentation, but time constraints often get in the way. Here’s where OpenAI shines: it automates code documentation entirely, freeing you up to focus on project progress. And relieves your bad conscience as we know you aim to do your work properly and on a high level of quality.

### + Beginner and expert solutions for mapping code

Facing a specific mapping challenge that prevents you from making progress? Get the AI service to propose solutions tailored to your needs.

### + Boost collaboration

Ever spend time understanding a colleague’s code for a minor change? Leverage the AI assistance to quickly grasp the code and avoid unintended consequences.

### + Effortless XSLT migration

Struggling to migrate XSLT mappings to BIS Mapper? Need help deciphering the old code’s business logic? OpenAI’s AI service can automate code explanation of legacy XSLT code, freeing you to focus on project progress.

### + Tame regular expressions

Do you regard regular expressions as powerful but tricky? The AI assistance will help you find the right syntax in seconds and streamline your mapping tasks.

## Examples

Comment the following code snippet  
‘[paste code of BIS Mapper]’

Locate logical errors in the following code snippet  
‘[paste code of BIS Mapper]’

What is this [code language, e.g., XSLT] code doing  
‘[paste code snippet in e.g., XSLT as used in Axway, Boomi, BizTalk, Oracle Data Mapper, SAP PI PO]’ and rewrite a proposal in XPath.

## Prompt Sequence

Understand code and get an idea about the result without executing it.

What is happening here?

```
“let $sendTime := concat(format-date(current-dateTime(), “yyyy-MM-dd-HH.mm.ss.”), “11111”)
```

What would be the result?

How can I split the string “BIS Mapper and OpenAI’s AI services match perfectly” into 5 character chunks using XQuery in a one-line assignment to a variable?

Sometimes, mapping data comes with strange requirements. In this example, a string should be formatted in alternating uppercase and lowercase, so ‘ABCDEf’ should be formatted as ‘AbCdEf’:

How to transform a string in alternating uppercase and lowercase in XPath?

Create a Java function that takes every single character from a string input and converts it to the Unicode representation like “\u001a”. Add an example of the output based on the input “Hello BIS Mapper User”.

How can I check if a string is matching a regular expression using XQuery?

What would be a regular expression (or RegEx) for a string that must have four alphanumeric letters, followed by four numbers in total having eight characters?

What is the purpose of the following code in XQuery?  
Replace(replace(replace(\$var, “\_”, “”), “%”, “”), “-”, “”)

Is there a way to simplify the following code in XQuery?  
‘Replace(replace(replace(\$var, “\_”, “”), “%”, “”), “-”, “”)’

Note: find above examples how to transform XSLT code into BIS Mapper code!

## Work with test data and sample files

Ever been stuck waiting for sample data to test your mappings? Or lost valuable time to understand the content of sample files? Say goodbye to delays! With the AI service, you can analyze, create, validate and adapt sample files on your own. Eliminate the need to wait on others for testing and optimization of your mappings with sample data.

### Examples

Explain this sample file  
‘[paste the content of the sample file here]’.

Create a sample file CustomerCreditTransferInitiationV12.

Create a json file which includes facts about bananas, oranges and mangos. It should contain some information about color, size, and origins. Each item should have a weight. Also create a schema in YAML which is matching this file.

Create an XML file with sample data from the TV series The Crown based on this xsd ‘[paste an xsd]’.

Create a test file which is matching (or violating) this schema ‘[paste json, xsd, yml schema description]’.

Compare this file ‘[paste file content, e.g., before a change in mapping code]’ with that file ‘[paste file content after the change in mapping code]’ and explain precisely the differences’.

Does this file content [paste file content] violate the structure defined in [paste xsd] and why?

### Prompt sequence

Create a test file in ANSI X12 Version 008040 for a purchase order with 8 different line items. The items describe machinery tools and should contain weight, color, size

Replace the line-item ids using this list of 8 ids:  
1234, 2345, 3456, 4567, 5678, 6789, 7890, 8901  
[you list your ids]

... refine the sample file further using Replace, Delete, Change depending on your needs

## Expand your understanding, knowledge and expertise and get easily familiar with integration topics

### Examples

Should I use a YAML or a SWAGGER schema?

Which APIs are used in FSI?

Which format pattern is required to obtain a date like 2024-01-18?

Why using ANSI X12 instead of an API transferring mass data to my business partner?

What is an AVRO file and which schemas are used for it?

What is the meaning of date format qualifier 102 in a EDIFACT DTM segment? Are there other qualifiers?

Where do I get ISO 20022 schemas?

Which SaaS application should better be connected with flat files for the sake of data protection? Do the named applications provide flat file integration?

What is the difference between IDoc and IDoc XML?

Is it an advantage to do API mediation with a middleware?

How does ANSI EDI syntax differ from EDIFACT? Provide samples that show the difference using the same business content.

Where do I get schemas for Salesforce APIs?

Is it possible to use an EDI interface to my backend system but do API integration with it to integrate another system or external partners?



Unlock the full potential of the  
AI-assisted BIS Mapping Designer

> AI assistance for BIS



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